amsive DIGITAL

The Power of Page Speed

An expert developer's ultimate guide to improve page speed + optimize for Core Web Vitals

JANUARY 2022

Overview

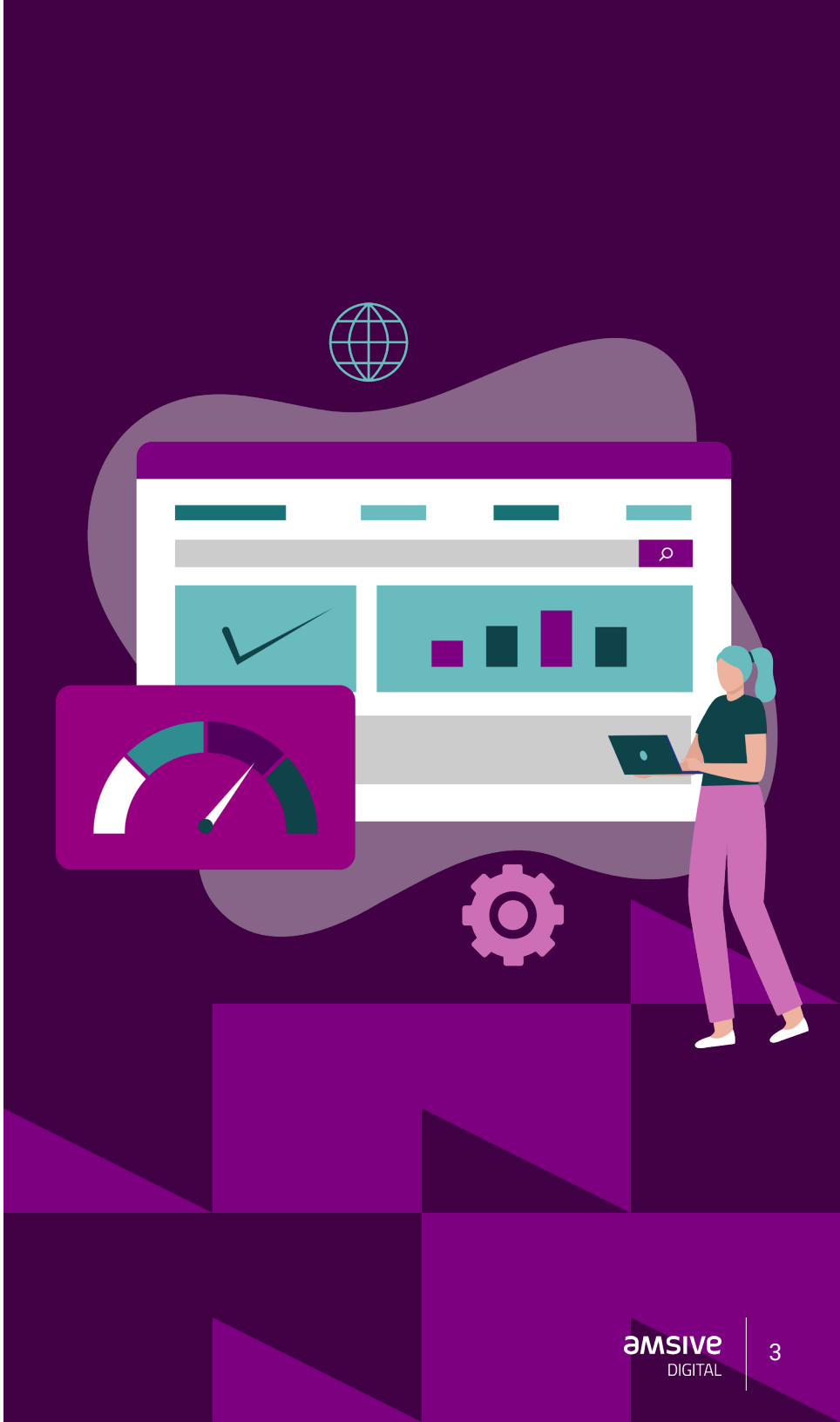
An introduction to page speed

Page speed impacts businesses. From users' experiences and site traffic to search engine results pages (SERPs) ranking and campaign conversions, page speed affects marketing efforts and business growth.

