# Web Hosting **Sedated Servers**



A Technical Guide by the PagePipe Staff

#### **AFFILIATE LINK DISCLOSURE**

Required by the US Federal Trade Commission Law

#### We review and share snarky opinions of WordPress speed services.

Our recommendations are completely biased yet from our real-life horror stories.

PagePipe earns a juicy commission when you click one special product link in this ebook.

There is but one - and only one - and it's clearly labeled.

Our fantastic journalism mainly promotes our ebooks and speed services.

Are we Nazi propagandists? No.

In America, it's called advertising. [giggling]

Do we have a hidden secret agenda?

Not really. We're pretty blatant about our goal.

"Save the Internet from WordPress abuse."

We don't promote or use affiliate links on our blog or store.

But we do in this special report. We need to put bread on the table.

Do we trust the service we promote? Absolutely. We use it ourselves.

Curious to find out what it is? Read on. Where's Waldo? Go find it.

-- The PagePipe Staff

#### What the heck is affiliate revenue?

Affiliate revenue is a percentage of commission shared between publishers and affiliate networks. We always make this clear to readers with a statement near the link.

#### SPECIAL SECTION

# CHOCSING hosting

#### 7 tips for choosing a quality web host.

You know you need a web host, but you feel overwhelmed by all of the choices available to you?

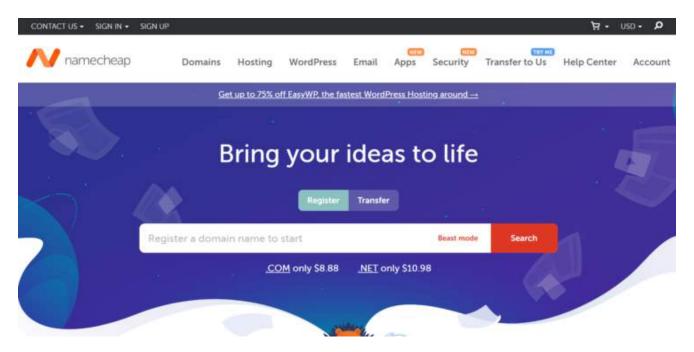
Are you wondering how in the heck one chooses a super fast host and at a good price?

#### Here's the deal...

The web host you choose is one of the most important and early choices you must make to get online.

We want to help, so let us share our somewhat checkered past with web hosting companies. We hope that what we share in this article helps you make an informed choice for your web hosting needs.

#### Namecheap: Path of Least Resistance



When you decide to start a website, you need a domain name, which is just your website address or <u>Unique Resource Locator (URL)</u>: *for example*, <u>www.yourdomainname.com</u> or <u>www.yourdomainname.org</u>.

Domain names are purchased from a domain registrar, which is an accredited company that allows you to buy and register domain names.

Early in our online career, it just made sense to buy our domain name and hosting from the same company, so we did from **Namecheap**.

We found Namecheap to be an excellent domain registrar with reasonable prices. The customer service was 24/7 live chat.

They were nice and helpful.

As for the hosting, we were new. We had no understanding about or expectation of site speed or even what a web host's ultimate responsibility is to a website owner.

But at the end of the first year, we decided to leave Namecheap web hosting in search of a "better" web host.

And do you want to know why?!

Well, we were running a WordPress website. And all of this website stuff was foreign to us and we needed a lot of hand holding — we mean support — on all fronts.

And at the time, Namecheap's hosting was a new offer for them and their WordPress support was just less than stellar. So we hit a wall. We needed more and they could not deliver at the time.

So after the first year, we decided to keep them as our domain registrar and move on to a "better" host.

**Lesson**: Choosing a web host needs to be a thoughtful decision. Don't be lazy and take the easiest path.

#### InMotion Hosting: Were They "Better?!"



After doing much research, we decided that the "better" host for us was: **InMotion Hosting**.

They "claimed" to be WordPress experts.

They had not only 24/7 live chat, but also 24/7 phone support.

For a still relatively new owner of a WordPress website, 24/7 *phone* support was sweet music to our ears.

And at first, all was well. We were happy. And boy did we use that 24/7 phone support.

But can you guess what happened?!

Well, it came to an abrupt end when John, a InMotion Hosting customer service rep, rudely informed us that helping us with our WordPress questions was, well, not their concern.

It was his insulting tone.

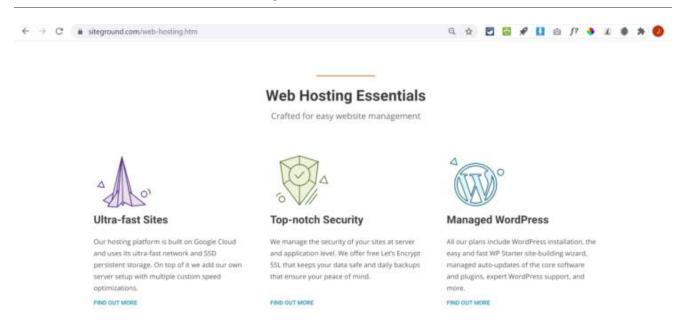
We felt stupid and we were upset enough to call InMotion Hosting back and ask to speak with a supervisor. To the supervisor's credit, he apologized for John's poor customer service. And then, said, "There are always going to be customer service reps that aren't quality."

He's right, of course. We understand that, but it did not make us feel confident or "better."

So before the year was even up, we were searching for a "better" web host again.

**Lesson**: Customer service can make or break a web host.

#### SiteGround: But Aren't They the "Best?!"



So after we left InMotion Hosting, we landed at **SiteGround**.

They offered web hosting at a very sweet deal of just \$70 a year for the first year — actually, you could lock in this sweet deal if you could afford to pay for *three* years up front. Truth is, most beginner website owners don't have a clue where they will be in three years, so that's an unrealistic commitment.

We did have the good sense to ask about what the pricing would be after the first year. And we were told, "Not to worry. There are always coupon discounts."

Plus, they had 24/7 ticket support, 24/7 live chat, and 24/7 hour phone support. All this potential hand holding was a dream.

Plus, everyone – everyone – loves SiteGround.

Plus, everyone online shared how super fast they were. Everyone.

Honestly, they seemed like a web host made in heaven.

Until...

The first year ended and our web hosting was up for renewal. This is when we got the sticker shock.

Coupon discounts?! That was a total lie. (To be fair, nine out of 10 web hosts give you a sweet first year deal.)

Our annual budget for web hosting went from \$70 to \$240. That's a lot.

But we were still clueless (and lazy) about how one chooses a good web host.

Why?!

Because we had absolutely no idea how you even begin to choose a new host after you've been with the "best."

So we stuck around for another year, paying their inflated web hosting prices of \$59.85 every three months. That's \$19.95 a month for their Grow Big hosting plan.

This all came to a screeching halt, when they jacked up the price to 89.85 every three months. Now we are up to \$29.95 a month. Interestingly enough, their website says \$24.95/month for the Grow Big plan, so why did charge us \$29.95?

But here's what added insult to injury...

SiteGround's proprietary *Client Area and Site Tools* are provided to *new* customers, while many of their old customers like us were still stuck using *cPanel*, the standard web based control panel many web hosting companies use.

We ask you this...

How fair is it to jack up the price from an already over inflated \$19.95 per month to a ridiculous \$29.95?!

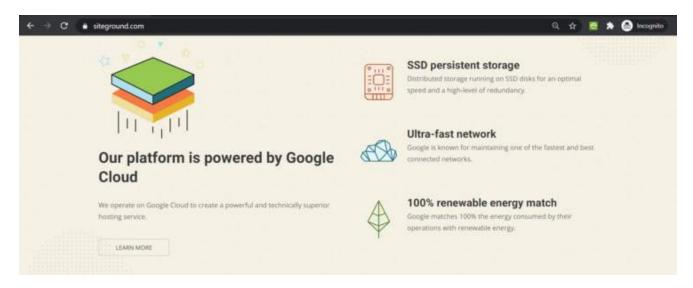
And how fair is it that this price gouge happens to old, loyal customers, who SiteGround still haven't migrated to their new Client Area and Site Tools a year after it was first rolled out?

Our wallets could no longer handle the steal and our self-respect made us get busy looking for a new web host **again**.

SiteGround can't be the only "great" web host, right?!

## There are two things that SiteGround is known for: Speed and Customer Service.

On the subject of speed, here is what SiteGround promises: "Our hosting platform is built on Google Cloud and uses its ultra-fast network and SSD persistent storage."



#### Sounds nice, right?!

And along with caching implementation on their servers, they also provide a proprietary caching plugin called *SG Optimizer*.

But we were not convinced that SG Optimizer provided any meaningful speed boost.

Plus, like most <u>caching plugins</u>, it is not an easy plugin to configure. And it's implementation on our website was never a smooth experience. So we deactivated and deleted it.

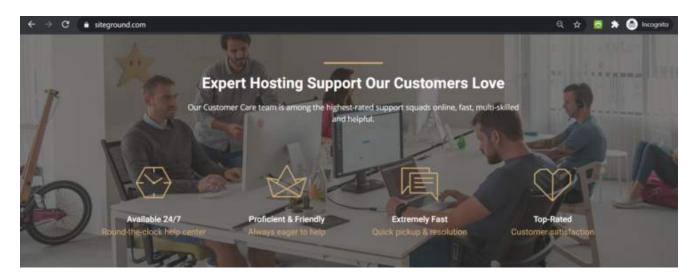
In fact, we go so far as to say that a lot of SiteGround's server caching optimization tools were disconnected from each other — at least for the average website owner.

We would accidentally discover yet another server-side caching option that required manually flipping a switch even after talking extensively with a customer service rep about website optimization.

We think that if you are a web host that prides itself on being super fast, shouldn't your server speed optimization tools be cohesive and intuitive for the average website owner?!

Fair question, don't you think?

And on the subject of customer service, here's what SiteGround has to say: "Our Customer Care team is among the highest-rated support squads online, fast, multi-skilled and helpful."



Here's what our experience has been...

Of all the web hosts we had tried to date, SiteGround was the most proficient at providing support on WordPress itself.

And, honestly, they were really nice and usually super helpful. They would actually *offer* to complete many site changes on our behalf.

But towards the end, the accuracy of the support was sometimes suspect and, at \$29.95 a month, that seems unforgivable.

We think you deserve consistent, accurate information from web hosting customer service reps, especially at SiteGround's price point. Don't you?!

**Lesson**: Don't believe the hype. Dig a little deeper and test for yourself.

REFERENCE: SiteGround Failed TTFB Test

#### **Testing a Web Host**

Here are seven tips that will help you choose a quality web host:

**Tip #1**: Shared hosting is probably sufficient for most of you.

There are many types of website hosting. <u>Shared hosting</u> simply means that you are sharing a server computer with at least one or more other websites.

The opposite of shared hosting is <u>virtual private server (VPS)</u> or a <u>dedicated hosting server</u>. With this type of hosting, a "server" or server only hosts one website.

**Tip #2:** You want a web host that is committed to security. Yes, while there is much <u>you can</u> and should do from your end, website security begins with your web host.

**Tip #3**: You want a web host that delivers 99.9 to 100% uptime. Because a down website can reduce your bottom line.

**Tip #4**: You want a web host that allows you to edit or write to your .htaccess file, a critical configuration file. You just might need to do that someday.

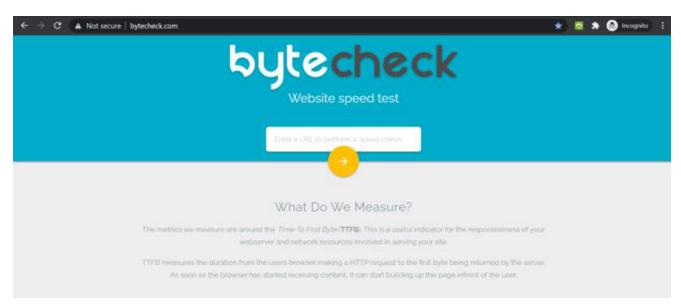
**Tip #5**: You want a web host that provides 24/7 customer service. These days, with the right web host, ticket support and live chat are just as good as phone support.

**Tip #6:** Don't automatically install <u>caching plugins</u>, even proprietary ones from your web host. As with *all* plugins, please do your homework. Test your site speed BEFORE and AFTER installing *any* plugin.

**Tip** #7: You want a web host with a *stable* Time to First Byte (TTFB) of less than 300ms. And if you can find a web host with a TTFB of 200ms or less, sweet.

TTFB is the time it takes a web host's server to deliver the first byte of data for a requested page to a visitor's browser. This is an important qualifier.

Knowing a web host's TTFB is how you can verify if their speed claims are true. To check for TTFB, go to <u>ByteCheck</u>.



And run the web host's homepage through ByteCheck six times. Then, you'll know if you've got a winner or a dud.

#### Conclusion

There is likely no "perfect" host, but now you have information to help you choose web hosting more wisely.

REFERENCES

12 Mobile Speed Fundamentals

Pingdom Speed Test: What to Ignore

**How to Evaluate Mobile Speed Accurately** 

**Janine Helligar** is a daughter, sister, friend, sewist, amateur writer, and WordPress enthusiast living in Georgia. She blogs at <u>Stitching in Colour</u>.

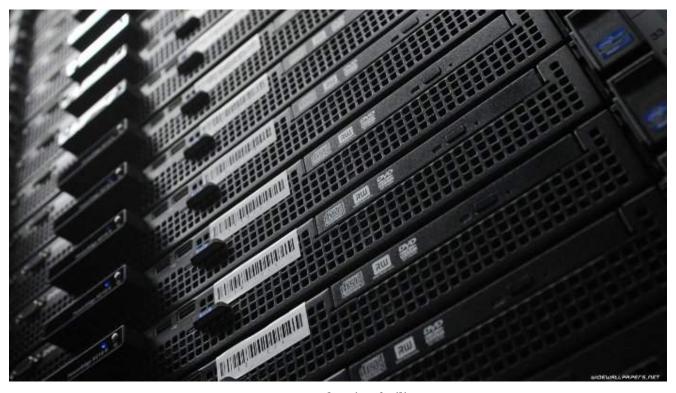
#### SPECIAL SECTION

# SLOW hosting

#### **Sedated Servers**

People love to argue about which hosting is the best in the world. All hosts are pretty lame at some time. They're for-profit companies run by fallible humans.

