

# Get your mobile site up to speed

An engineer knows that every decision can impact performance, so projects must be continually assessed to develop the optimal design. It's like keeping a bike fast— you have to keep tuning it up, or else you'll end up with a slow mode of transportation.

Your mobile site is no different. Improving your mobile site speed requires clear assessment of the problem, executing solutions and monitoring impact. The good news is that the tools to improve mobile speed are easily accessible. This guide will walk through the steps you can take to get your site up to speed.

To learn why mobile speed matters, visit [g.co/MobileSpeed](https://g.co/MobileSpeed)



# 1. Measure your site's performance

Before you try to fix anything, you need to assess your site and learn what exactly is slowing it down. These tools provide the best measurement and metrics for mobile speed.



**PageSpeed Insights** analyzes your site performance, scoring its speed and user experience and identifies issues to fix. The best practice is a score of 85 or above.<sup>1</sup>

**Webpagetest** provides a Speed Index that indicates the average time at which visible parts of the page are displayed. Aim for a Speed Index of 3,000 or less and load time of 10 seconds or less – ideally 1-5 seconds.<sup>2</sup>

**User Timing API** allows you to generate custom metrics for business-specific needs.

**Google Analytics** Site Speed reports offer insights into how quickly users are able to see and interact with content, as well as what the drop off points are.

**Chrome DevTools** is a versatile real-time tool for evaluating your website's performance right in the browser. You can simulate network and CPU speeds, examine network loading details and see how your site's code is impacting your page.

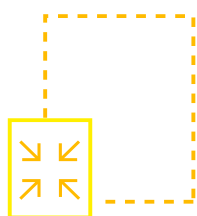
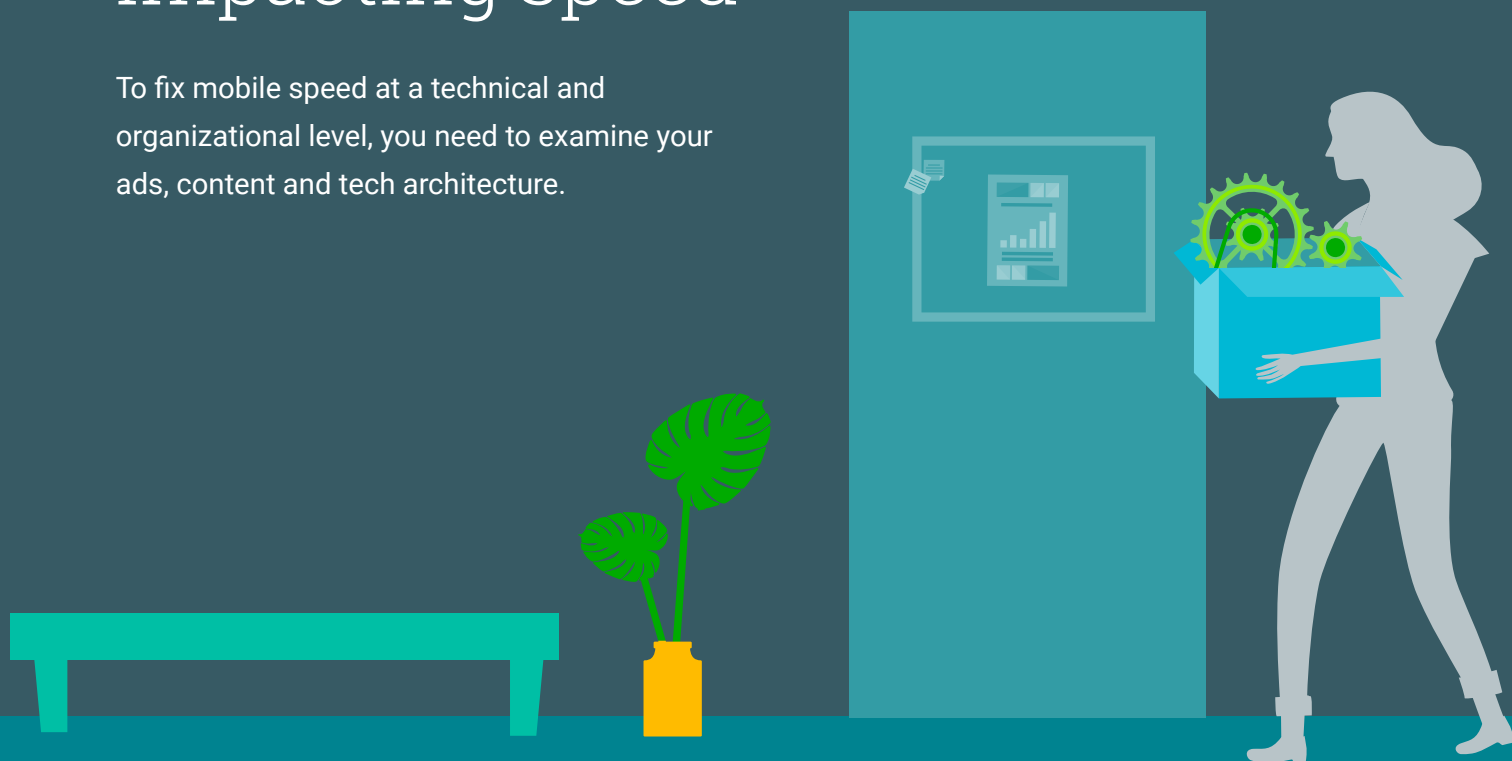
**Mobile-Friendly Test** is designed specifically for mobile sites. This tool analyzes exactly how mobile-friendly the site is, and focuses on elements beyond speed as well.

