VARNISH
SOFTWARE

Major multinational cosmetics and beauty brand uses Varnish Enterprise as a robust origin shield, making sites 100% shoppable, even during server outages

Case Study:

Origin Shield Use Case

Using **Varnish Enterprise** as a robust origin shield, making sites 100% shoppable, even during server outages

Background

A leading American multinational manufacturer and marketer of a broad portfolio of cosmetics brands and products, which are distributed globally through e-commerce and retail channels, needed their sites to be 100% accessible and shoppable even in outage conditions.

The challenge

With hundreds of global web properties in their e-commerce portfolio, this global brand requires high performance from their sites regardless of time of year. With the marked increase in year-round e-commerce sales during the COVID-19 pandemic, the company focused on stability and making sure that their infrastructure would be robust enough for the new levels of everyday traffic as well as the stampedes of the holiday season. Particularly during the busy Black Friday-Cyber Weekend period, finding a way to safeguard performance is even more crucial.

The team found themselves running into one particular challenge that they needed to overcome. As they pushed pages into production, something would break. And the existing cache solution did not continue to serve stale content while the backend was failing. Before the next busy holiday shopping period, they needed to find a way to achieve greater cache resilience and protect their origin servers to ensure that the sites would continue to serve content even in the event of a server outage without disrupting the shopping experience.

At a glance

Organization

- Major American multinational manufacturer and marketer of numerous cosmetics brands and products, sold globally via retail outlets and digital channels.

Challenge

- Ensure that sites/pages remain 100% shoppable and stable, even during a server outage

- Launch an origin shield solution that could both integrate with Akamai and launch in a short timeframe

Varnish Enterprise and Varnish Support

- Varnish Enterprise as origin shield

- Professional support from Varnish core developers for integration and configuration

- Varnish High Availability

- Soft purge functions

- Request coalescing

> With the hundreds of sites we are responsible for, any global change has a major impact on the servers. And with Akamai currently caching in front of the servers, we needed a solution that would give us the ability to collapse requests, serve stale content to protect backend servers and integrate with Akamai - all of which needed to be configured, launched and live in a very short span of time.
>
> *Application Framework Developer*

The solution

The team had a short window of time for identifying, testing and implementing a solution. They were also looking for a pure origin shield solution, not for another CDN placed in front of an Akamai CDN. After initiating a successful PoC, the company was confident that the Varnish Enterprise product would offer the features required to deliver on their needs. And, crucially, with the support of Varnish engineers, they knew it could be configured and implemented in the short timeframe required. The team looked at a few origin shield solutions, and ultimately selected Varnish Enterprise for these reasons as well as for its flexibility and speed of implementation.

Shielding the origin and protecting sales

As a high-performance, flexible solution, Varnish Enterprise could be placed in front of the origin servers to protect backends and achieve the company's primary goal: keep as many pages as possible up and available, even if the origin servers are down.

Because this resilience project got a late start in the year, the company was also up against the annual code freeze that most major e-commerce retailers impose heading into the holiday shopping period.

From end-to-end, initial engagement to going live, the entire project took only about two months. The company's tech team indicated that this kind of speed is a real feat. With a project of this size and scope, getting hundreds of sites onto a single platform would be cumbersome under any circumstances. With Varnish, this process moved quickly and rolled out smoothly, thanks to on-demand support from Varnish engineers.

Akamai Connector: Tight Varnish integration with existing Akamai setup

Using Akamai as a CDN, Varnish Software's Akamai Connector serves as a bridge that seamlessly integrates and syncs Varnish Enterprise with Akamai, to avoid duplication of effort and logic.

> Varnish came with a slight learning curve, but this was more than offset by how many problems Varnish could tackle as an all-in-one solution. Once you deploy Varnish and know what it's capable of, you can't imagine not using it.
>
> *Application Framework Developer*

Results

Varnish Enterprise: Keeping the shopping from dropping

Varnish Enterprise delivered exactly what was anticipated: Resilience in the face of downtime and making sure no sales were lost.

With Varnish Enterprise acting as an origin shield, the ability to coalesce requests, and the implementation of Varnish High Availability, the cosmetics giant achieved greater resilience and redundancy with Varnish Enterprise helping to:

- Shield the origin servers, continue to serve content during downtime and protect sales

- Implement the solution in near-record time with Varnish support

- Begin more granular logging; Varnish uncovered a number of issues the team had not previously been aware of. Also achieved near real-time logging via Varnish integration with the company's Sumo Logic analytics

- Achieve quick ROI with Varnish Enterprise thanks to its continuing to work during a two-hour period of downtime the day after Black Friday

> During the Black Friday period, Memcached daemons in the data center went down. This would have led to site outages, but Varnish really saved the day. Because our sites were 100% behind Varnish, no one ever knew about the downtime. No sales were lost, and Varnish paid for itself by continuing to serve pages.
>
> *System Architect*

The future includes Varnish

In the near future, the company will extend their use of Varnish Enterprise by putting more of their assets, such as CSS and JavaScript file types, behind Varnish. They also intend to work on some of the issues and bugs that Varnish surfaced through its logging functions.

> Varnish gave us some breathing room, giving us the opportunity to resolve server outages without the pressure of entire sites crashing.
>
> *Application Framework Developer*

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