Yahoo! JAPAN's Position Paper on Web Packaging

Providing better UX with AMP and Signed HTTP Exchanges

Hirohito Komada, Yahoo! JAPAN

This is a short summary of what we talked about this topic in AMP Conf 2019. You can check more details in the YouTube video.

One of the critical paths to good user experience on the Web is speed. Having 92 million daily unique browser accesses among 100+ services, Yahoo! JAPAN sees Web performance as critical to its mission. In that regard, we tried AMP on several services. It worked for some of them. Now we use AMP in 5 different services and our very own search platform. In Yahoo! Travel, we observed 5% improvement in bounce rate and 0.5% increase in conversion rate.

As AMP is easy to build, maintain and optimize thanks to the AMP Cache, we want to keep working on AMP. One thing we worry about is the personalization piece which relies heavily on first party cookies. When serving the content from AMP Cache, the page's domain will become ampproject.org and there is no way to give a personalized experience using our very own cookies on browsers that restricts third party cookie access. The newly discussed spec Signed HTTP Exchanges could be the solution to this. Keeping the AMP Cache architecture for performance benefits but using our own origin regardless of where the page is served from.

Earlier this year, we have actually used the AMP Packager, a middleware to publish a signed AMP page, in two of our products (Yahoo! Travel and Ikyu Travel) and now successfully have around 20K signed documents which shows the correct origin even when served from AMP Cache. Also in our search platform, we have launched a developer preview experimenting prefetching Signed HTTP Exchanges from the AMP Cache and also using it for the blue linked AMP pages in our SERP. We haven't observed any major issues.

We are aware of some of the complexity around the technology i.e. certification management including DNS CAA settings, making sure no sensitive data is included in the package, keeping in sync with the latest AMP Packager implementation. But we think it's worth investing if we could make the AMP user experience even better by fixing the critical problem AMP currently faces: inconsistent origin. AMP has been shown to improve Yahoo! JAPAN users UX. We continue to provide better UX by using SXG which is one of the implementation method of Web Packaging. However, there are cross browser compatibility problems. Therefore, Web Packaging specifications should be standardized. To scale this experience broadly with Yahoo! JAPAN users and furthermore to the Web ecosystem, cross browser support is critical. We hope the spec discussion runs smoothly and we are happy to provide any actual data points if needed.