EVERY SECOND COUNTS

HOW PAGE PERFORMANCE AND SPEED AFFECT YOUR BUSINESS, AND YOUR BOTTOM LINE

WP engine®

We've all been there — that moment of frustration when you wait...and wait...and wait for a page to fully load. In the words of this *viral video*, "Ain't nobody got time for that!"

Waiting is a pain and our tolerance threshold has become increasingly thinner as the demand for instant gratification has crept into every aspect of our lives. We want fast results.

"...waiting for a website to load is no different from waiting in line for a delicious slice of pizza. We want that pizza now. And if it takes too long to get that slice, we'll walk out the door and find somewhere else to eat."

- Searchenginejournal.com

The need for speed is increasingly evident with website performance. A poor user experience from a slow performing website often results in page abandonment. In fact, **one in four** users will *leave a website* if it takes longer than **four seconds** to load. In addition, *studies show* that **88 percent** of online consumers are less likely to return to your site after a bad experience.

When's the last time you checked the speed and performance of your site?

What renders fast for you could load slower for somebody else, so it's important to continually check that your site is fully optimized for speed. But before we touch on ways to test and improve your site's performance, let's first take a look at why site speed even matters to your business.

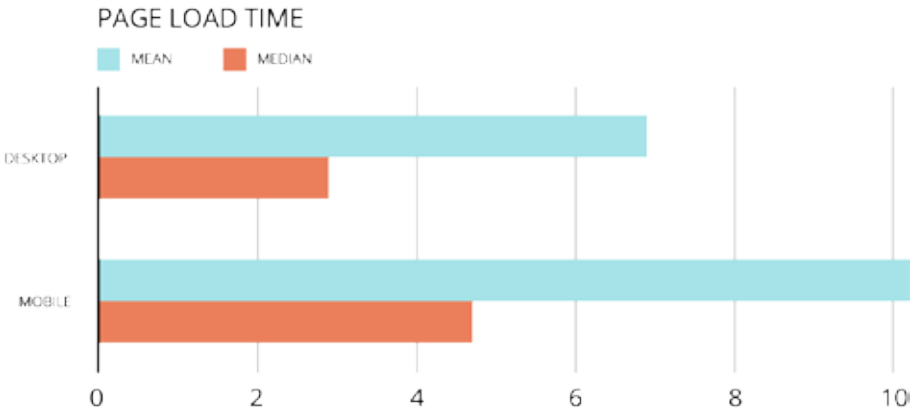
THE IMPORTANCE OF SITE SPEED

"...the speed of your site affects every metric you care about."
- Copyblogger.com

Maximizing key metrics, like pageviews and conversion rates, are critical to your business. The speed of your site has a significant impact on these metrics.

According to *Google*, "Speed as perceived by the end user is driven by multiple factors, including how fast results are returned and how long it takes a browser to display the content."

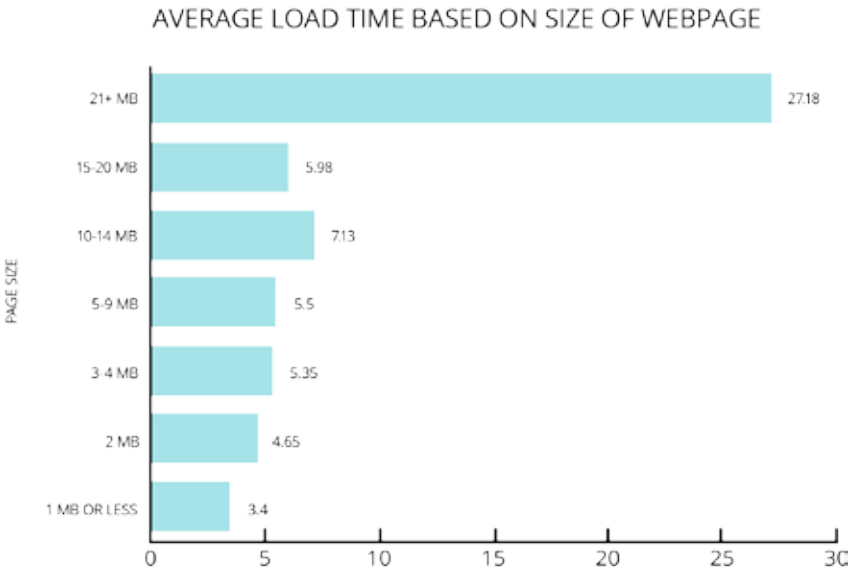
How do you know if your site is fast enough? Here's an analysis *Google Analytics Solutions* did of aggregate speed data worldwide.



