



nClouds | AWS Case Studies

AFG.tech



Benefits Summary



Organized infrastructure management



Increased security with service control policies (SCPs)



Boosted reliability on customer experience

About AFG.tech

AFG.tech was founded by automotive industry specialists versed in all aspects of auto finance. The company offers SaaS technology consulting and custom software development for auto dealerships. Its flagship product is a software platform for those in the automotive retail industry.

Industry

Automotive industry, Software

Location

United States

Featured Services

DevOps, Managed Services, Data & Analytics, Well-Architected Framework Review, Migration, Application Modernization, Containerization, Serverless, Security

CHALLENGE

Need for Support on Cloud Infrastructure and Strengthened Security

AFG.tech was facing several technology challenges, including managing IAM permission sets for developers across multiple AWS accounts and running applications on AWS Elastic Beanstalk. It also faced a lack of monitoring and logging, the need to strengthen its security measures, and a desire to find a low-cost solution.





Why AWS and nClouds

AFG.tech chose nClouds due to its expertise with the AWS Migration Acceleration Program (MAP) to reduce costs. By partnering with nClouds, AFG.tech could leverage nClouds' expertise in cloud migration and AWS infrastructure to accelerate its migration process and optimize its cloud environment.

Additionally, nClouds' experience in implementing best practices for AWS security and compliance helped the company strengthen its security posture and meet regulatory requirements.

Overall, the combination of AWS and nClouds' expertise and experience made them an ideal choice for AFG.tech, providing a comprehensive solution for all its challenges and needs.



SOLUTIONS

nClouds' Solution Architecture for AFG.tech

To address AFG.tech's technical and business challenges, nClouds utilized AWS and third-party services to provide a comprehensive solution. First, nClouds implemented service-control policies to tighten security and ensure compliance with industry standards. This helped the client meet regulatory requirements and strengthen its security posture.

nClouds also implemented a continuous integration and continuous deployment (CI/CD) pipeline using CodePipeline, which reduced deployment time and enabled the company to automate its deployment process. Deployment notifications were put in place, ensuring transparency and timely communication across the team.

nClouds implemented monitoring and logging using CloudWatch, which helps the client track and troubleshoot issues proactively. The company can also leverage the power of CloudWatch to identify trends and patterns and make data-driven decisions.

nClouds helped AFG.tech organize, identify, and manage improvements with implemented tagging policies. This has enabled AFG.tech to better manage and optimize its AWS environment and save on costs.

The solution provided by nClouds has improved AFG.tech's fault tolerance and high availability, resulting in a more reliable customer experience. By partnering with nClouds, the client has been able to streamline its cloud operations, reduce costs, and enhance its security posture.



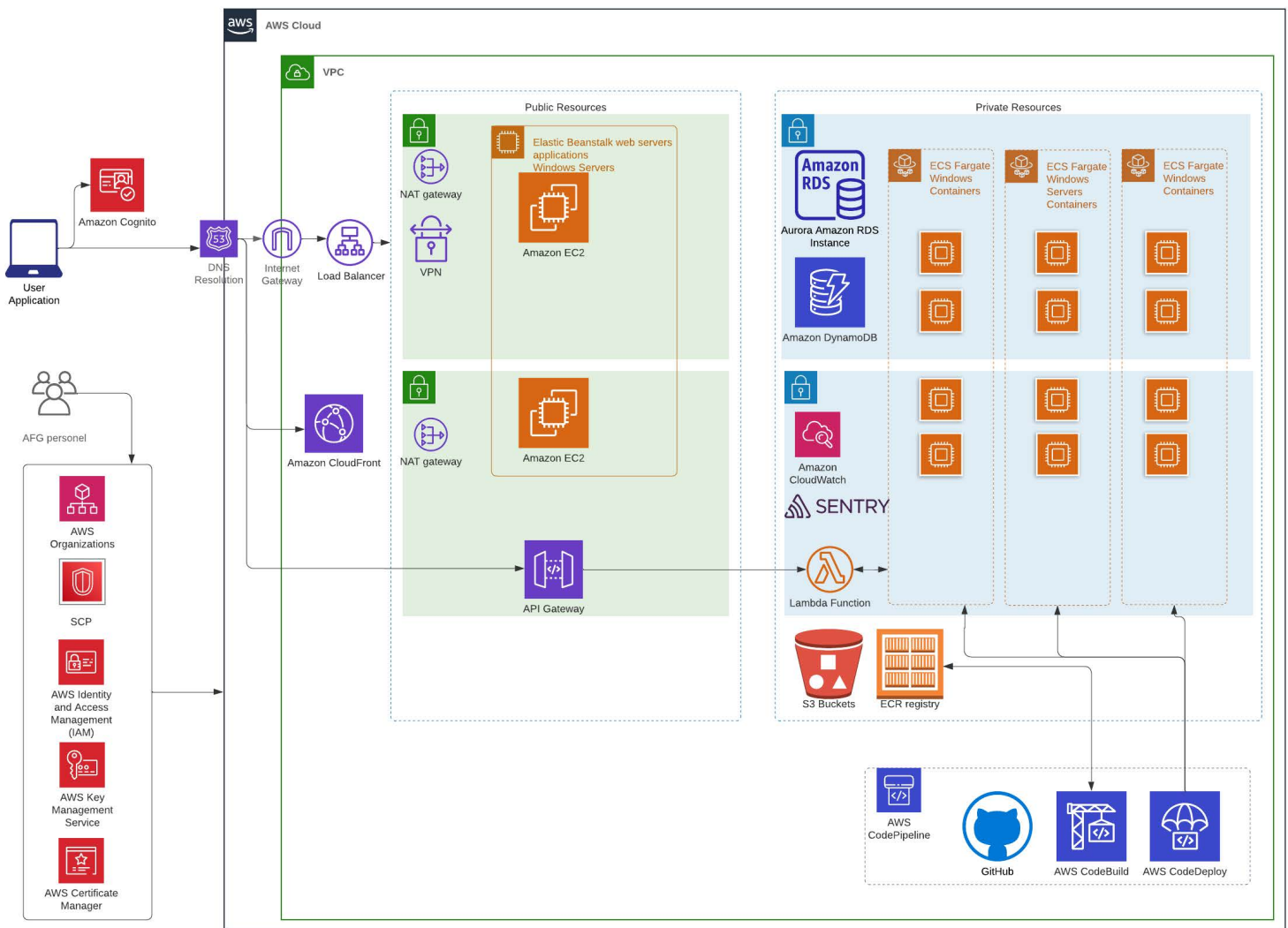
AFG.tech Leverages Several Amazon Services