Well-built websites are fast and performat when first launched, but they can become increasingly complex as they evolve. This complexity can slow sites that don't prioritize page speed, resulting in negative consequences both on and offline. As brands' digital presence and user experience become even more integral to business success, page speed is a key opportunity to power business growth.

How can brands optimize for page speed? What does success look like? Our expert development team is sharing the best page speed optimizations to protect and grow your business.

As site speed improves, brands can rise in SERP rankings, improve user experience, and grow customer conversions.



Why page speed matters

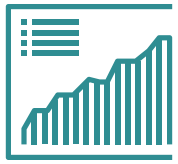
A site's page speed affects business growth in many ways. **Slow page speed can result in a substandard user experience, poor conversion rates, and even subpar organic search rankings in Google SERPs.** Conversely, improving a site's speed offers brands layered benefits that can positively impact their bottom lines.

Page Speed Optimization Improves

USER'S BRAND EXPERIENCE

MARKETING OUTCOMES

BUSINESS GOALS



A case study in page speed optimization

America's leading small business insurer, Hiscox, had many years of strong visibility in top SERP positions for key search phrases that were pivotal to its target audience. When Google released a core algorithm update in summer 2021, Hiscox saw its search ranking drop three to four positions for key searches across the board. Based on business needs and our team's data analysis, Hiscox reprioritized its SEO effort, and together we tackled this new challenge head-on.

This Google update put Hiscox, which was historically at the top of the SERPs, all the way at the bottom of Page 1 — decreasing traffic significantly and affecting lead volume.

Upon analysis, the major differentiator between Hiscox and the now-higher ranking competitor sites was mostly page speed.

Page speed needed to improve — and fast

Our team identified that in order to rise back above generally faster competitors, Hiscox would need to reprioritize and focus on page speed optimization. The metric that would get Hiscox back on the leaderboards and improve page speed the most was Largest Contentful Paint (LCP). At the moment, this metric was pushing them "below the fold" in the SERPs.

A comprehensive update

From September to November 2021, our team worked with Hiscox to focus on improving LCP. We were able to isolate the "Quote and Buy" functionality as a major driver of slower page speeds — the drop-down menu was a large JavaScript asset that pre-loaded all the states and industries. Since this asset was above the fold, it slowed down page speed significantly. Together, we executed a holistic plan to fix this pressing issue.

Our plan included:

- Removed drop-down menus
- Included a simpler CTA button that drove to a less-important bridge SEO page
- Improved LCP for the important ranking page: General Liability Insurance page
- Reduced size of DOM by reducing navigation complexity for improved LCP

Hiscox results + outcomes

The above actions resulted in positive impacts on brand experience, marketing outcomes, and business goals.

Users now had a better brand experience on the Hiscox site. Page speed scores and metrics improved from poor to passing across the board, with key URLs loading in just three seconds.

Marketing Outcome

Searchers looking for insurance offerings now had an easier time finding Hiscox's pages within the SERPs as organic search ranking improved.

"BUSINESS LIABILITY INSURANCE" WENT FROM:

Position	Position
4 →	1

Other key pages moved above the fold and increased in ranking as well.

Business goal

Within just three weeks following implementation, Hiscox saw improved business results from the previous month.

25%

INCREASE IN TOTAL QUOTE COMPLETIONS

on the General Liability Insurance page

13.5%

TRAFFIC INCREASE

on the General Liability Insurance page

13%

QUOTE COMPLETION RATE INCREASE

on the General Liability Insurance page

The overall quote completion rate rose almost 3% in the 3 weeks following implementation, compared to the previous month.

While Hiscox achieved exceptional success, digital marketers' work is never done. Hiscox and our team have long-term plans that include removing the cookie banner animation that is triggering Cumulative Layout Shift (CLS) and improving functionality for users to type in a ZIP code, thus removing the need for a bridge page.

How to improve page speed

The benefits of improving a site's page speed are well-known, but how can businesses easily and effectively make this happen? Our expert development team has outlined exactly what sites generally need to succeed.

The page speed process

1

Audit + Test

Test to identify base metrics such as a site's Core Web Vitals score.

