



CASE STUDY

SITE RELIABILITY ENGINEERING WITH AWS INFRASTRUCTURE UPGRADE FOR A ZERO-TRUST PLATFORM TECH LEADER

- *Reduced MTTR from 2h to 12m.*
- *86% fewer alerts using RCA identification.*
- *Standardized observability metrics, dashboarding and alerting configurations.*
- *Simplified deployment to AWS resource data across regions.*

Client Background

A Multinational Technology Company providing integrated zero-trust cloud platforms wanted to **upgrade their AWS infrastructure and make Site Reliability Engineering (SRE) the central support team for providing round the clock support.** The scope of challenges included inadequate visibility of metrics and logs for their microservices tech stack due to a lack of uniform standards for monitoring, alerting and ticketing integrations.

The client engaged with Xoriant to upgrade AWS infrastructure, improve observability, add necessary integrations, and optimize security and compliance. The resulting enhanced operational efficiencies and consistent speed-to-deliver would enable geographic expansion and improved ROI for the client.

Key Objectives

- Review and improve SRE architecture and interconnectivity between various SRE components.
- Manage the cloud environment with a defined SLO.
- Free developers from unnecessary, low-value tasks.
- Monitor and address challenges due to multi-region growth.

KEY BENEFITS

- 30% reduction in alerts by removing false positives.
- Enhanced environment visibility and insights, enabling data-driven business decisions and optimized cloud spend.
- Provided trend analysis to catch issues in early stages of SDLC.
- Enabled day-zero configurations for application stack observability.
- Automated customer onboarding for enhanced success ratio.
- Reduced time to complete customer onboarding and service availability from hours to minutes.
- Increased customer satisfaction by reducing TAT from hours and days to minutes.

Xoriant Solution

- Deployed SRE operations team to manage monitoring, task automation, incidents, and minor changes.
- Assessed the environment and automated daily tasks, reducing manual effort up to 40%.
- Automated Gateway deployment using CloudFormation service and AWS SDK for CT Gateway deployment in desired region.
- Leveraged AWS Lambda automation to enable customer onboarding on AWS platform without relying on multiple, siloed Ops teams.
- Built a unified dashboard for observability. Implemented Prometheus-Grafana and Alert Manager to improve observability of the EKS clusters and key services to meet SLOs.
- Automated alerting and dashboarding solution as part of any new region or resource deployment.
- Identified architecture gaps and recommended solutions. Engaged with Dev and Business team to understand application architecture and targets for SLO/SLI. Audited existing tools and standards in use.
- Defined strategy for Alert Lifecycle Management and tooling integrations. Created standard templates for alerting and dashboarding, covering metrics and logs on AWS cloud resources and microservices.
- Implemented toolsets and integrations with robust incident management and collaborations tools.
- Defined escalation policy for critical alerts and on-call schedule management.
- Centralized security and compliance controls for segregated assets.

KEY BENEFITS

- Simplified management access to global reports with modern, self-service portal.
- Standard requests were integrated and automated via self-service portal.
- Maintained speed-to-deliver services in a repeatable manner.
- Minimized maintenance and associated costs.
- Reduced instances of manual errors/failures.

Technology Transformation

AWS Kubernetes Service | DynamoDB | Lambda | CloudFormation | AWS SDK | Elasticsearch | API gateway | Firewall | Postman | Grafana | Prometheus | Loki | OpsGenie | Slack | AlertManager | ElastAlert | GitHub | Ansible | Jenkins | Terraform



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