



nClouds | AWS Case Studies

Finexio Streamlines Payments Processing

nClouds Delivers Secure, Scalable AWS Infrastructure

Benefits Summary



Enhanced Security



Increased Release Velocity



Simplified Maintenance



Cost Savings

Finexio

About Finexio

Finexio simplifies accounts-payable payments for medium and large corporations by digitizing manual paper checks. Finexio's comprehensive accounts payable payments-as-a-service (PaaS) solution leverages proprietary analytics and robotic process automation to drive maximum conversion rates of suppliers to electronic payments.

Industry

FinTech

Location

Orlando, FL

Featured Services

CI/CD, Containers, Database Administration, Message Queue Integration, Security Enhancements

Service Page Links

- [Security and Compliance](#)
- [DevOps Services](#)
- [Containers](#)



Executive Summary

Finexio, a FinTech leader digitizing accounts payable for large corporations, needed a secure, scalable, and cost-effective cloud infrastructure. Partnering with nClouds, it modernized its operations on AWS, achieving significant improvements in security, efficiency, and speed to market.

Challenge

Finexio faced several technical challenges before working with AWS and nClouds. Ensuring robust cloud security was a top priority to protect sensitive financial data and maintain compliance standards. The company also needed to find ways to save on costs while optimizing cloud performance. Finally, deploying and maintaining AWS Cloud Development Kit (CDK) stacks efficiently was essential for streamlined infrastructure management and scalability.



Why AWS and nClouds

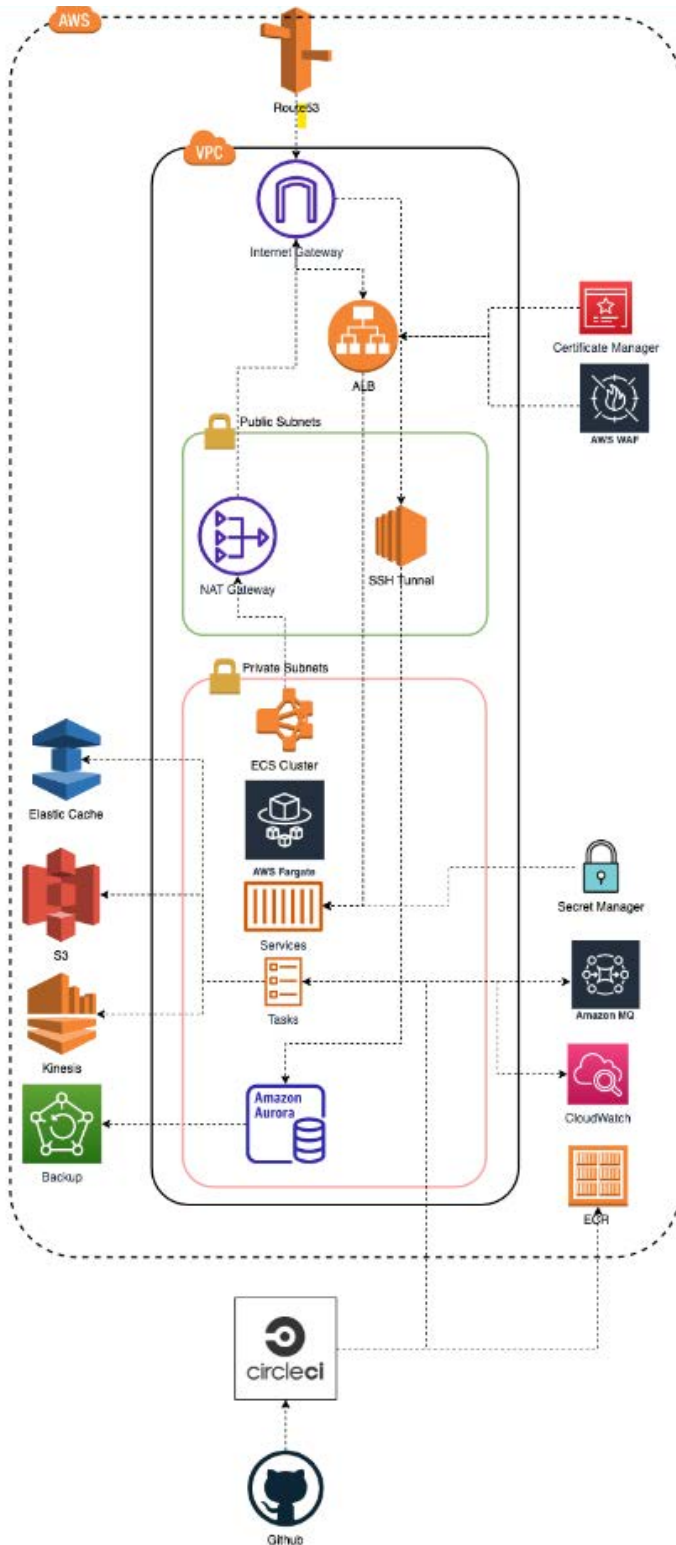
AWS and nClouds were the natural choice for Finexio's needs. AWS offers a vast array of cloud architecture solutions, and nClouds' expertise in AWS solutions provided Finexio with tailored, secure, and cost-effective answers to its specific business and technical challenges. nClouds' track record of success in AWS implementations and commitment to crafting customized solutions ensured that Finexio received a comprehensive and trusted partnership.

