Creating an Elastic Infrastructure for Growing Customer Demands

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Customer: Federal Civilian Agency
Agency customer manages vast amounts of data and requires a robust, scalable IT infrastructure to support its mission.

Team:
Koniag Data Solutions (KDS), a wholly owned subsidiary of Koniag Government Services, AWS

Customer challenge:
Agency faced challenges with its legacy IT infrastructure, which was struggling to keep up with the growing volume of digital records and increasing demands for online access. The agency needed a more flexible and scalable solution to improve performance, reduce costs, and enhance its ability to serve the public.

Solution:
KDS designed and implemented a comprehensive cloud migration strategy for the Agency, leveraging various AWS services to create a modern, expandable infrastructure. The solution included:

- Amazon EC2 for scalable compute resources to handle varying workloads
- Amazon S3 for secure, durable storage of digital archives
- Amazon RDS for managed database services to improve performance and reduce administrative overhead
- AWS Direct Connect for secure and reliable connectivity between Government Customer's on-premises systems and AWS cloud
- AWS CloudFormation for infrastructure-as-code deployment, ensuring consistency and repeatability
- Amazon CloudWatch for monitoring and alerting to maintain optimal performance

KDS also implemented a DevOps approach using AWS CodePipeline and AWS CodeDeploy to streamline application deployments and updates.

Outcomes and results:
- Increased scalability: Agency can now easily adjust its IT resources to meet fluctuating demands, especially during peak periods of public interest in historical events.

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- Improved performance: The new cloud infrastructure reduced application response times by 40%, enhancing the user experience for researchers and the public.
- Cost savings: Agency achieved a 25% reduction in overall IT infrastructure costs through optimized resource utilization and reduced on-premises hardware.
- Enhanced security: Implementation of AWS security best practices and tools improved Government Customer's overall security posture.
- Faster deployment: New applications and updates can now be deployed 3x faster, improving Agency's ability to innovate and respond to changing needs.

This migration to AWS cloud services has positioned the Agency to better fulfill its mission while adapting to future technological advancements.

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Government Services