Source: *Google Analytics Solutions*

It was concluded that the average page load time for desktop is around seven seconds, with a median load time of around three seconds.

Another study by *Hubspot* collected data on the average website load time based on its size. The average website today is around *2 MB* in size, therefore the average page load time is around 4.65 seconds.



Source: *Hubspot*

Is an average page load time of 3 to 4.65 seconds fast enough? According to studies, no.

Let's take a look at how fast your site should really be and some examples of how consumers and businesses are impacted by site speed.

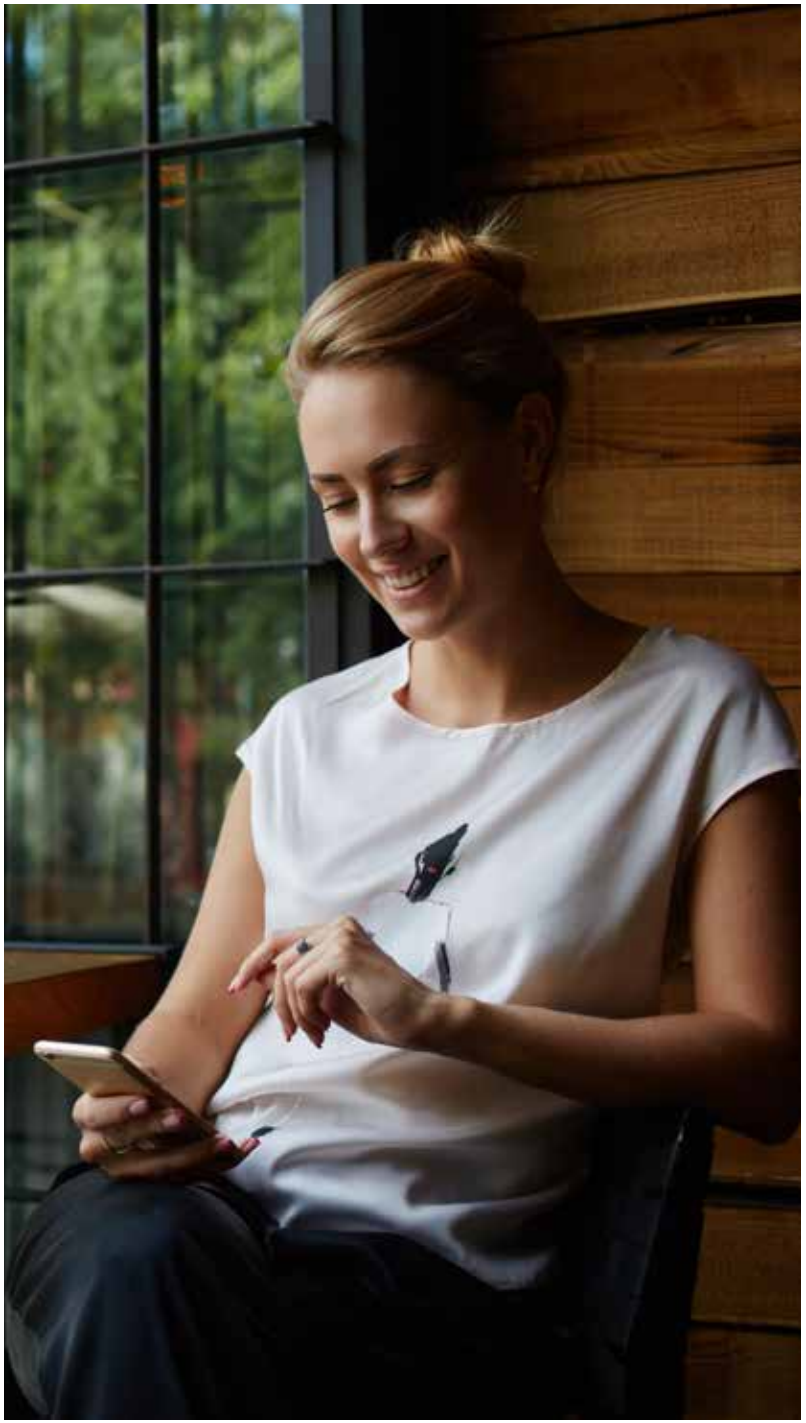
PAGE SPEED AFFECTS THE USER EXPERIENCE, WHICH AFFECTS YOUR BUSINESS

Page speed can either make or break the user experience with your website. Back in 1999, during the dial-up days, users were willing to wait up to a peak of *eight seconds* for a page to load before losing tolerance. Today, not so much.

According to more recent *studies*, 47 percent of consumers expect to wait no longer than **two seconds** for a web page to load. After that, consumer tolerance wears and 40 percent of visitors will abandon a web page if it doesn't load in less than three seconds.

***Further, just a* single-second *delay in page response can result in a 7 percent reduction in conversions. With less conversions, you are making fewer sales, and therefore* damaging your bottom line.**

You are not only losing money because of slow page load time, but a slow page can also damage your brand's reputation. In *one study*, **66 percent** of customers said website performance influences their impression of the company and **33 percent** of customers have a negative impression of a company with a poor performing website.



SECONDS MATTER

Improving page load time by a few seconds can make a huge impact on your business. Here are some examples of businesses where a difference of just seconds of page load time had a dramatic effect (either good or bad):

- Shopzilla improved site speed from six seconds to 1.2 seconds, which increased revenue by 12 percent and page views by 25 percent.
- Mozilla saw 60 million more downloads per year by making their page 2.2 seconds faster.
- Bing found that a two-second delay in page load time led to a 1.8 percent drop off in queries, a 3.75 percent reduction in clicks, more than a 4 percent loss in satisfaction and a 4.3 percent loss in revenue per visitor.
- Amazon calculated that page load slowdown of just one second could cost it $1.6 billion in sales each year.

