nClouds

nClouds | AWS Case Studies
Woflow

nClouds and AWS Deliver Enhanced Performance and Cost Savings for Woflow.

Benefits Summary

Enhanced operational efficiency and faster time-to-market

Improved scalability and reliability

40% overall savings on AWS bill

23% net savings on its AWS compute costs

Accelerated Innovation and Time-to-Market

Industry
Data Management, E-commerce, POS

Location
San Francisco, CA

Featured Services
Application / Infrastructure Modernization, AWS Consolidated Billing, AWS Well-Architected, Cost Optimization, DevOps / CICD, Managed DevOps Services, Migration, MSP, nOps, ShareSave Service by nClouds

Service Page Links
- **DevOps Services**
- **Migration and Modernization Services**
- **Managed Services**
- **FinOps**

woflow

About The Customer

Woflow began its business of catalog digitization and data management in 2017. Their mission is to structure the world's unstructured data. To accomplish that mission, Woflow created the world's first Merchant Data Platform. The Woflow Engine is an ML-powered task automation system that empowers merchants to create, catalog, and manage complex structured data at scale. Woflow works with many industry innovators in food delivery, retail, e-commerce, etc. The Woflow Engine optimizes hundreds of thousands of merchant and customer interactions per month.

Challenge

Migrate from Heroku to AWS and modernize its application to optimize scalability, operational efficiency, and costs.

Woflow's application frontend was already deployed in AWS, and they needed to migrate the backend portion of the application from Heroku to AWS to achieve improved scalability and operational efficiency. The company wanted to automate environment buildout using AWS CloudFormation, modernize their application by containerizing it with Amazon ECS, and implement an Amazon Virtual Private Cloud and a proper network structure.

Why AWS and nClouds

A senior software engineer at Woflow had previously worked with nClouds on two projects with different companies. He was so impressed with the experience that, when he began working at Woflow, he called on nClouds once again. Woflow loved what nClouds did so much that they engaged nClouds to provide Managed DevOps Services and 24/7 Support Services.

Fundamentally, Managed DevOps Services is the practice of supporting software development andIT operations in a reiterative delivery lifecycle to enable continuous optimization. nClouds assigned a dedicated DevOps team to improve and maintain Woflow's AWS infrastructure to support the company's agreed-upon roadmap for DevOps improvement projects. The team proactively identifies and mitigates related issues and supports and communicates regularly with Woflow's development team.

nClouds maintains and anticipates the need for a range of processes and functions to improve operations while reducing expenses and developer stressors. nClouds' 24/7 Support Services maximizes Woflow's uptime and performance stability on AWS. With consolidated billing for AWS Organizations, nClouds enables Woflow to combine its usage across all AWS accounts to gain volume pricing discounts. This relationship has created a win-win scenario for Woflow and nClouds.
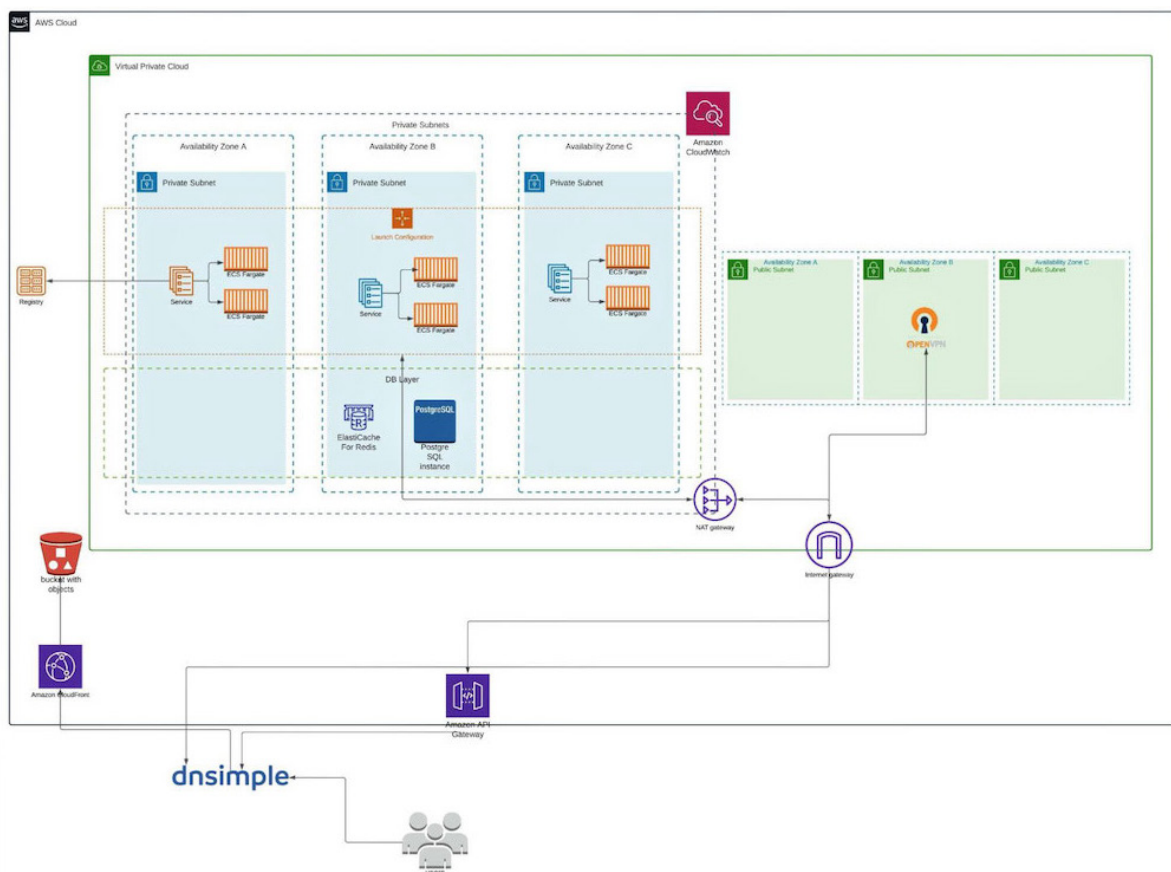
Strategy and solution