We apologize in advance for speaking ill of a host you may care a lot about. Can you tolerate trash-talk about your special-preferred hosting company? If not, you're gonna be resentful. It's a loyalty and pride issue for some team-type people. Hosting is a commodity product. We don't get emotional about web hosts. But at the same time, we 'hate' slow web pages. That sounds pretty emotional.



Servers at a hosting facility.

SLOW web hosting SUCKS

**Let's be upfront about our topic.** We're discussing common ordinary cheap shared commodity hosting. Not expensive specialty hosting like VPNs. And huge cloud-based services charging by the minute – or by byte volume.

A frequent question we're asked is,

"What host do you recommend for speed?"

Uh.

People are often surprised at our response, "We don't recommend hosting." Of course, you need a web host to build a website. But we don't recommend hosts? Why? They're cyclical from mediocre to bad to worse. That's been the history.

#### If site owners asked, "What host should I avoid?"

Many diseased hosts — they'd sell their grandmother for \$100.

It's much easier to answer. We could give a long list. There are so many hosting problems people don't know about. But there are easy ways to find out how good-is-good-enough.



A speed evaluation we do is measuring Time To First Byte (TTFB). There are three ways to determine TTFB. Two are using online tests and another is by uploading an HTML file into your media library.

REFERENCE: <a href="https://pagepipe.com/find-out-what-your-server-ttfb-really-is/">https://pagepipe.com/find-out-what-your-server-ttfb-really-is/</a>

We've talked on PagePipe about why TTFB is important. But we'll review it here.

Consider TTFB the server overhead. It's a delay in milliseconds. It's how long it takes for the server to respond to a request for web assets. Then the browser can begin to construct your WordPress page in the device viewport. A good TTFB is 100 to 300 milliseconds. *Ordinary* is around 500 milliseconds, and *poor* is 750 milliseconds. *Dismal* is 1 second. And anything after 1.5 seconds is *horrific*.

#### How bad does TTFB delay get?

Worst case we've seen TTFB as long as minutes. This slowdown is often caused by plugins hammering on the server database. Or a plugin and theme conflict confusing the server. So it isn't always the server's fault. Plugins with heavy zip downloads are the most notorious for causing TTFB delays. They're complicated plugins with lots of code – and lots of repeated calls to the server. That is bad for speed.

Hosts with impeccable service and wonderful uptime become bandits about their speed benefits. They brag about the quality of their magnificent servers. Boasting about superior SSD (solid-state drives) instead of mechanical spinner magnetic drives. As if these specifications matter for site owners. We've never seen the type of drive technology make any difference. Yes. SSD drives are faster. But in the end with all the other hosting variables, it isn't significant. It's not a measurable difference. The gain gets lost in the noise.

Who benefits most from SSD drives is the host company. SSD drives are quiet, smaller, cooler, and reduce energy consumption. They are good at reducing the server-facility overhead in floor-space and energy bills. But that has nothing to do with actual speed – or website load time. That is specsmanship hosts boast about. But the boasting never proves anything. Like bragging that your car can go zero to 60 in 3 seconds – but you use it for shopping at Walmart or driving in school zones. A waste of machine.

Because a host claims its servers are fast doesn't mean you get *fast*. They exaggerate and omit details. They show perfect samples.

#### There are simple tests to find out if they're deceptive. Here's how:

Get the URL of the hosting company homepage. Plug that into ByteCheck.com. You will never get a faster TTFB on their servers than they present on their homepage. That is simple. Compare them. Take 6 consecutive tests in a row. Are you surprised to find your favorite host gets 200-millisecond TTFB — but only once per hour? The rest of the time it's fluctuating around 1.7-seconds TTFB. That is terrible. What host would be that bad? Er. SiteGround. Yeah. They suck for speed and there are reasons. Popular hosts don't guarantee good speed. Neither do expense hosts Like WP Engine, \$100 per month: \$1,150 per year. Ouch.

So what about places like BlueHost (\$71.40 annual rent)? We wanted to prove a point once. Even on super-cheap hosting like BlueHost we could load an eCommerce store in under 2 seconds. What kind of TTFB did our store get on BlueHost? Typically there was a 1.7 second delay.

That meant we had to load our store pages in 300 milliseconds. We made it work but we had no room for error. Those tight tolerances made us uncomfortable. The load time would push out beyond 2 seconds to 2.2 to 2.5 seconds. We wanted to maintain our reputation as speed freaks. So we moved the store to Rochen later (\$227.40 annual rent fee). We proved our point, but we didn't want to stay there any longer than necessary.

**So is BlueHost so bad?** it all depends upon what your goals are. To run a simple blog, it's fine. All hosts are bad and good at different times. What we like is hosts with rock-stable servers. We prefer a predictable 500-millisecond TTFB at GoDaddy. Rather than a fluctuating TTFB at SiteGround (\$300 annual rent). When we work with speed clients, do we move them off SiteGround? Always. Do the clients whine about that? Yes. They do. They

think SiteGround gives them good service. When we call their service desk, we get a correct answer half the time. The IRS 800 helpline gives wrong tax advice answers half the time, too. Is that good enough? Heck, no.

But what we despise most is hosting companies with speed claims that are flat out lies. They give no proof. They start throwing around technobabble jargon. It's a smokescreen that they out spec the competition.

#### We do not appreciate these tactics. We aren't ignorant.

When you find a good host, will they stay good forever? Not for long. For example, we used to love Pressidium managed WordPress hosting (\$1,798.8 annual rent). But they had some policy changes and now TTFB speed – that used to be spectacular – isn't so good. And they locked us away from writing code to the server htaccess file with plugins.

The htaccess file is important if you do selective activation of plugins. A cool speed trick. That ruins speed Karma for us. Most managed hosting tries to keep the client as far away from server access as possible. Why? They say "security issues." We know the real reason. Services costs rise as they get more clientele and they can't keep up with the ensuing chaos. So they start locking people out to reduce the service calls.



What about Kinsta (\$2,400 annual rent)? Aren't they good? Their mantra is "Built for Speed." Yeah, except they give out bad advice for speed. They don't speak of cheaper alternatives. They perpetuate myths to their advantage making their specsmanship appear dandy. Propaganda machines. We criticize their claims and advice more than we do their actual performance. We feel it's deceptive and shallow.

We've written quite a bit about Kinsta policies and advice. So we won't repeat the potential insinuations and insults here.

REFERENCE: <a href="https://pagepipe.com/how-kinsta-pretends-its-the-fastest-wordpress-experience/">https://pagepipe.com/how-kinsta-pretends-its-the-fastest-wordpress-experience/</a>

REFERENCE: <a href="https://pagepipe.com/kinsta-speed-bias/">https://pagepipe.com/kinsta-speed-bias/</a>

REFERENCE: <a href="https://pagepipe.com/the-illusory-superiority-of-kinsta-web-speed-propaganda/">https://pagepipe.com/the-illusory-superiority-of-kinsta-web-speed-propaganda/</a>

We want a host with integrity. It's often fine until a hosting company changes ownership – or gets popular. That's right. Popularity ruins hosts. For example, HostGator, we were checking why a New York seller of woman's perfume had such a slow site. We used a tool called YouGetSignal. That online tool told us it could only show the first 1,000 domains. Our client was sharing the server with at least 1,000 more domains. That was the problem. The server was crammed to the gills with over 2,000 domains. What is normal? Well under 100 domains – and more like a dozen.

REFERENCE: <a href="https://www.yougetsignal.com/tools/web-sites-on-web-server/">https://www.yougetsignal.com/tools/web-sites-on-web-server/</a>

Mystified speed clients ask why their host server is so extraordinarily slow. We check with YouGetSignal, and bingo, there's an adult porn site lurking unknown on their server. Kiss speed goodbye if that's the case. You don't need an advanced degree to use these online tools. It's a simple copy-and-paste of your URL. The tool then identifies in RED the offending adult site. Sharing a server isn't bad – if you have the right neighbors.

Generally, you get better speed by throwing money at the problem. Or renting more expensive servers. We see this on sites so corrupted we can't update to a current version of WordPress. Instead of rebuilding the site and fixing it, the lazy owners buy more expensive hosting to solve it. The site is a hand-grenade with the pin pulled out. But they don't want to fix it.

#### Craziness.

Where do site owners go to host a damaged site? Usually Kinsta. Got a lousy site. Go to Kinsta. It fixes speed with money. Shortsighted. That site is ticking like a time bomb.

30 seconds or even 1 minute load times, inevitably it's a huge plugin fighting to get control of the server database. Usually a security plugin, a caching plugin, or metric-gathering plugin. These plugins usually weigh more than WordPress itself. But – hey – they are popular. Did anyone ever think to look at the size of the popular plugin? And wonder if that monstrosity is detrimental? Obviously not. It's installed because everyone (The Herd) is installing it. It must be good. Right?

After pulling these fat plugins, the server miraculously calms down to a fast load time. What good is a lame plugin like that? Your bounce rate goes through the roof. These kinds of sites are the easiest tune-ups for us to fix and create the most dramatic results. We're heroes. When you go from a 30-second load time to under 1 second, it impresses the client. They think you performed an exorcism when all you did was disconnect a power hog plugin.



**WP ENGINE is** *not* **a preferred host for speed.** Their server overhead (TTFB) is often about 800 milliseconds. A good TTFB (time to first byte) is 100 to 200 milliseconds. The average is 500 milliseconds. Poor is 750 milliseconds and bad is over 1 second. Hosts like SiteGround have erratic TTFB. It sometimes is 200 milliseconds – but most often is 1.7 seconds. So they claim the cherry-picked specification and ignore the real speed errors.

WP ENGINE's homepage TTFB is 107 milliseconds tested with ByteCheck. Impressive. That would fool our usual rule of checking the host's homepage as an indicator.

But 6 consecutive test of a client site on WP ENGINE shows:

ByteCheck 831 milliseconds, 927 milliseconds, 878 milliseconds, 924 milliseconds, 866 milliseconds, 846 milliseconds.

WP Engine is using a sweet server for their homepage hosting – but not yours. You aren't sharing your server with anyone. It should be fast.

Their speed secret: they are using Fastly CDN and Cloudflare CDNs on their page but not yours. Fastly services charge based on traffic and bandwidth usage. And Cloudflare is \$200 per month estimated.

In other words, they throw money at their homepage speed but not yours. A deception.



WordPress.org Official Recommended Web Hosting GLOWING ENDORSEMENTS

There are hundreds of thousands of web hosts on the internet. WordPress recommends only three hosts: Bluehost, DreamHost, and SiteGround. Those companies "donate" a part of your hosting fee back to WordPress. That's called an affiliate link anywhere else. Not a donation.

Listing is completely arbitrary but includes: "contributions" to WordPress.org – as their first criteria.

#### How much do those 3 companies pay WordPress?

They won't tell you. But you can't get listed unless you "contribute." The WordPress endorsement is worth millions of dollars to these three companies. Uh? That's more blackmail or hostage payments.

"The recommended webhosting page on WordPress.org is incredibly lucrative. Based on conversations I've had with employees of hosts listed, it can generate millions of dollars in revenue."

<u>https://wptavern.com/the-wordpress-org-recommended-hosting-page-is-revamped-features-flywheel-for-the-first-time</u>

#### Are they good services?

Why are the top-recommended hosts in a Google search the worst hosts in the eyes of real users? Why can't you trust WordPress hosting recommendations?

"Most hosting recommendations are unreliable for a simple reason: **money.** Like many other things, money corrupts hosting conversations. Recommending bad hosting leads to large amounts of money for the recommender. How does that happen? It's the reality of the **affiliate marketing** model that dominates the hosting space."

citation: <a href="https://wpshout.com/why-most-recommended-wordpress-hosting-lists-suck/">https://wpshout.com/why-most-recommended-wordpress-hosting-lists-suck/</a>

#### Here are some facts about WordPress.org recommended hosts:

Bluehost

We've mentioned BlueHost to prove we could make a store work even on poor-quality hosting. The TTFB for our site was 1.7 seconds. We loaded pages in under 300 milliseconds. Then things got worse and we moved.

REFERENCE: <a href="https://sitecare.com/blog/why-wordpress-org-should-stop-endorsing-bluehost/">https://sitecare.com/blog/why-wordpress-org-should-stop-endorsing-bluehost/</a>



Bluehost received a *wooden spoon* award for being the bottom feeder in a review of web hosts. Winning a wooden spoon doesn't sound like a very awesome prize for a high-tech company.

BlueHost is owned by Endurance International Group who owns the 20 largest web hosts. They have venture-capital ownership in Automattic, the mothership of WordPress. EIG is owned by Clearlake Capital Group L.P. a diversified investment firm.

#### DreamHost

We've never used DreamHost (\$203.40 annual rent for one domain). We never were tempted. But here's the scoop on their homepage: TTFB: 195 milliseconds. Hey! That's pretty **good**. Load time: 5.541 seconds. Hey! That's pretty **bad** with such a good TTFB.



So why are they so slow? Maybe it's because they're sharing their server. That would be walking the talk. Nope? They share their server with no one. So why so slow?

Here's why: remote third-party services located on distant servers.

**HotJar**, a user experience metric service, adds 500 milliseconds.

REFERENCE: <a href="https://pagepipe.com/hotjar-adds-500-milliseconds-to-mobile-speed/">https://pagepipe.com/hotjar-adds-500-milliseconds-to-mobile-speed/</a>

**YouTube video:** DreamHost isn't lazy loading the video – a simple speed trick. This adds 500 milliseconds. Are they speed experts? Uh. No.

REFERENCE: <a href="https://pagepipe.com/lazy-load-youtube-video-for-mobile-speed/">https://pagepipe.com/lazy-load-youtube-video-for-mobile-speed/</a>

**Drift** is a \$500 per month chat feature. Chat adds 1 second to load time. Do they really need chat on their homepage? Other places, sure. But why add that slow down to the homepage?