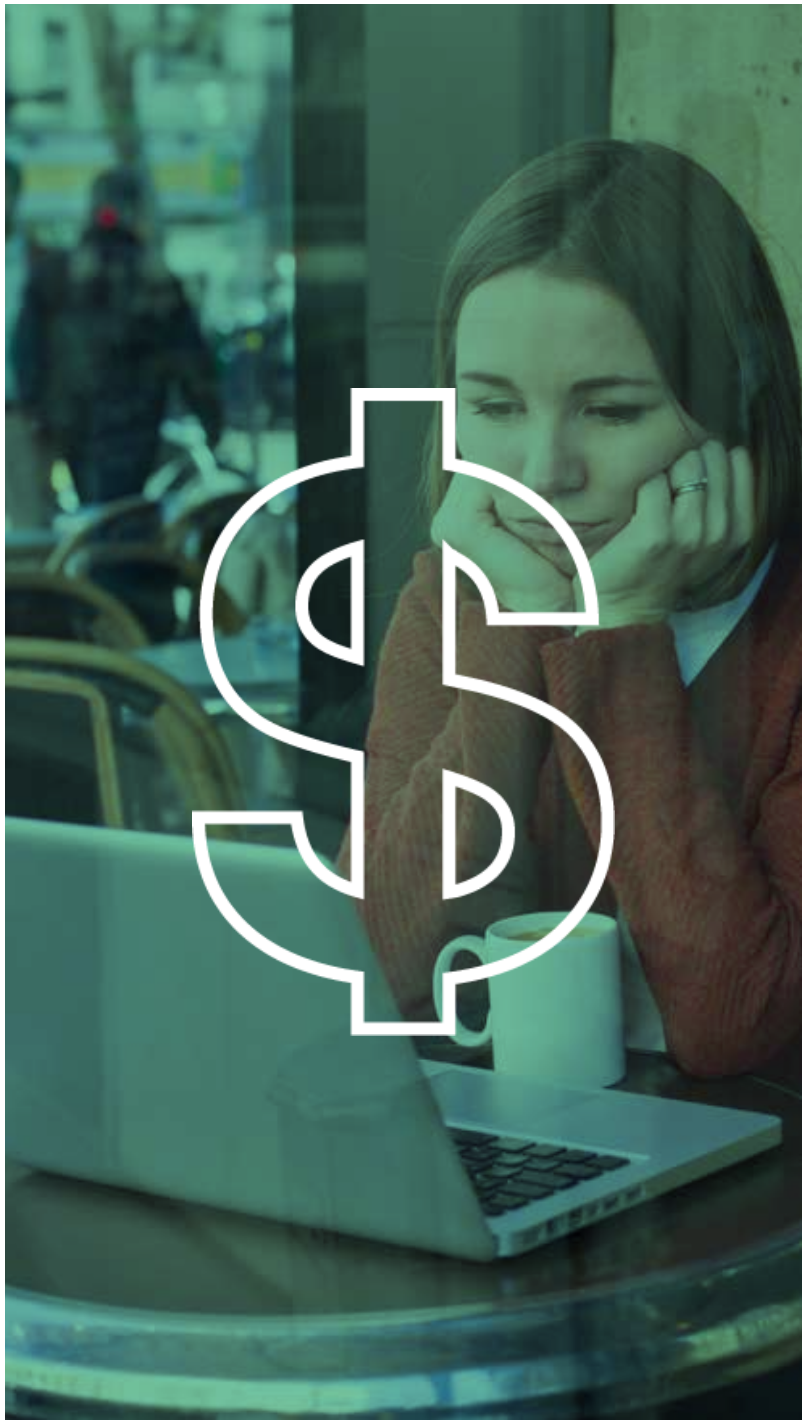
MILLISECONDS MATTER TOO

According to Google, website load times of less than 100 milliseconds make users believe that the page has loaded instantly. This is because the visual sensory memory processor in our brains functions in 100-millisecond increments.

Although, this doesn't mean that a page has to load in 100 milliseconds…a single second should suffice in making a visitor feel like the page has loaded swiftly and without interruption.

However, improving your page speed, even by a few hundred milliseconds, can make a huge impact on your business. Here are some real life examples:

- Walmart and Amazon both saw a 1 percent increase in revenue for every 100 milliseconds of improved page speed.
- Yahoo saw a 9 percent increase in traffic for every 400 milliseconds of page speed improvement.
- Google loses 20 percent of their traffic for each additional 100 milliseconds it takes for a page to load.



THE FINANCIAL IMPACT OF A SECOND IN PAGE LOAD DELAY

A second added to your page load time results in a 7 percent loss in conversion. Here's an example of how this affects your bottom line:

Say you run an ecommerce site and your average sale is $100, your average conversion rate is 3 percent, and you average 2,000 visitors per day.

A single second of delay in page load time would cost you $1,033 per day (or 17.23 percent) lost revenue in a day.

What about a five-second delay? That would cost you $2,884 (or 48.07 percent) loss in revenue per day.

In a total year, you'd be losing $1 million in revenue for a five-second delay in page load time. That's a huge blow to your bottom line.

PAGE SPEED ALSO AFFECTS SEO

Google will penalize your page's search rankings if there's any indication of poor user experience, including slow page load time. Faster sites get an SEO boost.

According to *Google Webmaster Blog*, "...faster sites don't just improve user experience; recent data shows that improving site speed also reduces operating costs. Like us, our users place a lot of value in speed — that's why we've decided to take site speed into account in our search rankings."

Therefore, having a faster site will improve your SEO rankings, and the higher your site is on Google, the **more organic traffic it will get.**

