

Technology | Cloud Modernization | AWS

How a **Growing Technology Platform** moved from a shared default VPC to a secure, production-ready AWS architecture

Company

Growing Technology Platform

Industry

Technology

Partner

Flentas Technologies



Flentas

Introduction

The Client is a technology-driven organization that relies on cloud-native applications to support its core business operations. Its platform runs containerized workloads and data-intensive services that require a secure, scalable, and highly available infrastructure foundation.

As the platform evolved, the Client's existing AWS environment- hosted within the default VPC, began creating operational, security, and scalability challenges. Shared networking, limited environment segregation, and gaps in monitoring and security controls increased risk and made it difficult to support future growth.

To build a more resilient and production-ready cloud environment, the Company partnered with Flentas Technologies to migrate its workloads into dedicated AWS environments and implement a modern architecture focused on security, observability, and operational excellence.

At a Glance

Solution



AWS Infrastructure Modernization

Migrated workloads from the default VPC into dedicated staging and production environments.



Application & Database Modernization

Implemented Amazon ECS Fargate and Aurora PostgreSQL for improved scalability and reliability.



Security & Compliance Enhancement

Deployed AWS WAF, GuardDuty, AWS Config, VPC Flow Logs, & Secrets Manager.



Monitoring & Observability

Automated backups, validation checks, and recovery mechanisms for safer releases.



Technologies & Services Used

AWS



Amazon ECS Fargate



Amazon Aurora PostgreSQL



Amazon VPC



Application Load Balancer



AWS Global Accelerator

Monitoring



Amazon CloudWatch



Amazon SNS

Content Delivery



Amazon S3



Amazon CloudFront

Business Impact



3-week AWS migration completed with minimal business disruption.



24x7 monitoring, alerting, and threat detection enabled through centralized observability and security services.



100% isolated staging and production environments for enhanced security and operational control.



Cloud-native architecture modernization with Aurora PostgreSQL, ECS Fargate, CloudFront, and AWS Global Accelerator for improved scalability, resilience, & performance.

The Challenge

As application usage increased and infrastructure requirements became more complex, the Client faced several challenges that limited its ability to scale confidently.

01

Lack of Environment Isolation

Staging and production workloads operated within the same AWS network environment, increasing the risk of cross-environment exposure and making it difficult to enforce environment-specific controls.

02

Security and Compliance Risks

The infrastructure lacked several foundational security controls, including web application protection, centralized secrets management, threat detection, and configuration monitoring. This created visibility gaps and increased operational risk.

03

Limited Monitoring and Operational Visibility

Without centralized dashboards, alerts, or enhanced database monitoring, identifying and responding to performance issues required significant manual effort.

04

Scalability Constraints

The existing architecture was not designed to support long-term growth, limiting the Company's ability to scale workloads, improve resilience, and optimize application performance.

The Solution

Flentas designed and implemented a secure, cloud-native AWS architecture that established clear separation between staging and production environments while improving security, visibility, and operational reliability.

01

Isolated AWS Environments

Dedicated VPCs were created for staging and production, providing complete network isolation and enabling environment-specific security and operational controls.

02

Modernized Application & Database Infrastructure

Containerized workloads were migrated to dedicated Amazon ECS Fargate clusters, while existing PostgreSQL databases were upgraded to Amazon Aurora PostgreSQL to improve scalability, performance, and availability.

03

Comprehensive Security Framework

A multi-layered security model was implemented, including AWS WAF, GuardDuty, AWS Config, VPC Flow Logs, least-privilege IAM policies, and AWS Secrets Manager for secure credential management.

04

Enhanced Monitoring & Alerting

Centralized CloudWatch dashboards, enhanced database monitoring, automated alarms, and SNS notifications were deployed to provide proactive visibility into infrastructure health and performance.

05

Optimized Frontend Delivery

CloudFront and Amazon S3 were implemented to improve frontend performance, reduce latency, and provide a secure content delivery layer for end users.

Business Impact

The transformation delivered measurable improvements across software delivery, operational efficiency, and security governance.

100%

Network Isolation

24x7

Infrastructure protection
& monitoring

Real-time visibility
across applications and
infrastructure

Achieved through centralized monitoring, dashboards, and proactive alerting for faster issue detection and response.



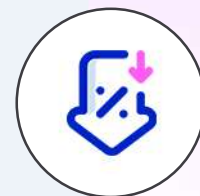
Enhanced
scalability & resilience

Through modernization with Aurora PostgreSQL and ECS Fargate, enabling seamless growth without infrastructure management overhead.



Lower-latency
global application
access

Delivered through CloudFront & AWS Global Accelerator, improving user experience for geographically distributed users.



End-to-end
migration
completed

In just 3 weeks, accelerating cloud adoption while maintaining business continuity with minimal disruption to operations.



Conclusion

By partnering with Flentas Technologies, the Client successfully transformed its cloud infrastructure into a secure, scalable, and operationally resilient platform built for future growth.

With dedicated environments, enhanced security controls, modernized application and database services, and improved operational visibility, the organization is now better equipped to support evolving business demands while maintaining reliability, performance, and governance. The new foundation enables the Company to scale confidently, accelerate innovation, and deliver a better experience for its users.



Take Action

✉ sales@flentas.com

🌐 www.flentas.com

🌐 [Flentas Technologies](#)

Mumbai : +91 91674 25445 | Pune : +91 020-71171003 | Dubai : +971 50-5376313