REFERENCE: <a href="https://pagepipe.com/dumping-livechat-for-speed/">https://pagepipe.com/dumping-livechat-for-speed/</a>

#### **Font Awesome**

REFERENCE: <a href="https://pagepipe.com/should-i-disable-font-awesome-and-google-fonts-for-improved-speed/">https://pagepipe.com/should-i-disable-font-awesome-and-google-fonts-for-improved-speed/</a>

You get the idea. These guys need to do their speed homework.

SiteGround

We've already mentioned SiteGround as having fluctuating TTFB. Every client we work with moves if they are on this host. Do we make them move? No. They choose to after they see the speed reports. Do we tell them where to host? No. They choose. We don't care where they go as long as they move away from this host. Then we can achieve our speed goals. The clients always say, "But everyone says they are fast." Who is everyone?



"Everyone" is bloggers with affiliate links to SiteGround. Of course [forehead smack].

But ... But ... what about all the impartial reviews on internet blogs?

Check those referral links again in the "impartial" reviews. They're affiliate links.

When an *affiliate* recommends a product to you and you buy it, the affiliate gets a payment. Someone paid for an opinion isn't a great judge of truth.

\$50 for 1 to 5 referrals per month, \$75 for 6 to 10, \$100 for 11 to 10, and \$125 for 21+ sales. (This is the affiliate structure of SiteGround, one of our least favorite hosts.)

### So, most WordPress hosting advice is dishonest. How do you find honest, real information?

You can't. You have to test.

Do some of the simple tests we recommend in this ebook. Check their homepage and gimmicks by running a speed test on WebPageTest.org. Check their TTFB on ByteCheck.com. See who shares their server with them YouGetSignal.com. Look them up on Wikipedia and see who owns the host company.

#### Can we trust PagePipe?

We won't answer that. Do testing for yourself. Do not trust any reviews or testimonials. Even ours.

Ask yourself, "How good is good enough?" Don't waste money.

Here's a full and clear disclaimer: There's one affiliate link in our hosting report. It's not on this page – or in our blog. We recommend a host and we collect an affiliate payment if you buy from them. Not if you click the link. Only if you decide to buy.



#### Who is that host?



#### **GreenGeeks**

https://www.greengeeks.com/track/pagepipe

You go there and buy and we get a kickback. Do we deserve it? Or will you punish us for being blatant and honest? They don't charge you. You pay the same price either way. It's your way of saying "thank you" and giving us some applause. Do we need applause? Absolutely.

If you abhor GreenGeeks, feel free to write and tell us why. Email us.

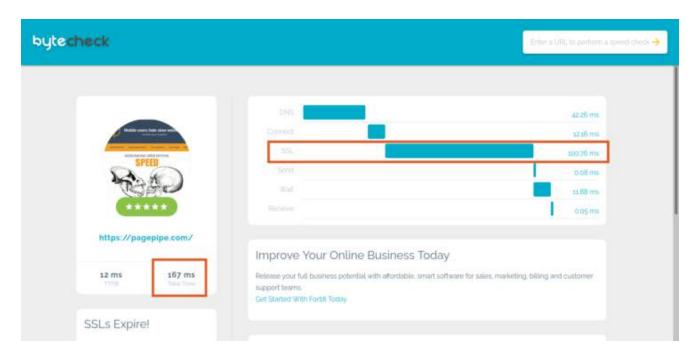
After all these years of restraint, why endorse a hosting company now?

Ironically: The reason is integrity.

#### GreenGeeks doesn't brag so much about speed. They could.

We moved from GoDaddy to them last year. We still use GoDaddy servers for testing and have an account with them. We moved because readers were asking if we'd like to have our SSL fixed. You know that little shield in the corner of your browser address field that promises you're "secure." They thought we missed that. They didn't realize it was a deliberate choice for speed. SSL is used to slow sites by 500 milliseconds. But hosts have found ways to speed that extra burden up.

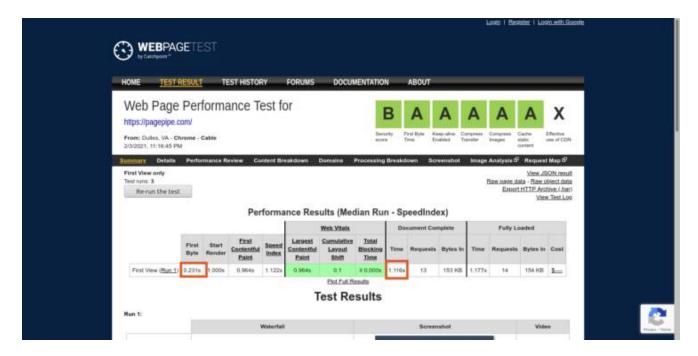
#### For example:



PagePipe blog now has a Time To First Byte of 167 milliseconds using ByteCheck test. GoDaddy was typically 500-milliseconds TTFB or worse. Our blog loaded in under two seconds. But GoDaddy charged \$70 per year per domain for SSL/HTTPS certification. Other hosts as GreenGeeks offer that for free.

Our load time on PagePipe's homepage is demonstrated in this test:

https://webpagetest.org/result/210204\_DiKV\_8e08087b1b542aa023269840fb288a2e/



PagePipe homepage on GreenGeeks. TTFB: 231 milliseconds, load time: 1.116 seconds.

How much does it cost for shared hosting on GreekGeeks versus GoDaddy?

We chose the Pro plan at \$4.95 per month for the first year and \$15.95 per month after that. Their features include:

#### **Unlimited** Websites

**Unlimited** Web Space

**Unmetered** Data Transfer

Free SSL Certificate

Free Domain Name for 1st Year

Free Nightly Backup

Free CDN

**Unlimited** E-mail Accounts

**WordPress** Installer/Updates

**Unlimited** Databases

2x Performance

LSCache Included

300% Green Energy Match

**30-Day** Money-Back Guarantee



**LSCache is LiteSpeed server caching.** We experimented with this on Rochen hosting. But Rochen raised their prices and their TTFB dropped. We still use them but we aren't as happy.

**LiteSpeed helps performance.** We've written a snarky article about our experience here:

REFERENCE: <a href="https://pagepipe.com/the-downside-of-litespeed-cache-plugin/">https://pagepipe.com/the-downside-of-litespeed-cache-plugin/</a>

The downside is disabling your eCommerce WooCommerce or Easy Digital Downloads cart. There are special settings to disallow those pages. But we lost sales messing with the setting figuring things out. We got over it. Today, we are fans of LiteSpeed.



**So how much** is GoDaddy hosting?

For unlimited websites (Deluxe plan), it's \$4.99 per month the first year, and \$8.99 after.

So after pricing settles in the second year, the annual difference is GoDaddy \$107.88 US dollars. And GreenGeeks, \$191.40.

But if we added the cheapest SSL fee +\$69.99 per year, GoDaddy would be \$177.87. And if we were registering a new domain that would add \$17.99. Or \$195.86.

**The difference:** \$5.54 less for GreenGeeks. Does price tip the scale in GreenGeeks favor? Not really. It's sixes. About the same cost.

#### So what does tip the scale to GreenGeeks favor:



GoDaddy doesn't offer LiteSpeed server caching. That makes a big difference in performance for even our origin optimized websites. These speed sites don't benefit from caching plugins because they're so dang fast loading. LiteSpeed Web Server (LSWS) is a high-performance Apache drop-in replacement. GoDaddy uses Apache servers. Is this another useless non-reality-based engineering specmanship? No. LiteSpeed makes a real difference. A web page that loads in 2-seconds now load in subseconds with LiteSpeed.

**Big deal who cares?** Faster than fast? So what?

**Mobile users care.** Some site owners get 80-percent mobile traffic, it's a big deal.

LiteSpeed incorporates selectable speed features we desire. We add free discreet plugins to strip WordPress non-features and make things faster. You don't need those extra plugins. It's unnecessary. The functions now reside on the LiteSpeed server. Much faster and efficient.

Adding LiteSpeed plugin is required. It causes 53 milliseconds of global site drag. But the loss is worth it – because it accelerates everything else.

But there's another reason to use GreenGeeks. We admire their idealistic integrity. Even if it's only a marketing differentiation ploy, we like it.

#### GREEN ENERGY HOSTING SERVICE

**GreenGeeks started in 2008.** They committed to being the most Eco-friendly green web hosting company in the World.

GreenGeeks is recognized by the United States Environmental Protection Agency since 2009 as a Green Power Partner.

GreenGeeks work with the Bonneville Environmental Foundation (BEF) in Portland, Oregon. "BEF" is a Green-e Partner.

GreenGeeks tell BEF how many servers, personnel, etc. they have. They calculate the yearly energy consumption and carbon footprint. BEF purchases 3 times what GreenGeeks consumes. They put that energy back into the grid.

They match the energy they consume as well as payback for 2 other companies their size. This is their commitment to the environment since the beginning.

GreenGeeks has an A+ rating with the Better Business Bureau.

#### They walk the talk.

We admire their idealistic values. We are idealists, too. We call it *honest responsibility*.

#### **Endorsing GreenGeeks is mutually beneficial for our credibility.**

People binge-read our entire blog. We are the "consumer report" of speed.

GreenGeeks is our only affiliate link. We don't publishing that link here in our blog. It's not on our website. You have to download our report, "SLOW web hosting SUCKS" to get it.

**We've written about GreenGeeks competitors.** But those bandits get zero links – only GreenGeeks get a link. It would be normal on an affiliate link farm to have links to even the hosting losers. Desperation to snag extra income. We're not sending you there.

We move our clientele over to your GreenGeek servers as long as the TTFB stays fast. Our reputation as speed experts depends upon us recommending good solutions.

GreenGeeks is "the best shared-hosting deal." GreenGeeks is our only hosting recommendation. We're finished dating hosts. We want a long-term relationship with these guys. We're engaged and hope to marry.

That's our story. Thanks for listening.



Solutions Products Support Partners Open Source







#### LiteSpeed Web Server

With built-in anti-DDoS features, securely handle thousands of concurrent clients while consuming minimal memory and CPU.

#### **Experience the LiteSpeed Difference**

Can the software you run make that much of a difference? Yes, it can.

Our lightweight server conserves resources without sacrificing performance, security, compatibility, or convenience,

Double the maximum capacity of your current Apathe servers with LiteSpeed Web Server's streamlined event-driven architecture. capable of handling thousands of concurrent clients with minimal memory consumption and CPU usage.

Protect your servers with already familiar mod\_security rules while also taking advantage of a host of built-in anti-DDoS features, such as

#### SPECIAL SECTION

# KINSTA hosting

# How Kinsta PRETENDS It's the Fastest WordPress Experience



Kinsta is a managed WordPress hosting powered by Google Cloud Platform. They're located in Los Angles, California.

Kinsta's Chief Marketing Officer is Brian Jackson. We think Brian's a smart guy. We quote him often on PagePipe.

#### We've written two articles about Kinsta:

1REFERENCE: <u>Is Kinsta a reliable source of speed information?</u>

This article above roasts the thinking of Tom Zsomborgi, the Chief Financial Officer at Kinsta.

2REFERENCE: The illusory superiority of Kinsta web speed hype.

This article above condemns the thinking of Brian Li, the Website Content Manager at Kinsta. Especially his 1-hour free seminar about website performance.

Why do we \*loathe\* Kinsta so much? They brag about speed. So what? PagePipe brags about speed, too. Is the pot calling the kettle black?

OK. Let's examine something. This article by Brian Li:

#### **How Kinsta Designed the Fastest WordPress Hosting Experience**

It is on Kinsta's blog, a self-promotional article. How fast did the page open in our desktop Firefox browser? 3.01 seconds. Is that fast? Is it the fastest WordPress hosting experience? Not even close.

REFERENCE: <a href="https://www.littlebizzy.com/blog/kinsta-wikipedia-abuse">https://www.littlebizzy.com/blog/kinsta-wikipedia-abuse</a>

#### We don't appreciate Kinsta's bragging buffalo and technical mumbojumbo to entice new customers.

Here's WebPageTest.org speed results for that Kinsta page (sharing the server with no other domains):

https://webpagetest.org/result/200821\_7C\_0c14e0ec7a8a870712c49730a8237f8b/

Time To First Byte: 199 milliseconds. Dang! That's fast!

Load time: **8.091 seconds.** That's right over 8 SECONDS! Hey? Why so slow?

Requests: **121.** That's a lot. But we've seen worse.

Page weight: **3.7 megabytes** (4.132 megabytes fully loaded). What the heck! That's one above-normal heavy page. Like double the weight of average sites.

The average size of a website is 2 Mb for desktop and for mobile. – REFERENCE

#### So are Kinsta servers fast?

Yes. Looks like it with under 200-millisecond TTFB. And their page loads? Uh. So. Hey, who screwed up the page? Who loaded it down with heavy rubbish? Probably an unknowing web designer. Sloppy.

Does Kinsta understand speed and performance optimization like they claim? Really?

Credibility is trustworthiness, expertise, and leadership.

#### Kinsta Failure.

Kinsta provides a fast host server ... but they can't build fast page experiences.

For comparison, this page you're reading right now is hosted on **GoDaddy**. One of the most despised, corporate, shared-hosting companies in the world. Can you get a fast load time on GoDaddy with cheap shared magnetic servers?

#### Let's compare test results.

THIS PAGE (sharing the server with 28 other domains):

https://webpagetest.org/result/200821\_7C\_0c14e0ec7a8a870712c49730a8237f8b/

Time To First Byte: **621 milliseconds.** Dang! That's pretty slow!

Load time: 1.654 seconds. That's right under 2 SECONDS! Hey? Why so fast?

Requests: 15. That's not very many.

Page weight: **0.181 megabytes** (0.182 megabytes fully loaded). Woah! That's a super lightweight page. No wonder it's so fast.

#### **Speed Conclusion**

#### Does a fast host server (like Kinsta) make your web pages fast?

*Not really*. Not if you mess the page up with junk. It requires site origin optimization. That's performance strategy.

Price comparison

GoDaddy shared hosting plan: \$3.99 per month – or \$47.88 per year

Kinsta cheapest-hosting plan: \$30 per month - or \$360 per year.