2

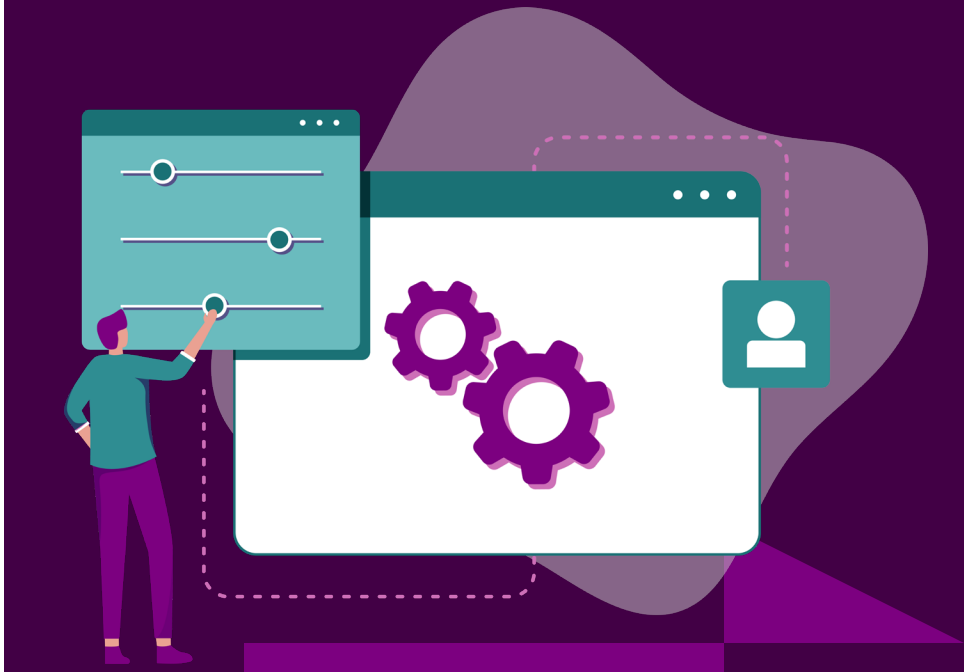
Identify + Prioritize

Understand which variables are affecting page speed and arrange in order of importance.

3

Optimize + Review

Update and monitor to further improve page speed.

