

Modernizing Mainframe Workloads on AWS for Business Agility

International airline | Travel and Transportation



Business opportunity

This airline's competitive business vision was twofold: deliver personalized customer experience across all touchpoints, online and offline, and flexibly scale operations based on demand, which follows seasonal shifts and is also subject to unpredictable downturns.

Knowing that cloud platforms were providing exactly the agility, scalability, and resilience needed to realize the company's vision, executive leadership mandated a cloud-first transformation.

Technical challenge

The airline's customer relationship management (CRM), rebooking, and other critical applications were written in COBOL and PL/I and running as software monoliths in a mainframe environment. Personalizing customer service required adapting those applications to run in the cloud.

Above all, to avoid downtime and enforce safety and security, the airline needed to migrate to their chosen cloud platform, AWS, without relaxing the stringent processes and protocols that govern their complex operations.

Our solution

Together, the airline and Kyndryl migrated mainframe applications to Micro Focus Enterprise Server running on Amazon EC2 infrastructure within a virtual private cloud (VPC). Using Control-M, the team modernized batch jobs for critical business applications. They used AWS Identity and Access Management (IAM) to secure and govern access, and AWS high availability and disaster recovery services for resilience, backup and recovery.

A two-month parallel run of the new and previous deployments confirmed full parity. That was followed by a seamless operational handover.



The power of partnership

Kyndryl and AWS partnered to deliver a modern, resilient, and cloud-native platform that enabled the airline to successfully decommission their legacy systems and move their IT organization into a new state of agile, continuous improvement.

- **Amazon EC2 (Elastic Compute Cloud):**
To host Micro Focus Enterprise Server, replicating legacy MVS environments.
- **Amazon S3 (Simple Storage Service)**
To use for backup, archiving logs, and batch job outputs
- **Amazon CloudWatch:**
To enable real-time monitoring and alerting
- **AWS Identity and Access Management (IAM):**
To manage access control
- **AWS Key Management Service (KMS):**
To encrypt data in transit and at rest
- **Amazon VPC (Virtual Private Cloud):**
To ensure secure network isolation
- **AWS Control Tower and AWS Organizations:**
To standardize account management and governance

What progress looks like

As a result of modernizing mainframe applications on AWS, the company lowered infrastructure costs and increased efficiency related to regular business processes, including financial reporting, crew scheduling, cargo tracking, ticket settlements. The solution streamlined data processing for reservations, maintenance, and loyalty programs.

Looking at specific metrics that stand out in the overall results, the company:

- Avoided \$3,000,000 in mainframe renewal costs
- Processed batch jobs 35% faster, which optimized scheduling and other downstream processes

What's your next digital business challenge? Let's tackle it together.

Start a conversation. →

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