



CASE STUDY

SITE RELIABILITY ENGINEERING USING MONITORING-AS-CODE FOR A LEADING SAAS PROVIDER

Saved 80% efforts through automation of the process.

Client Background

Our client is a leading SaaS provider for city and state governments. Noisy neighbor outages on the database pool led to stability concerns and didn't allow the client to maintain 99.9% SLA. Furthermore, escalating issues such as scaling and response time significantly resulted in negative Net Promoter Value (NPV) with customers. NPV is an important metric that measures the willingness of customers to recommend a company's products or services to others. The client objectives included:

- Develop a reliable monitoring solution to cope and achieve the promised service level agreement (SLA).
- Ensure availability of dashboards and reports as per the requirement. Improve the NPV with a positive number.
- Deliver container-based architecture that can be deployed automatically.

Xoriant Solution | Key Contributions

To stabilize and carry out the site reliability engineering of their business systems, the client partnered with Xoriant. Our key contributions include:

- Using infrastructure-as-code (IaC), monitoring-as-code (MaC), security as-code (SaC) for Azure, reviewing database design and updating the indexes necessary for performance.
- Updating the application to use Kubernetes and removing unwanted libraries from the container.
- Updating containers to use role-based access to access database.

KEY BENEFITS

- Achieved SLA of 99.96% as compared to a previous 70% SLA.
- Reduced the response times by 42%.
- Ensured optimal resource utilization leading to cost savings.
- Delivered 30% net increase in NPV.



- Eliminating network pool contentions of frontend using a load balancer and Ingress Controller.
- Enabling HPA for autoscaling based on relevant parameters such as CPU and memory utilization and configuring pod anti-affinity to ensure the correct pod placement is achieved.
- Updating application code to change to parameterized queries and updating certain queries for optimization to reduce resource utilization on the database.
- Optimizing database temp space utilization.
- Segregating the environment and executed procedural changes for onboarding to eliminate noisy neighbors.

Client Testimonial



Our success is a direct result of the Xoriant partnership. We leveraged their technology expertise and achieved 99.96% SLA while experiencing a 30% improvement in the NPV.



Technology Stack

**Kubernetes | Azure Network (VNET) | Azure Storage | Azure VMs | AKS | MS Azure DevOps
Terraform | Jenkins**



Xoriant is a product engineering, software development and technology services company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our 17 global offices with over 5000 software professionals. Xoriant has deep client relationships spanning over 30 years with various clients ranging from startups to Fortune 100 companies.