Fastly for Nearline Cache

Reduce traffic to origin with flexible & dedicated cache storage at the Fastly edge

Even with a high Cache Hit Ratio (CHR), media providers with long-tail content libraries can incur high egress costs from their cloud origin providers. Typically, cache nodes store popular content and infrequently requested content gets evicted from cache. Subsequent requests for long-tail content that has expired out of cache require repeated trips back to origin. These costs add up, increase load on the origin, and ultimately increase the Total Cost of Ownership (TCO.)
How can Fastly help?

Nearline Cache is a complementary product to Fastly’s origin shielding capabilities that allows you to extend caching benefits to long-tail content and reduce your egress costs. It automatically populates content into performant storage that has free egress to Fastly which means long tail re-fetches don’t incur any costs. Best of all, you can get this benefit without adding another vendor or having to learn any new technologies. Just enable Nearline Cache, decide if you want to keep all in-use content or just a portion of your content in Nearline Cache, then choose your retention period. In both a single CDN use case and multi-CDN environments, this feature not only saves money but also adds another layer of resiliency without sacrificing performance.

Media providers are not the only organizations that benefit from improved origin offload. Any businesses that have a large working set, such as video game marketplaces and downloadable software companies, can reduce origin traffic for occasionally requested files.

- **Decreased origin infrastructure and egress costs**

  Nearline Cache prevents a second trip to origin for content that has been evicted from cache. Because we don’t charge for egress traffic you can keep content close to the origin shield for extended periods of time to minimize origin egress charges and improve origin offload. We bill based on usage (average amount stored) so you can customize the solution to best fit your business needs or decide to put all your content in Nearline Cache.

- **Improved performance and control**

  Harness the power of Fastly’s edge network to store and serve long-tail content. Choose the amount of storage and the retention period for your content library. Nearline Cache is populated asynchronously from the Fastly cache so no latency is added.

- **Simple set up**

  Easily add Nearline Cache on top of your existing Fastly services, such as Streaming Delivery, Full Site Delivery, Media Shield, or Cloud Optimizer to improve your caching strategy quickly. Fastly can set up Nearline Cache to automatically populate itself with content on the first cache miss of a particular piece of content, meaning no work is needed from you or your team.
**Additional safety net in case of origin failure**

In the event that the origin fails or has a performance degradation, content that has been migrated to Nearline Cache is still accessible. This means that origin issues have a far lower impact to end-users.

**How does Nearline Cache work?**

On cache miss, Nearline Cache can automatically migrate content over so that content is then served from cache eliminating subsequent egress fees.

In a single CDN use case, Nearline Cache works with and requires the use of our origin shielding capabilities, a feature of our streaming media delivery offering. If content is requested and the edge POP has a miss, it goes back to the shield POP. Nearline Cache is located next to the shield POP so if it has a miss, the request then goes to Nearline Cache. If content isn’t in Nearline Cache, the shield node goes back to origin, delivers the content to the user at the edge, and only then triggers an asynchronous Compute@Edge application to populate the content into Nearline Cache for future users.

In a multi-CDN environment, Nearline Cache works with Media Shield for VOD and Cloud Optimizer to extend the benefits of reduced egress traffic to outside the Fastly edge cloud network in the same way as it does in a single CDN scenario.

**Deployment**

Customers must use streaming or full site delivery with shielding, Media Shield, or Cloud Optimizer to enable Nearline Cache.

Nearline Cache must be deployed from the following Fastly POP locations:

- BWI
- AMS
- SYD
- PAO
- WDC
Request to Fastly Origin Shield (or Media Shield or Cloud Optimizer).

On shield MISS, Fastly will set backend to Nearline Cache and attempt to fetch the object from Nearline Cache. If file is in Nearline Cache, Origin Shield pulls file into cache and workflow is over.

If content is not in Nearline Cache, we call Compute@Edge to asynchronously replicate the content from Fastly edge cache to Nearline Cache.

Fetch from customer origin should only happen once during initial copy to Nearline Cache.

Object is now available on Nearline Cache in the event it is prematurely evicted from the Origin Shield.
Enjoy world class support

With a customer satisfaction rating (CSAT) of over 95% for the past three years running, we pride ourselves on our customer relationships. Fastly's world-class support includes help from engineers through chat, in-depth technical documentation, solutions packages, and more. With choices ranging from white-glove to self-service, we offer everything to fit your support needs.

Learn more about Fastly support →

Getting started

Find out why customers like Shopify, Stripe, and LaunchDarkly choose Fastly.

To learn more, please contact us at sales@fastly.com, and visit our Software-as-a-Service webpage.