

# To do application audit performance document

The website content is made of html, css, image, JavaScript and xmlhttprequest. The total size of the website content is 1.3 MGB, 74 % of content size is made up of JavaScript and XmlHttpRequest, images and html take up 23% of the total size and the rest of the content share the 3% remaining.

During the performance check, we made 69 requests 29 request was for images (43%), 22 were requesting scripts (33 %) and 10 html (14%) and the remaining request were for other contents type.

We run the performance check for 2 minutes and 30 seconds. 2 % of this time was for loading, 9 % for scripting, 16% for rendering components and the rest of the time the application was idle. We can notice from this data that the loading is relatively quick and the rendering is relatively slow.

To improve the website performance, we will need to add expire headers, make fewer http request, use cookies free domain and reduce DNS look up.

## **Why do we need to do it to improve performance?**

As web page become complex with a variety of component to load, first time visit to a page require several http request to load all the necessary components. Expire header will allow components to be cacheable and improve the speed of loading component by reducing http request needed.

It is obvious that decreasing the number of request will improve the speed of page load and improve the overall performance. This can be achieved by reducing the number of components: by combining file, multiple scripts into one script, multiple stylesheet into one and use CSS Sprite and image maps.

To work around the fact of sending unnecessary cookies to the server, we have to make sure static component make cookies-free request by creating a subdomain and hosting them there.