## In 10 years, you'll have spent: \$3,600 with Kinsta for hosting.

You got money burning a hole in your pocket?

#### Is Kinsta a reliable source of speed information?

"If you do decide to go for cheap WordPress hosting, you should expect your site to go down from time to time (since at \$10 per month, you're most likely sharing a server with hundreds of other users). Also, expect that most issues won't be resolved all that quickly. It's just how the numbers work out." – <u>Kinsta</u>

This quote is from an article written by Tom Zsomborgi. Tom is the Chief Financial Officer at Kinsta, a WordPress hosting platform.

Update: Our store is now hosted on <u>Rochen</u>. \$4.95 per month. We aren't an affiliate. Why did we leave BlueHost? For a better repeatable TTFB of 600 milliseconds.

We agree with Kinsta mostly. Their article about cheap hosting exaggerates some things. Like on BlueHost supposedly PagePipe's store is the only domain on the server. They didn't promise us that. Does that give us phenomenal speed – no. The TTFB is 1.7 seconds sometimes. That means PagePipe loads pages in under 300 milliseconds. And those are Easy Digital Downloads store pages. Every page reloads with an Ajax request! Boo.

And cheap hosts *go down* rarely. What do you expect for so little money? Most brag up times of 99 percent. And it's often true. Some of our GoDaddy issues are resolved amazingly fast. And we mean hard technical problems. But we have a low expectation. We also think GoDaddy is a smuck for charging for SSL and privacy. Robbers. But we don't buy that stuff from them.

Update: GoDaddy now offers free privacy. It formerly was \$12 per year per domain.

We tested a client's site on BlueHost with the same conditions as our store. He gets 500-millisecond load times – with a TTFB of 100 milliseconds. His SSL loads in 100 milliseconds. How? He has no clue. And neither do we. An Act of God. He pays the same as us. Go figure.

We're *not* an advocate of cheap hosting. Whenever we can, we get clients on the most expensive host they can afford. It makes our life so much easier for obtaining speed. But not everyone can do expensive. And high price doesn't translate into good always. We help resourceful site owners, too.

We walk the talk to show others how cheap-by-choice works. Severe self-imposed limitations.

It's weird how good hosts and bad hosts are all bad and good at some time or another for speed. There is little consistency (repeatability) in performance between domains on the same hosting – pricey or cheap.

Now we have to consider this "cheap-hosting" article was published by **Kinsta**. Oh, they're a host! They sell competing services. Would there be any bias against cheap hosts (since they're not cheap)?

Naturally.

Have we ever put clients on Kinsta to solve speed problems? Yes. Do they always solve speed problems? Nope. Sometimes they make them worse. Go figure. We've found this to be true for every host. Variances. Fluctuations. Unpredictability. Voodoo. But we're not paying for repeatability. We're not relying on them to do a good job. We expect them to do a lousy job. We build accordingly with origin optimization. No tight tolerances.

The article's testimonial is by Joe Hanley. He now hosts his site (https://www.audiblegenius.com/) on Acquia Hosting – not Kinsta. The Acquia homepage opens in 8.83 seconds in our timed browser. Lots of clutter on screen. Wow! Can't wait to sign up with them. Built for Drupal? What?!

We bet Joe moves his site a few more times. Four times just isn't enough.

Doesn't Kinsta specialize in WordPress – not **Drupal**? Odd testimonial choice. Oh, Joe's a software developer. No wonder.

So yes, if you're a novice web virgin, you'll lose a lot of money on cheap hosting trying to make things better. All a waste.

Conclusion: All hosting sucks – at sometime, in some way.

#### The illusory superiority of Kinsta web speed hype.

Technobabble sounds like sophisticated language. But it's incomprehensible techno-jargon. It conveys a false impression of meaningful scientific content. It's deceptive, disingenuous, unfair, or nonsense. It's a method of misleading with pure presumptuous rubbish. Meaningless technical language overwhelms and confuses the audience, masking the presenter's dishonesty. It's an indicator of propaganda.

Kinsta is a managed WordPress hosting provider founded in 2013. They say they're obsessed with **maximum** speed performance. Hey! We're obsessed with speed performance, too. We should be happy cousins. But we're not. Why?

Because Kinsta expels technobabble. Spewing.

Technobabble bores us to distraction, frustration, and irritation. It smells funny.

Technobabble gives an impression the speaker knows things the audience doesn't. Try decoding jargon. It's then obvious it's unclear, pretentious, and unacceptable. Even novice listeners detect careless technobabble as a sign of dishonesty and insincerity.

Technobabble doesn't describe reality. The presenter picks things out or makes them up, to suit his purpose. Deceived by web myth, an innocent person repeats misinformation without intent to deceive others. A false manipulation or misrepresentation is perpetuated. Speed myth erupts from the mouths of supposed experts. Often with hidden agendas of secret or ulterior motives.

Ivory-tower pseudosciences within an industry convey confusing, misleading, or nonsensical ideas using technobabble. Multi-syllabic scientific jargon gives false impressions. It implies bold laboratory research and hard facts. Technobabble takes a simple concept and describes it in an overworked scientific manner. This masks its inherent simplicity.

Intentional technobabble convinces audiences the science explained is true. Even though it may not be. Serious people will accept a meaningless idea wrapped in enough impenetrable language.

So we sat through a 1-hour boring seminar on speed by Kinsta representative Brian Li. He spread many common speed untruths. We share the speed errors below. Keep reading:

## Kinsta Speed Technobabble by Brian Li

Here's what Brian had to say about speed and Kinsta benefits in the free hour-long online seminar.

#### PHP version benefits are puny.

First Brian happily told us, "PHP 7 speeds up your site 3x."

This is wrong. It speeds up the PHP code transfers. Your website also has a ton of other web assets that completely overwhelm this meager gain. Things like heavy images, offsite scripts, advertising, email automation, chat boxes, sliders, animation, videos, etc. These are where the speed problems lie. Not in speeding up PHP. That's insignificant.

REFERENCE: <a href="https://pagepipe.com/php-version-7-ate-my-wordpress-website/">https://pagepipe.com/php-version-7-ate-my-wordpress-website/</a>

#### Database type? Does it matter? How much?

Brian told us "MariaDB is a faster alternative to MySQL database used by WordPress." But didn't tell us how much faster or how to get it. Only that if you **buy** Kinsta Hosting, you get it free. Well, it's included in the price anyway. We suspect it's not much help.

MariaDB shows an improved speed when compared to MySQL. MySQL exhibits a slower speed when compared to MariaDB. With the Memory storage engine of MariaDB, an INSERT statement can be completed 24% faster than in the standard MySQL. The memory storage engine of MySQL is slower compared to that MariaDB. – <u>SOURCE</u>

Speeding up the database by 25 percent is fine and dandy. But MariaDB *doesn't* speed up your website by 25 percent. It's the same gotcha as PHP gains. It doesn't speed up the worst heavy assets like ads, third-party scripts, or image loading. Bragging about this is *specsmanship*.

#### Disk Drive Type and RAM are important? HDD vs SSD Brag

Bryan said, "SSD like Kinsta uses are better than magnetic drives." Why? "Because read/write times are better and fetching is faster," he says, "A fast server is better."

This is true. But does it make a difference in real load time? Nope.

Specsmanship is the inappropriate use of specifications or measurement results to establish presumed superiority over competitors. Especially when no such superiority exists. We also call this vanity metrics.

Sorry. We've never seen server options make any difference in actual load time. Mechanical spinners give the same poor quality Time To First Byte as Solid State Drives. That's right. In real-world comparisons, the gain is unnoticeable. Vaporous specsmanship.

REFERENCE: <a href="https://pagepipe.com/tweaking-twentysixteen-theme/">https://pagepipe.com/tweaking-twentysixteen-theme/</a>

Brian Li then talks about Kinsta's Fast RAM and caching benefits. And mentions that virtual machines are better. At Kinsta, you get this trendy stuff even on the starter plan. Wow! PHP 7, Maria DB, SSD, RAM, Virtuals. Sounds great! Doesn't it?

Brian says, "These alone give *solid* performance." You mean to tell us a garbage site with heavy theme and plugins will be fast with these toys. Sorry. Paying attention to origin optimization trumps this technoloable stuff always.

An eCommerce store on a cheap shared host with 1.7-second TTFB – can still, load in a 2-second performance budget. That's right 300 milliseconds is the tiny headroom remaining to build the page. How? Don't load fat popular security plugins like iThemes Security or WordFence. Or plugins like Yoast SEO or Google AMP.

REFERENCE: <a href="https://pagepipe.com/free-discrete-plugins-replace-bloated-security-plugins/">https://pagepipe.com/free-discrete-plugins-replace-bloated-security-plugins/</a>

REFERENCE: <a href="https://pagepipe.com/autodescription-seo-plugin-and-mobile-speed/">https://pagepipe.com/autodescription-seo-plugin-and-mobile-speed/</a>

REFERENCE: <a href="https://pagepipe.com/why-google-amp-is-not-the-ultimate-solution-for-mobile-wordpress-speed/">https://pagepipe.com/why-google-amp-is-not-the-ultimate-solution-for-mobile-wordpress-speed/</a>

REFERENCE: https://pagepipe.com/top100-plugins-are-the-slowest-and-most-bloated/

#### **Cool Kinsta Page Caching**

Brian's claim: "With Page Caching your site can handle 10X more traffic. But it breaks eCommerce, forums, and any interactive site." That's not very reassuring. And it doesn't help non-cacheable cache. Let see? That would be third-party scripts like Google Analytics, Google Fonts, and Google Captcha. And many more.

Bryan is convinced NGINX and FastCGI on Kinsta do the world's best caching. He claims we'll see TTFB improve from 230 milliseconds to 138 milliseconds. Sorry guys. But that is only 92 milliseconds. Thanks, we'd gladly take those savings. But we can save 300 milliseconds by dumping Google Fonts with a plugin for Pete's sake. Brian then tells us, "Fast TTFB is *important* for page ranking." Yeah. We sort of agree. But it only makes less than a 1-percent difference in SEO.

REFERENCE: <a href="https://pagepipe.com/fast-sites-dont-improve-google-page-rank/">https://pagepipe.com/fast-sites-dont-improve-google-page-rank/</a>

 $REFERENCE: \underline{https://pagepipe.com/should-i-disable-font-awesome-and-google-fonts-for-improved-speed/}\\$ 

REFERENCE: <a href="https://pagepipe.com/popular-plugins-slow-down-your-server-and-delay-ttfb/">https://pagepipe.com/popular-plugins-slow-down-your-server-and-delay-ttfb/</a>

REFERENCE: <a href="https://pagepipe.com/mobile-speed-scores-and-wp-super-cache-and-w3-total-cache-plugins/">https://pagepipe.com/mobile-speed-scores-and-wp-super-cache-and-w3-total-cache-plugins/</a>

#### Kinsta SSL and speed.

Bryan gets excited about a future \*someday\* when HTTP/2 is standard fare for hosts. But for today, it's sort of geeky and beyond the reach of common site owners. Yeah. Sure. You can pay extra and have the future today. But is it essential to get speed? We don't think so. He talks about HTTP/2 and HTTP/3 performance boosts. He recommends migration away from hosts that don't provide it. Of course, his recommendation is his employer Kinsta. No bias here. Both require SSL certification. That forces you to be \*secure.\* He thinks that's great for the web. We aren't so impressed. You can learn more here:

REFERENCE: <a href="https://pagepipe.com/httpsssl-and-its-negative-impact-on-mobile-speed/">https://pagepipe.com/httpsssl-and-its-negative-impact-on-mobile-speed/</a>

#### Reducing server requests.

Then Bryan dives into concatenation and minification as if they are necessary. But he warns: "You might break your site." Surprise! He then recommends customizing to rid conflicts. But sadly, he neglects telling us how that's done. He notes that minification plugins don't help HTTP/2 because of multiplexing. So why is he talking it about it? He just recommended HTTP/2 on Kinsta. We suppose he's showing alternatives to Kinsta. He then recommends using Autoptimize or WP-Rocket plugins as helpers.

Here's our free article on minification and concatenation:

REFERENCE: <a href="https://pagepipe.com/concatenation-is-the-site-killer-not-minification/">https://pagepipe.com/concatenation-is-the-site-killer-not-minification/</a>

REFERENCE: <a href="https://pagepipe.com/plugins-autoptimize-eliminates-for-speed/">https://pagepipe.com/plugins-autoptimize-eliminates-for-speed/</a>

REFERENCE: <a href="https://pagepipe-ebooks.com/duplicate-wp-rocket-plugin-features-without-a-49-annual-license-fee/">https://pagepipe-ebooks.com/duplicate-wp-rocket-plugin-features-without-a-49-annual-license-fee/</a>

#### Optimizing images in the media library.

Now the hour-long seminar takes a turn into saving load time reducing the page weight of heavy images. He says, "Using right format. JPEG not PNG for photos." This is a basic truth and big error for novice website builders. But he doesn't tell how to retrofit a media library polluted with fat PNG photographs.

He recommends using ShortPixel or Imagify plugins. Those aren't our preferences but they work. He says to serve webP-formatted images to supported browsers. We rarely see much benefit from this Google-endorsed trick. It will reduce image sizes by 10 percent. But that isn't significant because images load in parallel. Cloudflare Pro converts to webP. WebP is not supported by Apple. A downside is webP uses more disk space with duplicates. We never use webP format.

If you've botched your media library uploading huge PNG photographs instead of JPEGs, it can make a big difference when it's fixed. Otherwise, image optimization doesn't give as big of a speed boost as it used to. Why? Browsers are smarter about handling images fast. A lazy load plugin may solve many problems for you instead.

UPDATE: WordPress now incorporates lazy load in core.

