

# Why Web Performance Matters: *Is Your Site Driving Customers Away?*



## When you're doing business on the Web, every second counts

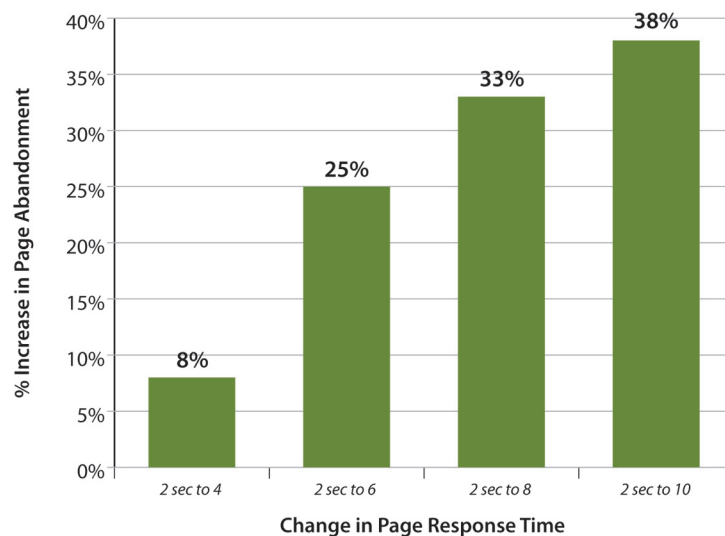
More than ever, your Website's performance matters. The average online shopper expects your pages to load in **two seconds or less, down from four seconds in 2006**; after three seconds, up to 40% will **abandon your site**.<sup>i</sup>

And performance pressure just keeps growing. To drive more sales and boost brand image, today's Websites are increasingly dependent on sophisticated technologies such as shopping tools, interactive games, and videos that attract attention, hold interest or move visitors toward your virtual shopping cart. But if the technology behind the marketing vision for your Website creates delays or fails to work properly, watch out — your visitors may quickly abandon your site and run to the competition.

Gomez' own studies reveal that lack of visitor loyalty. By analyzing page abandonment data across more than 150 websites and 150 million page views, Gomez found that an increase in page response time from 2 to 10 seconds increased page abandonment rates by 38%.<sup>ii</sup>

### Page Response Time Drives An Increase In Page Abandonment

Increasing page response time from 2 seconds to 8 seconds increases page abandonment by 33%.



The causes of Web dysfunction may be complex, but the lesson is simple: so-called "IT" issues that slow down your site can impact revenue, customer satisfaction and your brand — *if* they're not identified, monitored and resolved.

In the remainder of this white paper, you'll learn about the direct impact Web performance has on business results. And discover powerful tools for driving the superior customer experience — and business revenues — you demand from your Website.

## Your customers are not patient

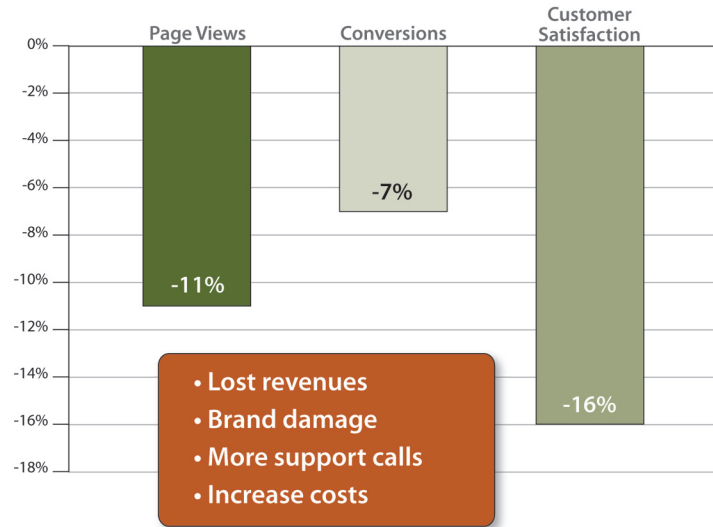
Even small numbers can have a big impact on your business. Let's start with the basics — availability: how available is your site to your visitors and potential customers?

According to studies by the Aberdeen Research Group, the industry average is 97.8% availability.<sup>iii</sup> Not bad right? Wrong. Consider what a two percent lack of availability really looks like: it means your site is out of business **8 days a year**. For an ecommerce site generating \$100,000 a day, that translates into a **loss of \$800,000 in yearly revenue**.

It's not good enough for your site just to be available — it also has to be fast. The same Aberdeen study found that the average impact of a **1-second delay** meant a **7% reduction** in conversions. For the \$100,000/day ecommerce site, a one-second delay means **\$2.5 million in lost revenues** in a year.

## Average Impact of One Second Delay in Response Time

Aberdeen Group found that a one second delay in Web page response time decreased conversions by 7%.

