WordPromise

Expert Website Maintenance & Support™

Monitoring Vital Website Performance Metrics

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There is a common phrase **“A fast website is a good website”** you will hear around the globe especially as users these days expect websites with lightning-fast load times. This becomes more important as you work on improving your website user interface and user experience of your site.

What exactly does “fast” mean in the context of website performance?

Measuring the overall performance of your website is not simple as it involves many metrics. In order to fully understand your site’s performance, you need to comprehend what are those important performance metrics and how should they be implement in order to optimize your website for better speed.

Here is a list of the key web performance metrics worth learning:

Uptime

Knowing that your website is available and accessible to visitors is critical to every business.

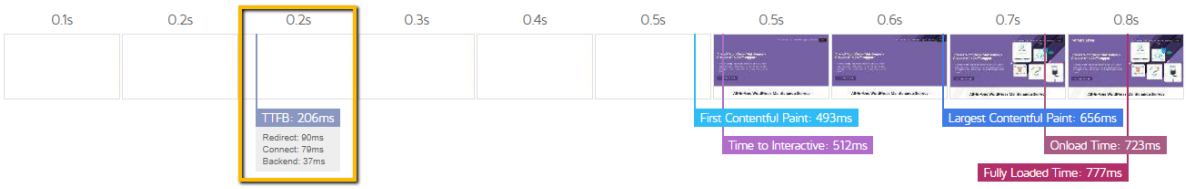
Whether you run a small business or an online store with huge customer base, if your website is down for your traffic, then you are effectively closed for your customers. Knowing when your site is unavailable is critical to any business.

Uptime monitoring tests the availability of your website, applications, and servers. Uptime is mainly the responsibility of your server host, so if you are experiencing frequent downtime or bandwidth issues, you should connect with them to escalate it immediately or review your hosting options. A hosting framework with maximum uptime is a best choice. While no host can guarantee 100% uptime, you should aim for a host which promise a maximum uptime like 99.9%.

You can utilize a service like Pingdom to monitor your site and instantly get alerts when your website goes down. This way, you can act quickly to get your site back online.

Time to First Byte

Largely known as TTFB, this is the time which is required for the first byte of information to reach a visitor's browser after a connection to the server has been requested.



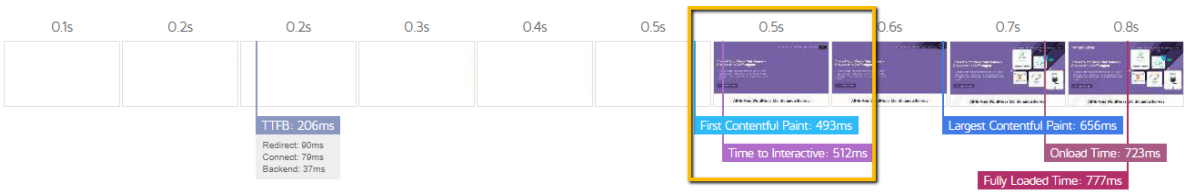
This key metric is calculated by adding up the redirect duration (the time spent sending a request to the server), the connection duration (the time spent processing and generating the response), and the backend duration (the time it takes to send the response back to the visitor's browser).

For better TTFB, your website administrator will have to optimize the code with proper caching strategy, improve server infrastructure and optimal usage of server hardware with proper configurations.

First Paint (FP) & First Contentful Paint (FCP) and Largest Contentful Paint (LCP)

First paint (FP) time is the point when the browser renders pixels to the screen. This key metric is important for the website visitors because this will assure them something is coming up and they will not have to see the blank white screen for a longer time.

First Contentful paint (FCP) time is the point when the browser rends the first bit of content from the Document Object Model (DOM), which might be your header, text, an image, SVG, or another visible element.



This information is important for website administrator because using this score, they can find out how long, website visitor has to wait to receive first consumable information (text, images etc). This metric is important for website visitors as it indicates when actual content has been loaded on the page.

The Largest Contentful Paint (LCP) metric tells you how long it takes for the largest element on the page to become visible in the device viewport. The largest element is usually a text block or an image. This metric is pretty important since it's one of the Core Web Vitals, and can also affect your SEO performance. Needless to say, it's essential for you to optimize the LCP score.

First Input Delay (FID) & Total Blocking Time (TBT)

The First Input Delay (FID) is a **Core Web Vitals** metric that calculates the responsiveness of your webpage by examining how long it takes for the browser to respond to the first user's interaction with a page.

Since FID can be only measured with real-user data, you can also take a look at the **Total Blocking Time (TBT)**, which measures interactivity with no user interaction. If the TBT is good, you should not be concerned about the FID scores.

