Delivering a Scalable Solution for Jenkins with GKE

GS Lab | GAVS was an engineering partner for Cambridge Semantics Inc.

The challenge

Cambridge Semantics Inc. (CSI) sought an alternative Jenkins architecture that would allow for more concurrent builds, increased usage through QA and extensive Continuous Integration driven scale tests. The current Jenkins as an automation build tool with a controller/static agent architecture on the cloud had limitations that had been identified.

The solution

GS Lab | GAVS partnered with the CSI team to design and deliver a controller-agent architecture using Google Kubernetes Engine (GKE), IAM, Cloud Storage, Container Registry, Compute Engine, Load Balancing, VPC Network, Logging for GKE. It deployed jenkins on K8s, optimized it and secured with Hashicorp Vault. It monitored Jenkins with Prometheus and integrated with Google container registry.

The result

As envisioned by CSI, Jenkins is more distributed and better equipped to spin up agents only when required. The solution automatically creates and implements microservices and the environment CSI needs for testing and deployment.

> The solution has eliminated excess resource consumption and resulted in cost savings by automatically spinning up and removing agents. It has boosted efficiency by running multiple jobs in parallel.

About Cambridge Semantics Incorporated

Cambridge Semantics Inc. (CSI) is a modern data management and enterprise analytics software company. Their product Anzo (utilizing AnzoGraph) is the most complete, scalable, and powerful knowledge graph platform. Anzo quickly transforms siloed data into highly connected knowledge graphs.

Vertical/horizontal solution: Software & Internet

Primary project location: United States

About GAVS Technologies Private Limited

GS Lab | GAVS offers digital product engineering, AI-led managed services, and digital transformation services to customers across the globe.
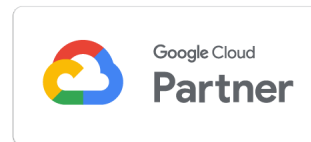
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