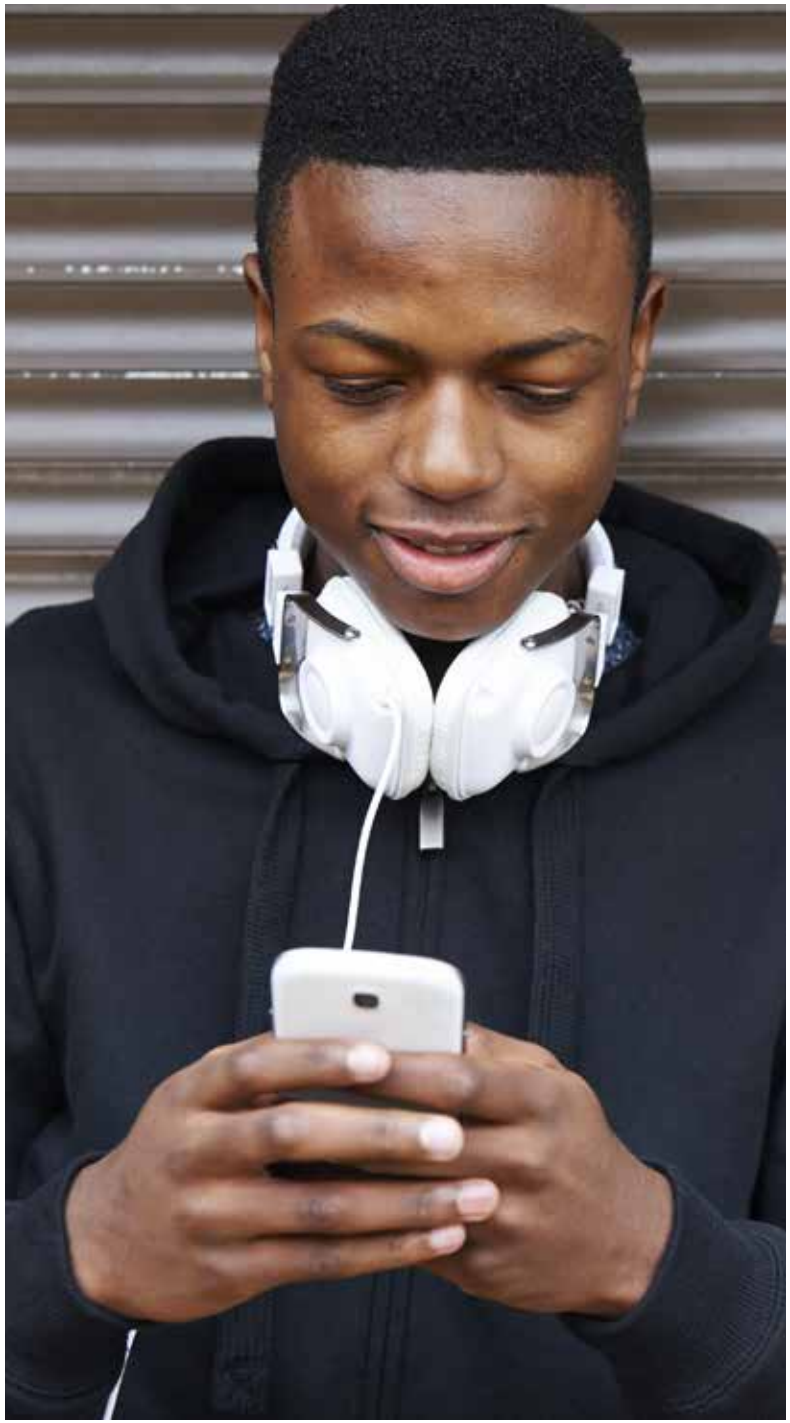
DON'T FORGET ABOUT MOBILE

Mobile is more accessible than desktops, meaning people can access your site anytime, anywhere. Therefore, don't underestimate the power of mobile performance and how it affects the user experience. Here are some stats to show you just how much mobile optimization matters to the user experience and your business:

- **58 percent** of mobile users expect sites to download as quickly as on their devices as they would on their home computers.
- **64 percent** of smartphone users expect pages to load in less than four seconds.
- **74 percent** of people will abandon a mobile website that takes more than five seconds to load.
- **61 percent** of users will leave a mobile site if they don't find what they're looking for right away.
- By improving a mobile site's page speed from eight seconds to two seconds, conversion rates can increase by **74 percent**.

To further add to the importance of site speed on mobile, Google will penalize a mobile site for slow page speed. Therefore, it's important that you not only optimize your site for desktop, but keep in mind that mobile matters too.

"Slow pages are the No. 1 issue that irate mobile users complain about."
- Mobile 1st



THE EMOTIONAL COST OF LOAD TIMES

Site load times can also carry a heavy neurological burden on the user. Quick access to site content is critical to drive a positive user experience.

