VARNISH
SOFTWARE

PrettyLittleThing
maximizes server
efficiency & load
by 5 times with
Varnish Enterprise

Case Study:

PrettyLittleThing

PLT moved from Varnish Cache to Varnish Enterprise to optimize caching architecture and scale

Background

PrettyLittleThing is a UK-based fashion retailer, aimed at 16-35-year-old women. They strive to make style accessible to all at every budget.

The challenge

Speed, scale and cache efficiency

For website content delivery and ecommerce services, the ability to cache content plays a major role in site performance (page response). Caching, especially in heavy load situations, often makes a significant difference. PLT uses the Magento e-commerce platform with open-source Varnish Cache for caching to achieve faster content delivery with less load on the backend servers.

When the time came to make Varnish scale better and improve their caching architecture, PLT stayed close to home and moved to the commercial Varnish Enterprise solution. Switching from community to commercial would not be a heavy lift, given the existing Varnish Cache use.

PLT's Group Technology Director – Digital Innovation, Adeel Ejaz, explains, "As we were expanding our tech stack to handle more traffic load, Varnish Cache servers were becoming unresponsive. We also noticed performance issues with bans and the ban lurker process. With the traffic we see, it was time to scale up."

PrettyLittleThing at a glance

Organization

- PrettyLittleThing is a UK-based fashion retailer

Challenge

- Reduced load on backend and improved performance and hardware utilization

- Cache invalidation challenges

Varnish Enterprise

- Varnish Enterprise for caching, tag-based cache invalidation (Xkey), Varnish Broadcaster, various VMODs

- Professional Varnish support

The solution

Migration to Varnish Enterprise

PLT migrated to commercial Varnish Enterprise because it offered the ability to scale and adopt several features they needed. After trying to offload a lot of their downstream caches to Redis to reduce load on Varnish Cache, which only helped on certain types of requests, PLT realized they needed to solve the performance at the Varnish level.

> We were interested in Varnish Broadcaster and Xkey to enhance our cache handling and allow us to scale up as and when needed
>
> *- Adeel Ejaz,*
> *Group Technology Director – Digital Innovation,*
> *PLT*

"Performance is at the heart of what Varnish does, so we knew we needed support from Varnish engineers directly to help us debug our performance issues and assist with building a highly scalable caching solution." Adeel continues, "We were interested in Varnish Broadcaster and Xkey to enhance our cache handling. We also wanted a more flexible solution that would allow us to scale up more Varnish servers as and when needed."

The popular Magento e-commerce platform can run into performance issues for a variety of reasons, which is why it is usually partnered with a caching solution like Varnish. As Magento is PLT's go-to platform to serve their customers, Varnish is indispensable. Varnish Enterprise enabled PLT to build a custom implementation to replace Varnish bans to use the Xkey feature to tag their caches. They then used Varnish Broadcaster to update Varnish servers with purge requests. They have also put Varnish servers into their autoscaling solution to enable Varnish servers to spin up (or power down) based on traffic load through the day.

Results

PLT manages varied traffic loads and continues to deliver content with speed

With unpredictable, often heavy, traffic loads, Varnish Enterprise has helped PLT deliver on its performance and caching goals:

- Reduce backend load and improved performance
- Servers were able to handle 5x more traffic based on improvements
- Better utilization of hardware and memory by reducing load on the ban lurker

- Better uptime and much more stable service, as server performance and bottleneck issues were resolved

VARNISH
SOFTWARE

www.varnish-software.com