From: Adrian Cristian

Cristian & Adrian

PRESENTS

10 Steps to Optimize your Website To Load Under 3 Seconds (CheatSheet)

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Hey there!

Page speed is often confused with "site speed," which is actually the page speed for a sample of page views on a site.

Page speed can be described in either **"page load time"** (the time it takes to fully display the content on a specific page) or "time to first byte" (how long it takes for your browser to receive the first byte of information from the web server).

You can evaluate your page speed with Google's PageSpeed Insights.

PageSpeed Insights Speed Score incorporates data from CrUX (Chrome User Experience Report) and reports on two important speed metrics: First Contentful Paint (FCP) and DOMContentLoaded (DCL).

I strongly advise you to do it, especially considering that Google and all the other major tech players are **moving towards "Mobile-First" indexing**.

The importance of website speed optimization

Think about why you build a website to begin with. You likely want to share things about yourself and your business, and you might want to make money. To do that, you need traffic.

SEO allows you to attract traffic via organic Google search. You can always take out paid ads, but it's far cheaper to write fantastic content and get ranked.

Once you have traffic, your work is far from done. Y**ou need that traffic to convert.** Depending on your sales cycle, you might try to convert visitors into customers immediately. More often, though, you'll use your website for lead generation.

You want your visitors to provide their email addresses so you can stay in contact with them. That way, once they've considered their options, they have a good reason to buy from you rather than the competition.

Believe it or not, website speed optimization **plays an integral part in this process.**

10 Optimization Steps that will make your website faster

In what follows, I will take you through 10 distinct steps that you need to follow in order to optimize your website for faster loading times.

Each step is equally important, so try to follow them in the presented order and adapt the info to your own situation.
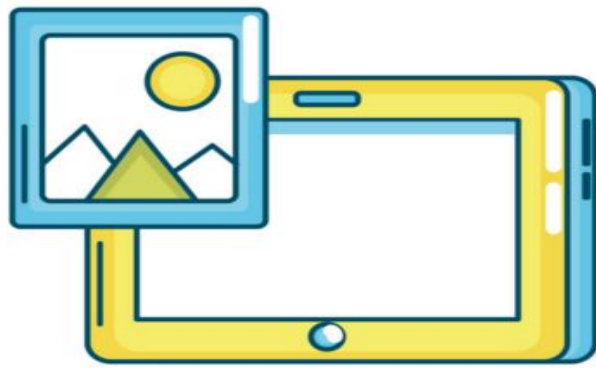
Let's begin!

STEP 1: Reduce image sizes

Everyone loves eye-catching images, a lot of photos, images, graphics on your product pages improve engagement.

But the **negative side** of the image use is that they are usually large files which can slow down page load times. Nobody likes to see that circle spin around and around while an image loads. It's irritating — and it makes many people want to click away.

Reducing their size could likely have a **big impact** on how long the page takes to load.

To reduce the image size without compromising its quality the best way is to compress images using such tools as **ImageOptim, JPEGmini, or Kraken**. The procedure may take a bit of time but it's worth it. Another way to reduce the image size is to use the HTML responsive images <secret> and <size> attributes that adjust image size based on user display properties.

But just make sure **they're not too small**. If your images look distorted or pixelated, they'll hurt your credibility and professionalism. First, you'll need to test different image sizes on your site to make sure they render appropriately on all screen sizes.

STEP 2: Reducing the number of plugins

Plugins are common components of each website. They add specific features and unfortunately, the more plugins are installed, the more resources are needed to run them. As a result, the website works a lot slower and also security issues can appear.

The browser has to understand what all those plugins mean and how to assimilate them with your website itself. As time passes, the number of plugins grows, while some of them may not be used anymore

You will need to go through all your plugins and ask yourself if you really need each one and if the answer is "no", **deactivate and delete all the unnecessary plugins**. You can always re-add it later if it becomes necessary.

