INTERMEDIATE LEVEL

How To Improve Your Website Performance 2017

monitis
a TeamViewer Company

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Overview

Let's face it, today the speed of market change is faster than ever before. Technology is the biggest business differentiator and those companies that can leverage it to their advantage are the ones setting themselves apart from the competition.

Imagine however what happens to a company that doesn't pay attention to the latest tech trends and falls behind. It usually starts with a lack of awareness about who is using their website and the difficult kind of experience visitors may be having there. Here are a few scenarios that hopefully you don't relate to or haven't experienced lately. Sounds familiar?

Situation N1

The Jones family is planning a once-in-a-lifetime spring break vacation to Hawaii and are trying to compare prices on various websites to get the best package. Unfortunately, when they visit a site that looks highly recommended called ParadiseGetaways.com" (fictional), the experience isn't so great. The browser spins continually and they have to wait for what seems like forever to get the page to load. After 2 minutes of slow navigation, the site freezes.

Situation N2

Mark Jones isn't having the best day so far. When he arrives at work late after wasting time at home trying to figure out his family vacation plans, his manager asks him why the company's mobile site is down. He also mentions that IT has already logged a hundred complaints from frustrated customers.

Situation N3

Later that afternoon, Fred, who works in marketing, also calls Mark to his office. He has been experimenting with some SEO and performance tools lately and just discovered that their main competitor's webpages are loading 5 times faster. He has little idea what to do to improve the corporat e website performance and is asking Mark for advice.

On the other hand, if these scenarios sound all too familiar, then you've come to the right place. In this eBook, we're going to address a secret ingredient that you can use to increase your business ROI in 2017 . . . something that business leaders and owners often miss. It's called website performance monitoring. Imagine trying to drive a car with a flat tire. It doesn't go to well for obvious reasons. The same with your website. If your site is running "flat" because of slow and clunky load times, then visitors are not having a

good experience.

In what follows, we'll cover some of the major highpoints around website performance – why it matters, reasons for poor performance and solutions to address it, the best monitoring performance types to choose for your business, and KPIs you should pay attention once you've selected an ideal monitoring solution for your business.

So, to the first question . . .

Why is website performance so critical?

Why Web Performance Matters

Did you know?

1 in 4 visitors would abandon the website if it takes more than 4 seconds to load.

In today's fast-paced digital marketplace websites and mobile applications are the storefront for your business. In other words, they give your visitors the first impression of your brand, products, and services. It's kind of like the feeling someone gets when they walk into a brick-and-mortar shop; they expect the shelves to be stocked and the customer service to be excellent.

For this very reason, the end-user experience has become more critical than ever. Customers simply have no patience for slow, erratic, or downed websites. This is why keeping your digital storefront running optimally and efficiently is crucial for the success of your organization. Without this focus in place, you might as well close up shop.

This is precisely where website performance optimization comes into play. To be clear, web performance is the science of making your website perform better so it increases visitor retention, improves SEO, and drives more sales.

Said slightly differently, website performance is all about increasing the speed, availability, and reliability of your website or mobile app. Consider the following vital statistics around website performance and the impact on user expectations, abandonment rates, and revenue loss:

- 53% of users abandon mobile sites that take longe than 3 seconds to load.
- The average cost of IT downtime is $9000 per minute but the real impact on brand damage can be incalculable.
- 1 in 4 visitors would abandon the website if it takes more than 4 seconds to load.
- A 2-second delay during a transaction results in shopping cart abandonment rates of up to 87%.

Based on these statistics, it doesn't take rocket science to see that web performance has a direct impact on

business outcomes. Website performance matters a lot for businesses... so much that neglecting this science can adversely impact organizations in many ways. Jim Rapoza, Senior Research Analyst & Editorial Director, Information Technology, put it in these stark terms:

Poor performance is a serious problem for organizations and has a large impact on their ability to conduct business. Our report found that some organizations are losing more than six figures in revenue each month due to poor and unreliable website performance. The current level of underperformance of websites is clearly unsustainable and is leading enterprises and other large organizations to seek solutions to quickly resolve these issues.