FREE DOWNLOAD: <a href="https://pagepipe.com/wp-content/uploads/2015/04/optimize-v9.pdf">https://pagepipe.com/wp-content/uploads/2015/04/optimize-v9.pdf</a>

REFERENCE: <a href="https://pagepipe.com/the-fastest-alternatives-to-heavy-jpeg-images-for-page-speed/">https://pagepipe.com/the-fastest-alternatives-to-heavy-jpeg-images-for-page-speed/</a>

REFERENCE: <a href="https://pagepipe-ebooks.com/crush-me-whats-wrong-with-wp-smush-image-optimization-plugin/">https://pagepipe-ebooks.com/crush-me-whats-wrong-with-wp-smush-image-optimization-plugin/</a>

REFERENCE: <a href="https://pagepipe.com/big-wow-smush-now-has-lazy-loading-and-its-free/">https://pagepipe.com/big-wow-smush-now-has-lazy-loading-and-its-free/</a>

#### Fonts and speed.

We're a big advocate of using a system font stack instead of slow-loading Google Fonts or Adobe fonts. So is Bryan. So we agree on something. But Bryan doesn't tell you how to do this magic.

Read our take on this best practice:

REFERENCE: <a href="https://pagepipe.com/should-i-disable-font-awesome-and-google-fonts-for-improved-speed/">https://pagepipe.com/should-i-disable-font-awesome-and-google-fonts-for-improved-speed/</a>

REFERENCE: <a href="https://pagepipe.com/zero-latency-fonts-for-mobile-speed-system-ui-font/">https://pagepipe.com/zero-latency-fonts-for-mobile-speed-system-ui-font/</a>

REFERENCE: <a href="https://pagepipe.com/icon-baggage/">https://pagepipe.com/icon-baggage/</a>

#### **Disable WP Native Cron**

This is a geeky thing to do. It was faddish for awhile after WordPress added the Heartbeat API. Have we ever done it? Yes. Some hosts can't handle the extra server load. Bryan recommends pinging wp-cron.php with better frequency. High traffic sites are most affected. And of course, the reason he mentions this puny feature is it's a default on Kinsta.

The better and cheaper solution is learning about <u>Heartbeat plugins</u>.

#### **Repair Render Blocking Assets**

Why do professed speed experts recommend rewriting code to eliminate the page blockage rendered by scripts? Bryan recommends it. This is so esoteric, time-consuming, and costly. Few plugins help. Always it involves custom work. But the payback is so small compared to getting rid of popular multi-function plugins like Yoast SEO or AMP or iTheme Security. We've written about Async or Defer flag for JS loading. But we've found this more often than not breaks your site. Bryan also mentions inlining critical "above the fold" CSS styles. These are costly make-work projects invented by programmers and coders. Don't go there! Have we ever done it? Yes. But we were building experimental pages loading in under 300 milliseconds. That is unnecessary overkill.

REFERENCE: <a href="https://pagepipe.com/render-blocking-js-is-the-most-annoying-and-unresolvable-error-message/">https://pagepipe.com/render-blocking-js-is-the-most-annoying-and-unresolvable-error-message/</a>

#### CDN the wonder band-aid – promising after-speed-damage repair.

Nothing makes us more rabid than speed gurus recommending CDN as a solution. This a weak excuse for building a cruddy bloated website. Bryan recommends CDN of course. But at least he mentions CDN may not help. CDN can slow down page load time. Bryan warns: "Don't just slap CDN on by default." We agree.

If you have a database problem, CDN won't help. We steer clear of CDN with origin optimization. That means not being sloppy.

REFERENCE: <a href="https://pagepipe.com/cloudflare-doesnt-guarantee-consistent-load-times/">https://pagepipe.com/cloudflare-doesnt-guarantee-consistent-load-times/</a>

#### **Tuning PHP and MySQL.**

Now Bryan goes out on a speculative limb. He recommends Query Monitor plugin to identify slow components. This is a complicated plugin for professionals. He then tells us if we don't know what to do "hire a developer" for solving problems. Absurd focusing on the wrong target. These need coding solutions. Ineffectiveness.

#### Is Kinsta expensive hosting?

**You decide.** Their pricing per month is <u>here</u>. Have we ever used them for client speed repairs? Yes. The sites were so broken we couldn't migrate or backup. They contained obsolete WordPress versions and stale plugins. Absolute nightmares. Updates weren't possible without breaking the site. Kinsta moved those sites. They were then faster loading – but still, time-bombs waiting to explode. The site didn't \*get pretty\* just being moved to a different expensive host like Kinsta. Postponing the inevitable implosion.

# You can get under 2-second load times on shared hosting. Pocket the money you'd spend elsewhere.

**Kinsta is not the only speed solution.** Build a better site from the ground up. Don't add unnecessary junk.

#### SPECIAL SECTION

# SITEGROUND hosting

# Half of SiteGround's speed recommendations are nonsense.

We mean no offense to Hristo Pandjarov.

He's the author of SiteGround's free ebook. "SPEED MATTERS: 21 Expert Tips to an Ultra-Fast WordPress Site." Hristo's an expert on WordPress speed optimization. He has a video online from a 2016 WordCamp. But we have found a few ideas in his ebook that don't measure up to our experience and testing. Naturally. But most of his speed suggestions are safe and sane.

<u>SiteGround's download page requires email signup ></u>

The ebook introduction, says: "Generally, if your website takes more than a second to load – it's slow and needs optimizing."

**The average page load time** is 9.82 seconds. And the <u>average page weight</u> is about 3M. Plainly, the bulk of websites *flunk* SiteGround and Hristo Pandjarov's standard of goodness.

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We've seen sites on great hosts (including SiteGround) with lousy speed tests. It's more essential to use speed strategy for balancing aesthetics and speed.

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#### **Query Strings Remover** 1.5k

Removes query strings from static resources like CSS and JavaScript files. This plugin claims it will improve scores in Google PageSpeed, YSlow, Pingdom and GTmetrix. Just install and forget everything, as no configuration needed. Note: WP Rocket claims removing query strings doesn't improve speed, just scores. We suspect they're right.

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#### Conclusion

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#### Ideas we agree on:

- We agree performance test "scores" are meaningless ratings. Only speed measurements in milliseconds count. Or even better user perception of fast speed.
- We agree sliders suck. But we say get rid of them on homepages.
- We agree on image optimization. We even define how *good is good enough* in a downloadable PDF.
- We agree on Gzip. We tell how to activate Gzip using a plugin without editing the .htaccess file by-hand.
- Social links are baggage. Even though the author left that off. We know he agrees from other blog posts he's written.

#### Ideas we disagree on:

- We don't think a good host is the key to site performance. We think speed strategy is the answer.
- They recommend a 1-second performance budget. We recommend 2-second loads for desktop and 3 seconds for mobile as best practice. Even though PagePipe is a 1-second site! Other experts agree. Even Google says 2 seconds is good enough.
- They recommend EWWW image optimizer plugin. We say that's poo. We recommend free Imsanity plugin instead. It's configurable with a maximum width, height and quality settings. And authored by the same guy.
- We recommend using no images or substituting PNG illustrations for heavier JPEG photographs.
- They recommend using Google Fonts sparingly. We say get rid of them completely by substituting websafe fonts for speed. We also say eliminate Font Awesome icon font when possible and always get rid of emojis. We recommend various plugins to do these eliminations. These are drastic but necessary measures.
- They say manage (reduce) comments on your site. We say get rid of them completely with a plugin.
- They say use a caching plugin and CDN. We say these are unnecessary band-aids if you build a quality speed site using strategy.
- We think recommendations 10 through 17 are common-sense housekeeping or plain silly.
- We think items 19 and 20 are less-credible selling promotions.

So half the report – the first 9 items – are worth reading. We think they aren't aggressive enough to achieve their one-second page goal.

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#### Ideas we disagree on:

- We don't think a good host is the key to site performance. We think speed strategy is the answer.
- They recommend a 1-second performance budget. We recommend 2-second loads for desktop and 3 seconds for mobile as best practice. Even though PagePipe is a 1-second site! Other experts agree. Even Google says 2 seconds is good enough.
- They recommend EWWW image optimizer plugin. We say that's poo. We recommend free Imsanity plugin instead. It's configurable with a maximum width, height and quality settings. And authored by the same guy.
- We recommend using no images or substituting PNG illustrations for heavier JPEG photographs.
- They recommend using Google Fonts sparingly. We say get rid of them completely by substituting websafe fonts for speed. We also say eliminate Font Awesome icon font when possible and always get rid of emojis. We recommend various plugins to do these eliminations. These are drastic but necessary measures.
- They say manage (reduce) comments on your site. We say get rid of them completely with a plugin.
- They say use a caching plugin and CDN. We say these are unnecessary band-aids if you build a quality speed site using strategy.
- We think recommendations 10 through 17 are common-sense housekeeping or plain silly.
- We think items 19 and 20 are less-credible selling promotions.

So half the report – the first 9 items – are worth reading. We think they aren't aggressive enough to achieve their one-second page goal.

#### SiteGround and poor mobile speed.

SiteGround isn't always *kind* to their customers. We probably only get whiners coming to PagePipe searching for change. Speed anxiety is their motivation.

SiteGround's home page says, "Latest speed technologies are our passion." We also have a passion about speed. But we say, "You can get WordPress speed on ugly, cheap servers." SiteGround thinks no one knows more about speed than they do. Experts? Really?

**PagePipe home-page loads in 900 milliseconds** cached in our browser (at this moment). 1-second – even with cache cleared. That doesn't mean we walk with the speed gods. It means our load time is good right now. We catch it behaving "just fine" much more than we find it failing. If it's good for 80 percent of the time. It's "good enough." How far does it drift, ±50 percent. Horrible, huh. We don't have an expectation that GoDaddy delivers better than that. Nor are we paying for better speed.

But more often than not, GoDaddy delivers 200-millisecond TTFB or better. Go figure. At his moment, it's 139 milliseconds. That's strange – but what we usually get. The other day a test was the worst we've ever seen, 15-second TTFB. Why? We don't know. But that's really rare. But we caught it. Are we ashamed? Nope.

**Do we recommend GoDaddy?** Of course not. They're cruddy. We're proving a point about cheap speed results. No SSD drives. No hopped-up CDN. No server caching. Only vanilla, shared, magnetic hosting.

If site owners don't care about speed and choose ignoring it deliberately, then no big deal. It's a business decision and choice everyone gets to make.

**Do 1-second speed reports matter for desktop?** Not much. But for mobile, it's significant. Those translate into less waiting. In fact, they *theoretically* load at user-expected desktop speeds. For site owners with 70-percent mobile traffic, it's a godsend.

**People's expectations with SiteGround is 100-percent goodness.** Why? Because SiteGround claims having the "latest speed technology." But it's just mumbo-jumbo, theoretical speed claims – not actual measurable milliseconds.

**Many hosting customers don't know about speed** – or don't care. In that case, fine. If they are happy, no problem. But to finger point and say, "It's not our server speed problem. It's Google or WordPress voodoo or you're technically stupid." That doesn't sit well with us.

**HostGator** (claim: powerful hosting 2X Faster) and **Bluehost** (claim: 2-million websites worldwide). Both brag about their prowess. [note: 2x faster than what? a turtle?]

**SiteGround is on our radar.** No one's ever written us about SiteGround wonderfulness. We have a self-proclaimed mission to counterattack speed incompetence, hypocrisy, and deception.

**Had a wonderful experience with SiteGround?** Congratulations. But have you watched your TTFB (server delay) bounce around over time – for top-tier GoGeek prices. Better check it out. <u>READ MORE HERE</u>

**Speed trivia? Perhaps.** Remember, our grand purpose. It's saving the Internet from WordPress speed abuse – one website at a time. We help our little corner of the world.

**Web work is disposable dust.** In the future, new solutions will obsolete our speed expertise. Except humans will continue to abuse and overload websites. That won't go away. Job security? Nah.

The best and fastest websites and hosts don't exist yet.

"SiteGround was driving me crazy blaming WordPress plugins and my site's coding for the problem of slow page loads. They made a simple php script to show that their servers were fast. It then got terrible scores on GTMetrix and Google PageSpeed Insight. It was a simple script. They tried to prove a point, but ended up disproving it. Their simple script loaded slow! Then they said it was a Google PageSpeed problem. I said the times were always inconsistent. They said that was Google's problem. What?

# I'll be leaving SiteGround soon. Great customer service for slow servers isn't worth it for me.

The tech rep who was dealing with my support ticket eventually started getting snarky. He repeatedly said, "... as I've said before..." and similar things without trying to understand what I was complaining about or without trying at all to offer or look for a solution.

Eventually, I said I will start looking for a new host, and he replied along the lines of, "Thank you for your time. Please contact us if you have any problems." Hmm...

I was SOOOO happy to find your <u>PagePipe article</u> as it mirrored my experience and frustration. I really like your analytical way of thinking.

By the way, I pointed my servers to FastComet hosting and although the PageSpeed Insight scores are inconsistent, they are consistently better than they were at SiteGround. My TTFB went from an F to an A at <u>webpagetest.org</u>.

These are things Siteground said they couldn't help – because it was the coding of my website causing the problem. More importantly, the GTMetrix and Pingdom times went down. Not by much, but as you know, every little bit is hard earned when you're under 2 seconds."

- Kevin Cozma

Thanks for sharing your experience, Kevin.

# Why does SiteGround fail TTFB testing for WordPress sites?

#### How can SiteGround say on their home page:

"We're honored to be a hosting provider recommended by WordPress.org – the most popular, community-driven sitebuilding software worldwide."

Uh. They forgot to mention they pay WordPress.org for that endorsement.

From https://wordpress.org/hosting/

"If you do decide to go with one of the hosts below and click through from this page, some will donate a portion of your fee back—so you can have a great host and support WordPress.org at the same time."

**Donate? Right.** Whatever. Some? They mean all three.

WordPress only recommends three hosts, one is SiteGround. There are hundreds of better hosting companies. Self-serving affiliate advertising!

They say:

"[Host] Listing is completely arbitrary, but includes criteria like: contributions to WordPress.org,"

These are the same three we steer clear of for worst speed issues.

We recently evaluated a London-based site's home page for speed opportunities. Load times on Pingdom were: 2.05 seconds, 1.95s, 1.85s for three consecutive readings. And on WebPagetest.org: 2.86s, 2.6s, 3.27s. The site-owner Niel's audience is predominantly on smartphones and tablets. Speed is important to them – and him.

