Optimise your site for a better user experience

For ecommerce websites, sluggishness can cost potential customers, conversions and ROI. Slower than expected page load speeds negatively affect user experience. In fact, fast sites that don't use up too much precious data are taken for granted these days. Especially on mobile devices.

There may also be other effects. For example, impact on SEO ranking. Results for both organic and paid ad searches now take page load speed into consideration.

If you have tested your site with a tool such as PageSpeed or WebPageTest, the report would have come back with a list of issues and suggestions for optimisation. In a nutshell, most involve ways to decrease file size, storage space use, and the amount of information the server needs to send to each user.

For your Commerce vision website, there are several variables that can make a difference to site load speed. We have broken them up into these:

- CSS and JavaScript use
- Image sizing (e.g., banners, images, etc)
- Customisation complexity and background tasks

Some optimisation strategies are in your control. Others may require consultation to implement.

CSS and JavaScript use

If you run a page of your site through a page speed tool, it is likely that at or near the top of the suggestion list are things like reduce unused JavaScript and CSS or 'Eliminate Render-blocking Resources'.

This critical factor typically means take a look at the CSS and especially JavaScript resources added to the page. First though, such coding is part and parcel of how web content is created. Web page styling and functionality would not be the same without them. Especially dynamic and interactive content. However, bear in mind that each CSS and JavaScript request has to be processed by your users' browsers or the server before a page will load fully. When a browser normally finds CSS or JavaScript *<script>* tags, it will stop loading HTML until the scripts have been parsed, compiled and executed. And having to do this multiple times slows down the overall page render time.

And even even if the JavaScript is not render-blocking, it competes for bandwidth with other resources while it's downloading, which has significant performance implications. Sending unused code over the network is also wasteful for mobile users who don't have unlimited data plans.

So one of the most beneficial things you can do is to ensure your styles and (especially) scripts follow page load efficiency practices and utilise the tools the Customer Self Service eCommerce Platform has to help achieve this.

What you can do:

- [ ] Ensure your custom styles and scripts have been written to best coding practices:
    - Efficient coding with no unnecessary elements.

- [ ] Do not add too many widgets and independent scripts on the one page

- [ ] Utilise the Scripts and styles function in the CMS where possible instead of uploading each JavaScript and referencing it in a HTML Snippet widget. *Scripts and styles* has been designed to maximise efficiency by:
    - bundling related scripts and styles into one widget and called as a unit instead of multiple units,
    - allowing you to disable unneeded scripts and styles by easily turning them off (just untick the checkbox next to the widget in the page layout),
    - taking advantage of layers and only serving up the Scripts and Styles if relevant for that audience / functionality.

What else you can do:

- [ ] If you need deeper analysis and technical expertise, book a time with Commerce Vision's Professional Services to discuss what we can do to help.

- [ ] We can also implement **features** we have specially created to minimise JavaScript render-blocking on your web pages so that they appear more quickly to users.

    - Our *JavaScript Defer* **feature** defers JavaScript loading and execution (including inline script blocks) until the HTML has been parsed on a page. The solution uses our expertise to defer in an orderly way (For versions 4.17+)

- Our *JavaScript Dependency* **feature** reduces JavaScript execution to only those a particular page needs. The solution automatically works out what JavaScript files are necessary, bundles them and provides a single link to the browser to lower resource use. (For LTS 2022.1 version onwards)

Image Optimisation

Think about the content especially images (and other rich media) on your pages, especially on key pages such as the home page and SEO landing pages. As a guide, keep an image's dimensions (h x w in px) to only as large as is needed to fill its container. And experiment with compression to reduce file size (kb) while making sure visual experience is not compromised. **TIP -** The home page as well as product pages should be priority since it is usually the first page for users and SEO search results. Find out what other pages are common SEO landing pages on your site. Here is an article with useful tips.

Also consider the implications of campaigns, and the number of products in them. TIP - Limit to one campaign with a maximum of 5 products for desktop and 2 for mobile.

What you can do:

- ☐ Minimise the use of images on key landing pages as much as possible (without compromising the aims of the page to your users).
- ☐ Ensure images and other rich media are optimised for online use. This means striking the right balance between quality and performance (how load speed is affected). Compression, format and size matter. Your image editing software, e.g., Photoshop, will have image optimising tools, and when exporting the file, choose the best file format, compression setting, and dimensions. Here are some tips.
- ☐ Consider the number of banners that are loaded on the one page, e.g., campaign banners. As these are usually image-based, having too many banners on your home page can slow down page loads.
- ☐ Utilise device optimisation for banners in the CMS.

What else you can do

- ☐ Ensure **Lazy Loading** is enabled. The Lazy Loading feature ensures that the loading of non-critical files are delayed until they are scrolled into view (on screen or what is called 'above the fold').
  - Lazy loading of banners, images and product images is enabled by default for all websites. If you think lazy loading is not on for your site, please contact Commerce Vision Support.
- ☐ Here's an example of how lazy loading works. Suppose your home page has a slider campaign. Only one slide is viewable on your user's screen. With lazy loading enabled, an image file will not be loaded until the slide is in view. This allows non-critical files to be delayed until needed.

Background tasks

If your site uses third party plugins and addons such as marketing and tracking software and scripts, test that they are not adversely affecting page load speeds.

Summary

There's quite a bit your eCommerce team can do to help increase page load speeds. Keep monitoring, testing and optimising! If you require further assistance than this, book a Professional Services consultation to assess your site and implement additional measures.