

Tech Leader Leans Into Collaboration for Complex Migration Support

Industry

Information Technology

Location(s)

Georgia, USA

Technologies

- Oracle Real Application Clusters (RAC)
- Google Cloud VMware Engine (GCVE)
- Google Cloud Platform (GCP)
- Ansible for IaC/CaC
- HashiCorp Terraform

Overview

This IT firm found itself in need of a specific skill set when it came time to upgrade and migrate their Oracle database to Google Cloud VMware. Pythian's extensive expertise with a wide range of technologies and platforms provided the right support. Within a very short timeline, Pythian delivered a successful solution that exceeded expectations and allowed the migration to continue.

Complicated technical limitations halt Oracle Database migration

On a daily basis, technology companies grapple with complicated issues and equally challenging solutions. Those that are drawn to this type of environment have one trait in common: a love of complexity.

The team of established engineers and developers for one Fortune 500 enterprise technology company relished these challenges. And because of this, they successfully provided services, software and hardware to organizations of all sizes and across the spectrum of industries.

When company leadership wanted to migrate its own Oracle Real Application Clusters (RAC) to Google Cloud VMware Engine (GCVE), the tech team took up the challenge on their own, accessing Google's migration support and completing the planning stage of the process. They used Google-provided instructions to manually deploy RAC on GCVE without issues. But when it came time to migrate, the team quickly realized they needed an automated system to allow provisioning efficiency at scale for the hundreds of Oracle RAC databases they would deploy. This automation didn't exist, nor was it something the team knew how to build.

This delay had the potential to significantly impact the project's timeline. It would mean increased costs as the team sorted through the resulting issues, such as extending data center leases or license renegotiations with their existing hosting environment. Worst of all, they might have to re-architect and deploy without Oracle RAC on VMware.

Business need

When this established tech team wanted to migrate their current Oracle Real Application Clusters to Google Cloud VMware Engine, they quickly realized they needed an automated system to allow provisioning efficiency at-scale.

Solution/What We Did

The tech company sought answers from Google, who knew about Pythian's extensive expertise with a wide range of technologies and platforms. Pythian was able to help set up the firms up for their migration with:

- **On-demand consultation and technical support**
- **Automated tooling**
- **Responsive action**

This could have the team facing less optimal approaches like migrating to Google Bare Metal Service (BMS) or not migrating at all. Both options would forsake the benefits derived from using Google Cloud, such as multi-regional disaster recovery, lower TCO, on-demand provisioning and capacity optimization.

The company couldn't ignore this issue; it had already spent millions of dollars setting up and maintaining the cloud infrastructure. As an on-demand provider of software and hardware across 141 countries, any errors risked adversely impacting its customers. This expert team found themselves in uncharted territory and needed to seek outside help.

Earning the trust of a highly skilled tech team

A majority of the company's data estate was on Oracle Database, including Oracle RAC. But in order to introduce GCVE to the ecosystem, the company needed additional expertise to implement the underlying technologies, solve any new issues, build custom automation and successfully complete the migration.

As the infrastructure provider, Google recommended Pythian to help the company resolve its initial technical challenges and resume the migration. Google trusted Pythian's extensive expertise, which had been demonstrated throughout their eight-year partnership and multiple Google Cloud partner awards. Pythian brought not only the required VMware, Oracle database, RAC skills and Google expertise, but also Terraform and Ansible scripting automation experience for task automation—essential skills to deploy the required 300+ databases.

Once Pythian's team scoped the work to assess the technology and infrastructure, they got to work quickly creating the solution and plan for presentation. Pythian provided details on leveraging Terraform to provision virtual machines (VMs) into GCVE and Ansible to install Oracle software on the VMs. The company's tech team felt reassured that Pythian ran into the same issues they did, and was further reassured when Pythian's team came with solutions.

Despite extremely tight time constraints, Pythian's quick reaction and accelerated implementation plan still beat the company's timeline: After just one week of planning and preparation, a prototype was presented to key stakeholders. They were impressed by the expertise and breadth of knowledge the Pythian team showcased. Even more impressive was the dedication the Pythian team demonstrated to the firm's project deadline—working evenings and weekends to make sure it was done.

Result/Key Outcomes

With a timeline of less than two weeks, Pythian delivered a successful solution that exceeded expectations and allowed the migration to continue. Further benefits included:

- **Eliminated technical challenges for fast deployment**
- **Provided confidence in execution**
- **Created a reliable partnership with fellow tech experts**

Migration gets underway with newfound confidence

By the end of the engagement, the company was able to continue its migration and had deployment tooling (automation) that it could use to deploy VMware virtual machines and Oracle RAC Databases efficiently at scale.

More importantly, this highly skilled tech team knows they have the support of expert professionals equally talented to help complete their next project—no matter the complexity.

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