

A photograph showing a woman lying down, looking at a tablet device. She is also holding a smartphone in her other hand and has her fingers on the keyboard of a laptop. This visual metaphor represents the interconnected nature of modern technology and user interaction.

NGINX

It's All About the
User...and Other
Facts You Can't Ignore



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Technology moves at an alarmingly fast clip. Even more alarming, however, is the speed at which applications can become obsolescent. Blink, and you might miss something—but no worries. The next innovation is already here.

This is reality today for all online users. Having grown accustomed to the rapid pace of technology development, we have lost the last vestige of tolerance for slow load times. We are a community on the go, using tablets and

smart phones and social networks to access what we want, when we want, from wherever we are. The faster we move, the faster we expect applications to perform. And anything that makes us wait too long can—and *will*—be replaced.

Competitive advantage, therefore, belongs to the company with the right combination of innovation and performance. Customers want exciting features, on the platforms of their choice. But if you can't deliver the performance necessary to keep your users engaged, you will lose them—no matter how innovative your online services are. **Bottom line: Application performance and indeed, application survival—is all about serving at the pleasure of the user.**

This is where NGINX excels. NGINX and NGINX Plus provide a powerful, nimble and affordable way to supercharge application performance. Deployment is easy; simply drop NGINX into your stack, and you're free to focus your attention on what matters.

Need more convincing? Here are a few facts that hammer the point home.

FACT: Users are in charge.

This can be a tough pill for some vendors and developers to swallow. You put countless hours into the creation of content and features because you know that those elements are in demand. You've done your research. That's why you're offering these features, right? Because people want what you have. And doesn't that make you in charge?

Nope.

Web performance *is* user experience. Fast page load time builds trust in your site; it yields more returning visitors, more users choosing your site over a competitor's site, and more people trusting your brand.¹

¹ <http://radar.oreilly.com/2014/01/web-performance-is-user-experience.html>

Users expect pages to load in two seconds, and after three seconds, up to 40% of users will abandon your site.¹

It doesn't matter how awesome your features are or what kind of functionality you provide. It doesn't matter how you market it or what kind of investment you've made. If you can't quickly and reliably get that content in front of users, on the devices they regularly use and at the times they want to use them, no one will believe you're awesome. Users ultimately decide which sites to visit or apps to use based on what they can get to when it counts. Understand, of course, that you're never in the clear from this expectation. If you can handle initial traffic but can't scale to meet user needs when your content goes viral, you're in trouble as well. Success can be as damaging as failure, and your application only has one opportunity to impress.

You are, therefore, at the mercy of your users. You must understand and meet their expectations.

¹ <http://radar.oreilly.com/2014/01/web-performance-is-user-experience.html>

FACT: Performance is power.

So what is it that users want?

Speedy performance. Recent research suggests that 47% of consumers expect a web page to load in less than two seconds. Even worse, 40% will completely abandon a site if load time exceeds three seconds, turning elsewhere for what they need.¹ Many times, that means settling for something inferior in terms of content or functionality—but that won't matter if it loads quicker. Something is always better than nothing. That's why every fraction of a second counts. The seemingly inoffensive difference between an app that loads in 1.2 seconds and one that takes 2.1 seconds is more than it appears. A 100% difference in load time is never minor.

Accessible performance. Once upon a time, we only needed accessibility to applications at the office—where competition was usually between a few clunky products that took their time doing what we asked. (And we didn't really care because, frankly, it was just for work.) Today,

however, we use apps everywhere on many types of devices. More importantly, we rely on these apps beyond the workplace to manage our personal lives *all day long*. This is how we communicate, operate, educate, and socialize. If a site fails to respond when we need it—especially if we're on a mobile device—we won't hesitate to ditch that one and look for one that works. Consider, for example, how many websites are styled to look like mobile applications for the sake of appearance. But consider as well how that immediately sets a user's expectation that the site will operate like an application. Button clicks elicit immediate results—not two-second page load times. And while users may be more forgiving on a desktop, where they can multitask and swap between applications or browser tabs, mobile devices are much more compromised. There's no room for a user to do two things at once. In other words, if they have to wait, they *will* go elsewhere.

¹ <http://blog.kissmetrics.com/loading-time/?wide=1>

These expectations clearly demonstrate that strategic and competitive advantage belongs to the company that can get its app to perform for the user first.

Only 16% of users will give a mobile app more than two tries to perform.¹

¹ <http://techcrunch.com/2013/03/12/users-have-low-tolerance-for-buggy-apps-only-16-will-try-a-failing-app-more-than-twice/>

A one second delay in page load time can result in 11% fewer page views, 16% decreased customer satisfaction and 7% lost conversions.¹

FACT: Business survival depends on application delivery.