#### We told Niel:

You are **not** sharing your server. Fast. But TTFB (time to first byte) is around 1.3s that is an "F" for *fail*. It's your worst problem right now. Talk to your host and ask about TTFB specs.

#### We've written about TTFB specifications before in our article:

#### **PagePipe:** CloudFlare's Bad TTFB >

The Time to First Byte (TTFB) is the time your browser spends waiting on the web server to send back the data.

**Niel contacted SiteGround.** He asked what was the deal with their bad TTFB. Here's SiteGround's response:

"The website is quite fast from my end. It loads for 1.35 seconds from my browser and for 2.25 from GTMetrix.

The TTFB time depends mostly of the type of website used. There is a difference. When you(r) website is a simple HTML site the browser just downloads the HTML code to the browser and the TTFB is very low. You will get an A there, however if you have a PHP application for website like WordPress or Joomla the TTFB is the time needed for the web server to compile the PHP code in index.php file to HTML code so this is why the websites built on top of PHP are slower.

For WordPress for instance when the index.php is compiled all plugins of WordPress are read by the web server as well so this why it is so slow."

# This is the best attempt we've seen from SiteGround explaining their lousy TTFB.

But we suspect the information isn't really true. One potential reason they're getting long TTFB delays is they use NGINX (EngineX) servers instead of Apache – just like Cloudflare.

We have seen erratic TTFB on SiteGround hosting. There are *spikes* when average load times are 12 to 26 seconds for pages that normally load in under 1 second. For one site we have under test, this slowdown happened 4 times in the last 30 days on SiteGround. And about the same frequency the month before. The *slow times* seem to occur every 5 to 6 days like a wave. Everything goes sour those days.

**SiteGround can't give any** *scientific* **explanation.** Voodoo. They just reset the server cache. Then cherry-pick a WebPagetest.org test result that looks good – and report saying, "Look! We fixed it."

**Being consistently bad** on magnetic drives is better than being *occasionally* great on SSD drives.

**But we can do the exact same thing ourselves.** The cache reset has nothing to do with it. It doesn't fix anything.

**SiteGround is saying they can't perform well as long as you're using WordPress.** What?! They're pointing the finger at WordPress. It could be true – but we doubt it. Here's why: a large percentage of the Internet is using WordPress – 500 new WordPress sites are

created every day! Surely SiteGround isn't ignoring this? Do all their WordPress customers see this badness? If so they have a big, fat problem – not WordPress.

OFFSITE LINK: <u>Falling Out Of Love With Siteground ></u>

**SiteGround isn't being honest** about their TTFB problems. Cognitive dissonance? If what they're saying is true, wouldn't the speeds be *consistently* bad instead of *erratically* bad?

#### You can find out your TTFB on: ByteCheck for free.

**PagePipe is a WordPress site on cheap GoDaddy hosting** and it loads in under 1 second. We get a predictable 500 millisecond TTFB from GoDaddy (with PHP version 5.4. TTFB is improved to 175 milliseconds since switching to PHP 7.1). As long as that "badness" never changes PagePipe loads in under 1 second. (Note: Yes. We host on magnetic GoDaddy drives. This is evidence of what is really possible using speed strategy).

Why doesn't GoDaddy produce the same "PHP compilation delay" SiteGround is claiming? One difference is the shared GoDaddy server is *Apache*. PagePipe shares its server with 20 other domains. Niel and others on SiteGround share with no one! With Solid-state Disk Drives (SSD) even! Are SiteGround customers paying for *fantasy* speed? Hmm?

**SiteGround claims the WordPress plugins are causing TTFB delays.** They have to be kidding! PagePipe has 70 active plugins – and it's not slow. That excuse is a smokescreen. A deflection away from the real problem which SiteGround isn't disclosing. They need to own the problem, be transparent and responsible.

#### We smell a rat.

"I have been using SiteGround shared mid plan and the TTFB times are horrendous at least half the day and every day. I'm lucky in a sense at this point that my blog is small, theme is fast and it's quite optimized. Even so, I'm giving strong thought to move to a (semi) dedicated server in a month or so and not renew with them, even while acknowledging their outstanding customer support." —author: Howard Milstein

#### SPECIAL SECTION

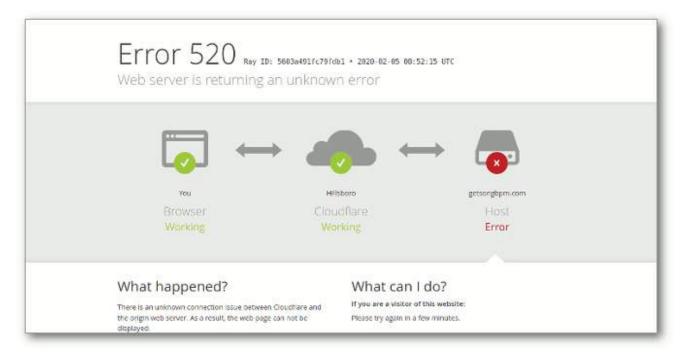
# Cloudflare hosting

#### Don't use Cloudflare CDN: build in speed quality instead.

Some sites we evaluate for speed testing are using free Cloudflare CDN services. A CDN (content distribution network) is a way to get servers geographically closer to the user and thus reduce latency. That's the goal anyway.

Cloudflare is a US-based website performance company founded in 2009. Cloudflare claims to improve page load times and performance.

In the recent past, we've used free Cloudflare CDN services and their plugin to bulletproof our WordPress websites. Testing, we found Cloudflare doesn't guarantee consistent load speeds. We saw an unpredictable and random page load times from 10 to 25 seconds. That's unacceptable even if the average time is one second.



Typical server error message presented by Cloudflare after connection failure. Makes it sound like the blame is your fault. Excuses. Wrong!

Cloudflare uses a modified version of NGINX – a key Russian-created technology. Nginx (engine-x) is an optimized open-source server software used in the LEMP stack (Linux, Nginx, MySQL, and PHP).

We first thought there was traffic congestion on the shared hosting server. We checked using <u>yougetsignal.com</u> and found only three domains resided on the shared server. One was inactive and the other two had benign, low-traffic content. The server wasn't our

offender.

**After plugin testing, it was clear that Cloudflare** was the culprit throwing in random delays. We canceled the account and removed the plugin. Then things stabilized. We also got better speed test results in WebPagetest.org. Our cached time improved from 750 milliseconds to a 500-millisecond load. We're giddy from this discovery.

**We're against any CDN paid or free services.** Build with origin optimization. Then there's no or little benefit from edge optimization. CDN is a band-aid for sloppy site owners. You can't speed up a site that's already fast. It's a waste of money.

#### One more bad thing about Cloudflare CDN.

**Cloudflare's Nginx servers cause failure** on time-to-first-byte measurements (TTFB). Usually shown as a red "F" as in failure or flunk using <u>WebPagetest.org</u>. This negative flag generated a brouhaha, and Cloudflare responded with a <u>special blog entry</u> about the topic and why they think it not a real problem. We agree. TTFB isn't a problem. Cloudflare flakiness is the problem.

**Cloudflare's claim is "Gzip compression** of web pages reduces the time it takes a web page to download, but the compression itself has a cost. That cost causes TTFB to be greater even though the complete download is quicker." But only on Nginx servers. Apache servers are just fine.

**Nginx waits until compression** has started before sending the HTTP headers; when compression (Gzip) is turned off it sends the headers immediately. Nowadays, all files are Gzipped for speed.

**Our complaint: Who cares about TTFB** when Cloudflare throws a monkey wrench into the running engine and randomly gives 10- to 20-seconds page loads? Hiccups aren't acceptable.

#### Stop worrying about Time To First Byte (TTFB)

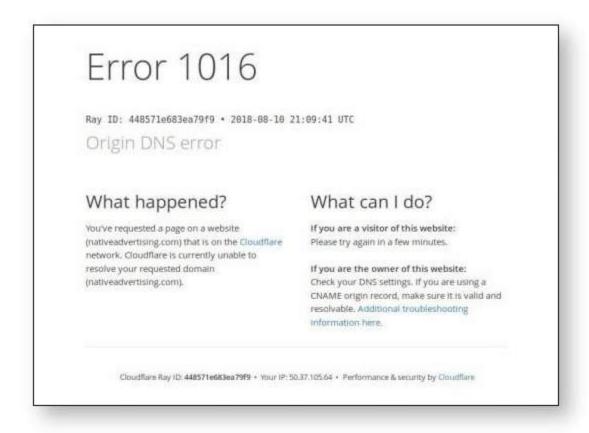
05 Jul 2012 by John Graham-Cumming of Cloudflare. (A lame rebuttal).

**Our experience is Cloudflare CDN is notorious** for slowing down your site with 500, 501, and 520 server errors. That's probably where your TTFB errors are coming from. Cloudflare uses NGINX servers instead of Apache. This causes the lazy loading of all Gzip compressed assets. Unnecessary delays. TTFB is the **only** metric Google uses in its SEO ranking algorithms.

**Using Cloudflare would explain the reason** for your speed fluctuations. We do not recommend them – nor any CDN for that matter. CDNs are band-aids for poorly optimized websites. It's better to build quality into your site. That is called origin optimization. CDNs are edge optimization strategy.

Cloudflare ran a test and concluded that time to first byte (TTFB) does not matter. *Except, it absolutely does.* As they say: if you're experiment contradicts intuition, check your experiment.

—<u>Ilya Grigorik, Web Performance Engineer at Google</u>



Another typical Cloudflare error screen.

Offsite link: Cloudflare Makes Websites Slower, Not Faster "I noticed that my Cloudflare-enabled sites became much slower and they would often time out."

"When you put a CDN in front of your website, it will add latency to the TTFB of your dynamic content. Accessing the origin server directly is faster than routing traffic over a CDN. The CDN will improve performance for cacheable elements, but a dynamic page will have to be fetched from the origin server no matter what." – OFFSITE RESOURCE

#### SPECIAL SECTION

# TTFB explained

#### Find out what your server TTFB really is.

No plugin trickery required for this Time To First Byte measurement magic.

Find out what your server's TTFB really is.

#### Are you wondering, "What's TTFB?" Read this first:

REFERENCE: <a href="https://pagepipe.com/popular-plugins-slow-down-your-server-and-delay-ttfb/">https://pagepipe.com/popular-plugins-slow-down-your-server-and-delay-ttfb/</a>

You can test TTFB with WebPagetest.org or ByteCheck.com

BUT ... what if your theme and plugins are hammering the server and slowing things down? That's not the servers fault.

Wouldn't it be nice to find out what your servers TTFB really is without the core, theme, and plugin overhead load?

#### Here's the trick:

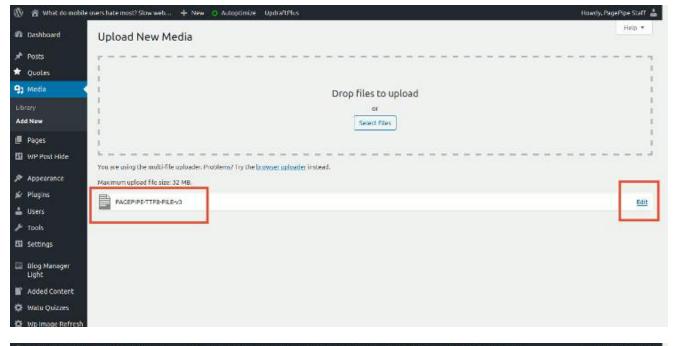
1Download this Time To First Byte sample page.

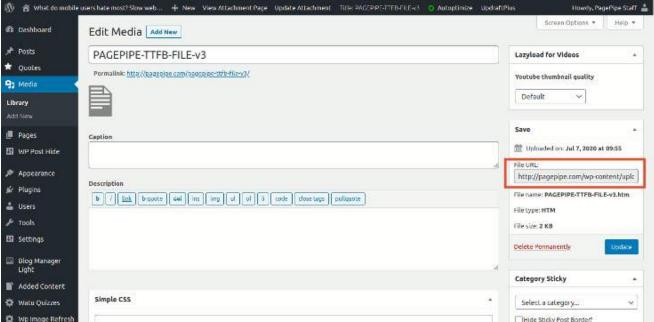
FREE DOWNLOAD: PAGEPIPE-TTFB-FILE-v3.htm

INSTRUCTION: Right click the browser page and download as htm file. Or use <u>this</u> downloadable zip file. Decompress it before uploading to your media file..

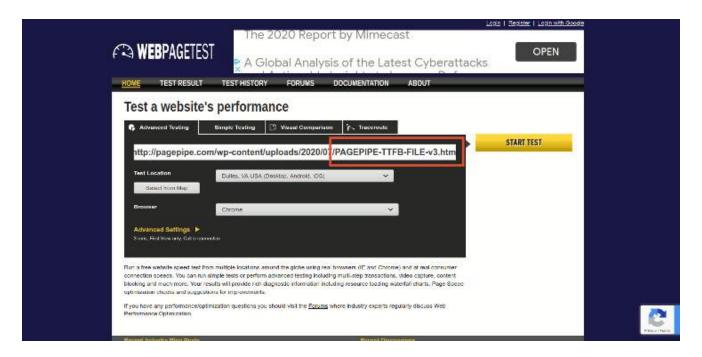
This page is written in HTML code. It loads instantaneously. No WordPress core, plugin delays, or theme overhead is associated with it.

**2Upload it to your WordPress media library.** Yeah. You heard it right: The media library. No FTP or Cpanel skills required.





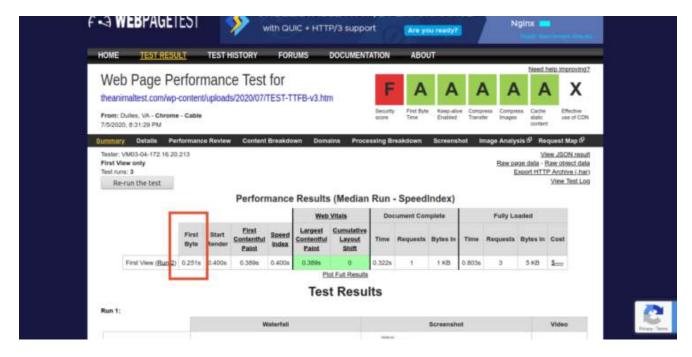
3 Copy the HTML file's URL.



