

SUCCESS STORY

## GFT Develops Flexible, Secure, and Cost-Effective Cloud Environment

The firm is one of the world's leading investment houses, investing across alternative assets in private equity, real estate, credit, and hedge funds. Clients include pension funds, institutions, and individuals.

INTELLIGENT PROCESS AUTOMATION



PLATFORM ENGINEERING



THE CHALLENGE

**A large private-equity firm operated a continuous integration and continuous delivery (CI/CD) system on Amazon Web Services platform that was running inefficient resource groupings that were overprovisioning and lacked scalability, driving up costs.**

- A GFT team was working internally with the client on different projects and needs that arose. The client was using Jenkins, and aimed to streamline its instances, reduce costs, and establish a standardized platform across all business units. Our team was provided a set of requirements from which we developed the solution.
- We identified opportunities to simplify the architecture and lower operational costs. The client appreciated our recommendations and asked us to lead the engineering project.

THE ENGAGEMENT

**In just six months, the GFT team designed, built, and reviewed the new architecture.**

- We optimized the resource allocation, reducing the number of on-demand EC2 instances by centralizing resources through the Amazon Elastic Kubernetes Service (EKS) clusters. This included using cost-effective resources like spot instances because of their lower costs compared with on-demand instances. Spot instances are ideal for flexible workloads that can tolerate interruptions, such as batch processing and CI/CD jobs, and they are significantly cheaper than on-demand instances.
- The team used a software development life cycle (SDLC) model for developing software applications and pipelines to move code from development to production. And by applying IAM roles for service accounts (IRSA), an Amazon EKS feature, we provided secure, multitenant access and egress-only traffic that simplified the client's security.

THE BENEFIT

**The client expects an 87.6% reduction in annual infrastructure costs, in addition to significant improvement in operating efficiency and reduced indirect labor costs.**

- Working with the client, we applied the strategic use of EKS clusters, Karpenter for dynamic node provisioning, and spot instances for achieving the client's goal of cost-effectiveness without compromising system reliability.
- Once the solution is fully implemented, we will be able to reduce the client's 180 EC2 instances to 18, running within six EKS clusters, distributed across three AWS accounts. By adopting spot instances for fault-tolerant workloads, the client expects to save as much as 90% over on-demand instances.
- The project reflects GFT's ability to manage intricate projects within the scope of our ongoing contracts, providing clients with continuous, high-quality support.