



WAGENTO GUIDES

How to Improve Website Speed Using Google Lighthouse

One of the most important aspects of running an online business is making sure your website is functioning at its very best. Site speed and performance can affect everything from bounce rates to SEO rankings to customer loyalty, so it's key to monitor and optimize these metrics whenever possible. Google Lighthouse is one of the best free tools to help business leaders identify potential issues and improve their web performance.

What Is Google Lighthouse?

Google Lighthouse is a free, open-source software tool that can audit any webpage's SEO and accessibility features. Its main purpose is to improve website performance and track the three Core Web Vitals:

- **Largest Contentful Paint (LCP):** The length of time it takes for the largest content element to load above the fold.
- **First Input Delay (FID):** How long it takes for a page to respond after a user interacts with it.
- **Cumulative Layout Shift (CLS):** How much content moves while the page is still loading.

Google Lighthouse will audit your site according to these metrics automatically based on the average device and connection a user would have. If you want to view more customized insights, you can specify certain types of devices and connections before running the test. Once the tool is finished analyzing your site, it will give you a report of areas that need improvement.

How It Works

Since your customers may be visiting your site from around the world, using a wide range of different devices, Google Lighthouse takes this information into account. It operates differently than a simple website speed check. Instead, Google Lighthouse simulates your website's loading speed with 3G internet to account for mobile users who don't have access to 4G or 5G connections yet.

After running a Google Lighthouse test, your results will be shown in a 5-part report. These sections include:

- **Performance:** This section of the report will reveal content or other elements that are slowing down your page loading speeds, such as unoptimized images or dynamic content.

- **Accessibility:** This part of the report details how user-friendly and accessible your website is for users, especially for those using assistive technology.
- **Best practices:** Here, you'll be able to view web elements that don't conform to the best practices and guidelines recommended by web development experts.
- **SEO:** This tool will point out any major issues with a webpage's SEO, but it may not catch all potential elements that could be optimized. Nonetheless, it's a good place to start!
- **Progressive Web App:** If applicable, this section will highlight any issues found with your PWA, including performance or implementation problems.

After reading this report, you should have a better understanding of how you can boost your loading speeds, how your users interact with your site, and what you can do to improve the customer experience.

More Resources

Want more help optimizing your online store? Reach out to our team at Wagento to get customized solutions tailored to your exact needs. Tell us about your business goals and get started on your project with the help of an expert developer today!