The website speed does not only depend on the **number of installed plugins** but also on their **quality**. Try to avoid plugins that load a lot of scripts and styles or generate a lot of database queries. **The best solution** is to keep only the necessary ones and ensure that they are kept up to date.
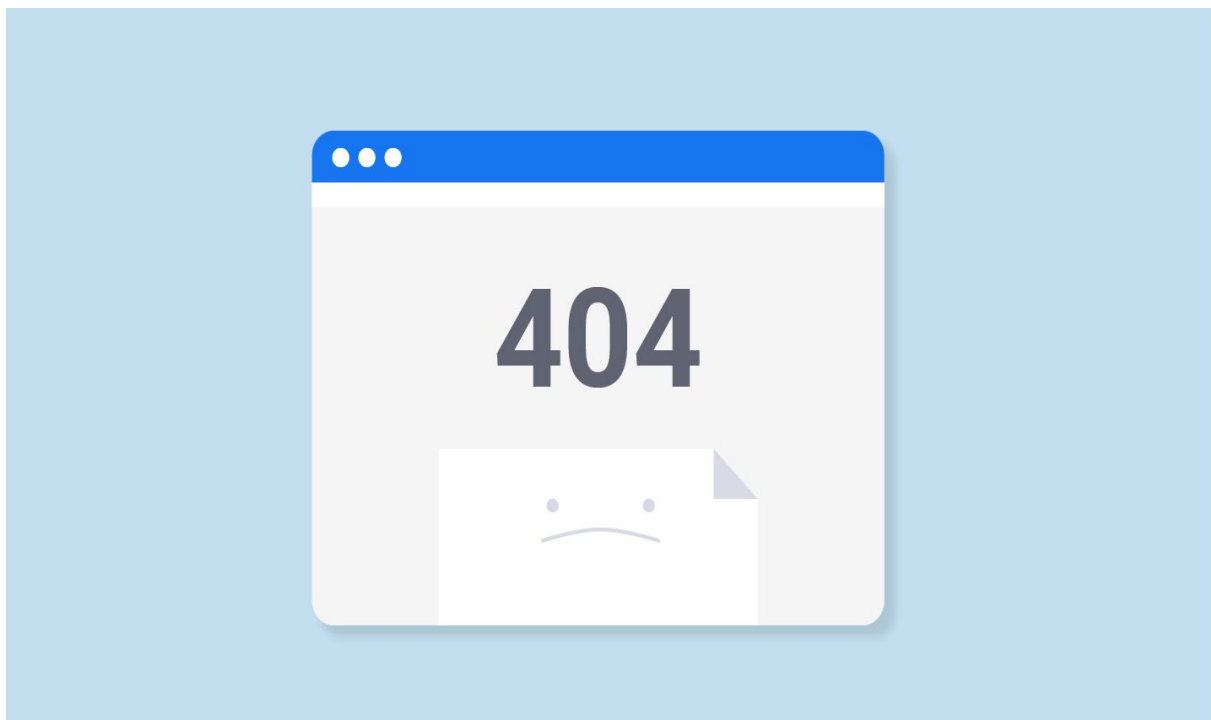
STEP 3: Resolve 404 errors

The HTTP **404** Not Found **Error** means that the webpage you were trying to reach could not be found on the server.

It is a Client-side **Error** which means that either the page has been moved or removed and the URL was not changed accordingly, or that you typed in the URL incorrectly.

The 404 errors can really irritate visitors because they slow down your site due to the fact that they take up space that could otherwise exist for actual content.

Once you've detected all 404 errors, you need to analyze the traffic that they generate. If these dead links no longer bring any visits and never consume your server resource, then you may leave them as they are.

But if these pages still have some traffic coming, consider setting redirects for external links and fixing the link addresses for the internal ones.

STEP 4: Use a CDN
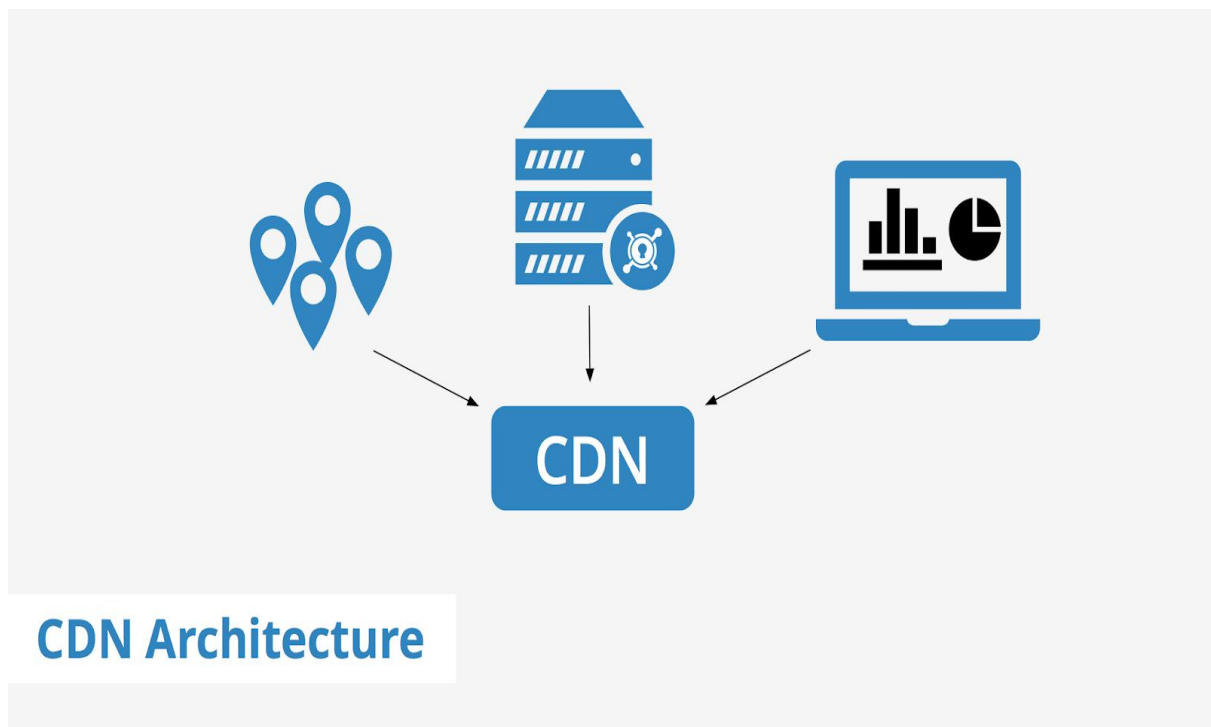
CDN is short for **content delivery network**.