- **Amazon Elastic Container Service (ECS)** – A container orchestration service that makes it easy for AFG.tech to deploy, manage, and scale containerized applications
- **AWS Fargate** – A serverless, pay-as-you-go compute engine that lets AFG.tech focus on building applications without managing servers
- **Amazon Elastic Container Registry (ECR)** – A Docker container registry that enables the client to store, share, and deploy container images
- **Amazon Elastic Compute Cloud (EC2)** – Allows the client to rent virtual computers on which to run its own computer applications
- **AWS Simple Storage Service (S3)** – A service that provides object storage through a web service interface
- **Amazon Relational Database Service (RDS)** – A web service running “in the cloud” that is designed to simplify the setup, operation, and scaling of a relational database for use in applications
- **Amazon API Gateway** – A service that makes it easy for developers to create, publish, maintain, monitor, and secure APIs at any scale
- **AWS Lambda** – A computing service that runs code in response to events and automatically manages the computing resources required by that code
- **AWS CodePipeline** – A continuous delivery service that helps the client automate its release pipelines for fast and reliable application and infrastructure updates
- **AWS CodeBuild** – A continuous integration service that compiles source code, runs tests, and produces ready-to-deploy software packages
- **Amazon CloudFront** – A content delivery network (CDN) service built for high performance, security, and developer convenience
- **Amazon Route 53** – A scalable Domain Name System (DNS) web service that connects user requests to internet applications running on AWS or on premises
- **Amazon DynamoDB** – A serverless, key-value NoSQL database designed to run high-performance applications at any scale
- **AWS Identity and Access Management (IAM)** – A system that specifies who or what can access services and resources in AWS, centrally manages fine-grained permissions, and analyzes access to refine permissions across AWS
- **AWS Single Sign-On (SSO)** – A system to securely create or connect the client’s workforce identities and manage its access centrally across AWS accounts and applications
- **AWS Organizations** – An account management service that enables the client to consolidate multiple AWS accounts into a single “organization” that it creates and centrally manages
- **AWS Service Control Policies (SCPs)** – A type of organization policy that the client can use to manage permissions
- **Amazon Cognito** – An identity storage that scales to millions of users, supports social and enterprise identity federation, and offers advanced security features to protect consumers and business
- **Amazon Lightsail** – A virtual private server (VPS) that offers simple management of cloud resources such as containers
- **Amazon Certificate Manager (ACM)** – A system used to provision, manage, and deploy public and private SSL/TLS certificates for use with AWS services and AFG.tech’s internal connected resources
- **Amazon CloudWatch** – A program that collects and visualizes real-time logs, metrics, and event data in automated dashboards to streamline infrastructure and application maintenance

AFG.tech's Solution Stack Included Additional, Essential Third-Party Tools

- NordLayer** – A network access security service that provides protection on hybrid and multicloud cloud environments
- Sentry** – A self-hosted and cloud-based application performance-monitoring and error-tracking program
- GitHub** – An internet hosting service for software development and version control using Git, which is a distributed version control system that tracks changes in any set of computer files

High-Level Architecture Diagram



BENEFITS

Increased Business Efficiency

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



Organized Infrastructure Management



nClouds' solution helped AFG.tech organize infrastructure management, which enabled the client to better manage and optimize its AWS environment and identify resources and services in a more structured and organized manner.

Increased Security with Service Control Policies (SCPs)



nClouds increased AFG.tech's security by implementing service control policies (SCPs), which ensured that the client's AWS environment adhered to industry standards, compliance regulations, and company-specific policies, thereby strengthening its security posture.

Boosted Reliability in the Customer Experience



nClouds' solution ensured AFG.tech's services were always available and could handle increased traffic and usage, resulting in a more dependable and seamless experience for the company's customers.

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.

Copyright © 2023 nClouds, Inc. All rights reserved