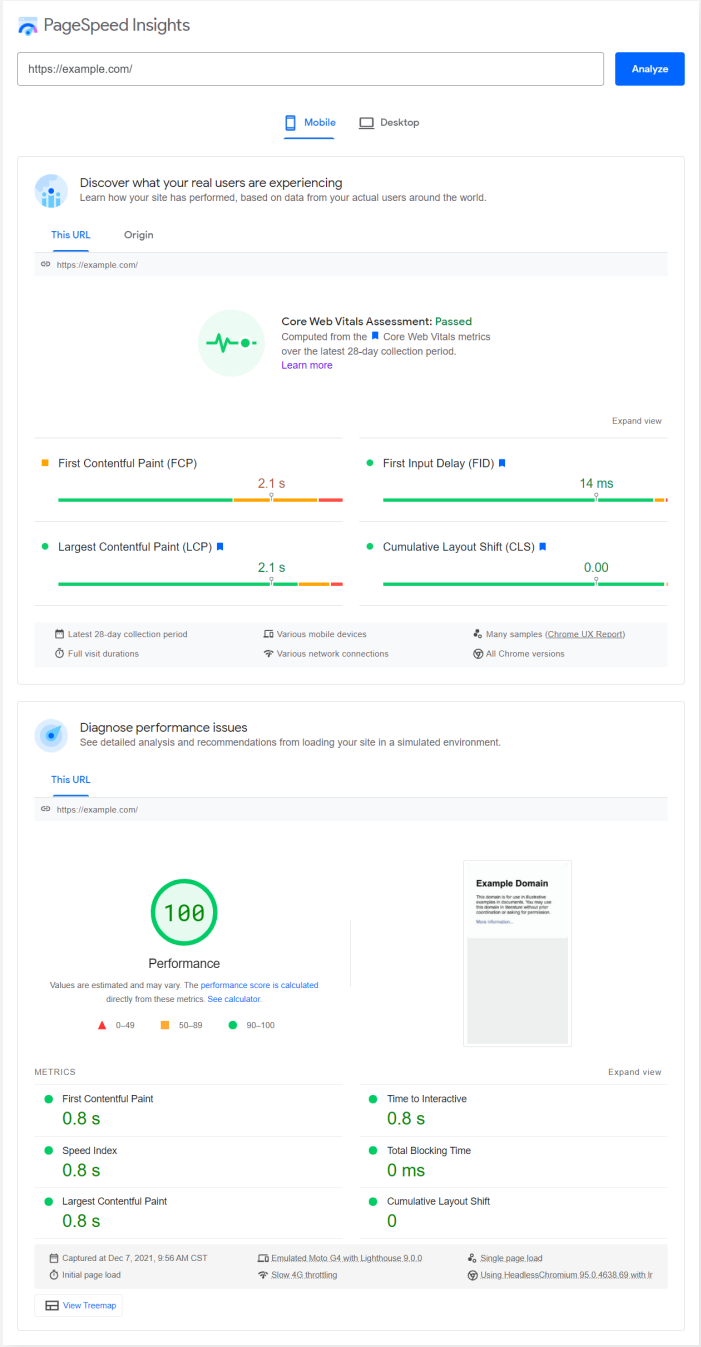


Test performance with PageSpeed Insights

Any web page URL can be analyzed for both mobile and desktop within PageSpeed Insights. This tool integrates data from Lighthouse diagnostics and data from Chrome UX Report, which make up the Core Web Vitals scores. This assessment is a starting point to identify what actions need to be taken to improve page speed — and overall site performance.

Core Web Vitals

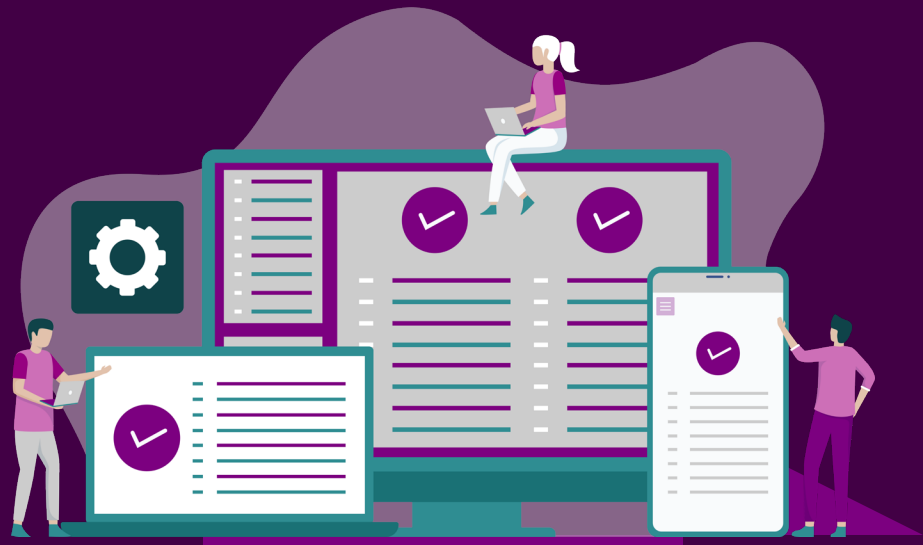
Google's Core Web Vitals are "essential metrics for a healthy site" that have a big impact on businesses. Google engineer Philip Walton stated, "Each of the Core Web Vitals represents a distinct facet of the user experience, is measurable in the field, and reflects the real-world experience of a critical user-centric outcome." A site's Core Web Vitals score is an integral metric to page speed optimization.



An introduction to Core Web Vitals

Core Web Vitals are common web performance metrics in your webpage's overall user experience that Google considers important — and can ultimately affect your rankings. These scores target three main metrics:

1. **Largest Contentful Paint (LCP)**
2. **First Input Delay (FID)**
3. **Cumulative Layout Shift (CLS)**



Gain better search rankings with Core Web Vitals

Beyond a better user experience, improving page speed through passing Core Web Vitals can positively impact search rankings. So, Google officially announced that any improvement is better than no improvement. However, once your page fully passes, no additional ranking boost will be obtained by improving it further.

Page speed matters: **Highlights from GOOGLE I/O May 2021**

"You (sites) will get a ranking boost for reaching the good threshold for all pages but beyond that point, you don't get an additional boost for reaching it even better... However, if you have a slow page, and you improve it by ten seconds, it could potentially boost your ranking."