This is why it's particularly encouraging to hear about organizations that righted the ship and addressed poor performance head-on.

Consider what 37signals (now Basecamp) did with their Highrise marketing website. Using A/B testing, the company did multiple tests to determine the best plan for their landing page. In one case, the original background was white and cluttered with information. A dramatic change was made by replacing this white background with a picture of a person smiling.

The new landing page led to an increase in signups at the Highrise site by 102.5%!

This list provides another 99 great case studies of how WPO made a huge difference in website conversions.

Reasons for Poor Performance

We get the importance of how poor website performance negatively impacts business outcomes – through a combination of diminished user expectations, high abandonment rates, and resulting revenue loss.

But what are the actual root causes of this poor performance. It is often not just one thing but rather a combination of factors. Common causes of poor performance could be related to any (or all!) of the following:

- Too many large image files aka "page bloat"
- Server location (closer proximity can make all the difference)
- Third-party applications
- Overdoing it on affiliate ads
- Poor web hosting
- Not caching enough
- Code density

7 Measures to Improve Your Website Performance

Our aim here is of course not to focus on the problems of poor web performance, but rather to offer tangible solutions. In what follows, we run through 7 strategies to improve your overall website performance and make sure your customers keep coming back.

Speed Things Up

Plenty of recent research shows a clear relationship between web load speed and customer conversions. The faster a page loads the more likely customers will be to visit and do business on your site.

While this seems fairly straightforward, it's surprising how few business owners really get the importance of website performance and the role it plays in their business strategy. It might be nice to have a trendy looking website, but if it takes 10 seconds to load visitors won't hang around long enough to appreciate all the bells and whistles anyway.

Make Your Website Mobile Friendly

In case you don't recognize the dominance of mobile, consider that mobile commerce transactions in the United States alone were expected to total $123 billion in 2016. When designing for mobile, think clearly about how much effort it will take for your visitors to get to your mobile app, get what they need, and get out. One site sums it up best: On mobile, perception is everything. And if you consistently make it easy for a user to seamlessly complete their tasks, your site will be perceived as fast and efficient – key mobile benchmarks. Successful mobile journeys need to be short and sweet.

Reduce Initial Page Load Time

Today's websites, whether mobile or desktop, are increasingly integrated with third party content: social media, chat features, commenting services, information feeds, and other services. All of this requires more and more code, which in turn puts a tremendous strain on a website.

An important strategy for ensuring quick and painless load times is to minimize the amount of JavaScript needed to render a page. One technique is to compress or "minify" your JavaScript files to remove extra spaces and ultimately shrink the file size.

Check Your Web Hosting

When reviewing web performance one of the first things to check is your web hosting service. It's surprising how many times this gets overlooked. Even though your provider may offer you unlimited bandwidth, does that mean shared hosting with other sites that ends up affecting your own web performance?

Are you frequently experiencing downtime or bandwidth issues? If so, it's worthwhile to review your hosting options to ensure you're getting the most efficient service. Don't be afraid to insist on 99.99% uptime.

Use Web Analytics

In order to improve the user experience of your visitors, you need to understand their online behaviors. This is where web analytics comes into play. The ability to track a single customer across your site and across multiple devices will ensure that you can tailor your brand to their needs.

For instance, you want to learn more about where your visitors are coming from, what devices they're using, what are their online activities, and other key demographics such as age. Gaining these insights will help your organization better understand what's important to your visitors and how to personalize their experience.

Avoid Design Practices that "Page Bloat" Your Site

Increasing the size of your website images, third-party scripts, and style sheets come with a heavy price and can adversely affect performance. There is no point in adopting all of the "bells & whistles" on your website if customers are waiting inordinate amount of times for basic things to download.

