



nClouds | AWS Case Studies

Lending Software Company

Benefits Summary



Reliable and Secure Environment



Confidence through Certification



Integrated DevOps and MSP Services

About Lending Software Company

The client is a startup dedicated to developing innovative applications for banks specifically designed to target and engage customers in underserved rural markets. The company focuses on creating tailored solutions, ranging from content management setups and e-commerce platforms to custom application development.

Industry

Financial Services, Marketplace, Real Estate

Location

United States

Featured Services

Application/Infrastructure Modernization, AWS Well-Architected, Containers, Cost Optimization, DevOps/CICD, Migration, Security Management

The client, a lending software company, partnered with nClouds to optimize its AWS hosting, leveraging AWS's reliability and security features along with nClouds' DevOps and MSP services, overcoming resource constraints for a cost-effective, well-managed cloud solution.

CHALLENGE

Need for Server Resources and an AWS Partner

As a small bootstrap company, the client faced limitations in resources and expertise, making it crucial to find a reliable and knowledgeable partner for its AWS hosting needs. The company encountered limitations in server resources, impeding its capacity to ensure 24/7 monitoring and efficiently handle the initial setup and continuous changes for the AWS cluster.



Why AWS and nClouds

The decision to opt for AWS as the hosting provider was driven by several factors. AWS's extensive range of products, reliability, and security features were important to the company, especially when dealing with regulated banks as clients. The client needed a partner that not only handled the initial DevOps setup but also provided ongoing managed services provider (MSP) support. The search led it to nClouds, an AWS-certified partner offering both DevOps and MSP services.

The lending software company's technical consultant understood the importance of finding a partner that not only knew the business problem but was also willing to collaborate with a startup, demonstrating enthusiasm for the project. After evaluating various vendors, nClouds stood out as the clear choice for the client's AWS hosting needs.



The Lending Software Company's Solution Stack Includes This Essential Tool

- **DataDog** – The client integrated DataDog agents to monitor containers, ensuring proactive identification of issues and enabling the MSP team to implement necessary changes or optimizations promptly, enhancing the overall reliability and performance of the system.

The Lending Software Company Leveraged Key Amazon Web Services

- **AWS Control Tower** – The client utilized Control Tower to set up and manage multiple AWS accounts efficiently, ensuring a well-organized and secure environment for their project, particularly for different environments and cost management.
- **AWS CodePipeline** – The client implemented a continuous delivery system, utilizing a pipeline to seamlessly push code updates to its containers whenever changes were made to the deployment branch, facilitating a streamlined and automated deployment process.
- **AWS CloudFront** – This tool enhances the front-end performance, providing low-latency and high-speed content delivery to end users, contributing to an improved user experience for the client's banking software application.
- **Amazon CloudWatch** – Amazon CloudWatch is a monitoring and observability service that is used to gain insights into the performance and health of the company's AWS resources.
- **Amazon EventBridge** – Amazon EventBridge is an event bus service that enables seamless communication between different applications using events.
- **AWS Lambda** – AWS Lambda is a serverless compute service that is used to run code without provisioning or managing servers.
- **Amazon RDS (Relational Database Service)** – The client leveraged RDS to establish and manage a scalable and optimized relational database cluster, meeting the specific sizing requirements suggested by nClouds and ensuring data integrity and reliability for its banking software.
- **Amazon Route 53** – This service is a scalable domain name system (DNS) web service that manages domain registration and routes traffic to the application effectively.
- **AWS Secrets** – AWS Secrets Manager enhances the overall security of the solution by managing sensitive information such as API keys, passwords, and database credentials.
- **Amazon Web Application Firewall** – Amazon WAF is a web application firewall that helps protect web applications from common web exploits.

SOLUTIONS

nClouds' Solution Architecture for the Lending Software Company

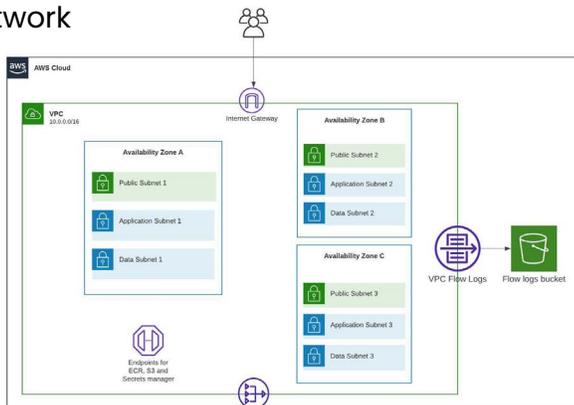
The collaboration with nClouds was highly involved and productive. The process began with defining the suite of requirements and expectations for the company's AWS infrastructure. The nClouds team made practical suggestions based on their deep knowledge of AWS. They recommended changes to the initial plan, such as utilizing AWS CloudFront for the front end, implementing containers for the back end, and optimizing the Amazon RDS cluster size. One of the most challenging aspects

