

Eliminating Deployment Challenges for Fintech : A Case Study



TABLE OF CONTENTS

1.About our Client	1
2.The Problem Statement	2
3.The ACC Solution	2
a. AWS EKS	2
b. Security Hub	3
c. Cloud Watch	4
d. Key Management System	5
e. Amazon S3 Bucket	6
4. Benefits	7



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About our client

Our client is a market leader in the investor servicing industry and one of the largest registrars. They have reached out to over 3500 issuers, including banks, PSUs, and mutual funds, with over 100 million investor accounts. As an ISO 9001:2015 certified data security company in the Registrar and Transfer agency space, their realtime data replication capability ensures zero impact in the event of an emergency.

The client is also a first-of-its-kind digital platform that excels in hyper-scale transaction management, big data solutions, transformative platforming, pureplay financial and technical services, and is built on proven technology expertise in the asset management industry.



The Problem Statement

ACC was contacted by our client for migrating their entire data servers to AWS Cloud ACC, as an AWS Premier Consulting Partner with Cloud Migration Competency, provided the deep knowledge and expertise in AWS that would assist our client in scaling and growing continuously.

The ACC Solution

Building the new AWS environment was critical to maintaining continuity and allowing our client to react quickly in order to stay ahead of a rapidly changing business environment. The entire infrastructure was refactored and modernised by the ACC team. This increased scalability, reduced technology costs, accelerated feature releases, and optimised operations.

ACC deployed a large number of AWS services and infrastructure improvements as part of the project.

Here are a few examples:

1. AWS EKS

The client's databases were migrated by ACC experts to Amazon RDS, a relational database service that provides cost-effective, scalable capacity while automating time-consuming backend admin tasks. ACC used Amazon EC2 for the application/computing tier, a cloud service that provides secure and scalable compute capacity.

The Amazon Elastic Kubernetes Service (Amazon EKS) is a managed Kubernetes service that makes running Kubernetes on AWS and on-premises a breeze. Kubernetes is an open-source framework for automating containerized application deployment, scaling, and administration. Because Amazon EKS is certified Kubernetes-compliant, current Kubernetes-based apps will work with Amazon EKS.



Benefits of AWS EKS

EKS is used to complete all laborious tasks, such as

- 1. Establishing the Kubernetes Master Cluster
- 2. Setting up the service discovery
- 3. Networking and Kubernetes primitives

4. Using Amazon EKS, the Kubernetes control plane is provisioned and scaled across multiple AWS availability zones, resulting in high availability and the elimination of a single point of failure.

5. Unhealthy control plane nodes are identified and replaced, and control plane patching is provided. As a result, an AWS-managed Kubernetes cluster that can withstand the loss of an availability zone is created.

2. Security Hub

AWS Security Hub is a cloud security posture management service that checks for best practises, aggregates alerts, and enables automated remediation.

AWS Security Hub provides a comprehensive view of your AWS security state and assists you in comparing your environment to security industry standards and best practises.

Security Hub collects security data from AWS accounts, services, and supported third- party partner products and assists you in analysing security trends and identifying the most critical security issues.

Benefits of Security HUB

a.Security Hub reduces the effort required to collect and prioritise security findings from integrated AWS services and AWS partner products across accounts. Security Hub processes finding data in a standard format, eliminating the need to manage data from multiple formats. The findings are then correlated across providers by Security Hub to help you prioritise the most important ones.



b.Security Hub performs continuous account-level configuration and security checks in accordance with AWS best practises and industry standards. The results of these checks are presented as a readiness score by Security Hub, which identifies specific accounts and resources that require attention.

c.Security Hub aggregates your security findings across accounts and provider products and displays the results on the Security Hub console. This enables you to see your overall current security status in order to spot trends, identify potential issues, and take corrective action.

d.Security Hub is compatible with Amazon Event Bridge. You can define custom actions to take when a finding is received to automate remediation. You can, for example, configure custom actions to send findings to a ticketing system or an automated remediation system.