According to this slide deck, some of the worst practices are as follows:

- web pages that are initially blank and then populate
- pages where the call to action is the last thing to render
- popups that block the rest of the page
- designing & testing practices that overlook the user experience

Create a Performance Mindset

A lot of the changes we're seeing in IT (Cloud, DevOps, BYOD, IoT) are the result of cultural shifts that have been unfolding for years. And that's precisely what will happen in website performance as a result of ongoing technological

transformations.
To keep up with the enormous changes today, businesses must adopt a performance-centric culture where all major stakeholders have buy-in and optics on the website development & monitoring process. Recognize too that websites are never “once & done”; website upkeep is an ongoing process, whether that involves continual A/B testing, performance optimization, or redesign.

Primary Website Monitoring Types

There’s no cookie-cutter approach to determining which approach to website performance monitoring is best for your business. Like so many options in life, it really depends on a number of factors

However, there are two major approaches that matter: Synthetic Transaction Monitoring and Real User Monitoring.

Let’s break out a few points on each approach to discover which one might be best suited to your own business use case.

Synthetic Transaction Monitoring

This is a form of active web monitoring, which involves deploying behavioral scripts in a web browser to simulate the path a customer or end-user takes through a website. Synthetic transactions are scripted in advance and then uploaded to the cloud as a transaction test.
Synthetic transaction monitoring is especially important for ecommerce and other high traffic sites because it allows webmasters to test new applications prior to launch.

There are 5 use cases when it makes most sense to adopt synthetic transaction monitoring.

- **Entering a New Market:**

Synthetic transaction monitoring is a great way to test the waters before introducing a new application to the market. With this approach, you’ll easily gain line-of-sight on how real users will interact with that application. Synthetic transaction monitoring offers users the ability to simulate the projected real-world load to ensure their application can handle the projected load.

- **Troubleshooting Issues:**

By providing a simulation of the critical business journey that your customers take with your application, synthetic monitoring provides a baseline set of tests that can be very useful for understanding how they will interact with your websites, APIs, or mobile apps in real time. This type of testing can also provide direct feedback on performance

degradation or availability issues. This information will help your team locate the root cause, engage the right experts, and fix issues before they impact the end users.

- **Testing New Features Prior to Deployment:**

Synthetic monitoring is especially useful for testing your web, mobile, or cloud-based applications before deploying new features into production. During this stage, synthetic monitoring can provide a set of baselines and thresholds that reveal any potential obstacles customers may encounter in the real world. This approach will save you and your customers lots of headaches later on by avoiding the need for maintenance and downtimes to repair performance issues.

- **Comparing Your Performance to Your Competition:**

Competitive benchmarking is another feature that makes synthetic monitoring so valuable. With this approach, you can set up benchmark scenarios to see how your applications are performing over time. You can also benchmark your company's performance against top competitors within a certain historical time frame or within a specific geographical region.

- **Analyzing Your Ecommerce Strategy:**

Synthetic monitoring can provide ecommerce organizations direct line of sight, for instance, if one of the steps in their website's online transaction process is no longer working properly. By tracking and analyzing every click and swipe, synthetic transaction monitoring solution can help you to identify problems and prioritize fixes in your website to ensure that customers continue to have the kind of experience they've come to expect.

Real User Monitoring

Also known as RUM, real user monitoring is also a form of passive web monitoring that has become very popular in recent years. In a nutshell, RUM describes exactly how your online visitors are interacting with your website or application by examining every transaction of every user; it does so by looking at everything from page load times to traffic bottlenecks to global DNS resolution delays. This is the kind of monitoring you need for the day to day, which ensures your business website keeps running optimally and that there are no downtime issues impacting your customers.

As with Synthetic Transaction Monitoring, we would also like to know the ideal situations when it makes most sense to adopt Real User Monitoring. Here are 5 scenarios when you should be using this approach.

- **Hidden Performance Issues Uncovered:**

The “real value” of RUM is that it provides you with a holistic overview of your total performance environment. A full-featured RUM solution will use small bits of JavaScript code to drill deeper and track key metrics across the website and application. This analysis will include such events as DNS resolution, TCP connect time, SSL encryption negotiation, first-byte transmission, navigation display, page render time, TCP out-of-order segments, and user think time.

