



Transformation of a Legacy Application Using AWS Hybrid Cloud Model in Serverless Architecture

The Client

One of the leading stock exchange and financial information companies headquartered in London, England.

The Business Challenge

The client wanted to modernize their on-premise legacy mainframe application to a managed and highly-available cloud-based application. Their objective was to achieve massive computing and scaling capacities with the added benefit of automating all approaches for the cloud infrastructure.

The client also aimed to redefine back-office wealth management applications and improve the UI to refine their application functionalities, provide a more robust solution to end-users and enhance the customer experience.

The Solution

To accelerate the migration of legacy mainframe applications to AWS Native Stack, Mphasis deployed a hybrid cloud model in a serverless architecture that allowed scalability, cost optimization and enhanced performance. The hybrid cloud approach ensured that application migration to the cloud happens without impacting the business.

The serverless architecture helped cut down on operations and maintenance by bringing down the need for constant updates of cloud infrastructure, configuration and management – AWS takes care of these things. As a result, the client reduced their operations and maintenance costs. In addition, migrating mainframe applications to cloud infrastructure enabled the client to gain a massive scale of resources to build an analytical platform and move towards self-learning applications for quicker customer issue resolutions.

We leveraged the next-generation methodologies, technologies and AWS services like:

- AWS CodeBuild to build code and push it into a different environment
- AWS Lambda for serverless architecture to accelerate the development and deployment of applications and enhance their scalability
- Guided workflows to execute the daily back-office activities
- XUnit Selenium for test automation
- Angular TypeScript to develop the user interface

- .NET Core/C# for microservices middleware development to provide flexibility to scale up and scale down operations and accelerate data retrieval to cater to millions of transactions in a fraction of a second
- Robust integration and deployment pipeline for scalability and a faster go-to-market
- Terraform scripting to create Infrastructure as Code
- AWS API Gateway, Swagger for service interactions in a secured way
- Infrastructure as Code for scalability and faster go-to-market
- AWS S3 Bucket, AWS Endpoints, AWS DynamoDB, AWS Virtual Private Cloud (VPC), AWS API Gateway, AWS Lambda, AWS CloudTrail, AWS CloudWatch, AWS X-Ray, AWS SQS and SNS, AWS Elasticsearch, AWS CloudFront, AWS CodePipeline, AWS WAF (Firewall) and AWS Route Table to enhance client's mission-critical applications and data portfolios by taking advantage of the agility, flexibility, scalability and ease of access

Benefits

- Enhanced user experience, enabled high availability and reliability of applications
- Modernized Exception Management process
- Refined application functionalities to provide a more robust solution to the end-users
- Improved go-to-market speed by CI/CD
- Enabled consumption-based model to cut down the cost even further as there is no capital expenditure and a very low operation expenditure for using AWS resources



- DevOps Services Competency
- Security Services Competency
- Financial Services Competency

- Travel & Hospitality Services Competency
- Migration & Modernization Services Competency

About Mphasis

Mphasis' purpose is to be the "Driver in the Driverless Car" for Global Enterprises by applying next-generation design, architecture and engineering services, to deliver scalable and sustainable software and technology solutions. Customer centricity is foundational to Mphasis, and is reflected in the Mphasis' Front2Back™ Transformation approach. Front2Back™ uses the exponential power of cloud and cognitive to provide hyper-personalized ($C = X2C_{m}^2 = 1$) digital experience to clients and their end customers. Mphasis' Service Transformation approach helps 'shrink the core' through the application of digital technologies across legacy environments within an enterprise, enabling businesses to stay ahead in a changing world. Mphasis' core reference architectures and tools, speed and innovation with domain expertise and specialization, combined with an integrated sustainability and purpose-led approach across its operations and solutions are key to building strong relationships with marquee clients.

[Click here](#) to know more. (BSE: 526299; NSE: MPHASIS)

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