axcess.io

CASE STUDY

Highly Scalable Fleet Management Systems

AWS Serverless Technologies Like AWS Lambda and IoT Core enable millions of event ingestion

ABOUT AXCESS.IO

We offer Cloud Managed Services and DevOps Automation to improve agility and velocity of your business.

We are s a cloud-native services company with clients in multiple geographies and industries. We specialize in cloud transformation, DevOps automation, managed services and cloud-native application development. With offices in USA and India, we empower organizations to transform and secure their IT infrastructure, scale up their operations, and manage customer workloads from our ISO 27000-certified Global Network Operations Centers (GNOC).

About RD Overseas

RD Overseas Is a well-recognized professional manufacturer of high-quality car accessories.

Established in 1999, RD has been making driving more secure, convenient, and entertaining for millions of customers for more than two decades. All of the company's systems and operations are certified under ISO 9001 certification since 2006. As part of their commitment to delivering the highest-quality service to their extensive customer base, RD has its customer care department available 24 hours a day, seven days a week.
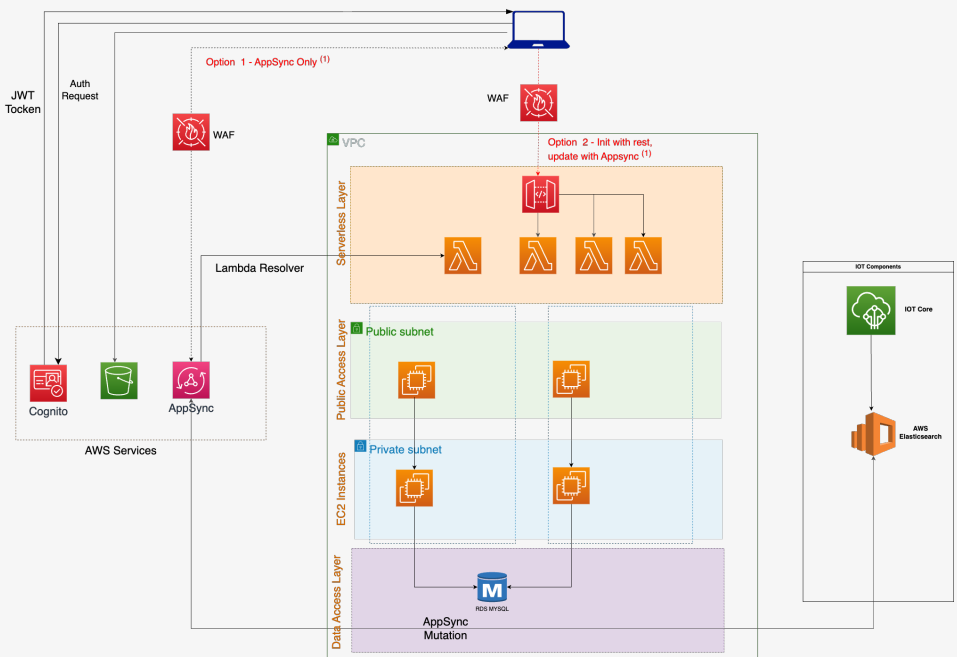
THE CHALLENGE

RD wanted to build an IoT-enabled vehicle tracking systems equipped with sophisticated features like geo-fencing, proximity sensors, and fleet tracking that offer numerous benefits, including improved operational efficiency, enhanced driver safety, and optimized vehicle utilization. However, developing and implementing these systems can present challenges such as:

- Scalability: Ensuring the system's scalability to accommodate a growing number of vehicles, users, and data streams can be challenging and require careful planning to maintain.
- Data Security: Collecting and processing data from multiple vehicles increases the risk of cyber threats and data breaches, requiring secure transmission and storage to avoid unauthorized access and data theft.
- Connectivity: Reliable and continuous connectivity is essential for IoT-enabled Vehicle Tracking Systems to function effectively, but network disruptions or weak signal strength can impact system performance and result in inaccurate data.

THE SOLUTION

- AWS Lambda enables your solution to scale automatically in response to changes in demand.
- AWS IoT Core provides the ability to scale horizontally to accommodate increasing numbers of IoT devices
- Serverless architectures like AWS Lambda and AppSync enable you to pay only for the computing resources you use
- AWS IoT Core provides real-time processing of large volumes of data generated by IoT devices, while AWS Lambda enables fast and efficient data processing and analysis

THE BENEFITS

Scaling at ease

- Easily horizontal scaling of application servers
- Easily vertical scaling via with RDS Aroura for MySQL.
- Seamless storage autoscaling.

Reduced Infra Management Overhead

- End-to-end observability setup using AWS X-Ray and Cloudwatch

Cost Effective Solution

- Serverless application makes the application cyclical usage very cost effective