was determining backup and disaster recovery requirements, given the client's familiarity with Microsoft Azure and the need to align with AWS best practices.

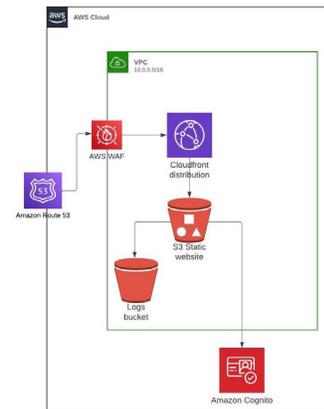
The nClouds team not only addressed technical considerations but also facilitated communication and collaboration. The process of setting up multiple accounts through AWS Control Tower and ensuring a sensible environment setup for different stages of development was seamless. The communication between the client and nClouds played a crucial role in the success of the project, providing clarity on project status, budget utilization, and any changes in scope.

High-Level Architecture Diagrams

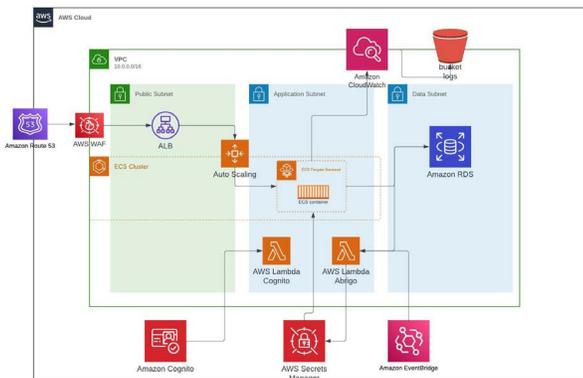
Network



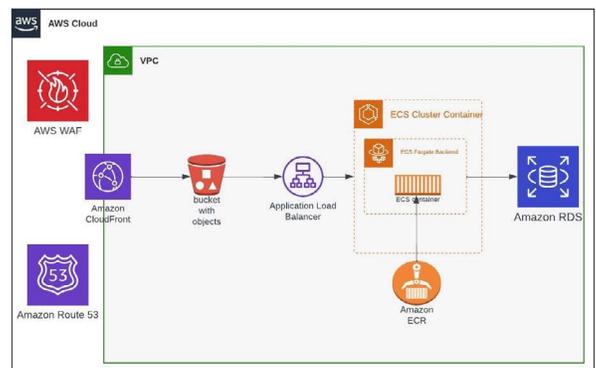
Front End



Compute



General Infrastructure



Interested in an AWS Well-Architected Framework Review?

Schedule a [free AWS Well-Architected Assessment with nClouds](#) to see how you can apply architectural best practices to drive better business outcomes.

BENEFITS

Increased Business Efficiency

The collaboration between the client and nClouds demonstrates the successful implementation of a robust AWS infrastructure tailored to the unique needs of a bootstrap startup in the fintech industry. By choosing AWS for its reliability and security features and nClouds for its comprehensive DevOps and MSP services, the client was able to overcome resource constraints, achieve effective communication, and realize the benefits of a cost-effective, well-managed cloud solution.



Reliable and Secure Environment



AWS's robust infrastructure provided by nClouds ensured reliability and security, which are crucial for handling sensitive financial data and complying with industry regulations.

Confidence through Certification



AWS's documentation and certifications instilled confidence in both the lending software company and its clients, reinforcing the credibility of the chosen cloud platform.

Integrated DevOps and MSP Services



Because AWS enables organizations to only pay for the resources they use, the solution is cost-effective and streamlined.

ABOUT nClouds

nClouds is a certified, award-winning provider of AWS and DevOps consulting and implementation services. We partner with our customers as extensions of their teams to build and manage modern infrastructure solutions that deliver innovation faster. We leap beyond the status quo.