

Evaluating Web Site Performance

Today it's fairly well known that high performing websites and applications bring in more visitors, higher SEO, and ultimately more sales. By the same token, downtime is disastrous for companies and can lead to major hits on a brand, reputation, and overall customer retention.

But there's often a gap between knowledge and theory. In other words, people get the fact that high web performance is critical for revenue. But the reality is that somehow this gets lost in translation when it comes to implementation.

To be clear, **web performance monitoring** is defined as "the process of testing and verifying that end-users can interact with a website or web application as expected. Website monitoring is often used by businesses to ensure website uptime, performance, and functionality is as expected."

If website performance is critically important to the success of your website, then what exactly are the key metrics you need to be tracking in order to measure that success? Let's take a look at this question in more detail.

Page Load Time

This is one of the key metrics in web performance monitoring since everything today is about speed and seconds translate into dollars earned or lost. **Page load time** measures the time to load content on a webpage. It's calculated from the time the user clicks on a page link or types in a web address until the page is fully loaded in the browser.

Unique Visitor Traffic

This important measure tells you how many individual visitors are coming to your site in a predefined timeframe. An upward trend in this area will indicate that you're providing content that is valuable to your target audience and shows that your marketing campaigns are successful.

Start Render Time

Start Render Time is the first point in time that something is displayed to the screen. It doesn't necessarily mean the user sees the page content. In fact, it could be something as simple as a background color. But it's the first indication that something is happening on a website. Start Render Time has emerged as a key metric in web performance.

Bounce Rate

This is a measure of the percentage of visitors to your website who navigate away from the site after viewing only one page. A high bounce rate indicates that visitors are making it to your site

but finding nothing of value to keep them there. A good explanation could be that the landing page either has no clear calls to action or else a poor overall design.

Direct Traffic

This is a measure of the traffic that reaches your website directly by typing your URL into their browser, using a bookmark, or clicking on an untagged link in an email or document. This measure can indicate that you're doing a good job of creating original content through email marketing, newsletters, and other channels.

Requests per Second

Requests per second are a key metric which tells you how many actions are being sent to the target server every second. A request can be considered as any resource on the page such as HTML pages, images, multimedia files, databases queries, etc.

Throughput

Generally speaking, throughput is a measure of how many units of information a system can process in a given amount of time. It's an important metric in web performance because it tells you how much bandwidth is required to handle a load of both concurrent users and website requests. You always want to aim for a higher value of throughput.

Error Rate

This is a measure of the percentage of problem requests in relation to all requests. If you see a spike in the error rate at a particular point in a load test, then it's a good indication that something is preventing the application from operating correctly. This is valuable information that you need clear insights on.

Peak Response Time

This is a metric that looks at anomalies within the average response time by showing elements that are taking longer than normal to load. This metric offers a very helpful way to pinpoint slower than normal applications that should be investigated further.

Landing Page Conversions

This measures the number of visitors who reach your landing page and fill out a form to become a lead. Along with this metric, it's important to keep eyes on all types of conversions in your marketing funnel (visitor to lead, lead to customer, and visitor to customer) to ensure that you're avoiding any roadblocks or bottlenecks that can keep them from converting.