3. Cloud Watch

For DevOps engineers, developers, site reliability engineers (SREs), IT managers, and product owners, Amazon CloudWatch provides a monitoring and observability solution.

To monitor your apps, respond to system-wide performance changes, and optimise resource use, CloudWatch offers you with data and actionable insights. CloudWatch logs, metrics, and events are used to collect monitoring and operational data. You obtain total visibility of your AWS resources, apps, and services running on AWS and on-premises, as well as a single picture of operational health. To keep your apps running smoothly, you can use CloudWatch to detect aberrant behaviour in your environments, trigger alarms, analyse logs and metrics side by side, take automated actions, troubleshoot issues, and find insights.



Benefits of Using Cloud Watch

CloudWatch provides several advantages to organizations that use AWS resources and applications.

The following are related to the information that CloudWatch can provide, as well as its user-friendly interface.

- 1. Provides basic function ease of use;
- 2. Visibility for all AWS monitoring data on one platform;
- 3. Effectively collects metrics for AWS environments;

4. Increases and optimizes the operational performance of AWS and on-premises resources;

5. Insights into correlations and other relationships in system performance;

- 6. Stability and reliability;
- 7. Integration with other AWS resources





4. Key Management System

AWS Key Management Service (AWS KMS) enables you to easily create and manage cryptographic keys, as well as control their use across a variety of AWS services and in your applications. AWS KMS is a secure and resilient service that protects your keys with hardware security modules that have been validated under FIPS 140-2 or are in the process of being validated. AWS KMS is integrated with AWS CloudTrail to provide you with key usage logs to help you meet regulatory and compliance requirements.

5. Amazon S3 Bucket

Amazon S3 (Simple Storage Service) is a scalable, high-speed, lowcost web-based backup and archiving service for data and application programs. It allows you to upload, store, and download files up to 5 TB in size. Subscribers can use this service to access the same systems that Amazon uses to run its own websites. The subscriber has control over the accessibility of data, i.e., whether it is private or public.

Benefits:

Following several successful engagements, the client decided to enlist ACC for all its future projects, for the consultancy's managed services.

- ACC now monitors and manages the client's AWS infrastructure around the clock.
- As a result, while ACC optimizes for cloud performance, the client's internal developers can focus on improving the company's core offerings.
- ACC is on track to deliver the new AWS environment to the client on time, providing the customer with the following benefits:
- Better, easier scalability, as they will be able to triple the number of partners in the next year and grow their business faster.
- Lower technology costs to support the new infrastructure, such as lower IT management costs, lower management overhead, and fewer outages.



- ACC's AWS expertise, which will alleviate any future deployment issues.
- ACC delivered a scalable and highly available infrastructure with no single point of failure on time and under budget. The client was pleased with the deliverables and the timeline. ACC is available to continue the relationship if the need to extend or modify their infrastructure arises.
- The client can now process more customer data faster than they could previously using their in-house solution. Furthermore, they can quickly scale their production stack on AWS as their workloads scale. The client for example, can now easily expand their storage and compute footprints by leveraging AWS's highly scalable features. Finally, they were able to fully realise the potential of running Microsoft Workloads on AWS while maintaining the required high availability, reliability, performance, and scalability.



ABOUT ACC

ACC is an AWS Advance Partner with AWS Mobility Competency. Awarded The Best BFSI industry Consulting Partner for the year 2019, ACC has had several successful cloud migration and application development projects to its credit.

Our business offerings include Digitalisation, Cloud Services, Product Engineering, Big Data & Analytics and Cloud Security. ACC has developed several products to its credit. These include Ottohm – Enterprise Video and OTT Platform, Atlas API – API Management and Development Platform, Atlas CLM – Cloud Life Cycle Management, Atlas HCM – HR Digital Onboarding and Employee Management, Atlas ITSM – Vendor Onboarding and Service Management and Smart Contracts – Contract Automation and Management.



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