

CASE STUDY 2025

Transforming MarTech Operations Through Infrastructure Automation





Highlights

- Infrastructure automation and standardization
- Implementation of robust monitoring and alerting systems
- Enhanced security frameworks
- Cost optimization through resource management
- Establishment of clear SLOs and error budgets

Client

A leading global MarTech company sought to modernize their infrastructure and operations to meet growing market demands. As a key player in marketing technology solutions, they needed to **transform their manual processes and aging infrastructure** to maintain their competitive edge and ensure reliable service delivery to their global customer base.

Challenge

The client faced multiple operational inefficiencies that threatened their service quality and market position. Manual infrastructure management led to frequent **configuration errors** and deployment delays. Their system lacked proper scalability, resulting in service disruptions during peak loads. Monitoring was inadequate, with no automated incident response system in place. **Security vulnerabilities** existed due to inconsistent policies and absence of modern authentication methods. These challenges were compounded by rising operational costs due to poor resource optimization, with some environments remaining active during off-hours while others struggled with resource constraints.

Outcome

The infrastructure automation and implementation transformed the client's operational capabilities, establishing a foundation for sustainable growth and reliability.

- Increased system uptime from 99% to 99.9%
- 35% reduction in cloud costs
- 70% faster deployment times
- 40% reduction in incident investigation time
- 60% improvement in Mean Time to Recovery (MTTR)
- Enhanced security posture with standardized policies
- Scaling capabilities handling peak loads efficiently

Strategy & Solution

Digit88 team initiated a comprehensive assessment of the client's infrastructure and processes, working closely with stakeholders to identify critical pain points and opportunities for improvement. Digit88 developed a strategic roadmap focusing on :

Digit88 designed and implemented a comprehensive set of SRE activities. The solution design prioritised scalability, reliability, and security while ensuring minimal disruption to existing operations:

- Infrastructure as Code using Terraform
- Reducing provisioning time from 7 days to 2 hours
- Automated CI/CD pipelines with Jenkins for streamlined deployments
- Multi-region failover mechanisms and availability zone distribution
- Kubernetes-based auto-scaling with HPA and Cluster-AutoScaler
- Unified monitoring stack using Prometheus, Grafana, and Loki
- Automated incident response system integrated with PagerDuty
- Comprehensive security framework including IAM roles, MFA
- Disaster recovery planning with defined RPO and RTO metrics

Technologies Deployed

- **Infrastructure:** AWS, Terraform, K8s, S3, RDS
- **Monitoring:** Prometheus, Grafana, Loki, CloudWatch
- **CI/CD:** Jenkins, Docker
- **Security:** AWS IAM, ECR
- **Message Broker:** MSK (Kafka)
- **Incident Management:** PagerDuty