Case Study

Enhancing Efficiency in Application Deployment through DevOps

Magic EdTech

The Client

The client is a deep-tech company focused on addressing the greenhouse gas (GHG) challenge in hard-to-decarbonize industries. They develop innovative technologies and products to measure and reduce GHG emissions from industrial sources, targeting inefficiencies in power generation and energy conversion globally.

The Challenge

The client faced the challenge of degraded end-user experience due to prolonged service downtimes during application deployment, leading to user frustration and declining satisfaction. Their ability to quickly bring new features to market was hindered by slow and inefficient application release processes, allowing competitors to gain an edge.

Critical Success Parameters

- ✓ Improve end-user experience by minimizing service downtimes during application deployments to enhance user satisfaction.
- ✓ Streamline application release processes to accelerate go-to-market timelines and stay competitive.
- ✓ Automate repetitive tasks, such as environment setup, to reduce errors and optimize resource utilization.
- ✓ Establish defined process workflows and controls to enhance operational efficiency and maintain consistency across deployments.
- ✓ Provide comprehensive DevOps services, including strategic advisory, building a dedicated DevOps team, and offering training and ongoing support.

Our Approach

- ✓ Set up Azure subscriptions for production, staging, and QA environments, ensuring isolation and security for each.
- ✓ Created separate environments using Azure Landing zones, tailored to the client's needs and compliant with best practices.
- ✓ Configured cloud infrastructure with Terraform, implementing a robust platform for asset management.
- ✓ Migrated the codebase from a third-party vendor to Azure Repos, centralizing development efforts and enhancing collaboration.
- ✓ Designed and deployed CI/CD pipelines enabling the development team to quickly and securely release new features with automated security practices.
- ✓ Fostered project governance and collaboration by working closely with the application development team, providing continuous feedback and resolving issues promptly.
- ✓ Created Docker containers for the microservices-based application and deployed them to ensure scalability and reliability.
- ✓ Hosted the application's frontend on Azure app service and distributed it globally for fast, secure access for end users.
- ✓ Deployed the final asset management application in the production environment, ensuring all components functioned cohesively.

Key Result Highlights

Automated deployment and release management led to smoother deployments, resulting in a **40%** reduction in deployment time.

Achieved **30%** operational efficiency by automating processes, allowing for better resource allocation.

Enhanced security and compliance through embedded security practices in CI/CD pipelines, reducing breach risks by **25%.**

Reduced service downtime by **35%** by minimizing manual errors and ensuring seamless deployment processes.

Improved process accuracy by **20%** through the establishment of clear workflows and controls.

Increased resource utilization by **50%**, enabling the client to accomplish more with their existing team.