Studies show that heart rate increases 38 percent with mobile content delays. And during video re-buffering, stress levels rise from 19 percent to 34 percent.

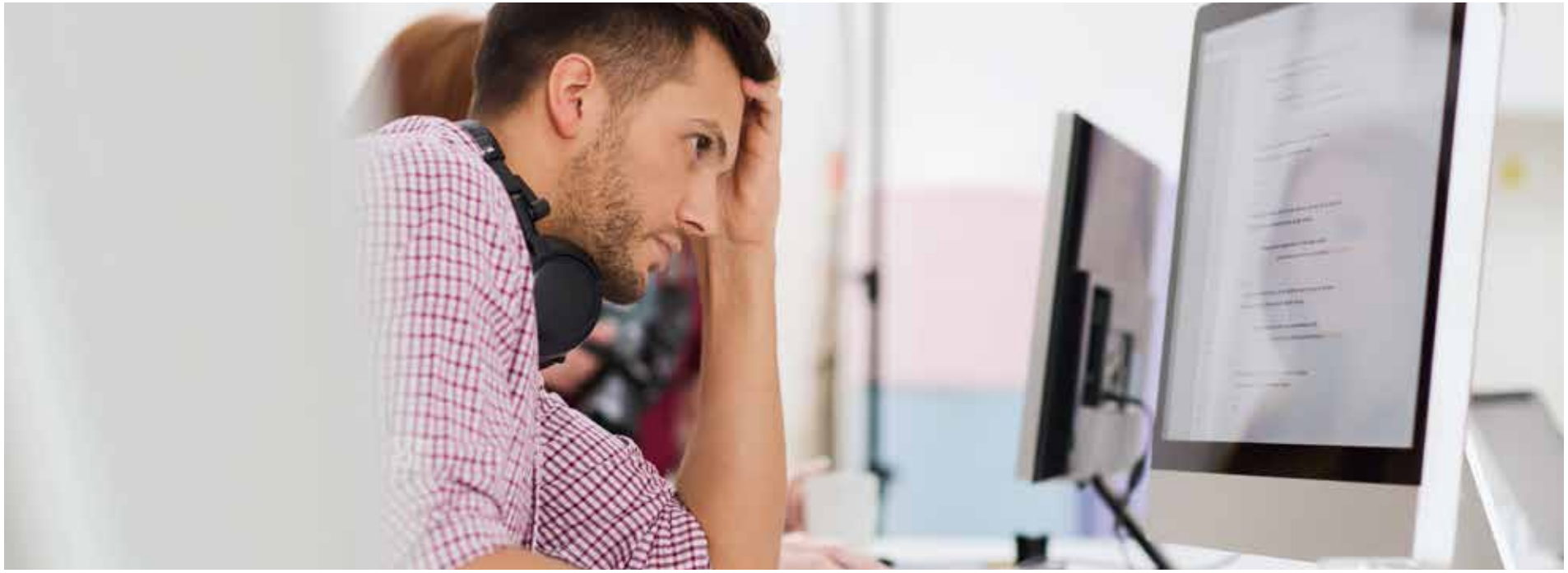
With ecommerce, the peak of frustration is *most prevalent* during the browsing and checkout phases. In fact, users can experience frustration peaks of up to 26 percent at critical points in a transaction.

Slow sites also affect our ability to concentrate -- *studies* have found that we have to concentrate 50 percent harder when using slow websites.

To avoid making the user feel stressed, anxious, or unable to concentrate, which can all ultimately damage your brand's reputation and bottom line, let's now look at ways to improve page speed.

"The level of stress caused by mobile delays is comparable to watching a horror movie."

- Ericsson.com



HOW TO TEST AND IMPROVE PAGE SPEED

According to *studies*, 99 percent of all response time problems are caused by the UI (user-interface / front-end) being too slow.

A lean site without all the unnecessary clutter is key to optimization. Here are some simple things to you can do to optimize your site to make it run faster.

TEST THE SPEED AND PERFORMANCE OF YOUR SITE

First thing's first, you'll want to test the speed of your site to get an accurate diagnosis of its current performance.

