

Preparing for Google's Core Web Vitals with Secure Web Accelerator





GOOGLE CORE WEB VITALS

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INTRODUCTION

Simply building a website isn't enough in today's digital age. The competition is steep. "Build it and they will come" no longer applies. So how do customers find you? Google search results are the most significant way a visitor will discover your website today. To succeed online, it is essential that you optimize your website for key web metrics so that search engines like Google will display your site to end users.

Google makes hundreds of changes to its algorithm every year. However, on rare occasions they will announce ranking factor changes. They do this particularly when something is important or want to provide unified guidance for site owners to make changes to their site beforehand.

User experience has always been an essential part of building a great website, but now, it will play a more prominent role in Google Search ranking. Of all the possible user experience metrics, Google has identified three **Core Web Vitals**. These are the focal points for the next Google update rolling out in May 2021.

The Core Web Vitals initiative provides clear metrics for measuring website performance. What does this mean for site owners? User experience matters! Your website's desktop and mobile performance will impact your Google search ranking and visibility.

Core Web Vitals creates unified guidance for site owners to accommodate all user experiences and devices. In simple terms, Google is telling website owners precisely what they need to do to perform better for website rankings. If you don't make these changes, your Google search ranking will suffer.

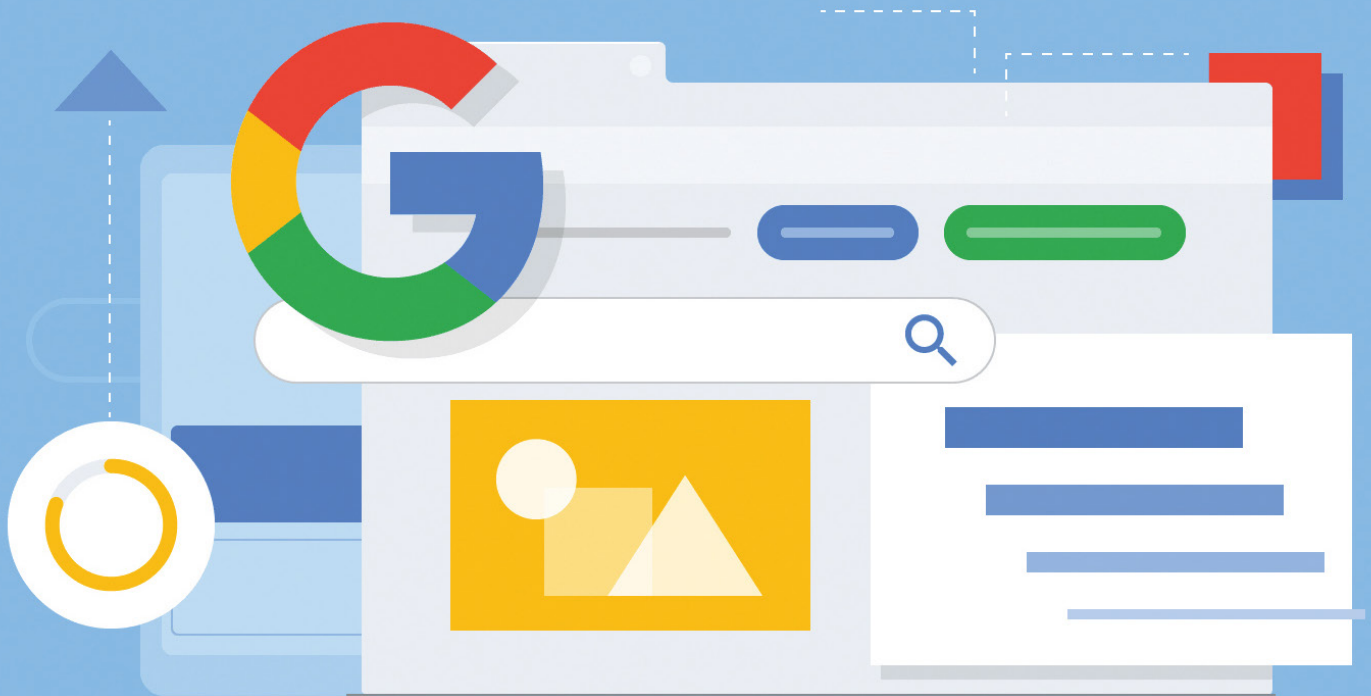
Good news! This whitepaper will cover simple solutions that don't involve re-doing your entire website or paying for expensive web development.