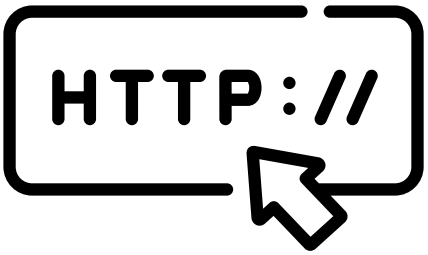
Time to Interactive

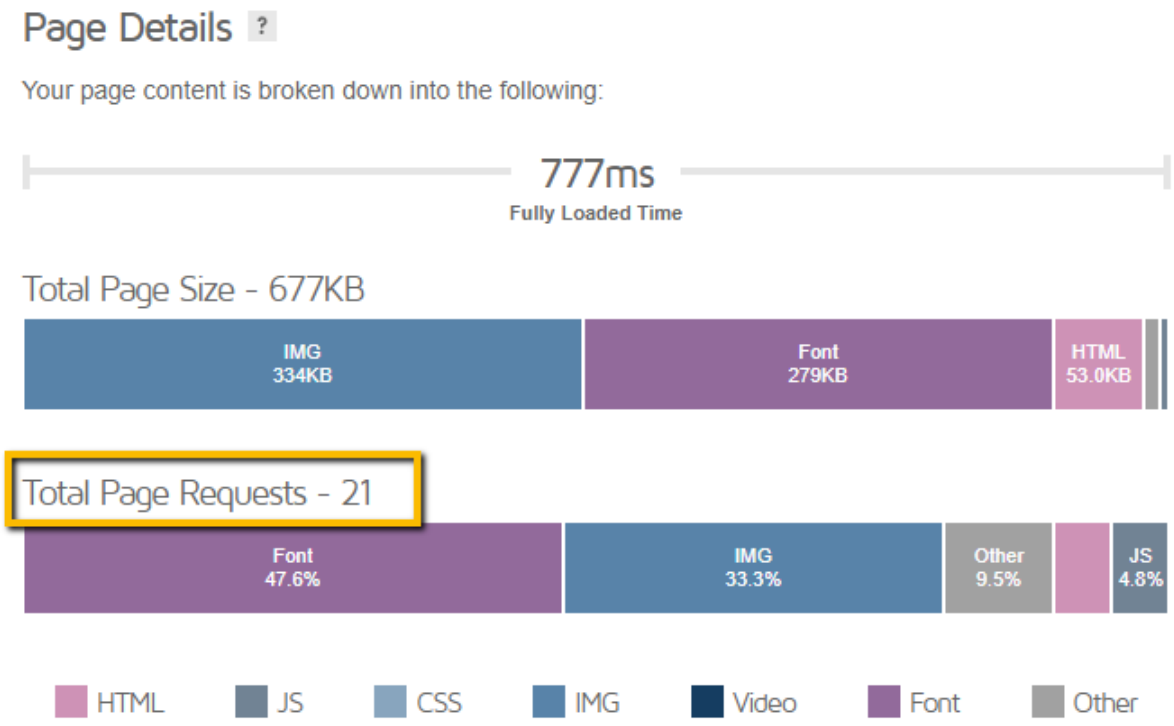
The **Time to Interactive (TTI) metric** is the point at which the page is both visually rendered and capable of consistently responding to user input or any other form of a user interaction.

This means the visitor can scroll the page, click on links, and complete other interactions. During this loading period, some elements such as scripts might be still continuing to load.

HTTP Requests

Every time someone visits a page on your website, their browser pings your web server and also third-party servers if you're using content from them (Example: social networks, advertising platforms, etc.) and requests the content including HTML, CSS and JavaScript files, images, icons, and other files. These requests are called **HTTP requests**.





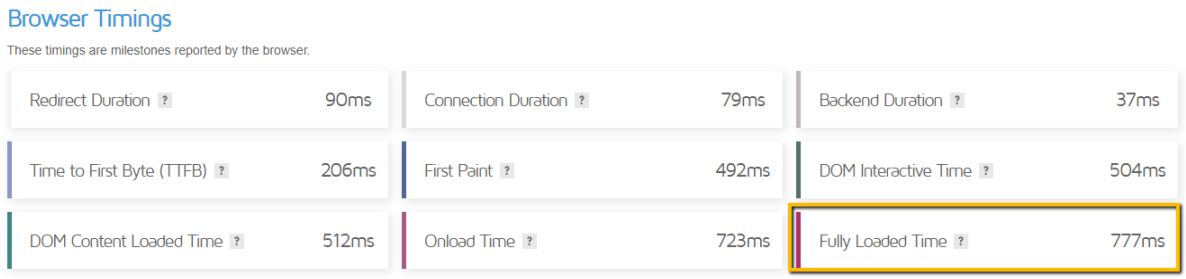
HTTP requests – GTmetrix

It is highly recommended to reduce the total number of HTTP requests your website to improve your website speed significantly. Example: a webpage that is only 100 KB but has 75 HTTP requests can be bad from speed prospective compared to 200 KB page with only 15 HTTP requests.