PHILIP WALTON, GOOGLE ENGINEER

Largest Contentful Paint (LCP)

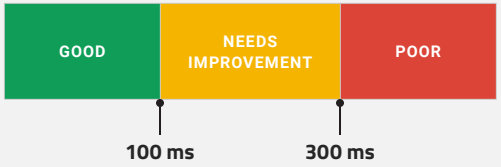
The main visual metric

This metric reports the render time of the largest visible image or text block — the main thing a user sees when visiting a page.

A good LCP score will help the user perceive a faster and more professional site, while a low score can result in a perceived slow load time, causing user frustration and prompting them to return to the search results page.

First Input Delay (FID)

The interactivity metric

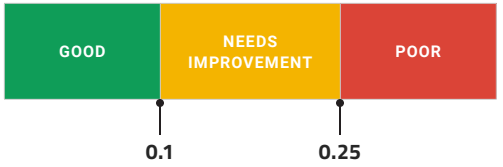


FID measures page response speed when a user starts interacting with it. A site with a good FID score will feel responsive and leave a positive usability impression on users.

Conversely, a poor FID score due to unresponsive pages results in annoyance. Reducing this frustration is a critical part of improving page experience.

Cumulative Layout Shift (CLS)

The visual stability metric



CLS tracks the layout shifts that occur as pages load. When content shifts unexpectedly on a page, users can get confused or even click the wrong thing. Minimizing this movement is key to usability and page experience, triggering Google to include it as an official ranking signal.

Another Important Metric: First Contentful Paint (FCP)

FCP is a key metric that impacts Core Web Vitals. This metric measures the time from the start of page loading to when any part of the page's viewable content is rendered on screen, including anything from images, text, or navigation menus.

No Core Web Vitals metrics can be measured until FCP has occurred, and a better FCP directly improves other scores, especially the Largest Contentful Paint (LCP).

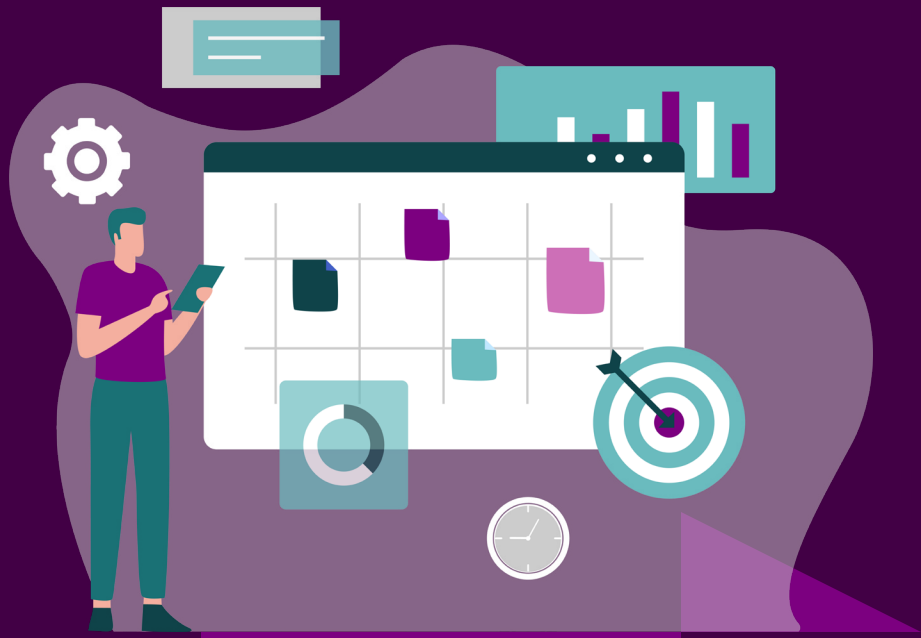
Without a good FCP score, further optimization becomes more difficult.

FCP TIME (IN SECONDS)	COLOR-CODING
0—1.8	Green (fast)
1.9—3	Yellow (moderate)
Over 3	Red (slow)

Recommended optimizations by metric

Sites can improve page speed through a combination of optimizations. Our expert team's recommendations are a starting point to begin optimizing a site for speed. When strategically prioritized and combined by business needs, these recommendations can turn a poor-performing site into a conversion powerhouse and an incredible branded user experience for any business.

While every site and business is different, these recommendations offer a roadmap to rising above your competition in the SERPs and improving customer experience to increase conversions.



