Client Success Story

The company primarily focuses on products to treat hemophilia, kidney disease, immune disorders and other chronic and acute medical conditions.

Data lake modernization, security reduce TCO for healthcare leader

Securing and modernizing audit management system on AWS Cloud helps a leading healthcare provider improve resiliency and reduce TCO by 75%.

Customer Challenge

A leading US healthcare provider needed to modernize its legacy audit management system due to heightened risks, deficient analytics support, inadequate scalability and resiliency, and high costs of ownership. Lacking confidence in its long-term security architecture and operations, the provider wanted to review its current security position and strategy and gain insights and recommendations on how best to proceed. Cognizant helped the client:

▮ Develop a methodology, as well as resolve long- and short-term remediation for AWS Config violations. This included encrypting EBS volumes, S3 buckets and RDS snapshots, configuring S3 and group security, defining IAM cross-account roles and establishing IAM policy compliance, rotating KMS keys, enabling an SAML provider and Lambda automation scripts, and implementing a Creator tag via Lambda

▮ Report and analyze routines to identify security risks

▮ Implement native AWS security tools, including Macie, Security Hub, WAF and Inspector

▮ Develop a longer term AWS security architecture and operations strategy

▮ Review current security and strategy and make recommendations

AWS + Cognizant Solution

Cognizant leveraged its partnership with Amazon Web Services (AWS) to design a scalable, highly secure ecosystem for the healthcare provider's audit management platform. We used numerous AWS technologies, including security controls, serverless code, containers and storage technology.

After the Cognizant Security team's assessment revealed configuration violations, we helped the client develop a methodology for both short- and long-term remediation. This included a solution to encrypt EBS volumes, S3 buckets and RDS snapshots and to identify specific S3 security configurations.

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As a part of the re-platforming and containerization process, Lambda automation scripts in conjunction with CloudWatch pass alarms and help configure IAM roles and profiles within the VPC. Based on CloudFormation templates, this approach enables secure container deployment to security groups within availability zones on Amazon ECS.

 AWS Auto Scaling resolves the client's scalability and compliance challenges by improving the load capacity of the audit management platform. And because security regulations require periodic key rotation, we implemented an automated KMS key rotation schedule.

AWS Security Hub provides a cloud security posture management service to automate best practice checks, aggregate alerts and support automated remediation. The Amazon Inspector automated security assessment service tackles the security and compliance of the client's applications deployed on AWS.

Given its large and continuously growing data volumes, AWS Macie ensures the client's data privacy protections can be applied at scale. With this solution the healthcare provider can use pattern matching and machine learning discovery to reduce the time required to understand and protect its data.

We used IAM recommendations and testing to describe roles and associated service requests, with policies established for required permissions sets. And finally, AWS WAF monitors and controls the forwarded HTTP and HTTPS requests.

Outcomes

By working with the client's Information Security and Security Operations teams, Cognizant developed and implemented a foundational approach to data lake modernization.

for the healthcare provider's audit management system on AWS. We effectively removed barriers and located security blind spots, significantly improving the migration velocity to the containerized platform, as well as the remediation of various security risks. Using various AWS native services in conjunction with AWS security controls improved availability by an estimated 3X scale and reduced TCO by 75%.

About the Partner

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. We engineer modern businesses to improve everyday life. Our unique industry-based, consultative approach helps clients transform technology, reimagine processes and transform experiences, ensuring businesses remain agile, relevant and ready to run more innovative and efficient enterprises.

With AWS as our partner, we focus on the outcomes that matter most to businesses and underpin our solutions with deep industry experience and market-leading IP. Cognizant's more than 6,000 AWS-certified professionals, dedicated AWS-certified consultants in 43 countries, hundreds of customer launches and successes, and more than 70 transformational blueprints help drive innovation beyond cloud migration.

As a premier consulting partner, Cognizant holds numerous AWS competencies, including AWS Mainframe Migration, AWS SAP, AWS Migration, AWS Financial Services, AWS Healthcare and AWS Life Sciences. Partner programs include AWS Well Architected, AWS Managed Service Provider, AWS Marketplace Seller, AWS Solution Provider Program and AWS Public Sector Solution Provider.

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