



nClouds | AWS Case Studies

OperationsRx

Benefits Summary



Security and Disaster Recovery Capabilities



Centralized Infrastructure Components



Cost-Efficient End Product

About OperationsRx

OperationsRx specializes in profit improvement and liquidity initiatives. Based out of North Carolina, the team has built a supply chain analytics and planning tool.

This case study is the second in a sequence of case studies designed to show the continuing cloud journey on AWS.

Industry

Software

Location

United States

Featured Services

DevOps, Managed Services, Data & Analytics, Migration, Application Modernization, Containerization, Serverless, Security

nClouds empowered OperationsRx with cloud solutions—including disaster recovery capabilities and centralized infrastructure components—through AWS, enabling it to save on cost and time with its cloud infrastructure.

CHALLENGE

Need for Cloud Security and Serverless Architecture

OperationsRx faced critical technical challenges stemming from inadequate cloud security measures and the need to centralize its infrastructure. The firm sought a robust solution to safeguard sensitive data, comply with industry regulations, and streamline operations. Transitioning from on-premises to cloud-based solutions, OperationsRx encountered obstacles such as slow migration, manual deployment, and the absence of a CI/CD pipeline.





Why AWS and nClouds

Amazon Web Services (AWS) provides a range of services that allow businesses to build and scale their applications quickly and securely. By choosing AWS, OperationsRx [could continue to work with nClouds](#) to leverage the power and scalability of the cloud to meet its business needs.

This made nClouds an ideal partner for OperationsRx, as it could provide the necessary guidance and support to help the firm design and implement a solution that met its specific requirements.

Overall, the combination of AWS and nClouds' expertise and experience made them an ideal choice for OperationsRx, providing a comprehensive and cost-effective solution that allowed it to improve its performance, efficiency, and scalability while reducing costs and improving overall security.

nClouds also has expertise with Microsoft Workloads, which enables businesses to modernize to drive agility and scalability, reduce costs of operations, and enhance security. nClouds' team is experienced in migrating Windows Server and SQL Server workloads to AWS while testing for application performance and security. These capabilities made nClouds a perfect fit for OperationsRx's project.



As an AWS Premier Tier Services Partner, nClouds has extensive experience and expertise in building and managing complex cloud environments on AWS.

OperationsRx Leverages Several Amazon Services

- **AWS CodeSuite** – Provides a collection of fully managed continuous integration and continuous delivery (CI/CD) services enabled by AWS
- **Amazon CloudWatch** – Provides monitoring and log management
- **Amazon Elastic Container Service (Amazon ECS)** – Enables OperationsRx to run and scale containerized applications on AWS easily
- **Amazon Fargate** – Enables OperationsRx to run containers without having to manage servers or clusters
- **Amazon Lambda** – Enables the firm to run code without provisioning or managing servers. It only pays for the compute time consumed (There is no charge when code is not running.)
- **AWS Organizations** – Provides policy-based management for multiple AWS accounts
- **Amazon RDS for SQL Server** – Manages time-consuming database administration tasks—including backups, software patching, monitoring, scaling, and replication—and enables OperationsRx to easily set up, operate, and scale SQL Server deployments in the cloud

OperationsRx's Solution Stack Includes Additional, Essential Third-Party Tools

- **Datadog** – A monitoring and analytics tool to determine performance metrics and event monitoring for infrastructure and cloud services (The software can monitor services such as servers, databases, and tools.)
- **OpenVPN Access Server** – A full-featured SSL VPN software solution to provide fine-grained access control of the infrastructure
- **Terraform** – Enables the firm to safely and predictably create, change, and improve infrastructure
- **Microsoft SQL Server** – A relational database management system (RDBMS) developed by Microsoft

