Using the Google Cloud Platform to accelerate delivery and reduce costs

A Fortune 500 retailer worked with Grid Dynamics to replace fragile and expensive in-house systems that were used for pre-production software testing.

The challenge

Grid Dynamics was invited to design and build a flexible deployment orchestration platform to replace the process of building complex staging environments manually on a VMware-based on-premise system. This new platform will provide self-service level capabilities for all engineers to speed up delivery and provide a better way to perform experiments.

The solution

Fig 1 shows the Google Cloud Compute engine was chosen as the foundation for the platform, as it provides a unified way to deploy applications in a cloud and on-premise. The platform (Fig 2) was then extended to support many more GCP services, including Kubernetes - the platform of choice for all new projects for this client.

Business case

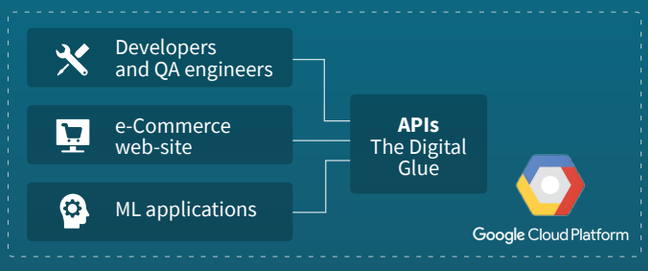

Fig 1

High level architecture

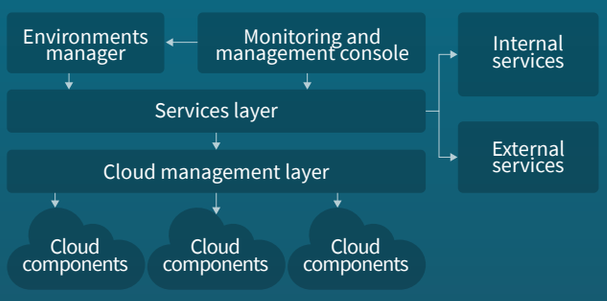

Fig 2

The results

- Significantly accelerated delivery by reducing time to provision environments on-demand from 1 month to 1 hour
- Infrastructure costs significantly reduced by the adoption of “on-demand” environments and fully automated test pipelines
- Developers now have a platform to perform experiments over an entire system, not just a single component
- The success of the first cloud-based project jumpstarted cloud adoption for other projects for this client.

Google Products

- Compute Engine
- Cloud Storage
- Cloud SQL
- Kubernetes Engine + GPU
- Cloud Memorystore
- Stackdriver
- Cloud DNS