Onload Time & Fully Loaded Time

The Onload time is measured as the time when the page finish processing all of the resources (Example: text, images, CSS, and JavaScript files) on the page. During this time, there may be JavaScript that initiates subsequent requests.

The fully loaded time is measured as the time of fully loading of page after which there is 2 second of network inactivity.



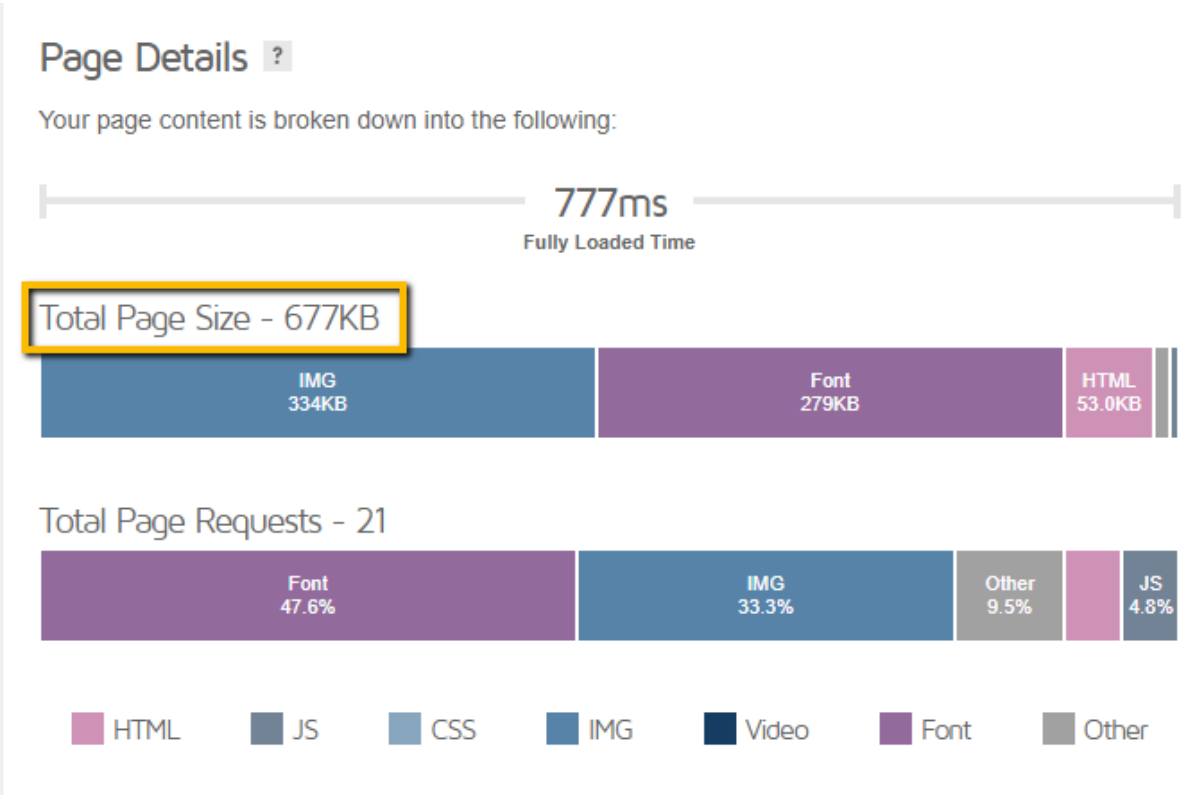
Fully loaded time – GTmetrix

Connection time is measure as the time between a request and when a connection is made between the visitor's browser and the web server.

There are a lot of different factors that can cause larger connection time such as heavy server traffic or visitor geographical location. Using a Content Delivery Network (CDN) is recommended to reduce connection time.

Total Page Size

Total page size is calculated as the total sum of all the resources that are needed to render your page, including the HTML file, CSS and JavaScript files, images, multimedia, third-party domains, everything.



Total page size – GTmetrix

This metric help website admins determine the total size of the page and optimize the page resources as per desired levels.

Third-Party Contents

While you host most of the content within your website framework, there are always chances that you are having to use third party embedded video, gravatars, and social media widgets.

As these elements are hosted on other domains/servers, web admins do not have any control over the functionality and loading speed of such content. As a web admin, you will have to measure the impact of such third-party content and evaluate which assets are taking the longest time to load and decide whether you want to keep such content or remove based on their importance.

Conclusion

Optimizing your website for better performance and achieve greater speed scores require a lot of monitoring and configurations. It is highly recommended to regularly test your website speed using tools like Google PageSpeed, GT Metrix or Pingdom. These metrics will enable you with information that is required to optimize important web vitals by making tweaks and changes to your website pages.

It is quite possible that you are not sure about what is required to optimize the core web vitals and what tweaks are required to configure them optimally. You can talk to one of our expert WordPress Auditor at WordPromise for assistance and make your website rocket fast.