

Pivotal Cloud Foundry and Google CRE: Together Driving Customer Anxiety Towards Zero

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by Andrew Clay Shafer

Toward the end of 2016, Google announced [Customer Reliability Engineering \(CRE\)](#), an outward-facing branch of [Site Reliability Engineers \(SRE\)](#) to help bring Google-class operational excellence to customer applications running on Google Cloud Platform (GCP). GCP customers who are in the CRE program adhere to the principles and practices of SRE, starting with a joint review of application reliability that brings the same rigor Google applies to internal services.

In that initial introduction to CRE, GCP introduced the idea that anxiety is inversely proportional to reliability. The CRE program does not exist to offload operational support responsibilities to GCP, but to drive down the reliability gaps in an application working together with Google. Together with their customers, the customer reliability engineers evaluate the design, implementation, and operational procedures assessing the service level objectives and making recommendations based on their understanding of the GCP infrastructure and depth of experience as Google SREs.

Pivotal and GCP are currently working through a CRE review to bring Pivotal Cloud Foundry® into the CRE program. This has been a great opportunity for everyone, and Pivotal Cloud Foundry is the first third-party platform GCP has collaborated with for CRE support. Working together will help our shared customers have a shorter journey to get more reliability and confidence in their applications.

Working with GCP's CRE team has been a welcome collaboration for Pivotal Cloud Foundry engineering, but Pivotal's mission is helping our customers deliver value with their applications. As exciting as CRE-supported service level objectives are for Pivotal Cloud Foundry, the long-term benefits of this partnership will bring these principles and practices to our customers and their applications through Pivotal Labs.

The Pivotal process and tools attempt to make doing the right thing simple and easy. By collaborating with Google, we're bringing more of that ease to reliability. Together, GCP and Pivotal can help our shared customers meet their service level objectives reliably, without anxiety and without extraordinary effort.

Get on the CRE Fast Track with Pivotal

Google SRE sets high standards for application architecture and operability. Pivotal has made a name helping customers deliver software. Leveraging Pivotal Cloud Foundry gives our enterprise customers a platform focused on developer productivity without compromising reliability.

Pivotal remains focused on helping customers deliver value with their own software—and our GCP CRE collaboration brings Google-inspired strategies to our platform. Working with GCP's CRE team will continuously make the promises Pivotal Cloud Foundry can keep for our customers that much stronger going forward.

Current highlights of Pivotal Cloud Foundry on GCP include:

- **API-driven contracts between platform components to the infrastructure and the applications**
 - Infrastructure automation with the Google-supported Cloud Provider Interface between [BOSH and GCP](#).
 - [BOSH](#) driven lifecycle management of Pivotal's supported services including the Cloud Foundry Elastic Runtime.
 - The [Spring framework](#) makes 12-factor apps simple and straightforward with API-configurable reliability and telemetry integrated to PCF.
- **Make metrics first class**
 - Standard [Pivotal Cloud Foundry Metrics](#) and [Loggregator](#) make sure issues can be detected and diagnosed quickly.
 - The [Stackdriver Cloud Foundry integration](#) leverages GCP tools for additional operational capability.
- **The reliability of Pivotal Cloud Foundry self-healing**
 - BOSH monitors and repairs deployed VM infrastructure.
 - The runtime platform monitors and repairs applications.
- **[Consume the best of breed GCP infrastructure and services](#)**
 - Configure [Pivotal Cloud Foundry to consume Google's HTTP/S Load Balancer](#). Google's network backbone and edge locations reduce latency for Pivotal Cloud Foundry apps.
 - Google-supported Pivotal Cloud Foundry [service brokers](#) make the GCP data and machine learning services available to your apps.

The CRE process is not a rubber stamp. Reliability isn't always the most fun detail to focus on, but the only alternative before was learning the hard way on your own in production. These lessons are that much more accessible to Pivotal customers now that Pivotal Cloud Foundry is part of the CRE practice. Pivotal Cloud Foundry can automate almost everything but the CRE assessment.

At Pivotal, we have started to say that the GCP CRE program is a gift to the world and we've certainly learned a lot about reliability from our friends at Google. The insight and methodical approach to reliability made available through CRE collaboration will benefit all Pivotal customers and eventually the whole software industry.

Ready to consider Pivotal Cloud Foundry on GCP? Check out [the product page](#) and contact us. Want to learn more about GCP CRE practice? Check out [their CRE blog](#).

ABOUT THE AUTHOR

Andrew Clay Shafer has built a career helping people improve technology and processes for delivering software services. As a co-founder of Puppet Labs, he evangelized DevOps practices and tools before DevOps was a word. He got first hand experience implementing and operating cloud infrastructure as the the VP of Engineering at Cloudscaling. Now at Pivotal, Andrew focuses on helping the Cloud Foundry ecosystem and Pivotal customers leverage platforms to build the future.

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