# Driving Digital Transformation: **Modernizing Legacy Applications on AWS**

## Customer Overview

A leading **Canadian Mortgage Services Organization** provides access to personalized mortgage and lending solutions for individuals and businesses nationwide. Its offerings include mortgage refinancing, renewals, debt consolidation, and other tailored financing options designed to support diverse financial needs.



## Modernization Overview

**Engagement Type:** Private

**Nature:** Brownfield modernization

**Approach:** Refactor and Replatform

**Scope:** Application and platform architecture

### Key Principles

- API-first, microservices-based design
- Event-driven workflows
- Managed AWS services for scalability and resilience

### Technology Stack

## Modernization Objectives

- Modernize the mortgage platform using AWS-native, cloud-first architecture
- Improve agent productivity and borrower experience
- Automate loan origination, compliance, and financial operations
- Centralize governance, security, and audit controls
- Enable real-time analytics and reporting
- Build a future-ready platform for new financial services

## Business Challenges

- Limited UI/UX for diverse user personas
- Manual, fragmented workflows across deals, documents, and compliance
- Limited automation for onboarding, notifications, and task management
- Increasing regulatory and audit requirements
- Architecture not designed for elastic scale or future financial products



## Target State Architecture

- Built on **CEEBIT platform** deployed on AWS
- Web clients via secure APIs
- Event-driven service bus with asynchronous processing
- Modular business services for deals, contacts, commissions, and compliance
- Secure object storage for documents and audit artifacts

## Core Platform Capabilities

- End-to-end deal and contact management
- Automated underwriting (GDS, LTV calculations)
- Workflow automation (tasks, notifications, validations)
- Lead routing using business rules
- Commission splits, sales ledger, and invoicing
- OMA microsites and digital onboarding



## External Integrations

Integrated with key third-party platforms:

- Finmo (lender submission & status)
- DocuSign (digital signatures)
- Xero (accounting)
- Lendesk APIs
- TransUnion & Equifax (credit checks)

## Security, Compliance & Observability

- Encryption of sensitive data at rest and in transit
- Zero Trust service-to-service communication (mTLS)
- AWS WAF & Shield for perimeter protection
- Centralized logging, monitoring, and audit trails
- Infrastructure as Code for governance and repeatability
- Role-Based Access Control (RBAC) and least-privilege access



## Business Impact

### Scalability & Performance

**3–5x** peak workload support with no degradation

**40–60%** improvement in API response times

### Agility & Reliability

Weekly releases

**99.9%+** availability

**50–65%** improvement in MTTR

### Operational Efficiency

**60–70%** reduction in manual tasks

**~50%** faster deal progression

**30–40%** reduction in rework

### Cost & Risk

**35–45%** reduction in infra management effort

**25–30%** lower idle infrastructure cost

**40–50%** reduction in audit effort

## AWS Well-Architected Alignment

- **Operational Excellence**: Automation, observability, IaC
- **Security**: RBAC, encryption, Zero Trust, WAF
- **Reliability**: Event-driven, fault-tolerant design
- **Performance Efficiency**: Caching, async workflows
- **Cost Optimization**: Elastic scaling, managed services

## Conclusion

- The modernized mortgage platform transformed the organization's lending operations into a secure, scalable, and future-ready SaaS solution.
- AWS enabled elasticity, compliance, and faster innovation
- Platform now supports growth in users, deals, and new financial services
- Establishes a strong digital foundation for long-term business expansion

