Improving Customer Containerization Strategy Using AWS

November, 2024

Customer:
Government Agency (Agency)

Team:
Koniag Management Services (KMS), a wholly owned subsidiary of Koniag Government Services, AWS

Customer Challenge:
The Agency needed to modernize their infrastructure and move away from traditional hardware deployments and Docker containers. They required a scalable, secure, and efficient cloud solution that could handle both development and production workloads while integrating with their existing tools and improving their overall security posture.

Solution:
KMS designed and implemented a comprehensive AWS migration strategy for Government Customer, leveraging various AWS services to address their challenges:

1. Container Orchestration:
   - Implemented **Amazon Elastic Kubernetes Service (EKS)** for production workloads
   - Utilized **Amazon Elastic Container Service (ECS)** for development workloads
   - Employed **Amazon Elastic Container Registry (ECR)** for container image management

2. Security and Authentication:
   - Integrated third-party tools and OpenID Connect (OIDC) with AWS services
   - Implemented **AWS Shield Advanced** for DDoS protection in production environments

3. Content Delivery:
   - Migrated from Akamai to **Amazon CloudFront** for improved content delivery and edge computing capabilities

4. DevSecOps:
   - Established a full DevSecOps pipeline to streamline development, security, and operations processes

Outcomes, Results, and Benefits:

1. Successfully migrated Government Customer 's entire infrastructure to AWS, eliminating dependence on traditional hardware deployments
2. Improved scalability and resource management through containerization and orchestration with EKS and ECS
3. Enhanced security posture with AWS Shield Advanced and integrated authentication mechanisms
4. Optimized content delivery and reduced latency by leveraging Amazon CloudFront
5. Streamlined development and deployment processes with a robust DevSecOps pipeline
6. Increased operational efficiency and reduced maintenance overhead by adopting managed AWS services
7. Improved flexibility and agility in both development and production environments

This migration enabled Government Agency to modernize their infrastructure, enhance security, and improve overall performance while leveraging the power and scalability of AWS services.

Learn More:

If you would like more information, please contact KGSinfo@koniag-gs.com. In your email, be sure to reference the title of the use case document and include any specific follow-up requests or details you'd like us to provide.

Koniag
Government Services