nClouds' Solution Architecture for Woflow

nClouds migrated Woflow's application suite from Heroku to AWS to increase scalability and operational efficiency. Woflow's application stack included three single-page frontend applications, one backend monolith application, and one worker app deployed in Heroku. Redis was used as a cache, and data was stored in Postgres. Workload data and resources are distributed across three AZs to increase availability, reliability, and fault tolerance.

nClouds deployed Woflow's application stack on AWS in several stages, including containerizing the backend monolith and worker application, developing AWS CloudFormation code to provision the basic network infrastructure, deploying the three single-page frontend apps in Amazon S3 and Amazon CloudFront, and deploying both backend services to the new Amazon ECS platform.

The results are presented in the following schematic.

There is a day and night difference between nClouds' AWS and DevOps expertise and that of our previous service provider. We were so impressed with nClouds' work to help us migrate Woflow from Heroku to Amazon ECS that we asked them to provide ongoing Managed DevOps Services to improve and maintain our application suite."

Andrew Harasta, *Senior Software Engineer, Woflow*

Results and Benefits

Teaming with nClouds, Woflow now has a modernized application aligned with AWS Well-Architected Framework best practices. The project has yielded numerous benefits:

Enhanced Scalability and Reliability: By migrating to Amazon ECS from Heroku and leveraging services like CloudFront, Amazon ElastiCache for Redis, Amazon Elasticsearch Service and Amazon RDS for PostgreSQL, Woflow achieved the ability to adapt to growth and increased demand while ensuring consistent and reliable performance. To learn more about Heroku migration, watch the webinar.

Improved Operational Efficiency: Operational efficiency is critical when measuring organizational performance. It's about delivering products or services to customers efficiently while ensuring the high quality of products, services, and support. The modern AWS infrastructure and nClouds' implemented DevOps practices streamlined Woflow's operations, freeing up Woflow's team to focus on innovation.

Optimized Costs: nClouds' cost optimization strategies and the inherent efficiencies of the AWS environment led to significant reductions in cloud spending. Woflow has achieved 23% net savings on its AWS compute costs with 100% flexibility and zero lock-in. Plus, as part of the Monthly Cost Optimization Reviews that nClouds provides with AWS consolidated billing, the nClouds team found and implemented two changes that resulted in 40% overall savings on their overall AWS bill. The nOps cloud management platform provides continuous insights on Woflow's AWS infrastructure health for cost optimization, security, reliability, performance efficiency, and operational excellence so that the company is alerted and can make any necessary remediations.

Accelerated Innovation and Time-to-Market: With a modernized application and improved operational stability, Woflow can now innovate faster, reduce risk, and accelerate the delivery of new features and services to market.

Woflow's journey to AWS with nClouds demonstrates the transformative power of strategic cloud adoption and expert partnership. By modernizing their infrastructure and embracing DevOps best practices, Woflow has not only optimized their current operations but also built a resilient and scalable foundation for future growth and innovation. This case study highlights nClouds' commitment to empowering businesses like Woflow to unlock the full potential of AWS and achieve their strategic objectives in the dynamic world of data management and e-commerce.