GOOGLE RANKING FACTORS

We know that user experience is important to Google. Google has had many updates in the last decade including Core Web Vitals that measures a user's overall experience of working with a website. This page experience is then used as a ranking signal. The goal is for digital asset owners to optimize their website for Core Web Vitals, making the Internet a better place for users and moving the world towards a mobile-first web.

The Internet was built for users. So it is essential to create a user- friendly experience. Your website's desktop and mobile performance impacts your Google search ranking and visibility. Poor website performance also impacts your business results. If your website performs poorly you will lose visitors and potential customers who never make it through checkout. That's potential revenue left on the table. Not to mention, your diminishing brand value. No one wants to repeat a poor user experience.



CORE WEB VITALS

Introduced earlier, the Core Web Vitals are metrics designed to help website owners measure the overall user experience when it comes to speed, responsiveness, and visual stability.

LCP

LCP or Largest Contentful Paint

measures how long it takes for the main content to load on the screen. This could be an image or a block of text. A good grade gives users the feeling that the site loads fast. A slow site can lead to frustration, a poor user experience, and therefore, a lower google search ranking.

Tech takeaway: The ideal measurement is 2.5 seconds or faster.

FID

FIS or First Input Delay

measures how long it takes for a web page to be interactive. Think the reaction time to the tap on a button or video, for instance. A good grade here gives the user a sense that a site is quick to react. A delay between the video or button responding after a user clicks on it can lead to frustration, a poor user experience, and therefore, a lower google search ranking.

Tech Takeaway: The ideal measurement is 100 milliseconds or faster.

CLS

CLS or Cumulative Layout Shift

measures the visual stability of your site. In other words, does stuff unexpectedly shift on the screen while it is loading — and how often does that happen? There is nothing more frustrating than unintentionally clicking on something because a slow-loading section moved around on the screen. This again, creates a poor user experience, and therefore, a lower google search ranking.

Tech takeaway: The ideal measurement of the same is less than 0.1.

To learn more about Core Web Vitals, please visit <http://web.dev/vitals/>.

Our goal as website owners and managers is to ensure that our digital assets meet the best practice metrics defined by Google Core Web Vitals. Continue reading to learn how to optimize your site for Core Web Vitals.

TEST YOUR WEBSITE

Now that you understand why user experience matters, it's time to see how your website currently stacks up to Google Core Web Vitals.

PageSpeed Insights

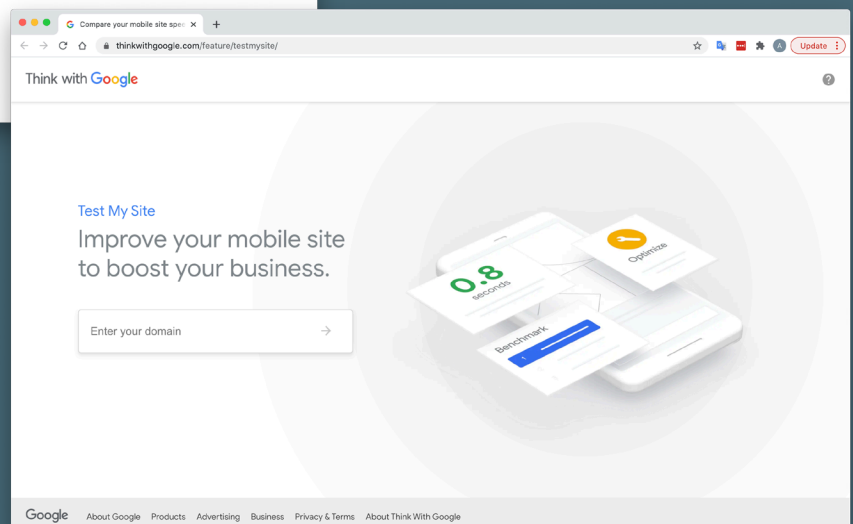
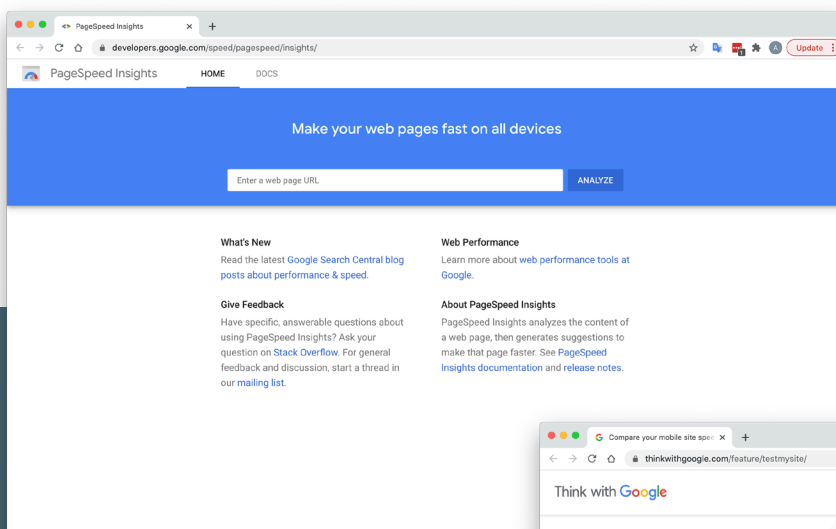
An important thing to note is that Google scores the performance of websites and devices on a level playing field. You can test your website using Google's PageSpeed Insights Tool. To run your score, go to <http://developers.google.com/speed/pagespeed/insights/>.

