

CASE STUDY

AWS PLATFORMS OPTIMIZE BACKEND APPLICATIONS FOR NUFIN DATA'S SUPPLY CHAIN FINANCING SOLUTIONS

Client Background

Nufin Data is a fast-growing FinTech company focused on cloud-based, supply chain financing solutions. Founded in March 2017 to tap into the huge potential of the supply chain financing market in Asia and worldwide, Nufin Data is majority owned by Singapore-based JK Tech Group. Nufin Data is currently headquartered in Singapore with offices in Hong Kong, Guangzhou and Shanghai.

softserve

Business Challenge

Nufin Data is a financial startup in an active development phase and was preparing for a production release. Nufin Data sought assistance in building a highly-available cloud native solution and implementing existing best practices for Infrastructure as Code, serverless app development, and testing. Nufin Data uses serverless architecture in their solution and AWS Lambda for backend, which uses DB. Serverless framework is applied for application deployment.

Additionally, Nufin Data was experiencing issues with its backend application AWS Lambda and it had tried to optimize code storage.

Specific challenges included:

- Optimization of the environment architecture
- Building easily-managed and consistent dev, test, and production environments
- Dividing and de-limiting access to the environment
- Optimizing and securing the application

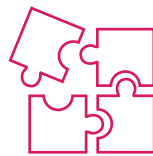
Project Description

Nufin Data chose AWS Lambda because it enabled them to run code without provisioning or managing servers. However, they soon faced a code storage issue. SoftServe re-configured Lambda layers according to best practices and the total code storage was reduced from 75 GB (reached limit) to 400 MB.



Testing

- New environments for QA and UAT
- Suggested local testing by Serverless Framework with AWS services emulation



Deployment

- CloudFormation+ Serverless framework
- Import resources like API Gateway to prevent accident replacement



Optimization

- Used Lambda Layers
- Total code storage reduced from 75GB (reached limit) to 400 MB

Figure 1 - Our Solution

SoftServe implemented an API Gateway Service which helped to solve the issue with new the AWS Lambda deployment.

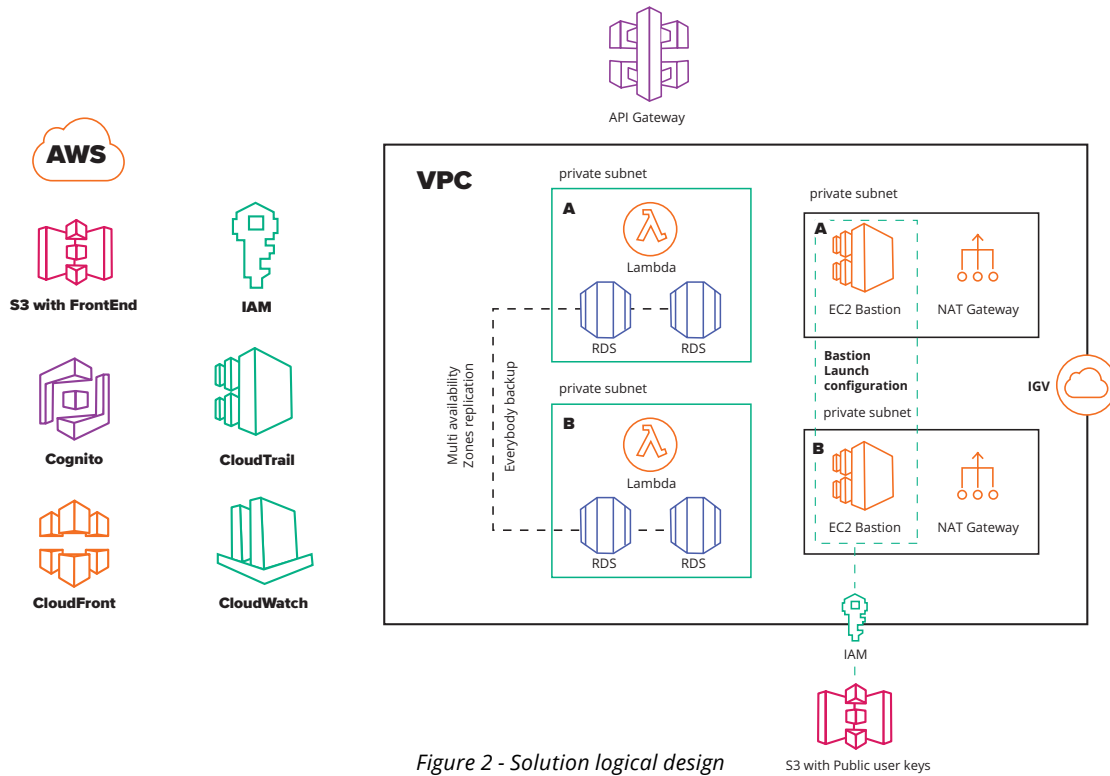


Figure 2 - Solution logical design

SoftServe designed the architecture according to the best practice of using Infrastructure-as-a-Code (IaC) - AWS CloudFormation. This allows for easy management of the infrastructure and the creation of new environments, considering the requirements of the test and development teams.

