Research & Analysis on AMP HTML

B-1xxxxx Research AMP for possible use on Public Websites

AMP HTML (Accelerated Mobile Pages) is a framework promising mobile optimization so pages appear to load instantly. Developed by Google as an answer to Facebook's Instant Articles and Apple News whose pages load content instantly on their respective platforms. AMP's goal is to reign-in Ad networks and Analytics providers which takes up valuable bandwidth with numerous HTTP requests that delay content load on mobile browsers. The price of this is to severely limit HTTP requests as well as many features brokers expect on their sites.

The target audience AMP HTML are sites with static content where pages are primarily text and media, such as media publishers, news outlets, and blogs.

AMP Framework

AMP sites do not allow for any JavaScript except those writing into AMP components. Third-party scripting is allowed but only when sandboxed into an AMP IFrame. AMP consists of the following:

AMP HTML – A subset of HTML with restrictions

AMP JS – Rendering and component library

AMP Cache – Google cache used to serve cached AMP pages

AMP's Drawbacks

To deliver lightning fast pages sacrifices need to be made.

- No JavaScript, either linked or inline. Exception for AMP component support
- No Google Maps or data visualization. See AMP iFrames instead
- No external stylesheets.
- Only one inline style tag, up to 50kb in size
- No widgets. See AMP iFrame instead
- No partial page rendering (AJAX)
- No Bootstrap
- No plug-ins
- No web fonts, except from whitelisted providers
- No analytics, except from whitelisted providers or custom

AMP Components Relevant to AA Project

AMP is not suitable for interactive pages such as Search Results, but with concessions can be applied to Property Detail and Content pages. Some of the components provided are:

- AMP Image & Video tags for smart download
- AMP Pixel for page tracking
- AMP Analytics. Captures data for select analytics providers or in-house analytics
- AMP Form
- AMP Carousel
- AMP IFrame. Catch-all for additional content
- AMP Lightbox. A modal popup.
- AMP Sidebar for navigation

Analysis

The main benefit can be seen with the AMP Image which is a smart page rendering and image delivery component. AMP Image can choose to delay or reprioritize resource download based on viewport, system resources, connection requests, bandwidth, and other factors. For instance, images placed below the viewport will only be downloaded if they are likely to be seen. One odd aspect with AMP is that these pages are geared toward mobile devices, as opposed to Responsive Web Design for all devices. An excerpt from an article "How Google's AMP project speeds up the web"

> "Ironically, for something that is ostensibly trying to encourage better behavior from developers and publishers, this means that pages using progressive enhancement, keeping scripts to a minimum and aggressively caching content—in other words sites following best practices and trying to do things right—may be slower in AMP." *(1)*

Another odd thing is that it's suggested to develop parallel pages, one full featured page and the other AMP optimized. The canonical URL of each page is to point to the other, then it is expected that Google will deliver the AMP version over the regular page in search results. It is not clear on how that will be determined and the impact to SEO.

Conclusion

We can build a website with similar experiences if our broker customers are willing to severely limit features and functionality. Delivering pages with just the basics with minimal interactivity, layout options, and heavy restrictions across the board could yield lightning fast performance. Even though AMP HTML is touted as a stripped-down HTML page we would essentially become locked into a framework in the early stages with a limited feature set. I recommend that we encourage customers to work with us in building lightweight sites and trim the fat from excessive tracking and integrations. We should keep an eye on AMP as it matures into a viable framework.

References

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