Think with Google

We can tell how poor website performance is costing your business customers, revenue, and brand value, but it is better if you see it for yourself. To test your website speed, go to <http://www.thinkwithgoogle.com/feature/testmysite/>.

Think with Google is a tool that allows you to test your website speed, compare your speed against competitors, and evaluate the ROI of a faster site.

Don't panic if your website score is less than optimal. Continue reading to learn how to improve your score and your user experience.



SOLUTIONS

We identified the problem, now let's talk about solutions. There are a few options.

Option 1

You could create a new customized website that is optimized for mobile delivery and rendering.

1. Expensive solution.
2. Development costs can start at 10's of thousands.

Option 2

Deploy your website to as many data centers as possible, buying hosting plans with many different companies across the globe. Ensure that changes are deployed to all data centers.

1. Expensive solution
2. Difficult to manage and deploy

Option 3

Recommended Solution

Use an existing content delivery network (CDN) provider like Cloudflare.

1. Economical solution
2. Easy one-click implementation with 101domain's Secure Web Accelerator powered by Cloudflare.
3. Additional benefits include website optimization, caching, and security with Web Application Firewall (WAF).

WHAT IS CLOUDFLARE?

Cloudflare is an intelligent network that sits in front of where you host. Imagine you are in a 100m foot race. Using Cloudflare is like passing your baton to Usain Bolt to run for you. You are still part of the hand-off but he is going to ensure you run way faster.

HOW DOES CLOUDFLARE MAKE WEBSITES FASTER?

1. Cloudflare puts your website close to your customers.

Cloudflare is a global network that powers 25 million Internet properties, including ~17% of the Fortune 1000, spans more than 205 data centers around the globe, and has a capacity of 35 Tbps. What does this mean? There is strength in numbers. Every user on Cloudflare helps the network learn and grow in sophistication to better improve website performance, reliability, and security for all Internet users.



2. Cloudflare reduces the amount of data you need to send to your customers.

Cloudflare's Content Delivery Network (CDN) creates the shortest path of delivering your website to users by storing a copy of your website's static content at all 205 data centers. Files are then served directly to your customers, significantly cutting any delay time and reducing bandwidth.



3. Cloudflare improves the experience on your customer's devices.

Poor DNS response time causes your website's interactions to appear delayed from the get go. Traditionally, a user in New York, for example, could be served your website from a server in France. With Cloudflare, your website is served by the data center closest to your customer which improves your website speed. Cloudflare's Distributed DNS saves you time by answering DNS queries from the nearest data center to your customer.



HOW DOES SECURE WEB ACCELERATOR HELP YOU ACHIEVE GOOGLE CORE WEB VITALS BEST PRACTICES?

SEO experts have always suspected faster pages lead to better search ranking. With the recent announcement from Google, we can say with confidence that Cloudflare helps you achieve the web performance trifecta: our Secure Web Accelerator product suite makes your site faster, gives you direct visibility into how it is performing (so you can use that data to optimize for Core Web Vitals), and directly drive results in improved user experience, search ranking, and conversions. All three Core Web Vitals can be improved using Secure Web Accelerator, and with our Plus and Professional plans you can measure all three inside the Cloudflare dashboard. We'll show you how step-by-step.