Performance does more than affect what users think of you—it can affect your entire business. In fact, slow load time and performance has been proven to:

Decrease page views. The fewer users that can get to your content, the less traffic you'll see. Those users will go elsewhere. Period.

Kill customer satisfaction. With little to no tolerance for lag times, users will be turned off by slow performance. In fact, if forced to wait even *one* extra second, customer satisfaction can drop by 16%.² Over time, this doesn't just mean users will avoid your content. Dissatisfied users often grow a blanket distrust for an entire brand, which can have lasting repercussions.

Lower your search engine ranking. That's right. Google now incorporates page load time into its search rankings, making poor performance an ongoing issue that affects how you will be seen and searched for by users.

Cost you money. A single second delay can drop-kick your conversions by 7 percent. For an e-commerce site bringing in \$100,000 per day, that can cost \$2.5M in lost sales each year.³ Sites or apps that are revenue-generators can suffer inexorably from each millisecond they fall behind.

Accelerate obsolescence. If traffic falls, loyalty dwindles, sales crash, and revenues shrink, the outlook for your application or site is not good. Technology becomes extinct when it can be easily replaced by something faster and better.

We live in an era of fast commoditization. If you can't deliver content, you can't serve your customers.

² <http://blog.kissmetrics.com/loading-time/?wide=1>

³ <http://www.theguardian.com/media-network/media-network-blog/2012/mar/19/attention-span-internet-consumer>

³ <http://blog.kissmetrics.com/loading-time/?wide=1>
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Say yes to your users

Once you accept that it's all about the users—attracting them, serving them, and pleasing them—your task is to ensure that your web site or application can meet their needs consistently. NGINX and NGINX Plus are designed to improve the user experience of your applications—accelerate page transfers, absorb flash floods of traffic, load-balance around failed or underperforming servers and deliver consistently excellent performance.

Many people know NGINX as an alternative high-performance webserver, but NGINX can also act as an application acceleration toolkit. Simply drop it in front of an existing stack, and it can help you:

Speed up. Because it offloads the big tasks from the front-end, and intelligently routes traffic to the back end, NGINX makes your web pages load exponentially faster. Users aren't forced to wait, which means there's no need for

them to flee to your competitors. And the faster you can serve content, the more users you can handle. In fact, NGINX can help you deliver apps to 10 times as many users—which builds greater customer satisfaction.

Respond faster—for less. You don't need some complex and expensive solution to make your site perform better. Truth be told, those feature-heavy hardware solutions can actually make your site lag! NGINX is about simplicity. No matter what type of infrastructure you have, you can drop NGINX in for an instant performance boost that's easily scalable. This "no harm" approach doesn't affect your environment but can immediately reduce infrastructure costs by cutting the complexity.

Preserve revenues. If slow load times can negatively affect sales, faster load times can help you eliminate that risk—and actually *increase* conversions. Some research shows that conversion rate can jump by as much as 74% "when page load time decreases from 8 seconds to 2 seconds...."⁴ In other words, if your company uses a site or

an app to generate revenue, NGINX can help you protect and enhance that profit channel by providing users with the reliable speed and accessibility they've come to demand from today's technology.

Today's online users are savvy but impatient—and that's okay. User impatience, after all, has spurred tremendous innovation over the years.

Unfortunately, many companies forget that impatience also breeds unhappiness. In that sense, performance always precludes functionality. First and foremost, to keep users satisfied with what you provide and prevent them from turning elsewhere, you must never keep them waiting. NGINX can help.

There's a reason why NGINX is the web server of choice for the top 10,000 busiest websites on the Internet today. NGINX Plus provides a powerful, nimble and affordable way to supercharge application performance, so that you can spend time delighting your users. Take it for a test drive with the NGINX Plus Free Trial. Learn more at nginx.com.

⁴ <http://conversionxl.com/11-low-hanging-fruits-for-increasing-website-speed-and-conversions/#.>,
http://www.mcrinc.com/Documents/Newsletters/201110_why_web_performance_matters.pdf

Nginx, Inc. offers advanced Internet infrastructure software that enables companies to match increasing demand for faster web experiences at scale. Nginx offers two solutions: NGINX is the popular open source software powering much of the world's largest and fastest websites; NGINX+ is a commercial offering that includes all the power and scale of NGINX, plus additional, enterprise-class features such as application balancing, health checks, activity monitoring, on-the-fly configuration, and support.