



Customer success story

# Aramex gets its digital transformation back on track

Kickstarting its AWS cloud migration project with DevOps enabled the logistics company to go live with its initial workload in just eight weeks

## Customer challenge

To help it handle millions of shipments annually, logistics company Aramex has always embraced technology at the heart of its business. But the Dubai-based business had struggled for five years to execute on its digital transformation plan.

Aramex's vision for the multiyear project was to deploy cloud native solutions for greater flexibility in responding to market changes and seasonal fluctuations. It sought to eliminate the limitations of on-premises workloads and break up a monolithic relational database. It also wanted to improve the user experience and business decision-making processes by embedding machine learning. For greater business intelligence, it planned a data lake powered by raw data from across its operations.

The company sought a partner to guide its digital transformation forward and drive improvements across its business.

## AWS + Cognizant solution

Aramex partnered with Inawisdom, a Cognizant company, to get its project back on track. The team identified key challenges:

- Impaired innovation: Due to the constraints of Aramex's data centers, the business couldn't easily experiment with or evaluate different approaches or evolve the architectures underneath to adapt to changing needs.
- Data access: Aramex relied on several relational OLTP databases hosted on a series of on-premises Microsoft SQL Servers. Using the databases for business information or data insights was problematic as additional loads on the databases degraded service to the operations business.
- Model training: Aramex's data centers weren't built to allow the scaling of application workloads to accommodate business needs and seasonal fluctuations. In addition, Aramex could not exploit GPU accelerated processing or batch processing one-off workloads using a fleet of servers.

To provide Aramex with the robust data platform it needed, our team used the latest DevOps tools from AWS:

- Serverless solutions: We implemented cloud native, high performing and cost efficient solutions using serverless technologies, including Lambda, API Gateway, SNS and StepFunctions.
- Observability: AWS CloudWatch provided a detailed picture of production workloads, including proactive alarms and dashboards to spot issues before they become critical. AWS XRay was used to investigate interactions among components and to maintain response times.

- Deployment pipelines: Routine deployments were automated, including data pipeline, AWS CodePipeline, Glue, StepFunctions and Lambda.
- Infrastructure as code: Controlled deployments, consistency between environments and change management across multiple accounts. In addition, serverless microservices were deployed using AWS Serverless Application Model.
- Managed services and containerization: Managed services including Amazon SageMaker, Fargate and Glue enabled Aramex to focus on business logic and data science, reducing the time to market and simplifying operations.



## Rapid deployments, greater innovation

The collaboration provided Aramex with big business benefits. In addition to rapid deployments and highly elastic solutions, Aramex identified other workloads as part of a longer term commitment, including an innovative workload to help Aramex reach its sustainability targets and the move of its core profiling workload to real-time data streaming. Aramex also gained the freedom of choice, selecting the data storage and technology that best met its workload needs, using object storage in AWS S3, relational databases in AWS RDS, data warehousing in Amazon Redshift and non-SQL persistence using Amazon DynamoDB.

## The outcome

The results have helped Aramex move forward on its digital transformation journey and drive improvements across the business

- Initial workload went live in eight weeks
- Five production workloads deployed in nine months
- Completed 500+ development deployments to 60 components and promoted 150 deployments into production
- Application workloads perform 14 million calculations monthly in real-time, averaging 600 requests per minute with seasonal peaks of 1,500 requests per minute
- Response times of 135msec at 90th percentile, saving \$1,000 a month with auto-scaling
- A pipeline ingests 1.5 million rows of customer data into Aramex's data lake every 15 minutes



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