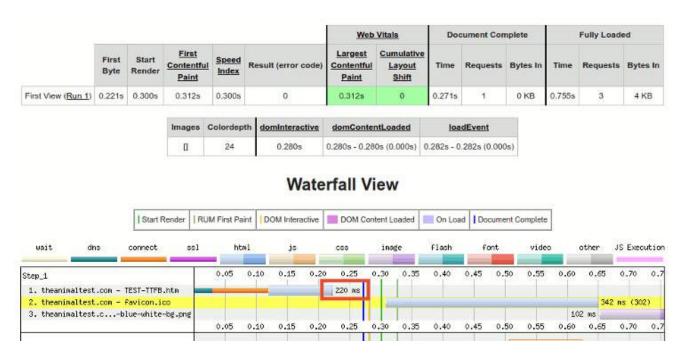
4 Paste the URL into the test field at WebPagetest.org.



5 Copying and paste the HTML file URL (above). WebPagetest.org.



6 The TTFB is labelled *First Byte*. It appears in the Performance Results – first column from the left. *See red square*.

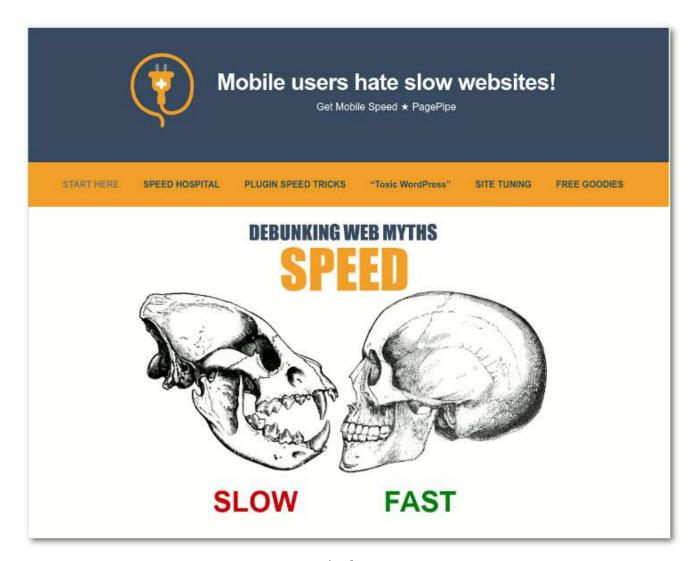


We consider Time To First Byte as your minimum server overhead. An excellent TTFB measurement is 200 milliseconds. Typical TTFB is around 400ms to 500ms. And bad is anything over 1 second. In that worst case, plugins are repeatedly hammering server resources. That slows down the server. These are usually the heaviest and popular plugins. They are writing and reading data and creating databases. Plugins like SEO, security, brokenlink checkers, backup, caching (examples: SuperCache, W3-Total Cache), dynamic site map generators, related posts, etc.

REFERENCE: common blacklisted plugins

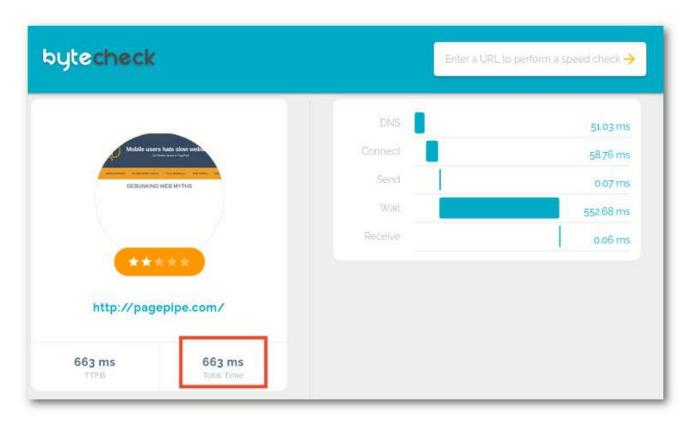
REFERENCE: WIKI: time to first byte defined

# Should I worry about Time to First Byte (TTFB) affects on page rank?



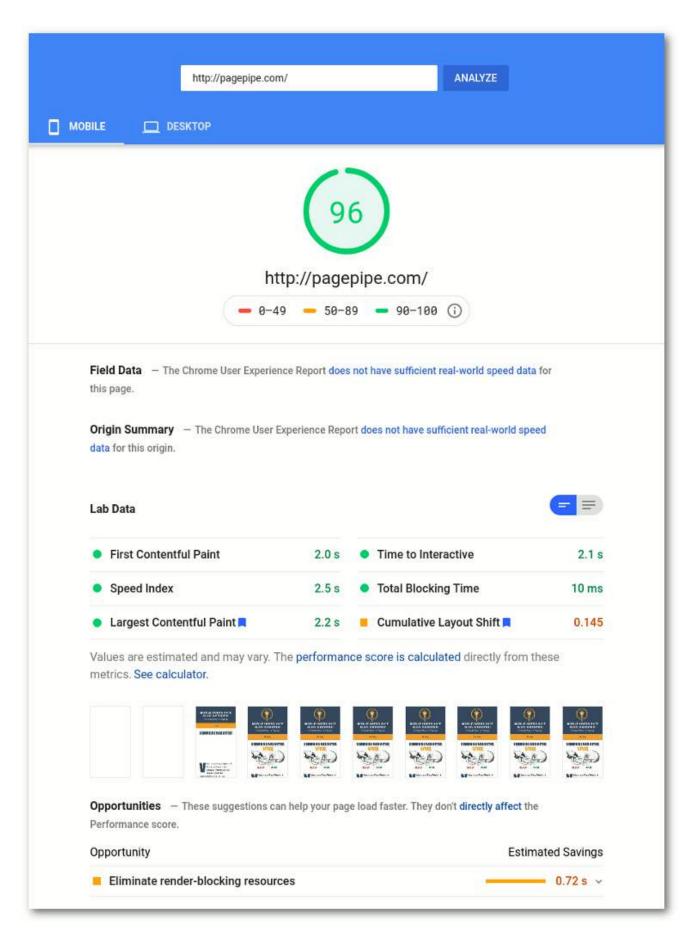
PagePipe homepage

If I use ByteCheck to run a test against PagePipe's homepage, it returns the result of ~663 milliseconds TTFB.



ByteCheck TTFB test results for PagePipe homepage 663 milliseconds.

If using PageSpeed Insights which seems to be the go-to tool, it returns ~ 740 milliseconds.



# Is a TTFB difference of 77-milliseconds high?

That 77 millisecond deviation between different measurement methods is common. Time to First Byte is server overhead. It's affected by many things that slow down the server. Some servers fluctuate wildly: SiteGround hosting in particular. Some oddity is because of security and link checker plugins (server resource intensive).

All speed tests give different results. If you're getting an offset of only 161ms, on two different tests, that's amazing.

# What we trust most is our desktop browser timer addon. And our eyes.

We don't use a real stop watch. We use a browser load timer addon or extension.

Google doesn't use PageSpeed Insights – or it's criteria for page ranking. It's not connected to their algorithm.

It's a separate idealistic and ivory-tower test created by egghead scientists. It's an inexplicably complex toy puzzle to solve.

A good score or bad score on PageSpeed Insights doesn't affect the ranking in any way.

We've seen pages that load in 12 seconds get all "greens" and a high score. It is impossible to have WordPress pass the test with a 100. Yet, 1/3 of the internet is built with WordPress. What kind of test is that? A biased one.

The limit of human tolerance for machine delay is 10 seconds. A page that slow can still pass their test as "green." Not always. But it deceived with trickery.

# This silly speed test causes website-owner anxiety.

The only valid measurement is a browser timer (stopwatch). It's only accurate for its geographic location. All speed tests are flawed. There are too many physical variables. Most use simulation. They don't give absolute results but are instrumental in measuring incremental improvements. Relative measurements.

You cannot improve if you can't measure. Cruddy machine measurements are better than no measurement.

Many things cause TTFB delays. Most variables are beyond the control of the site owner. Except one. Move your site to a different host and wait for their great TTFB to deteriorate. Will throwing money at the server problem make you more profit? Doubtful. The ROI is poor.

# What affects page ranking is the user experience.

Speed is a primary blocker of a good user experience. Number 2 is aesthetics. User experience is how people \*feel\* when they use your site. Google can't do the primary measurement of that \*feeling\*. But they can measure secondary things with machines like:

- bounce rate
- dwell time
- return visits

These are indicators of inferred quality content that satisfies the user's need. But if users don't wait because of long delays to see the content, what good is the content if never viewed?

The bounce rate goes up. Credibility drops as an authority site.

Speed affects SEO indirectly over time. Not directly. Not instantly.

So, "If tools such as Google PageSpeed Insights return a metric of 95+ consistently, is this a leading indicator of a site that is performant?"

Performant means functioning well or as expected. This test is not an indicator of "performant."

It doesn't even mean "good enough."

As mentioned, we've seen horrible slow sites fake out this test. We never use this test to check page speed. Nor do any other professionals we know. Paid optimizer services gladly guarantee a passing Google PageSpeed score (an easy out). But not actual load time in milliseconds (real hard work). They know how to game the test. So do we.

# But we're not playing that Google game.

You are experiencing the frustration of the PageSpeed Insight test. It's a gas-lighting ploy. Google makes you question your sanity.

I understand that Time to First Byte is a constraint or limitation that the server is experiencing or exhibiting.

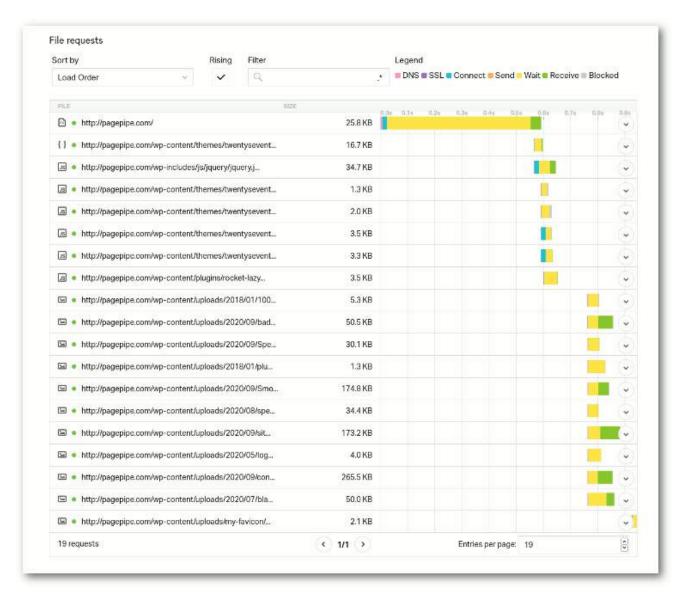
I am assuming TTFB is a key indicator in improving page speed.

If a site is highly optimized and the server is the only remaining factor, I presume that this impacts page ranking. In reading through your articles though, it seems to indicate otherwise.

If tools such as Google Page Insights return a metric of 95+ consistently, is this a leading indicator of a site that is performant?

Should I avoid tools such as Pingdom, ByteCheck, GT Metrix, Google Pagespeed Insights if they're not an accurate measure of speed?

We want to locate and correct speed issues. The waterfall many of these tests produce is most useful. You can examine what is being loaded. We can then do value analysis on the components.



# **Borrowed Industrial Concept**

A manufacturing method is a value analysis to streamline processes and components. It includes:

- substitution
- elimination
- combination
- simplification
- standardization

We use these methods to optimize websites.

"Value engineering began at General Electric Co. during World War II. Because of the war, there were shortages of skilled labour, raw materials, and component parts. Lawrence Miles, Jerry Leftow, and Harry Erlicher at G.E. looked for acceptable substitutes. They noticed that these substitutions often reduced costs, improved the product, or both. What started out as an accident of necessity was turned into a systematic process. They called their technique 'value analysis'."

REFERENCE: https://en.wikipedia.org/wiki/Value\_engineering

Online speed tests are relative – not absolute. Using the same test, we watch (not measure) improvements from our site changes. Reducing requests is a false goal. It doesn't always improve speed (load time) in milliseconds. In fact, often concatenation (minification plugins) break your site (unstylized HTML).

- Relative changes on small numbers often look big.
- Relative changes on big numbers often look small.
- Absolute changes on small numbers often look small.
- Absolute changes on big numbers often look big.
- Explore both types of changes when looking at data.

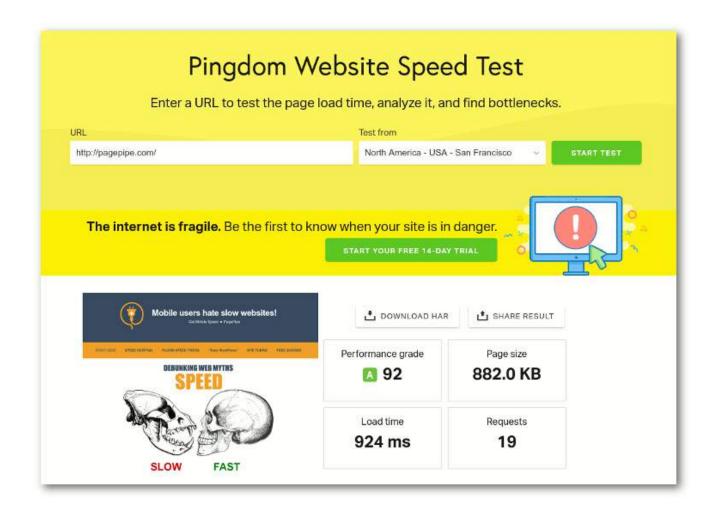
A browser timer or stopwatch is a valid tool to measure speed for its location geographically. How does one measure for sites that have customers globally?

**Good question.** Again, you can only use approximation testing techniques. WebPagetest.org allows for selecting many different locations and browsers.

