axcess.io

FR8

CASE STUDY

How Axcess empowered India's largest freight transport network to cut IT costs by 20% by migrating from Microsoft Azure to AWS

Axcess.io, an AWS Advanced Consulting Partner offering world-class Managed Cloud Services, Cloud Advisory, and DevOps Automation.

Executive Summary

FR8 provides a reliable transport management solution that enables Indian truck owners and transporters to improve operational efficiencies, earn more, and delight their customers. FR8 hosted their tech stack on Microsoft Azure. Since Azure had become insufficient to manage their growing infrastructure, they decided to migrate to AWS, the world's #1 public cloud.

To ensure a smooth migration with minimal disruptions, FR8 brought in Axcess.io – an experienced team of cloud experts. We developed a customized data migration solution and assisted FR8 along the migration journey. The project was a roaring success and enabled FR8 to **reduce IT costs by 20% and scale-up new cloud services 30% faster**.

About Axcess.io

Axcess is a cloud services company specializing in cloud transformation, DevOps automation, managed services, and cloud-native application development. Organizations in multiple geographies and industries rely on Axcess to transform their IT infrastructure, manage customer workloads, and secure their business-critical data in the cloud

About FR8

FR8 is India's largest freight transport network. The company's transport management system uses cutting-edge technology to improve road freight efficiency, enable transporters to reduce costs, and empower truck owners to earn more.

This nation-wide platform is automated and data-driven, providing indent management, e-way bill management, and truck management to improve transport experiences for all stakeholders.

Customer Challenges and Requirements

FR8's application stack was built on the Azure Cloud and used in three environments: Dev, Test, Prod. Its front-end services include node services, app services, Java services, and Hasura APIs. The company's IT stack also includes numerous databases and internal ERP systems.

FR8 was facing a lot of challenges due to MS Azure, such as:

- Soon-to-expire Azure credits that lowered the cost-benefit ratio on the existing setup
- Costly serverless, event-based solutions that the company needed urgently
- Difficulties scaling databases to meet evolving requirements
- Cumbersome to optimize resource utilization and reduce the cost of database operations

In addition, FR8 was worried about these future challenges:

- The database may not scale as per requirements
- Increasing resource costs
- Increasing costs of resource scaling and backup

Why FR8 Chose AWS and Axcess

To resolve the above challenges, FR8 chose Amazon Web Services (AWS). AWS offers 200+ fully-featured cloud services than any other cloud provider. Plus, AWS' cloud computing environment is flexible, secure, and user-friendly, allowing businesses to build whatever they need in the cloud. These advantages made AWS the natural choice for FR8

Axcess.io offers world-class managed cloud services, cloud transformation cloud-native application development, and DevOps automation services. We are an AWS Advanced Consulting Partner and featured on the AWS Partner Network .

FR8 needed an experienced AWS partner to transform and secure their IT ecosystem, scale up operations, and manage workloads. Since Axcess.io ticked all these boxes, FR8 chose us as their preferred cloud migration partner.

Partner Solution and Implementation

Axcess.io implemented the migration project for FR8 in a phased manner. The scope included migrating the entire tech stack from Azure to AWS including:
- Dev, Test, and Prod environments
- Node, app, and Java services
- Hasura APIs
- Microsoft SAP B1, MS SQL, and Postgres (Azure managed) databases
- Internal ERP systems

With this migration, we enabled FR8 to resolve their challenges related to resource optimization, database scalability, low cost-benefit ratio, and serverless computing.

- The final solution delivered to FR8 included:
- Delivery of static and dynamic content via Amazon CloudFront
- VPC for all internal/external network communications within AWS
- Internet gateway for communication between instances in the VPC and the Internet

- NAT gateways in each public subnet to enable Amazon EC2 instances in private subnets (apps and data) to access the Internet
- Application Load Balancer to distribute web traffic across an ECS group of container instances in multiple AWS Availability Zones (AZs)
- Run node services using AWS Lambda, run Java-based services on EC2 and ECS for Hasura set up
- Load balancers to support static IP to ECS instances

In addition, the Axcess.io team implemented FR8's database layer in Amazon RDS using Aurora to simplify database administration. We also kept all static files and the static website in Amazon S3 and implemented VPN to connect local resources to the AWS cloud.

Architecture Diagram :
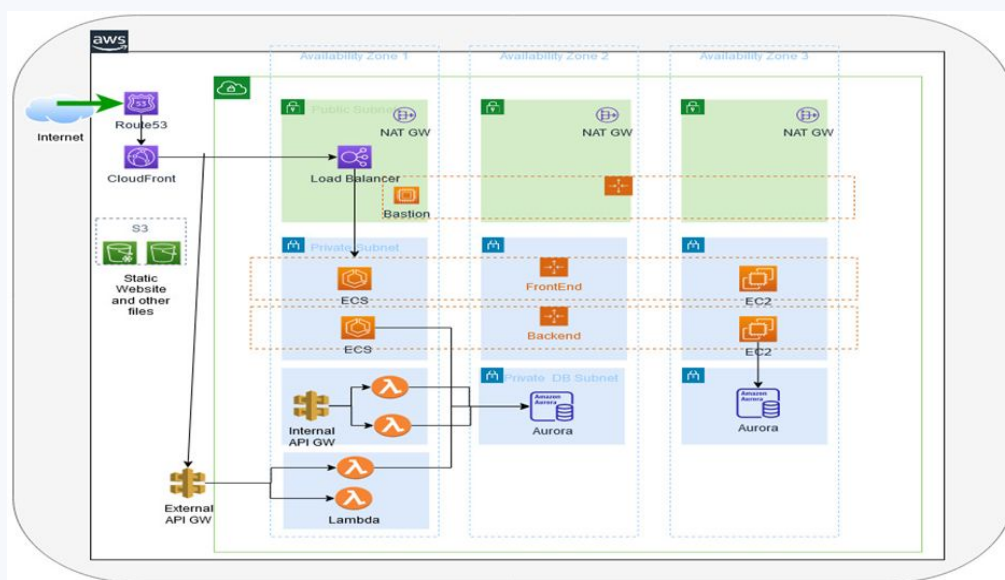
Our solution included all these services :

- VPC and other core network elements
- S3 buckets
- IAM: Users, Roles and Policies
- Amazon Route 53 and CDN
- ECS containers
- AWS Lambda Aurora Serverless DB

- MS SQL DB
- EC2 (for Java and SAP)
- Amazon CloudWatch metrics and events
- Cost allocation tags
- API gateways

Results and Benefits

Axcess successfully completed the Azure to AWS migration project. In less than 1 month, FR8 achieved the following benefits from the move:

- 20% reduction in IT costs.
- Zero downtime for ECS-based Hasura containers
- 30% faster scale-up of services
- 30% time saved due to AWS auto-scaling
- 100% secured connections within AWS VPC