nClouds offered an end-to-end service, handling everything from design and implementation to ongoing management and support. This allowed Finexio to focus on its core business while nClouds managed the intricacies of its AWS infrastructure. AWS's seamless integration between its services ensured that all components of Finexio's infrastructure worked together smoothly, streamlining development and deployment processes.





Strategy and Solution



nClouds designed a multifaceted solution addressing Finexio's key challenges:



Enhanced Security

Implemented automated security measures to improve Finexio's security by barring malicious sources from infiltrating Finexio's systems, including AWS Web Application Firewall (WAF) and automated IAM user audits, significantly reducing vulnerabilities.

• Container Security Improvements

- Implemented read-only file system configurations for all ECS services
- Limited container access to only specifically defined mount points
- Disabled public IP assignments for ECS tasks, reducing attack surface

• Traffic Control and Protection

- Implemented IP whitelisting on AWS WAF to restrict access to critical services
- Deployed specialized WAF rules to identify and block bot traffic
- Created layered defense approach to protect sensitive financial data



nClouds designed a multifaceted solution addressing Finexio's key challenges:



Cost Optimization

Introduced automated workflows that reduced costs in lower environments when system usage was at its lowest, resulting in significant savings without sacrificing performance.

- Implemented scheduled resource management for nonproduction environments
- Created specialized Lambda functions to automatically do the following:
 - Stop RDS and DocumentDB instances during weekends
 - Suspend unused EC2 instances during off-hours
 - Scale down ECS services during periods of low utilization
 - Resume all services automatically on Monday mornings



Streamlined Deployment

nClouds introduced automation to ensure rapid and reliable infrastructure deployment:

- Introduced a streamlined and automated process using AWS CodeSuite and GitHub triggers to speed up the implementation of AWS CDK stacks
- Developed an automated recovery system using AWS Lambda and CloudWatch events to monitor CircleCI pipelines