Pingdom.com also has a selection of geographic regions.

That is enough. It's not accurate but results are repeatable. That means you can detect improvements from changes.

Assuming I'm on the right track, if speed is a primary blocker for a good user experience, is a stopwatch the only method of measuring it?



We rely on Pingdom most and WebPagetest.org second. Only because Pingdom gives faster results. Pingdom is a best-case scenario and WebPagetest.org is a worst-case scenario. Pingdom results are always faster. WebPagetest.org is always slower. Different methods of timing.

### The browser timer is our acid test of the test. We trust it more.

You can learn about the differences between the two test above on our Site Tuning services page:

## REFERENCE: <a href="https://speedhospital.org/wordpress-speed-tuning/">https://speedhospital.org/wordpress-speed-tuning/</a>

If yes, are tools such as the ones found in browsers that offer a measure of network speed also inaccurate and ineffective?

We have no evidence. Repeatable results are most important. If there is a conflict of results, I always trust the timer solution most.

If actual load time is the key determinant, what factors play a role?

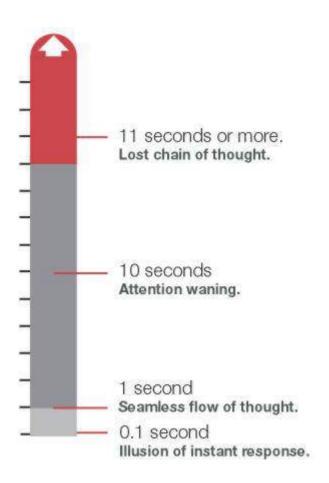
Page weight is the total sum of all files creating a browser page. This is usually expressed in "k" (kilobytes). Page weight is an indicator of optimization and speed.

Page weight is key for mobile user experience. Mobile speed is 2X to 3X desktop speed. Much slower. The image shows the time tolerances of impatient visitors for browser response time.

> If speed indirectly affects SEO over time, are the only factors content and design of a site (aesthetics)?

## **Borrowed Science Concept**

Hurdle technology ensures poisons in food products are eliminated or controlled. Stuff like mold, bacteria, and fungi. For food products, hurdles are pH and water activity measurements. These approaches are *hurdles* the pathogen has to overcome for safe food production.



Viewers hate slow pages.

In the end, "how fast is fast enough" is human perception of waiting or impatience.

REFERENCE: <a href="https://en.wikipedia.org/wiki/Attention\_economy">https://en.wikipedia.org/wiki/Attention\_economy</a>

If the user leaves because the page is too slow, they never see the beautiful page. Or read the riveting content.

Speed is about hospitality and being polite.

# The hurdles to detoxifying web user experience:

## 1. Bad speed

load time in milliseconds

# 2. Ugly aesthetics

first impression halo bias in 50 milliseconds after page load

#### 3. Poor content

readable and findable solutions

Your best return on investment always comes most from improving content.

The truest user experience is good content. You want to improve the profitability of your site: focus on content. Not aesthetic. Not speed. And not SEO gimmicks.

Good content is original, actionable, and answers a question. It's sourced, unique, concise, correct grammar, and proper formatting.

# 9 Ingredients for great content:

- 1. Create Original Content. Not deception.
- 2. Always Focus On Creating Strong Headlines.
- 3. Make Your Content Actionable.
- 4. Be Able to Provide Answers.
- 5. Be Accurate in Your Reporting and Sourcing of Information.
- 6. Create Engaging and Thought-Provoking Content.
- 7. Communicate Better by Adding Images and Video.
- 8. Write Short and Pointed Content.
- 9. Make Continual Updates to Your Website or Blog

REFERENCE: <a href="https://pagepipe.com/online-speed-test-scores-are-especially-useless-for-mobile-speed-improvement/">https://pagepipe.com/online-speed-test-scores-are-especially-useless-for-mobile-speed-improvement/</a>

REFERENCE: <a href="https://pagepipe.com/cutting-through-google-bs/">https://pagepipe.com/cutting-through-google-bs/</a>

REFERENCE: <a href="https://pagepipe.com/fast-sites-dont-improve-google-page-rank/">https://pagepipe.com/fast-sites-dont-improve-google-page-rank/</a>

# SPECIAL SECTION

# OTHER hosting tips

# Tweaking default themes for speed on old HDD – not SSD hosting.

pagepipe.com/tweaking-twentysixteen-theme

**It's not the year 2016 any more – but even today,** we recommend Twenty-sixteen theme for speed. We've achieved page load times as low as a half second using this theme on cheap magnetic shared hosting.



Hard disk drive. Mechanical parts exposed.

Magnetic hard disk drives (HDD) are one of the most affordable ways to store large amounts of data. It's old-school and used on cheap hosting like GoDaddy. The usual alternative is a Solid State Drive (SSD).



Solid State drive has no moving parts.

An SSD has no moving parts whatsoever. SSD storage is much faster than its HDD equivalent. HDD storage is made up of a magnetic spinning disk and has moving mechanical parts inside. HDD is physically larger than SSDs and much slower to read and write. In our experience, this still make insignificant difference in Time To First Byte (delays). There is no benefit for a website owner in reality. It's all theoretical.

Many hosts brag about providing SSD servers. Yet, actually get worse TTFB than traditional magnetic servers.

**So why do hosts offer SSD and claim it's <u>superior</u>? It is** superior but it doesn't make a difference to the cyberspace "renter." It enables drastic reduction in power consumption, maintenance, and lowers expense from air conditioning to cool overheated hard drives. SSD consumes a fraction of the rack space meaning lower square footage – less real estate is needed. These overhead cost savings are benefits *not* passed along to you the user. The benefit is long-term profitability for the hosting company. **Not you.** 

**SSD hosting** is a cost effective way of differentiating a hosting service for marketing purposes. **It's pure** *specsmanship*. It's inappropriate use of component specifications to establish presumed competitive superiority. No such superiority exists in real-world speed

tests of the whole system. The component specs are good. But the change didn't remove the punitive delays caused by oddities. Thing such as Google-mandated HTTPS/SSL handshaking for pseudo-security or innate latency from distant geographic location.

# Unawares you broke your lovely site activating PHP 7.x.

PHP 7 is twice as fast as PHP 5.x and requires one fraction of the server memory.



Comparison of PHP version speeds.

# Does activating PHP 7 from version 5.6 make a difference in speed test scores? There is no measurable load-time difference in milliseconds. None. Why no improvement?

<u>Some claim</u> to add PHP 7 instead of a version 5.6 speeds up page loads by 300 milliseconds on a cache-less site. We don't see that improvement evaluating with normal online tests like Pingdom.com or WebPagetest.org.

On a well-optimized site, there is no speed change evident. But the same can be said about caching plugins, minification plugins, and CDNs. With proper origin optimization, there's little benefit from inadequate speed fix-it attempts. Band-aids.

Our PagePipe blog is a well-optimized site. So why would we even want to risk a change? We write about plugin technology and speed. We stay current to "walk the talk." We also have an insatiable curiosity. So we did it.

A 3,760-word article at <u>WP Elevation</u> is about the *pain* of producing websites. The article expresses everything we hate about website creation. The thought of building "explosive live hand grenades" stresses us. Just reading the article was stressful. Why?

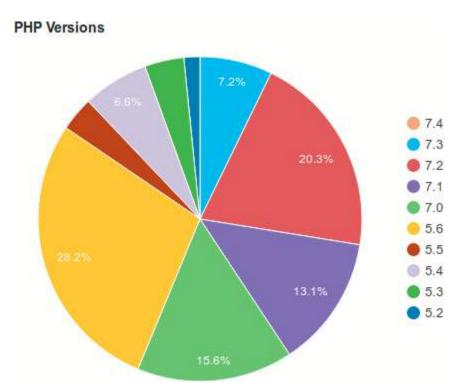
Because it's true. The nit-picky horrors described are exactly what occurs during web projects. Client or website owner expectations are high. Their technical knowledge is often low.

A new monster arose on the WordPress horizon.

# The fragile nature of WordPress and PHP v7.x.

Why does adding PHP 7.x break your site? Our choice to transition our GoDaddy-host-server to PHP 7 rattled our nerves. And we're initiated in this stuff. Our experience is a good example of what goes wrong. Upgrading PHP version 5.6 to version 7.x is a simple C-panel setting – but not without potential consequences.

PHP 7 released long ago on December, 3rd, 2015. GoDaddy didn't add this server option for a year and a half. Why? Because they knew the changes might break hundreds of thousands of WordPress websites. They left it up to users to perform the update. And they delayed the service call costs for as long as possible. The GoDaddy default version was set to 5.4. Making users choose their poison was smart. Users then are responsible for breakage. Or dialing back the PHP version themselves – or tracking down fixes. GoDaddy is blameless – sort of.



Above: Pie chart – Percentages of WordPress sites using different PHP versions.

# Risk breaking my site? Why even care about PHP version 7.x?

PHP is the code of WordPress, a server-side programming language. It first appeared in 1995. All themes and plugins use PHP, too. Upgrading your site to run on PHP 7 instead of PHP 5.6, you'll improve the performance of WordPress core by 2x. That's right. Twice as fast is the typical gain in core speed. We anxiously waited and watched for this no-extra-cost, speed opportunity. Free speed. Most vendors upgraded long ago. So we felt snubbed. But we didn't change hosts. We like bragging about good speed achieved under the worst conditions!

**So how faster does WordPress core load?** We should see a 100- to 300-millisecond improvement. But we never see betterment in testing. Updating PHP is a theoretical improvement – not an actual improvement.

PHP running twice as fast doesn't mean your website loads twice as fast. We've never seen significant, measurable differences switching back and forth between PHP 5.6 and PHP 7.3 on various hosts. For us, it's a theoretical improvement in speed. We think it's good – but if you don't change versions – no problem for us. It might be a problem for you at a future date.

PHP 7.x isn't going to break WordPress – it may cause some of your plugins to malfunction. Perhaps your theme. But the result is the same, your site appears broken. You can test all your plugins using a free *plugin*. Naturally! We tested with:

\*\*\*\*
PHP Compatibility Checker
Active installs: 30,000+
Compressed download: 1M

With this plugin above, you can check your site for PHP 7 compatibility.

\*\*\*\*

<u>Display PHP Version</u>
Active installs: 40,000+
Compressed download: 11k

Display PHP Version plugin displays the current PHP version in the "At a Glance" admin dashboard widget. We like it.

# So what broke after the change from 5.6 to 7.x?

- 1. **Broken Link Checker** compatible warning 1 This plugin broke the site when viewed on an Apple iPad. Meaningless code was all over the screen. We disabled the plugin. This is plugin causing site drag anyway. Only us it during maintenance. Leave it disabled. On some host, they ban Broken Link Checker. Why? Because it overloads the server slowing down other sharing domains.
- 2. **Simple Content Adder** We got a red flag for the file *revisions.php*. But we couldn't find it breaking anything. We left it as-is.
- 3. **SS Downloads** red flag This favorite old plugin broke the site with PHP error screen. The plugin failed because it triggered a fatal error. The plugin is for email capture before PDF downloads. We had to dump the plugin. Presently, all our free downloads use MailChimp signup. We do product downloads with Easy Digital Downloads plugin on our store site.
- 4. **Title Experiments Free** compatible but 7 warnings. We wrote plugin author, Jason Funk, and he updated the plugin to version 8.9 for PHP 7.1 compatibility. No more warnings. Thanks, Jason. [Jason later removed this plugin from the directory.] It caused global loading site drag.
- 5. WordPress Popular Posts compatible 24 warnings. The plugin stopped gathering data for page visits. This is the primary reason we use this plugin. It's very popular with 300,000+ active installs (v3.3.4) The new version 4.0.0 is now PHP 7.x compatible. It has slow Font Awesome onboard but it's not enqueued. We're thankful. We like the new GUI control panel for the plugin. The original plugin was a 125k zip file. The new one is 759k. Most extra weight is font overhead for the control panel. It doesn't affect your site's front end. This newest version is now available on the WordPress directory. We don't use this plugin any more because of site drag.

## How fast was PagePipe home page after the switch to PHP 7.x?

699 milliseconds unprimed cache and 440 primed. Superfast even on GoDaddy mechanical, shared server with no CDN.

So a quick comparison of primed cache:

PHP 7.2: Pingdom NY PagePipe home page – primed cache: 559ms.

**PHP 5.6:** Pingdom NY PagePipe home page – primed cache: 567ms.

# 8 milliseconds gain with TTFB fluctuations. Maybe? Insignificant gain on an optimized page. We'd be better off economizing in other areas.

**Why no big gains?** Because we have super optimized the homepage. There's a <u>point of diminishing returns</u>. Only fat bloated slow websites benefit from the PHP version switch.

**PHP gains are overrated and exaggerated.** A bloated site gets the most improvement. So PHP is a cheap test of site bloat. Big speed improvements from PHP indicates a big potential from the investment in site origin optimization.

"None of my speed tests provided clear evidence that my site now loads faster on PHP 7 compared to PHP 5.6." – OFFSITE REFERENCE: https://wpsmackdown.com/switching-to-php-7/

# **AFFILIATE LINK DISCLOSURE**

Required by the US Federal Trade Commission Law

# We review and share snarky opinions of WordPress speed services.

Our recommendations are completely biased yet from our real-life horror stories.

PagePipe earns a juicy commission when you click one special product link in this ebook.

There is but one - and only one - and it's clearly labeled.

Our fantastic journalism mainly promotes our ebooks and speed services.

Are we Nazi propagandists? No.

In America, it's called advertising. [giggling]

Do we have a hidden secret agenda?

Not really. We're pretty blatant about our goal.

"Save the Internet from WordPress abuse."

We don't promote or use affiliate links on our blog or store.

But we do in this special report. We need to put bread on the table.

Do we trust the service we promote? Absolutely. We use it ourselves.

Curious to find out what it is? Read on. Where's Waldo? Go find it.

-- The PagePipe Staff

#### What the heck is affiliate revenue?

Affiliate revenue is a percentage of commission shared between publishers and affiliate networks. We always make this clear to readers with a statement near the link.



# **PagePipe**

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