A content delivery network (CDN) is a system of distributed servers (network) that deliver pages and other Web content to a user, based on the origin of the webpage, the geographic locations of the user and the content delivery server. For users who are **physically farther away** from your server, **load times are higher** because the information has a farther distance to travel even when you aren't experiencing lots of traffic.

A **CDN** (**Content Delivery Network**) can help you eliminate these issues.

The number one reason for using a **CDN** is **to improve your user's experience in terms of speed.**

Some of the benefits of using a CDN for your website include **faster load times** for web and mobile users and **quickly scalable** during times of heavy traffic. Also it **minimizes risk of traffic spikes** at point of origin, ensuring **site stability** and **better** site **performance**.

This is a rather expensive, but quite effective way to optimize the load time.

CDN Architecture

STEP 5: Optimize CSS

Cascading style sheets (CSS) are elements of code that enable you to style your website however you want. You can use **CSS** to change colors, fonts, margins, padding, indentations, columns, and more. Each **CSS** element addresses a specific part of your website.

Bloated CSS can slow down your site, though. For instance, if you address a single element multiple times in the CSS, your browser will have to figure out which to load and what the other instructions mean.

If your website contains a lot of **CSS files**, it leads to a large number of **HTTP requests** when your website visitors want to access particular files. These requests are treated individually by a visitor's browser and slow down the website work.

If you reduce the number of CSS files this will undoubtedly speed up your website. Try to group all CSS files into one.This will reduce the overall number of HTTP requests.

There are a lot of tools to minify HTML, CSS, and JavaScript files quickly. For instance, you can use WillPeavy, Script Minifier, or Grunt tools.
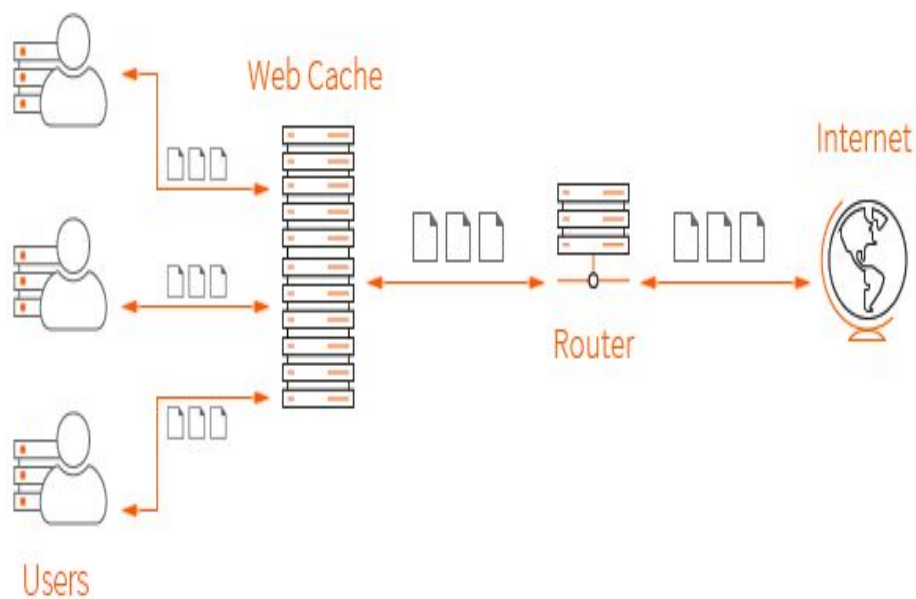
STEP 6: Use website caching

Website caching is one of the most beneficial technologies available. In short, it makes websites **extremely fast**, which leads to better SEO scores and **increased user satisfaction**, not to mention **better conversions** and therefore **increased income** if you're selling products or services online.

