

Cloud migration in such a fashion way



Executive Summary

In the fashion industry, to fast track the idea to production window is critical and with existing architecture ALDO's was experiencing long delays to develop and deploy new ideas, as it is required to stay competitive in this market. ALDO's cloud journey started back in 2018, leadership was envisioning the potential gain in flexibility and productivity the cloud would represent for the organization. During the cloud strategy and cloud readiness workshops, FX complete a roadmap for the enterprise cloud adoption. It was determined that the end the years 2019 and 2020 would be critical for ALDO's IT infrastructure.

ALDO's Challenge

The current datacenter lease was up for renewal and the management desire to improve their e-commerce capabilities as well as upgrade their current expertise would be the main focus leading the discussions. Default to complete the migration on time would incur heavy expenses on time and effort for ALDO, as most of the workloads would have to remain in their datacenter buying additional hardware or pay penalty to their current provider for an extended renewal date past March 2020.

FX Solution

Going to the request for proposal, FX Innovation represented a great local option for ALDO with a demonstrated ability to deliver several complex migration projects. AWS was considered to be the best fit to support this migration as ALDO already had production workloads in the AWS Cloud from previous initiatives and in-house competencies with AWS as a cloud provider.

During planification phase, FX Cloud decision matrix based on AWS 6R's and cloud adoption framework helped determine the migration strategy for each migrated workload. The project was scoped to all workloads contained in the current datacenter, leading to the migration of 200 virtual machines distributed on 30 distinct databases. The project was on an aggressive schedule, starting from the analysis phase in August 2019 and targeting a mid-February 2020 production Go-Live. The end date of the project was not flexible on ALDO's end due to financial constraints as previously stated.

The project covered workloads for both product life management and ALDO's websites non-production including Training, Development, QA, UAT and production environment which were separated by different AWS accounts in ALDO's account structure. The strategy consisted of implementing the account structure, including one account by environment, deploying all required services in the target environment, create a snapshot of the data in a point in time and migrate the workloads leveraging Cloud Endure. For databases, Database Migration Service DMS was used for all SQL databases and on premises databases migration.

About ALDO

The ALDO logo, consisting of the word 'ALDO' in a bold, black, sans-serif font, centered within a white rectangular box.

The ALDO Group is a leader in fashion footwear and accessory. Now well-known around the globe, the company has been in the shoe retail business for more than four decades, with three major signature brands; ALDO, Call It Spring and GLOBO.

The ALDO Group now oversees more than 3,000 points of sales, in over 100 countries around the world as well as an e-commerce platform reachable globally, managed from ALDO's Montreal Headquarter.



Store volumes provision in increment of 50 MBs to avoid over-allocation of resources. Frontend and Backend servers were deployed in a cluster configuration in 2 different availability zones in Canada Region connected with Elastic Load Balancers from both ALDO datacenters and external users. The database layer was composed of Amazon RDS Oracle database service in multi-availability zone reached from the front and back servers with TCP protocol. All layers were segregated by different security groups configured in collaboration with ALDO's security team.

For ALDO's website, all incoming traffic communicated to CloudFront with AWS Web Application Firewall rules configured and AWS Certificate Manager for secured access and leveraging Route 53 service for Domain Name System. ALDO's website is hosted depending of the content type; static content is hosted in AWS S3 buckets, dynamic content is hosted serverless in AWS Lambda functions and Corporate Websites Platform-based sites is hosted in containers using AWS Fargate in multiple availability zones. ALDO's E-commerce traditional application was containerized to a docker base solution with EKS as part of the project to make the application easily deployable.

Results and Benefits

The migration was successfully achieved together with FX Innovation, ALDO, IBM and other third parties resulting in the decommission of ALDO's data center. The reviewed and implemented architecture allowed ALDO to improve to a high availability of both project lifecycle management and micro -site application stacks moving from a single data center to multiple AWS availability zone.

Prior to the project, multiple workloads we're sharing the same database resulting in a single point of failure for these workloads. Now with the Database Global service and containerization of the applications, all the Databases are reached independently, minimizing the impact of a downtime to one of the components.

The elasticity the AWS cloud provides to ALDO's IT infrastructure allows the ALDO to scale the resources based on the market demand. In the fashion industry, sales can increase dramatically for a specific period of time for Christmas holiday's or Black Friday for example. The current solution allows ALDO to scale up or down automatically based on certain events and usage with Auto-scaling groups configured.

Now provisioning its resources with Infrastructure-as-code using CloudFormation, it is now possible to release new features and services faster without any security compromise. The infrastructure being replicated in all environments, ALDO can test efficiently in non-production environment, minimize the impacts of changes when reaching production quickly and stay ahead of the competition. By leveraging the rich set of services in AWS, ALDO is now able to improve its data analytics capabilities and using emerging technologies to improve its services.



About FX Innovation

For 18 years, FX Innovation guided our clients in Canada, US and Europe in the adoption of new technologies to surpass their business objectives and to stand out from the competition. As an AWS advanced consulting partner, our delivery team meets the customer where they are in their cloud adoption journey: assessment, roadmap, migration/implementation, Managed Services (MSP) and optimization. We tailor our technological solutions to business reality and processes through our human-centric approach.