yottaa

Cache Experience

Website performance is always impacted by the large, and increasing, amount of text, images, JS, and third parties that need to be fetched from the server for every page visited. Current solutions delay or sequence loading of applications, or prefetch and cache at the Edge level. There is always the question of what more can be done. Being able to predict what may be requested next and caching it locally before it is requested will provide an extra performance boost and better visitor experience.

Caching is commonly used to improve site response times but is usually performed in the CDN (Content Delivery Networks) at the Edge, but this still has network latency. By anticipating what is going to be requested next and prefetching and caching it locally, a greater performance improvement can be achieved.


Users may become frustrated if they must wait for resources to load, leading to poor user experience and abandoned carts. In the quest for faster website performance, prefetching and caching can provide the performance boost to make the difference.

Yottaa's prefetch and caching capability, Cache Experience, is focused on loading and managing the HTML content required by the application at the browser level. It is highly personalized, meaning the predicted resource and page load will be different for each site and based on user interaction. Configuration settings can determine what event (add to cart, enter promo code, etc) triggers a refresh or what pages should automatically trigger a refresh.

This innovative technique is supported at the browser level as opposed to the more common approach of implementation at the Edge/CDN level. The cache is implemented as a standard browser service worker client-side cache (not browser cache store or edge/CDN). The service worker is installed at the root domain and is supported with a set of APIs

to control prefetch and caching of objects. It runs on all pages of the site that are on the same domain.

The service worker operates complimentary to Yottaa's application sequencing and Edge acceleration capabilities.
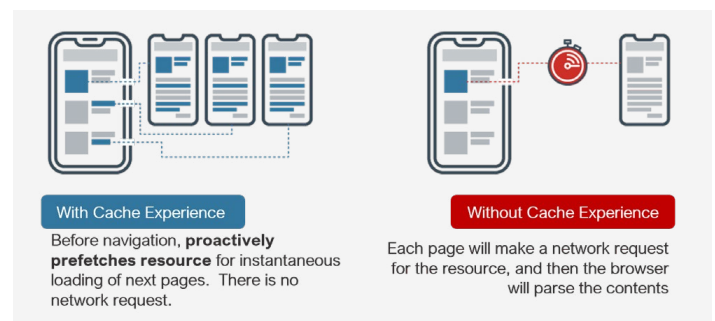
Performance boost due to proactive and predictive page fetch

Key Features

Smart Prefetch

Utilizes site information to prefetch the top visited pages to speed up performance.

Journey Caching

Keeps all user navigated pages up to date in cache and updates them as the visitor interacts with the site.

Cache Management

The ability to trigger when cache refreshes should occur via convenient APIs and portals.

Cart Readiness

Caches the cart page when visitors first arrive on a site. As the user interacts with the site any changes that affect the cart will be identified and the cart refreshed in the cache. This results in the cart not becoming stale and can be instantly presented when visited. Cart pages are one of the most important pages but often also the slowest.

Benefits

The capability will return an achievable cache hit rate of 20% by reducing the latency through resource prefetching to achieve faster download times. While this will vary by site the prefetching speeds up the web page by making a significant impact on the page load time and Core Web vitals. Performance metric improvements can be made across:

- **First Byte Time**
- **Last Byte Time**
- **Page Load**
- **First Contentful Paint**
- **Largest Contentful Paint**

With faster page loads and reduced latency, caching and prefetching improves user experience, customer navigation experience and overall shoppers' journey.

Faster site performance delivers a better visitor experience and more satisfaction leading to increased conversion rates. Yottaa provides a boost to performance by proactively fetching and locally caching resources ready to deliver the next predicted pages. By leveraging the Cache Experience capability, you can provide users with lightning-fast experiences, improve your SEO (Search Engine Optimization) rankings, reduce server load, and cut costs.

The Next Step

Don't just assume that your eCommerce site is performing as fast as it needs to – be sure with a free, no obligation Yottaa trial.

Start the process today with a FREE Performance Snapshot. **Click HERE** for more information. You can't afford not to.