LTIMindtree

Case Study

Absa
Group Limited

Client

Absa Group Limited is one of Africa's largest diversified financial services groups. Listed on the Johannesburg Stock Exchange, the company offers an integrated set of products and services across personal, business, corporate, and investment banking, wealth and investment management, and insurance.

Challenges

Absa, Corporate and Investment Bank (CIB) uses Front Arena as a core trading platform for around 400 users and Fundamental Review of the Trading Book (FRTB) for compliance reporting, running approximately 15000+ batch jobs daily. Challenges with the current setup are as follows:

- On-premises infrastructure hinders scalability and high infrastructure costs.

- The databases do not support redundancy.

- The on-premises infrastructure does not support peak workloads.

- Integration issues with third-party feeds.

LTIMindtree Solution

Conducted detailed discovery sessions

- LTIMindtree comprehensively assessed the existing setup to arrive at the business case for transformation.

- A detailed plan was created outlining the total cost of ownership (TCO), return on investment (ROI), and tangible and intangible benefits of adopting cloud technology.

Leveraged AWS Well-Architected Framework

- Aligned the cloud platform with AWS Well-Architected Framework and built secure, high-performing, resilient, and efficient infrastructure around six pillars — operational excellence, security, reliability, performance efficiency, cost optimization, and sustainability.

Phase 1- FRTB migration

- FRTB is a batch workload that runs from 12 – 8 AM, fetching 15000+ jobs daily.

- AWS Batch + Apache Airflow replaces on-premises cron job scheduling.

- AWS spot instances for batches to optimize costs.

Phase 2- Front Arena migration

- Front Arena comprises Arena clients, ADS, MS SQL DB, AMB and adapter, APH, and ATS.

- A primary rehost of most services with minor changes for AWS scalability and multi-AZ redundancy.

- MS SQL cluster on AWS using AWS File Server (FSx) shared storage.

- Third-party data feeds routed through on-premises Direct Connect (DC).

- Working with Fault Injection Service (FIS) on server-side offload of Arena desktop clients.

- Batch workloads of applicant tracking systems (ATS) to be moved to AWS Batch + Airflow.

Solution Architecture

Our solution includes moving Front Area and FRTB instances from on-premises to AWS EC2 instances. We handle batch workloads using AWS Batch + Airflow with AWS Spot instances. Our SQL server runs on AWS EC2 instances, and we utilize AWS OpenSearch and Logstash for log analytics. Monitoring is done through AWS CloudWatch, and we ensure security using AWS IAM.

Business Benefits

This transformation has resulted in:

Leveraging elastic capacity and **scalability of the cloud.**

Achieving a **40%** improvement in performance compared to on-premises

Reducing administrative overhead to achieve a favorable total cost of ownership.

Ensuring high availability for **batch workloads and databases.**