STEP 1: CACHING

The typical website is composed of static and dynamic content. Static content includes things like images and product descriptions, while dynamic content is more like the contents of a shopping cart or a user's profile page.

Cloudflare caches static content, avoiding the need for a full roundtrip to origin servers each time content is requested. Because the Cloudflare network places content very close (in physical terms) to users, there is less distance to travel and page loads are consequently faster.

Using caching directly improves page speed and experience scores like Core Web Vitals. With Google's recent announcement, this also means improved search ranking.

For WordPress operators, there is Automatic Platform Optimization (APO). By default, Cloudflare only caches static content, but with APO we can also cache dynamic content (like HTML) so the entire site is served from cache. This removes round trips from the origin, ensuring that customers see improved performance when visiting your site.

For enterprises who want to achieve the greatest speed, security, and performance can enable RailGun. RailGun is an advanced feature that compresses previously unreachable web objects by leveraging techniques similar to those used in the compression of high-quality video. This can result in additional performance increase for Core Web Vitals.

Any of our three Secure Web Accelerator plans automatically give you access to Cloudflare caching. WordPress APO is available for Secure Web Accelerator Plus and Professional in the Cloudflare dashboard. RailGun is only available in our highest plan, Secure Web Accelerator Professional.

Contact our Solutions team today to take advantage of APO and RailGun.

Phone 877.983.6624

Email Corporate@101domain.com

STEP 2: IMAGE OPTIMIZATION AND COMPRESSION

Cloudflare Image Resizing allows on-demand sizing, quality, and format adjustments to images. Reducing the size of data on your website reduces the transfer time. Delivering images this way to your end-users helps you save bandwidth costs and improve performance.

The two major image optimizations that are available are called Polish and Mirage.

Polish works by Stripping unnecessary information from image files, compressing the files, and serving the files using the WEB P codec. WEB P was specially designed for web transfer. The result is much faster transfer times when using WEB P then when using other formats like JPEG.

Mirage implements a feature for mobile devices called lazy loading. When a mobile device or a device on slow connection requests your website, Mirage will send lower resolution images with the initial response. Once the website finishes loading, mirage will then replace those low resolution images with higher quality images. Mirage reduces the initial size of the data transfer, and so your customers will feel like they are getting a faster website.

Image optimization and compression specifically improves your response for the Core Web Vitals LCP and CLS. If your LCP is triggered by an image, activating both these optimizations will reduce the size of the file, shortening the transfer time. In addition, if your images are causing layout

shifts, the faster data transfer will decrease the rendering time, thus reducing or eliminating the layout shift and improving your CLS score. The beauty of all this is that these features can be activated by just a toogleing them on.

You get access to image optimization via Polish and Mirage with our Secure Web Accelerator Plus and Professional plans.

LCP CLS



STEP 3: ENABLE AUTOMATIC COMPRESSIONS AND OTHER OPTIMIZATIONS

Secure Web Accelerator also offers other benefits to websites proxied through the Cloudflare service. The three we want to highlight are Brotli Compression, HTTP2/HTTP3 on the edge, and Rocket Loader.

Brotli Compression was specifically developed to compress web traffic. If you have ever worked with a zip, Brotli is similar but for web traffic. Web traffic sent over Brotli reduces file size 15-20%. Brotli is especially effective if you have large CSS files, or if you use SVGs.

HTTP3 is the latest protocol the Internet is moving towards. Cloudflare offers both **HTTP2 and HTTP3** for the best possible user experience. The term “edge” refers to Cloudflare data centers.