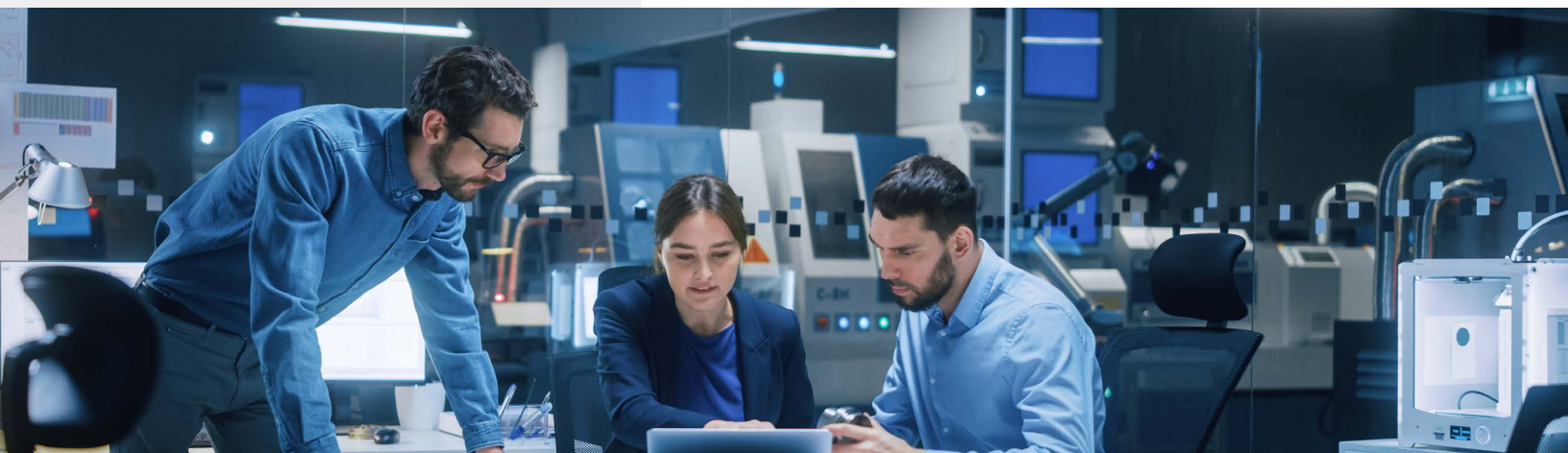
Improved User Management

A custom solution was delivered to automatically create SSH users from Secrets Manager whenever new users were added or updated, streamlining user management tasks via SSM Automation Documents.



Enhanced Control and Agility

Additional pipeline features were introduced, enabling Finexio to dynamically enable or disable releases, providing it with greater control and flexibility over its software delivery processes, including implementing comprehensive Slack notifications for CircleCI pipelines, providing real-time alerts on deployment status.



Results and Benefits

Teaming up with Finexio, nClouds enabled several key benefits through AWS that cut costs and sped up the company's time to market.



Enhanced Security

The introduction of AWS Web Application Firewall (WAF) and automated IAM user audits ensured a secured infrastructure, protecting against threats.



Cost Savings

Achieved 5% cost reduction through automated workflows and intelligent resource management

BEFORE

- Resources running continuously regardless of usage patterns

AFTER

- Resources aligned with actual business hours and usage requirements



Increased Release Velocity

The implementation of flexible pipeline management empowered Finexio to dynamically enable or disable releases, granting it precise control over software delivery, and gaining a 100% increase in deployment visibility for production environments.

BEFORE

- No notification system in place, resulting in delayed awareness of deployment success or failure

AFTER

- Immediate team notifications for all deployment events, enabling faster response to issues



Simplified Maintenance

Automation and custom solutions made infrastructure maintenance and updates easier, reducing operational overhead and enhancing system reliability, and providing a 20% Increase in deployment efficiency.

BEFORE

- Failed workflows requiring manual identification and restart, creating operational delays

AFTER

- Automated system detecting failed workflows and triggering reruns without human intervention, reducing downtime and operational overhead

Finexio's collaboration with nClouds showcases the power of a strategic partnership to achieve robust security, operational efficiency, and faster time to market. By leveraging nClouds' AWS expertise and proactive approach, Finexio successfully modernized its infrastructure and accelerated its growth. Contact nClouds to learn how we can help your organization achieve similar results.

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.