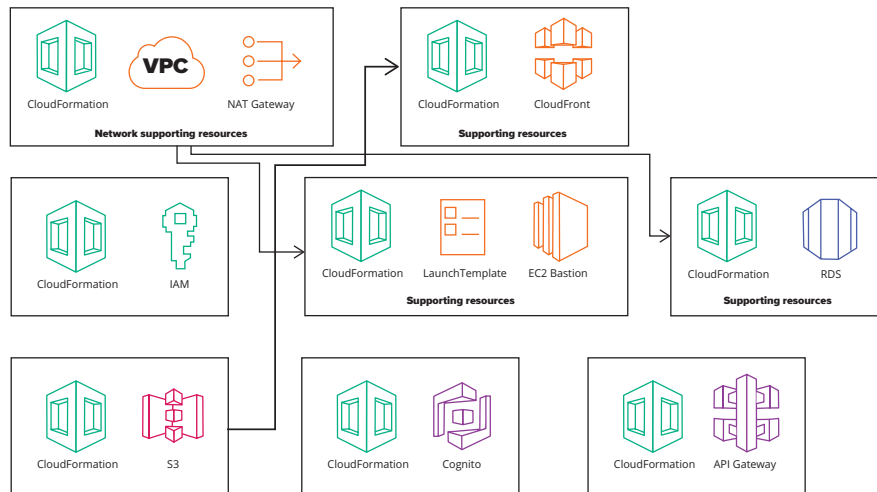


Figure 3 - CloudFormation in use

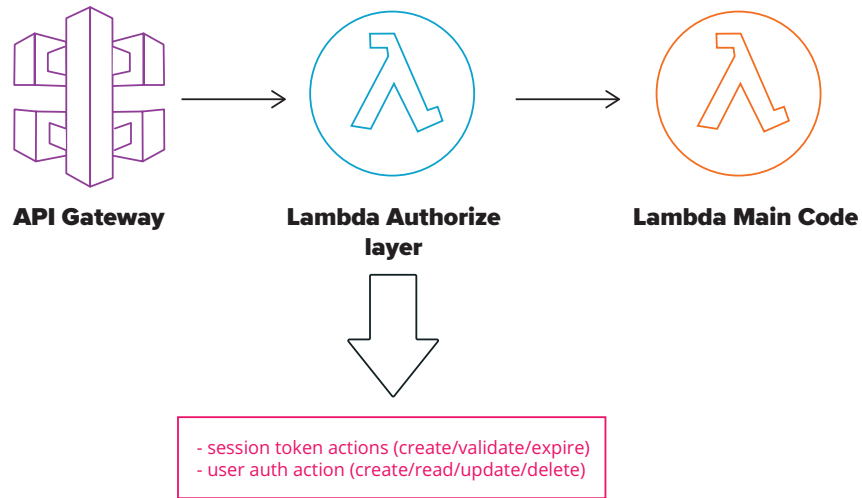


Figure 4 - API Gateway

IAM groups and users of different teams were configured as a part of access management. SoftServe proposed Amazon Cognito as a third party authorization. To achieve a remote connection, a Bastion host was configured.

Value Delivered

With AWS, SoftServe provided full coverage of Nufin Data’s needs with flexible management and secure deployment capabilities in the delivered solution. AWS is a durable and secure technology platform that implements best practices in security and provides documentation regarding how to deploy security features. It also ensures the availability, integrity, and confidentiality of data and provides end-to-end privacy and security.

SoftServe also achieved the least user interaction possible, provided custom combinations of templates, and enforced configuration for production.

ABOUT US

SoftServe is a digital authority that advises and provides at the cutting-edge of technology. We reveal, transform, accelerate, and optimize the way enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation—from generating compelling new ideas, to developing and implementing transformational products and services.

Our work and client experience are built on a foundation of empathetic, human-focused design that ensures continuity from concept to release.

We empower enterprises and software companies to (re)identify differentiation, accelerate solution development, and vigorously compete in today's digital economy—No matter where you are in your journey.

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