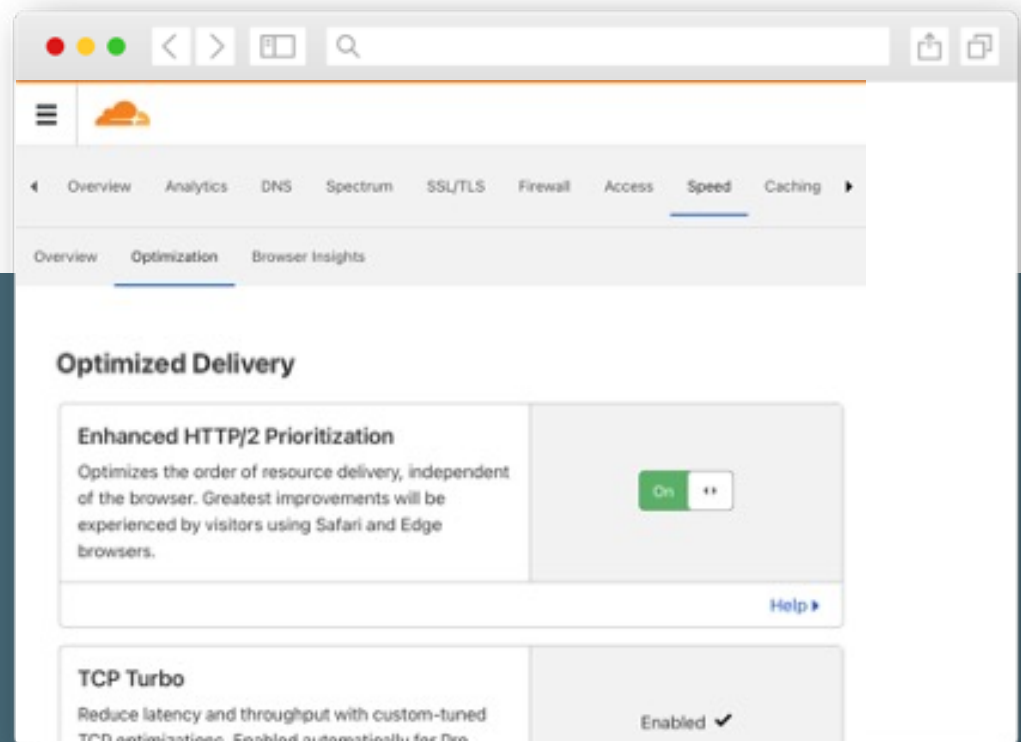
When a client requests a website, Cloudflare offers the browser HTTP2 connection protocol by default, and HTTP3 for browsers that support it. HTTP3 has some advantages over HTTP2, with performance being one of them.

If you run a PageSpeed Insights test and you are using HTTP1 you will be penalized. We strongly recommend you activate HTTP2/HTTP3 with Secure Web Accelerator Plus or Professional.

The **Rocket Loader** optimization is specifically for Javascript. Sites that have a lot of Javascript cause delays. Rocket Loader can help reduce the FID Core Web Vital.

These three automatic compressions and optimizations are available for Secure Web Accelerator Plus and Professional in the Cloudflare dashboard.

LCP FID



WHICH SECURE WEB ACCELERATOR PLAN IS RIGHT FOR YOU?

At the bare minimum we recommend activating Secure Web Accelerator on your main domain name for the CDN and DNS speed and performance benefits it provides. If you care about your search engine ranking and visibility we recommend either Secure Web Accelerator Plus or Professional. With both of these plans, you will get access to the Cloudflare dashboard and additional features such as APO, Polish, Mirage, Brotli, HTTP2/HTTP3, and Rocket Loader. For optimal Core Web Vital performance we recommend Secure Web Accelerator Professional for RailGun and even more advanced features.

Using Cloudflare’s performance tools, like caching and content optimization directly improves page experience and Core Web Vitals measurements, and now, very directly, where your pages appear in Google Search results. And you don’t have to take our word for this - take a look at the difference between a website without Secure Web Accelerator versus a website with Secure Web Accelerator, and a website with our Plus or Professional plans.

Secure Web Accelerator Plus and Professional users get access to Web Analytics and Browser Insights that directly measures all three Core Web Vitals scores, instrumenting your real users’ experiences, all with one-click enablement from the Cloudflare dashboard.

	No SWA	SWA Basic	SWA Plus/Professional
PageSpeed Insights	38	52	78
LCP Time	9.1 sec	5.9 sec	4.2 sec
FID Time	124 ms	86 ms	36 ms
CLS Value	.006	.006	.006

TAKEAWAY

Google's announcement that Core Web Vitals measurements will be a key part of search ranking starting in May 2021 places even more emphasis on running fast, accessible websites.

Our Secure Web Accelerator plans, and dedicated solutions engineers are available to help you optimize your website for Google Core Web Vitals to prevent losing search engine ranking. If you are looking for more resources you can request a free consultation from our Solutions Team. This consultation includes a confidential and comprehensive performance and security report to help you better understand how your web environment scores against Google's Core Web Vitals.

To request a technical scan please visit our website at <http://blog.101domain.com/preparing-googles-seo-update>.



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