idexcel

aws partner network

Case Study || CYNC ABL - Migration

cync

Cync Software is a financial solutions company based in Tampa, Florida; they deliver complete software solution for commercial finance companies as well as banks that provide asset-based loans. Their flagship product, Cync Applications Suite, offers a diverse collection of financial solutions that cover a vast range of account receivable financing, factoring, working capital loans, asset-based lending, and related credit services.

The Challenge

The CYNC-ABL application was a rigid monolithic application developed using adobe based complicated technological platform, and was implemented in a network of 13 servers which includes firewall, web servers, application servers, database servers, cache servers, queue servers, file server along with network & storage devices. The application was hosted in a rigid environment with no scalability and limited reliability, which was overall impacting the customer satisfaction. With larger prospective client base, the management was at lower level of confidence. The legacy technological platform was also a hindrance to faster implementation of functional features because of limited human resource capabilities. With a considerable bucket list of enhancement, the monolithic approach of implementation was turning out to be nightmare for the customer.

Management & Maintenance Challenges	Technical Challenges
Age old hardware needed replacement	Infrastructural scalability is never achieved
Increasing Hardware & Software license expenses	Down heading performance with increased number of users
Constantly changing hardware platform	The servers are not capable to auto heal
Delay in Procurement	Storage for year-long data backup is challenging
Downwards infrastructural reliability	No transient environment for R&D
Higher maintenance effort	Security compliance is challenging & expensive
	Operational excellence is challenging
	Limited resource for faster rollout
	Complicated & expensive HA/DR implementation
	Implement agile approach in a monolithic app

The Solution

Idexcel team worked to review the current workload and integration points to identify several vital parameters. To ensure scalability, performance, security, compliance, and resilience, Idexcel team completely re-architected the workload with a proven technological platform with strong framework. Idexcel also evaluated the enhancement bucket list and designed a distributed architecture using various cloud native services.

The large monolithic application was decomposed to a distributed environment with enhanced security and cost benefits. The decomposition also allowed scalability depending on the load. The independent infrastructure increased the reliability by eliminating total shutdown in case of failures. The CI/CD pipeline is able to deploy independently without affecting the other running applications.

Idexcel Solutions architects implemented a modular agile approach and worked closely with the development team to re-architect and re-design the entire application before moving to cloud. Idexcel team also looked into various other aspects to allow HA, DR & operational excellence by implementing effective monitoring system and CI/CD pipeline.

Idexcel's solution included:

1. Re-architect the workloads with lesser dependence on heavier compute instance
2. The modules have been designed to be either serverless or server oriented
3. Event-driven approach have made batch processes more efficient without affecting over all app responsiveness
4. S3, Glacier and Cloudfront for frequent and infrequent access of files
5. Re-platforming the database from MySQL to Aurora-MySQL
6. Amazon Virtual Private Cloud (VPC) and its associated services for securely isolating cloud resources
7. Caching of frequently data using ElastiCache
8. Enable infrastructural health monitoring with efficient notification using CloudWatch, CloudTrail SNS and other 3rd party solution
9. An intelligent and burstable API gateway framework enabled easier integration with associate systems
10. Provisioned auto-healing of the infrastructure with proper health monitoring using ELB & Auto scale
11. Implement AWS CloudFormation to deploy infrastructure as code
12. Utilize Data Migration utilities to transform the legacy data to the recent schema
13. S3 based storage allowed object storage without any limitation
14. Various automation & efficient CI/CD pipeline using Jenkins & AWS CodePipeline to allow faster rollout with minimum deployment errors
15. HA/DR using cross region replication of data and workload snapshots

By teaming with Idexcel, the client was able to deploy a cost effective, scalable & reliable AWS infrastructure. Through various cloud practices the team could focus on excellence, constant integration, transparency, and accountability to deliver high-quality software faster than pre-transition period.

The Benefits

The re-architected application had multiple benefits over a period of time and resulted in both direct & indirect profit for the customer.

1. The re-architected application was able to process the request approx. 55% faster
2. Enhanced scalability allowed bulk user's request without any loss of data
3. Increased security implementation was in line with the statutory compliance requirement
4. The distributed nature of the application increased performance by approx. 25%
5. Passive DR environment reduced recovery time to match RTO & RPO agreement
6. The transient UAT environment reduced overall infrastructural expenses by approx. 40%
7. Event driven, distributed and serverless approach reduced the regular infrastructural expenditure by approx. 40%
8. Efficient monitoring with notification allowed preemptive resolution approach for resource utilization threshold

Client team is now able to focus on improving the functional aspects and implement excellence by easily adopting modern technical aspects. The enhanced scalability, performance, reliability & security parameters allowed customer to increase their client base within short period of time.

Idexcel Competencies

aws partner network
Advanced
Consulting Partner
Solution Provider

aws partner network
Advanced
Consulting Partner
DevOps Competency

aws partner network
Advanced
Consulting Partner
Financial Services Competency

aws partner network
Advanced
Consulting Partner
Public Sector Partner

aws 100 CERTIFIED
AWS PARTNER NETWORK