SOLUTIONS

nClouds' Solution Architecture for OperationsRx

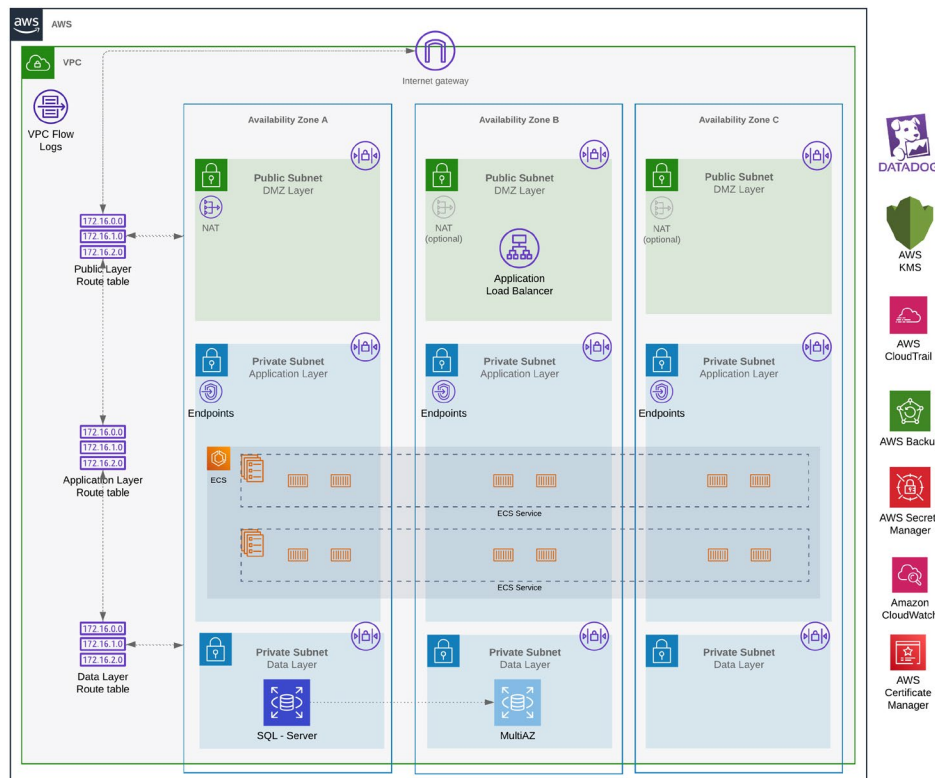
To address OperationsRx technical challenges, nClouds utilized AWS services to provide a comprehensive solution. This solution included AWS CodeSuite, Amazon Elastic Container Service (ECS), and AWS Fargate.

AWS CodeSuite is a collection of fully managed continuous integration and continuous delivery (CI/CD) services provided by AWS. The suite includes a range of tools and services that helped OperationsRx automate the software development lifecycle, from code building and testing to deployment and monitoring.

nClouds utilized Amazon Elastic Container Service (ECS) and AWS Fargate to implement a serverless architecture that allowed OperationsRx to scale its workloads quickly and efficiently. This architecture provided a more streamlined and cost-effective approach to managing the firm's infrastructure, as it only paid for the resources it used.

OperationsRx previously leveraged Microsoft SQL Server to store all data in the backend. nClouds helped OperationsRx with its migration project, separating everything into one account each and implementing multiple environments. For the relational database, it chose Amazon RDS for SQL Server, which provided low maintenance costs and enabled multiregion and multiaccount backups. This allowed for enhanced security and disaster recovery capabilities for OperationsRx.

High-Level Architecture Diagram



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

Teaming with OperationsRx, nClouds was able to bring several key benefits through AWS that increased business efficiency and solved technical challenges.



Security and Disaster Recovery Capabilities

By leveraging Amazon RDS for SQL Server on RDS, OperationsRx was able to achieve improved security and disaster-recovery capabilities through multiregion and multiaccount backups, resulting in increased resiliency and protection of critical data.



Centralized Infrastructure Components

nClouds helped the firm centralize its infrastructure components on AWS and different accounts through Microsoft SQL Server and adopt a serverless architecture to streamline workflows and enhance scalability.



Cost-Efficient End Product

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.