

# Fastly and Google Cloud Platform

Extend the power of the cloud to the edge with Fastly & Google

As a Google Cloud Platform customer, you have the power to build, test and deploy applications in a scalable, reliable cloud environment. Whether you are building new apps in the cloud or migrating existing apps, performance, control and real-time insights are critical to success. That's why Google has partnered with Fastly. Combining Fastly's advanced edge compute, application delivery and edge enforcement solutions with Google's powerful cloud platform, you can extend your existing cloud infrastructure as close to end users as possible.

## Fastly's edge cloud advantage

Fastly provides the performance benefits of a Content Delivery Network (CDN), and more. Our massive globally distributed network consists of clusters of servers located closer to end users. This allows us to cache and speed up delivery of web and application content. Fastly has private interconnects to the Google Cloud Platform (GCP) network backbone. Your traffic automatically routes over these interconnects, bypassing the public internet and reducing latency to your GCP.

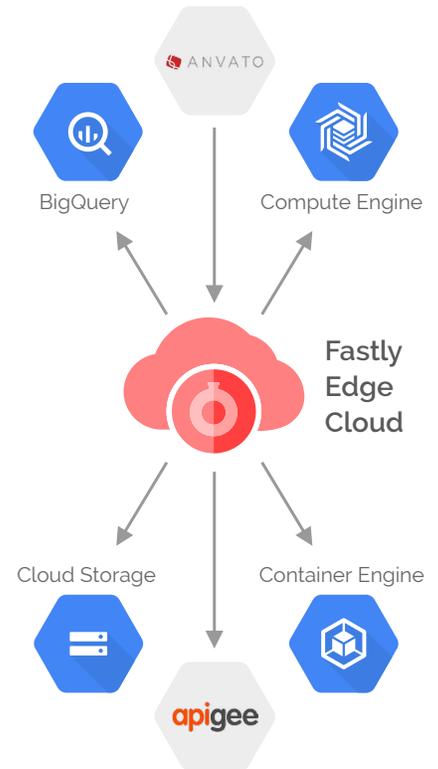
More than just a CDN, Fastly is an edge cloud platform. Built on a highly customized version of Varnish we push more application logic and functionality to the network edge. This enables us to deliver better web and application performance, real-time insights, granular control and reduced origin traffic.

### Greater control at the edge

Fastly's edge cloud gives you complete control over how your content is cached and served.

- Push configuration changes to the edge and see them in production in seconds, using our Control Panel or via our API
- Quickly roll back changes if an error occurs thanks to Fastly version control
- Cache anything at the edge, even rapidly changing API responses. Instant Purge invalidates content globally in 150ms
- Purge site-wide without impacting performance. Surrogate key purging tags all related objects with a key name and description so you can purge by that key

Fastly also moves application logic to the edge, closer to your end users. With our Edge Modules you can serve different content to users depending on device type, location, or whether they are actively shopping versus browsing. Fastly's edge cloud is fully programmable, so you can build your own custom apps on us. Using Varnish, customers have written and deployed their own code directly at our edge (e.g. A/B testing and paywall authentication).



Independent tests show that compared to other cloud providers, GCP customers can see a **4X** increase in speed on the **95th** percentile for content requests going over Fastly's edge cloud.

## Real-time visibility

While improving response times for applications build on GCP, Fastly also supports streaming logs to Google Cloud Storage (GCS), **BigTable and BigQuery**.

- Stream 100% of logs from the edge in real time providing actionable insights into app usage by demography, geo location and other fully customizable dimensions
- Combine Fastly log data with other data sources for deeper analysis, including Google Analytics, Google Ad data, security and firewall logs

## Easier cloud migration

When migrating to GCP from your datacenter or another cloud provider, the ability to make changes instantly is essential to avoid potential downtime or service interruptions. Fastly's cloud-based (Layer 7) Load Balancer is built on Varnish for added flexibility.

- Make granular content-aware routing decisions on every request
- Increase or decrease migration traffic within a few seconds or quickly revert traffic
- Create an unlimited number of custom rules to intelligently route traffic based on criteria like client location, device type, cookies, URL path, and HTTP headers
- Embrace a multi-cloud strategy. Split different parts of applications between GCP and other cloud providers and intelligently route between them to optimize speed, redundancy, and cost savings

Fastly Load Balancer also supports microservices architectures while maintaining a seamless end user experience. You can integrate distributed apps to present a unified experience to customers, or to other applications you may be running. For example, you could have an image service running on Google Container Engine (GKE) which responds to specific API calls, while your main presentation layer is on a different service and infrastructure. Using Fastly Load Balancer you can scale these services independently of each other under the one end-user application.

## Lower egress costs

As a GCP customer, Fastly's Origin Shield feature allows you to save on egress costs by reducing network utilization for customer bound traffic.

- Setup GCS or Google Compute Engine as your origin
- Designate a specific Fastly POP to serve as a "shield" for origin servers
- Origin Shield collapses all request misses into a single request and holds that request in queue while new content is fetched
- Once the Origin Shield has a copy of the new content, it serves any additional requests
- Using Origin Shield to specific POPs reduces the number of calls back to origin, saving on network egress costs

You can also take advantage of **special egress rates** from Google.

## Contact us

For additional information on how you can benefit from Fastly and GCP please contact us at [partners@fastly.com](mailto:partners@fastly.com)

**"With Fastly's Google BigQuery integration, we can capture edge data and join to our other key data streams, to improve our understanding and produce a better experience for our 150 million unique monthly visitors."**

Nick Rockwell, CTO, *The New York Times*