To test the page speed and performance of your site try Page Performance a new tool created by WP Engine. *WP Engine Page Performance* runs a battery of tests on your website and gives you a detailed analysis of how your site performs. From there, Page Performance provides actionable recommendations you can use to make a significant and measurable impact on your website's speed and your business.

You can test any page of your site with Page Performance and it'll give you key metrics and actionable data to help maximize your site's performance.

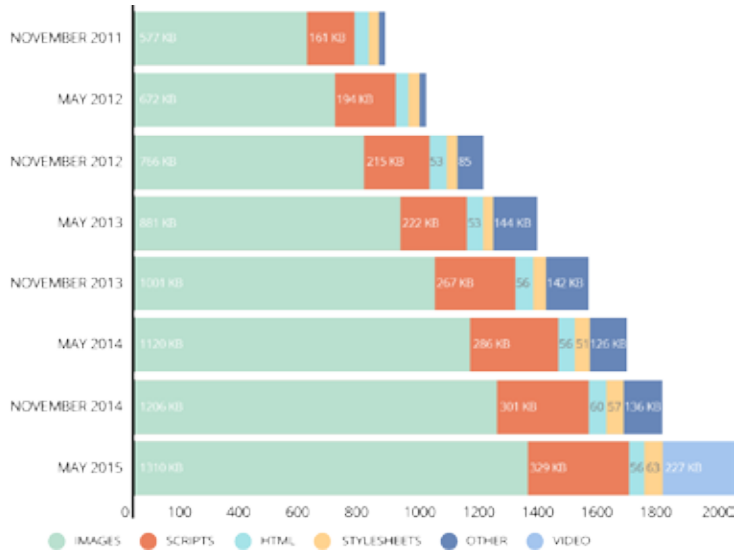
A glimpse of sample results rendered by Page Performance.

Every time you test your site, Page Performance will keep a record of the data. That way you can compare your site's performance history to its improvements in performance over time. Page Performance is available now to all WP Engine customers at no additional charge.

Here are just a few other things you can do to speed up your site, and be sure to check out Page Performance in the WP Engine User Portal to get a full list of actionable recommendations based on your site's specific needs.

COMPRESS IMAGES

Back in *1995* the average page was 14.1 KB in size. Today the average page size is more than a whopping 2 MB. Images comprise more than 60 percent of a page's size.



Source: *Soasta.com*

Therefore, large images can be a culprit to slow site performance. To reduce the page size of your site, it's important that you compress your images before uploading them to your site.

"The difference between a 2 MB page and a 1 MB page can mean several precious seconds added to a page's load time."
- Soasta.com

Try using a plugin like *WP Smush* to reduce the file size of jpegs and pngs, which will help remove any extraneous metadata that might be taking up unneeded space.

TURBOCHARGE PERFORMANCE WITH A CDN

The geographic location of a site visitor can impact how fast your site's content reaches them. A content delivery network (CDN) is a proven way to get lightning fast loading results by reducing bandwidth usage. CDNs provide a shorter connection distance from the server to the source, resulting in faster page load time. With WP Engine, you get blazingly fast CDN that stores your site's content globally for faster load times.

IDENTIFY PLUGINS THAT ARE SLOWING YOU DOWN

A hefty amount of installed plugins could be detrimental to your site's performance. Determine *which plugins* (if any) are slowing down your site by running a test on how they impact page loading time. Tools like P3 can assist with this task.

PUT CSS BEFORE BLOCKING JS

If possible, avoid and minimize the use of blocking JavaScript by moving all CSS requests above them on the page. Otherwise, the requests can't be made until the JavaScript completes, which adds time to page load.

REDUCE POST REVISIONS

In WordPress, post revisions allow you to undo changes and restore posts to an older draft. Over time the revisions build up and can affect the overall performance of your site.

To limit the number of post revisions, add this statement to your WordPress wp-config.php file:

```
define('WP_POST_REVISIONS', false);
```

"False" will turn off all revisions. You can replace this with the maximum number of revisions you'd like per post:

```
define('WP_POST_REVISIONS', 5);
```

CHOOSE A HOSTING PLATFORM THAT MEETS YOUR NEEDS

The hosting provider you choose will have a major impact on website speed.