In case there are **a lot of users accessing the page at one time** servers work slowly and they might need more time to deliver the web page to each user. **Caching** is the process of storing the current version of your website on the hosting and presenting this version until your website is updated.

This means that the web page doesn't render over and over again for each user. A plugin like **W3 Total Cache** can make your site load much faster. When someone visits your website, the plugin caches elements of your site for future visits. In that way, they load quicker.

STEP 7: Monitor mobile page speed

In addition to monitoring your load times on desktop, you'll want to **pay particular attention** to how well your site loads on mobile devices.

The importance placed on factors like mobile optimization, keyword optimisation and the quality of links vary greatly, but all are considered to be hugely significant.

One area that can make an impact and that does make an instant difference is page speed, **specifically mobile page speed**.

This metric is **one of the biggest decision makers that users have** if they are to stick around, continue reading or come back to your website because it has one of the greatest bearings on user experience.

The easiest route is through a WordPress plugin. It takes care of the heavy lifting so you don't have to worry about complex code.

STEP 8: Minimize the number of JavaScript

Using **JavaScripts** can be a great asset to your website. It can help you with visual effects and special functions. Basically it can **enrich** your site. But did you know that **using too many JavaScripts** can drastically decrease your page speed, especially when they are larger in size and have to be loaded from multiple separate files?

Every time your website loads a **JavaScript file** it creates a new HTTP Request to load and analyze the file before it can render your HTML page.

The larger the file and the more files you have, the longer it takes the browser to finish loading your web pages. To learn more about the number of Javascript files (and their sizes) are being loaded on your website you can test your website with the **website speed test**.

If you reduce the number of JavaScript and CSS files this will undoubtedly speed up your website. Try to group all JavaScript into one, this will reduce the overall number of HTTP requests. There are a lot of tools to minify HTML, CSS, and JavaScript files quickly.

STEP 9: Minimize HTTP requests

HTTP requests are how browsers ask to view your pages. So when your web page loads in a browser, the browser sends an HTTP request to the web server for the page in the URL.

Every time it sees a request for a new element, it sends another HTTP request to the server. The more images, scripts, CSS, Flash, etc. the more requests your page will make and the slower your pages will load.

The easiest way to reduce the number of HTTP requests on your pages is to not use many (or any) images, scripts, CSS, Flash, etc. But at the same time pages that are just text are not attractive to users.

Reducing this number of requests will speed up your site, look through your files and see if any are unnecessary.

If you use **Google Chrome**, you can use **the browser's Developer Tools** to see how many **HTTP requests** your site makes.

Right-click on the page you want to analyze, then click "Inspect," and then click the "Network" tab. (If you don't see the "Network" tab, you may need to expand the Developer Tools sidebar by dragging the left border to the left.)

STEP 10: Improve server response time

Server response time is the amount of time required to load the HTML document of a website from a server so that the client can begin rendering the page. Without a good server response time, the HTML doc will take longer to load.

Server response time is an important value to track as all website assets are indirectly dependent upon it. If your **server response time** is **slow**, then **your whole site will be slow**, no matter how optimized your other resources are.

A few Things That Can Affect Server Response Time

Poor web hosting - A web host that uses legacy hardware/software will result in a slower response time for the user. So even if your hosting provider offers the most up-to-date equipment available, there are various hosting options available.

Increased traffic - Increased traffic is a good thing, it means more resources are being used. But, if your server's capacity level is reached, then visitors will experience slower response times or even error codes.

Bloated webpages - Webpages can get pretty bloated if the right optimization practices aren't in place. This includes things like oversized images, non-responsive images, non-minified CSS/JS files, etc.

Lack of caching - Caching is a crucial step in delivering content faster to users. However, the lack thereof creates unnecessary waiting periods due to the fact that the browser must request assets from the server every time instead of accessing them from a local or intermediary cache

Stay Tuned

That's it for now.

Make sure you're not missing out on any future free materials that we are going to release. We are working on some absolute gems at the moment, and I'll hate to see you miss them.

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