- **See What Devices Your Visitors Are Using:**

There are literally thousands of various devices, networks, and operating systems on the market today. One of the many ways that RUM testing can help is by making it possible to gather the relevant information on each device type in order to customize a user experience that is extraordinary. Certain RUM platforms can collect additional important information, such as network provider, OS, browser version, user location, application version, mobile device specs, connection type, network latency, and available end-to-end bandwidth.

- **Learn How Visitors Interact With Your Site:**

Visitors take a variety of paths to get to your website or application. Maybe they found you through some kind of blog or video content, an advertisement, or through social media. Once they land there, Real User Monitoring tells exactly what they’re doing and how they’re interacting with your brand.

- **Discover How 3rd Party Scripts Are Performing:**

Real User Monitoring can assist in alerting you to potential or real performance degradations and downtime impacts that may result from third party scripts. Being able to monitor the business impact of third party scripts can also provide more line of sight on your service level agreements (SLAs) in order to hold the third-party vendors accountable.

- **Impact of Performance on Business' Bottom Line**:

Real User Monitoring can help organizations trace the correlation between web performance and business performance. RUM provides useful insights into the relationship between website load times and sales conversions on key pages so that you can prioritize which pages need to be optimized.

What KPIs You Should Be Monitoring

Throughout this eBook, we've arrived at a clearer understanding hopefully of what web performance is, why it matters, and some major reasons for poor performance along with solutions to address it. We also addressed two of the major types of website monitoring, Synthetic Transaction Monitoring and Real User Monitoring, along with scenarios of when your business might adopt each approach.

Now finally, we should ask ourselves about what KPIs, or key performance indicators, are most critical to focus on when devising our web performance strategy.
The following are 7 KPIs that every business needs to be clear on:

- Uptime – measuring the availability of your website is crucial.

- Website Visitors – understanding daily visitor volume helps to assess the loads and forecast future trends.

- Bounce Rate - the percentage of visitors to a particular website who navigate away from the site after viewing only one page.

- Page Load Time – time it takes in seconds to download and display an entire web page in the browser window.

- Geographic Performance – shows how your website is performing in different regions of the world.

- Website Load Tolerance – tests how many visitors to your site it takes to considerably slow it down.

- Conversion Rate – the percentage of visitors to your site that make a purchase.

At the end of the day, what really matters in business is how your website and applications improve the organization's bottom-line. Are they achieving leads and driving ROI for the business? Are your end-users having a great experience on all devices at all times. It really comes down to this, as one writer has well summarized: "To translate IT metrics into an End-User-Experience that provides value back to the business."

Website performance monitoring is the key to ensuring your website and applications are functioning properly, and hence the critical factor in the success of your business.

If we've made the case that website performance monitoring is critical to your business bottom-line and too important to leave to chance, doesn't it make sense to go with a proven leader in this market – one with a proven track record of giving enterprises fast, concise, reliable information on their infrastructure?

The Monitis website monitoring suite provides you with all the information you need about the availability and performance of your applications, servers, and databases from a single dashboard and identifies and isolates any problem associated with end user experience before it harms your business. Application monitors are available for Email Round Trip, MySQL, Log, Oracle, Tomcat and Java/ JMX and the company frequently adds more. The mobile version of Monitis also allows you to get the latest metrics and push notifications delivered to your Android and iPhone/ iPad devices.

The benefits and takeaways here are peace of mind and less stress. Knowing about the issues that can affect your website before they strike means you can be proactive rather than reactive.

This is good for you and your business, and ultimately leads to better performance and happier customers. With Monitis you'll be alerted well in advance if things go awry so you can take action before your customers do.

If you'd like to get onboard with the latest in real time and cloud-based website monitoring, then go on over to Monitis today and start a free trial and let them help boost your business bottom-line. You'll be glad you did!

Get Unlimited Monitoring for 15 Days with Monitis Premium Trial

Start Monitoring now