

Case Study

Sustainable Cloud Journey & Legacy Modernization for a Global Publishing Major

Overview

Not only has the pandemic accelerated cloud adoption, but also demanded organizations to change their cloud strategies & spending habits permanently. CAPEX takes a back seat. So business value-based cloud migration is at the forefront instead of just ROI or IT goals. A publishing major overcame the new age challenges to adopt cloud “The Right Way” faster with Relevance Lab’s integrated approach. We helped them meet their immediate needs for better data gathering and analytics to enable faster decision making and reduce reliance on complex legacy applications and outdated tech stacks resulting in security and legal liabilities.

Challenges

- Absence of legacy applications, complexities & outdated tech stack resulting in security & legal vulnerabilities.
- Lack of processes and technologies for scaling IT and product engineering requirements to meet market demands driven.
- Fragmented data gathering & analytics hinder the decision-making process.
- Lack of scalability of the existing applications and infrastructure.
- Absence of standardization leads to unpredictable and cumbersome support.

Solutions Approach

- Enterprise cloud migration solution with a data-driven plan and collaboration with business stakeholders.
- Comprehensive framework prioritizing customer-centric applications for scale and security.
- Integrated approach leveraging cloud-first and secure engineering & deployment practices.
- Automation to accelerate the development, deployment, testing, and operations.

Overview of Solution Proposed



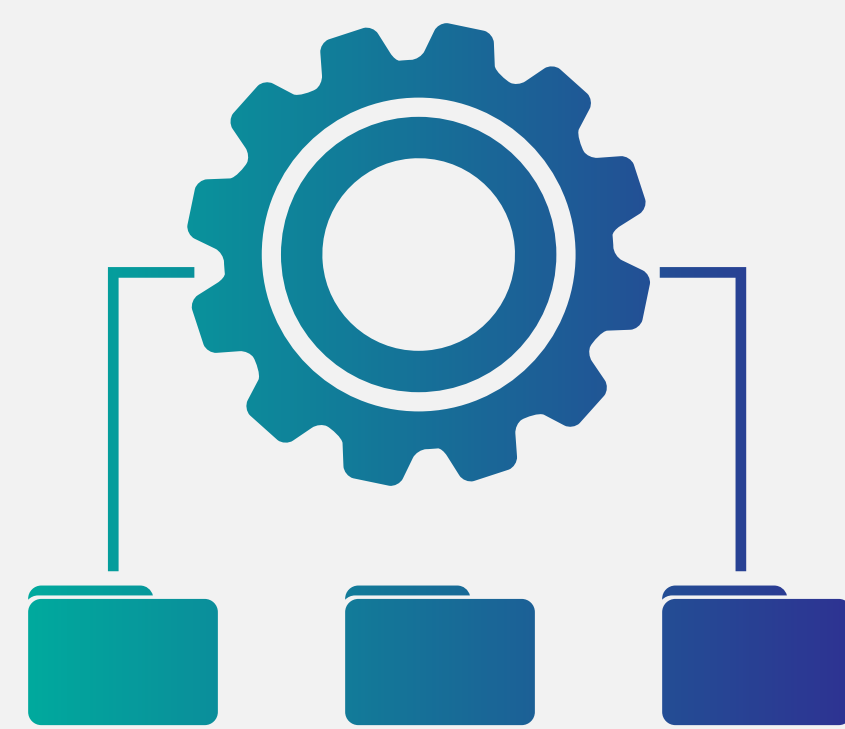
General

- Ensure zero downtime to business & end customers.
- Migration decision based on data analysis & discussion with business.
- Deep dive on product to get a 360° view of the application.



Database

- Redesign & rationalization of database (DB) & its relevant services.
- Resizing based on current usage and structure analysis.
- Standardized the database layer with the implementation of AWS Aurora.
- Enhanced DB load balancing with focus on read operations.
- Migration of Myisan to Innodb storage engine.
- Upgrade of version MySQL 5.6 to MySQL 5.7.



Infrastructure

- Re-engineer and provision lower env infra for all applications.
- Prod infra sizing based on usage data from business & current load.
- Automated infra build using Terraform (both for datacenter and old AWS deployed).
- Build standardized & automated CI/CD pipelines for all applications.
- Uniform & standardized assets tagging for better cost visibility.
- Upgrade all infra-OS with a baseline and approved AML.
- Implementation of WAF as first level security gate.



Security

- Mandatory WAS review for every application using Qualys.
- Mandatory resolution of any L5 & L4 reported issue.
- Address major vulnerabilities like SQL Injection, Cross Site Scripting (XSS) at infra and application.
- Implementation of secure protocols like HTTP to HTTPS.
- Implementation of WAF as first level of defense at the infra side.



Application Ecosystem

- Security fixes at the code level (e.g. SQL Injection, XSS etc).
- Decoupling of individual authentication system to a centralized system.
- Fixing of application compile issues.
- Major bug fixes from backlog.
- Build load model (current & projected) for all applications based on usage data sourced from business and existing logs.
- Redevelop applications scratch up wherever needed.



Testing

- Deep dive to understand the end-to-end functional use cases of the applications.
- Mandatory manual testing of all applications.
- Review, modify & recreate automation test cases to reach >90% coverage.
- Coordinate with the business users on UAT.

Outcome

- Built standardized and customizable cloud architecture.
- Enables seamless data migration at one click.
- Provides 360° monitoring & 24x7 support and implementation.
- Developed the cloud transformation roadmap for a seamless migration process in future.
- Created migration and application type matrix for a detailed overview of the workflow process.

Benefits

150+

→ Applications and services migrated to AWS on a Virtual Private Cloud

20+

→ Customer-facing applications tuned & modernized for better performance

40%

→ Savings in data center costs by rationalizing applications & retiring legacy server footprint

About Us

Relevance Lab is a specialist IT services company with re-usable technology assets in the area of DevOps, Cloud, Automation, Digital, Service Delivery, and Supply ChainAnalytics that help global organizations achieve frictionless business by transforming their traditional Infrastructure, Applications, and Data. In the changing technology landscape and consumer preferences, Relevance Lab enables global organizations to adopt an “asset lite” growth model by leveraging Cloud (IAAS, PAAS, SAAS) to shift Capex to Opex; Automation to improve efficiency and reduce costs; Build an end-to-end ecosystem connecting Digital Products to backend ERP platforms; Agile Analytics to provide real-time business insights and improve customer experience. Relevance Lab has invested in a unique IP-based DevOps product “RLCatalyst”. Incorporated in 2011 and headquartered in Singapore, Relevance Lab has specialized IT professionals across its offices spread across India, US, and Canada.