1. [Google Developers](#)

2. [Google](#) and [kissmetrics](#)

## 2. Assess the different components impacting speed

To fix mobile speed at a technical and organizational level, you need to examine your ads, content and tech architecture.



### Reduce the size of your pages.

- Target 50 or fewer requests and 1,000 or fewer bytes to optimize load time.
- Compress and select efficient images, and prioritize download of visible content.



### Assess the ads and trackers running on your page.

- Use a tool to measure the bandwidth and latency impact of pixels and other elements on your pages (eg. Ghostery). Evaluate if trackers are needed and used, and if they provide enough benefit.
- Review latency of your ad partners, especially those delivering video ads, and remove low performing monetization partners.

# 3. Prioritize the order your site loads

Speed is more than just a number. Instead of asking “What does slow mean?”, ask “What does the user feel?” This user perception is the main driver of movement for lower bounce rates and more engagement. Make sure your site is loading in the optimal order for mobile performance— even one piece out of place can make a huge difference in speed.



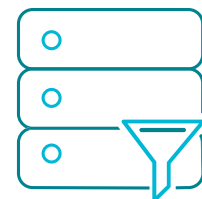
## Prioritize loading elements that are visible above the fold first.

Minimize the amount of pieces that show above the fold of visible content. Load styling, javascript logic and images that are only accessed after direct interaction later.



## Enable HTTPS and HTTP/2.

Support Support modern HTTPS to provide site integrity, encryption, authentication, and better user experience. More than 1-in-3 of top 100 sites run on modern HTTPS, and a quarter of them use HTTPS by default.



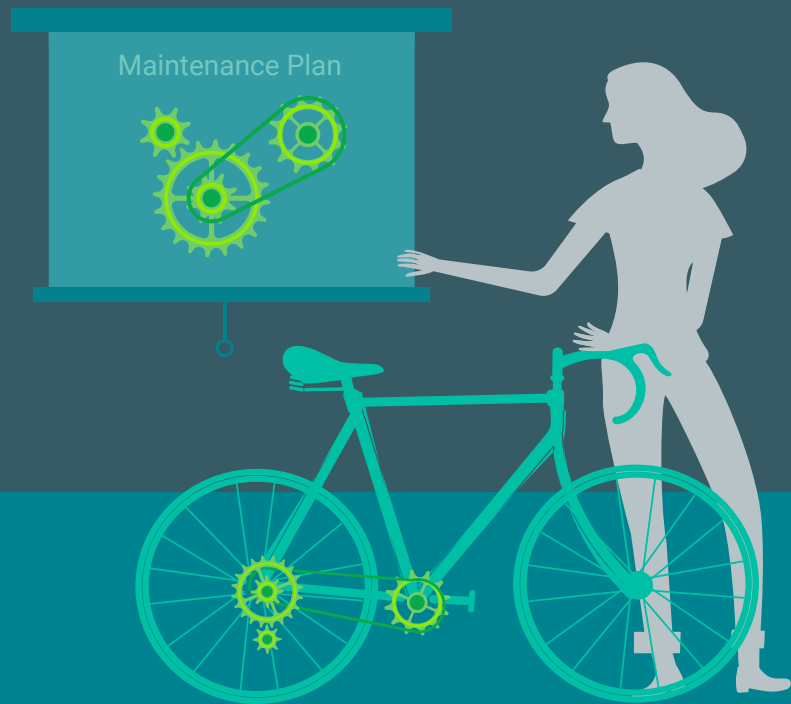
## Limit server requests where possible.

Each mobile page makes an average of 214 server requests,<sup>3</sup> some of which happen simultaneously and some that can only happen one after the other. Review each request on your site to understand the benefit it provides.

3. DoubleClick, “The Need for Mobile Speed”, , September 2016

# 4. Test, remeasure, repeat to improve your site speed

Once you've run diagnostics and executed changes, it's important to keep testing it to ensure these speed gains only improve. There are a few steps you can take to make sure you keep your mobile site at top speed:



- Continually assess your ad-related calls to remove low performing monetization partners.
- Pick third-party ad-tech partners with lower latency.
- Remove or reduce any bulky content.
- Consolidate data and analytics tags.
- Investigate open-source tools such as [Accelerated Mobile Pages \(AMP\)](#) and [Progressive Web Apps \(PWA\)](#).



**53%** of mobile site visits are abandoned if a page takes **longer than 3 seconds** to load.<sup>4</sup>

**Mobile speed matters.** With these steps to increase your mobile speed, you can keep users engaged for longer and increase your mobile revenue opportunity.