Improve Your Largest Contentful Paint (LCP)

- Ensure a good First Contentful Paint (FCP) score. More than any other metric, the FCP has a direct impact on LCP.
- If the LCP is purely text or contains text, follow the guidelines outlined for FCP to preload the font with crossorigin.
  Use preconnect if the font is loaded externally and with minimal weights or variants.
- If the LCP is an image, use the HTML image tag rather than a background image if possible.
- Don't lazy load the LCP image as it must load as fast as possible.
- For an image-based LCP, preload the image similar to preloading fonts, using media queries to only preload the image necessary for the correct screen width.
- Compress LCP image as much as possible and use modern image formats like WebP where supported.
- Specify image dimensions when using an image tag to reserve the image space, improving the time required for the browser to draw in the image.

Improve Your First Input Delay (FID)

- Ensure a good First Contentful Paint (FCP) score since optimizing the initial load speeds up the response time of the browser.
- Remove non-critical third-party scripts to reduce bloat.
- Use modern JavaScript to improve response times. Modern JavaScript is far more efficient and optimized than legacy browsers, e.g., Internet Explorer 11, and legacy frameworks, e.g., jQuery.
- Optimize scripts by removing any unnecessary scripts not used for the current page.
- Minify scripts, using inline scripts for critical draw items above the fold while deferring the remainder.
- Larger JavaScript applications should load JavaScript in chunks asynchronously and only as needed.

Improve Your Cumulative Layout Shift (CLS)

- Draw in the initial screen as quickly as possible and keep content shifting to a minimum once the initial draw is complete.
- Set the proper height and weight dimensions to all image tags to help the browser reserve space before an image draws in.
- If using display swap to increase speed for font optimization, ensure the default font is similar in size to the end result to minimize the jump when the Flash of Unstyled Text (FOUT) occurs.
- Don't use icon font libraries as they can load slowly and cause layout shifts. Use inline scalable vector graphics (SVGs) where possible.
- Optimize message alerts for Modern JavaScript and implement the script inline so it executes quickly and doesn't rely on third-party libraries.
- Don't use any "pop-up" calls to action that occur shortly after the user visits a site. These can be detrimental to your CLS. If you must use them, ensure they don't trigger for at least the first 15-20 seconds of browsing.
- Don't use on-site ads with unknown or changing dimensions. Instead reserve ad space so content doesn't shift after the ad draws in the ad space — this often happens on a delay.

Improve Your First Contentful Paint (FCP)

- Ensure the web server is both fast and configured for optimal performance as a slow server response directly impacts scores, even if the page is cached.
- Deliver content closer to end users by using a Content Delivery Network (CDN) to serve static assets, including CSS, JavaScript, image files, and if possible, HTML files.
- Optimize to cache non-dynamic content when possible as database queries are expensive and can trigger slower loading times.
- Eliminate all render-blocking scripts and CSS files by having the critical CSS and JavaScript necessary to render the above-the-fold implemented inline and defer the rest.
- Reduce both the number of fonts used on a website and the weight and italic variations to the bare minimum. Just adding additional font weights can significantly increase load time.
- Preload any fonts with crossorigin and use preconnect for any fonts used above the fold if the font is offsite.
- Don’t use icon libraries such as Font Awesome loaded in bulk. If the icons are required above the fold, add as inline SVGs for optimal performance.
- Minify CSS and JavaScript files to ensure files are as small as possible.
- Use modern JavaScript and CSS, which are more efficient than legacy methods such as Internet Explorer 11 and jQuery.

Start your brand-growth engine

Page speed optimization is one key lever of successful digital marketing. Ever in flux, brands' sites are a living creation that adapts to customers today while preparing for what's next. As digital marketing strives to exceed consumers' needs with the latest technological innovations, brands must stay ahead of every oncoming curve.

Updating and maintaining a powerful site that drives not only traffic but also business growth takes precision and dedication. Yet with expertise and hard work, brands can create a source of digital truth to engage customers and lead competitors within the ever-expanding digital sphere.

Accelerate brand growth and business success — with faster page speed.

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Amsive Digital, formerly Path Interactive, is an NYC-born digital marketing agency with a national presence. We have been helping businesses grow by providing data-driven SEO, digital media, paid and managed social, analytics, creative, influencer marketing, and web design and development services.

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