Here at WP Engine, our *hosting platform* was designed to deliver lightning fast results with these common website speed issues in mind.

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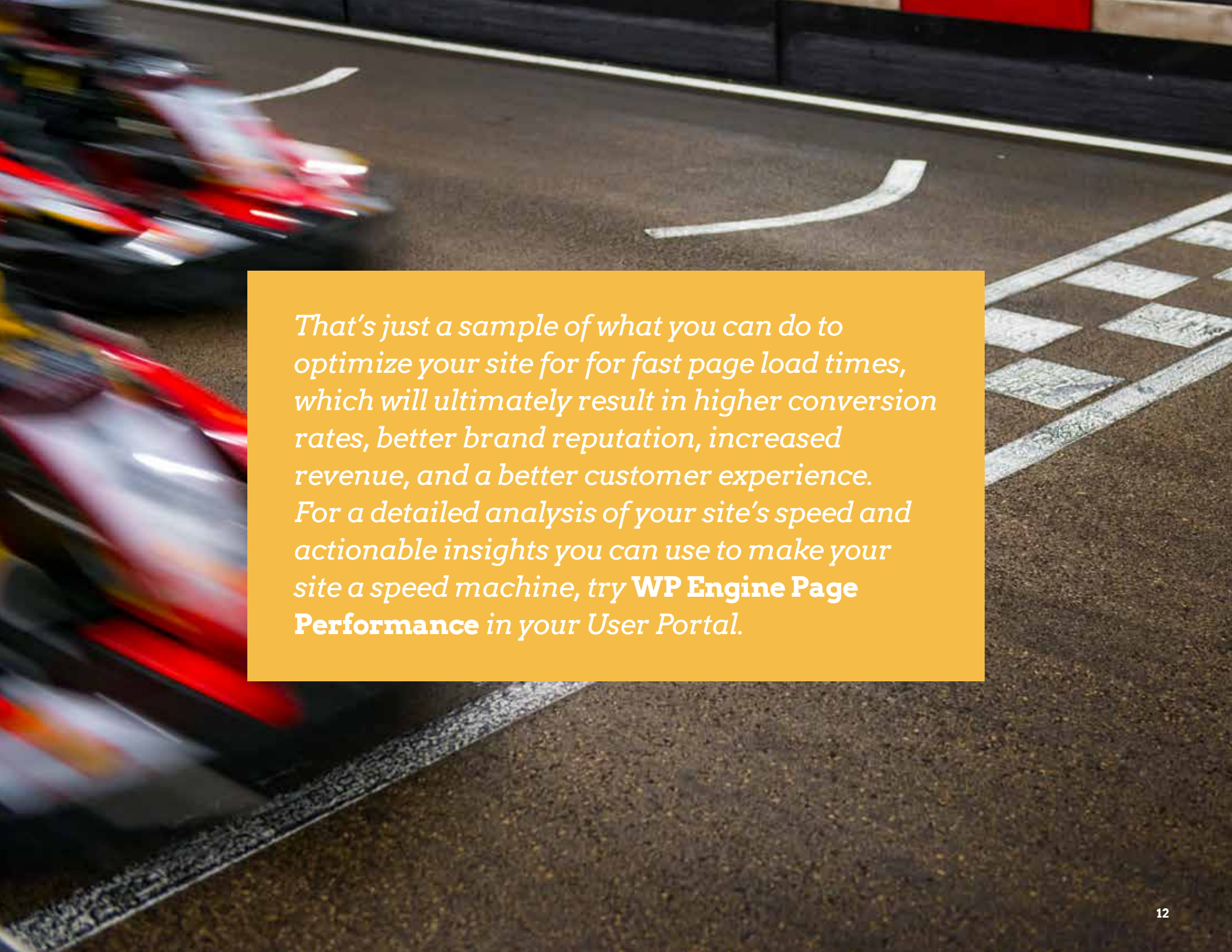

That's just a sample of what you can do to optimize your site for for fast page load times, which will ultimately result in higher conversion rates, better brand reputation, increased revenue, and a better customer experience. For a detailed analysis of your site's speed and actionable insights you can use to make your site a speed machine, try **WP Engine Page Performance** *in your User Portal.*


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