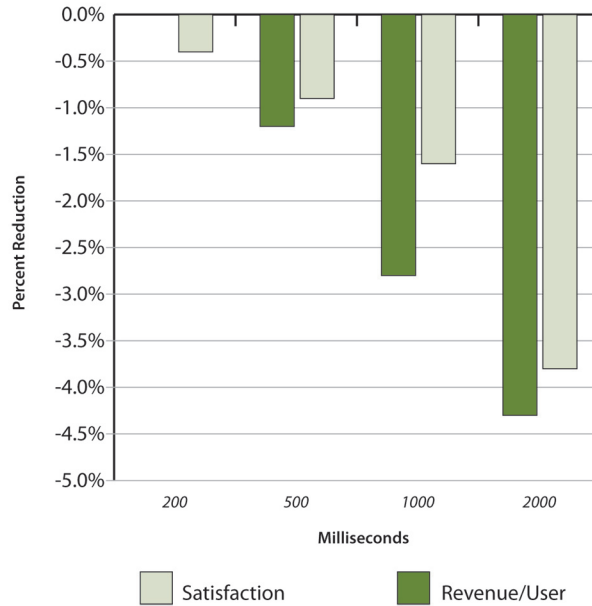


### Even the biggest players aren't immune

Microsoft's Bing conducted its own study to measure the impact of delay on performance. A mere two-second delay led to a 1.8% drop off in queries, a 3.75% reduction in clicks, more than a 4% loss in satisfaction and, most importantly, a **4.3% loss in revenue per visitor**.<sup>iv</sup> Considering the traffic Bing generates, that's a significant amount of business lost.

### Bing Revenue and Customer Satisfaction Impacts Due to Performance Delays

Bing found that a 2 second slowdown reduced satisfaction by 3.8% and revenue/user by 4.3%



AOL measured similar losses caused by delays, specifically in a reduction of page views per visit. Visitors in the top ten percentile of fastest page load times viewed an average of 7.5 pages per visit. In the bottom ten percentile of page load speeds, pages per visit dropped to about 5.<sup>v</sup> The conclusion: the slower your site, the fewer pages your visitors will view.

## STUDY

### Performance Matters to Customers

The Gomez Peak Time Internet Usage Study conducted by Equation Research on 1500 consumers (February 2010) confirms the negative impact of poor performance:

- At peak traffic times, more than 75% of online consumers left for a competitor's site rather than suffer delays
- 88% of online consumers are less likely to return to a site after a bad experience
- Almost half expressed a less positive perception of the company overall after a single bad experience
- More than a third told others about their disappointing experience

## Optimized performance increases business value

It's clear that poor availability and page-load times have an immediate — and negative — impact on customer experience. But will improving performance lead to more favorable business outcomes? Consider a few objective, real-life examples.

### Side-by-side comparisons reveal the power of superior performance

In 2009, an ecommerce site and a media site participated in an innovative study that randomly divided their 14,000 visitors into two groups: one visited an optimized Website while the other visited a site that remained untouched.<sup>vi</sup> Customer behavior — and, ultimately, business outcomes — was clearly linked to Website performance.

### Study: Site Optimization Drives Increases in Consumer Engagement

Behavior	Optimized Site	Non-optimized Site
Bounce Rate	13.38%	14.35%
Pages per Visit	15.64	11.04
Average Time on Site	0:30:10	0:23:50

As the table suggests, the optimized site beat the non-optimized site in key metrics of visitor engagement. It's important to note that the increase of average time on site shows that visitors did not merely see more pages per visit because of faster load times; the site's overall "stickiness" improved as well.

The most significant metric for the ecommerce site regards business outcomes. Performance optimization improved the **conversion rate by 16.07%** and the **order value by 5.51%**.<sup>vi</sup> Clearly, improving the technical execution of the Website had a dramatic impact on its business effectiveness.

### Shopzilla gains monstrous improvements

With 20 – 29 million unique visitors a month, 100 million impressions a day and 8,000 searches a second, Shopzilla certainly qualifies as a Web powerhouse. Although its stats were impressive, Shopzilla embarked on a 16-month re-engineering program intended to improve performance and move more of its 100,000-products.

As a result of its work, availability increased from 99.65% to 99.97%. Average page load times significantly improved from 6 seconds to a blazingly-fast 1.2 seconds. Incredibly, the overhaul actually required less physical infrastructure.

Business outcomes? Best of all, an already successful site experienced a **revenue increase of 5 – 12%**!<sup>vii</sup>

## Real insight is more urgent than ever before

Traditionally, enterprise stakeholders viewed Website performance in different ways. Business managers have measured site performance by page views, bounce rates and conversion rates with tools such as Google Analytics or Omniture, while technology professionals have watched site availability and response time metrics.

Ultimately, both the IT professional and the businessperson need one thing: a set of common metrics that *links* performance to business outcomes and allows all enterprise parties to *share* responsibility for improving performance.

## STUDY

### Performance Matters to Mobile Users

- 58% of mobile device users expect sites to download as quickly as they would on their home computers.
- 61% said that poor performance would make them less likely to visit the mobile website again.

## In-depth Web Performance Monitoring and Analysis

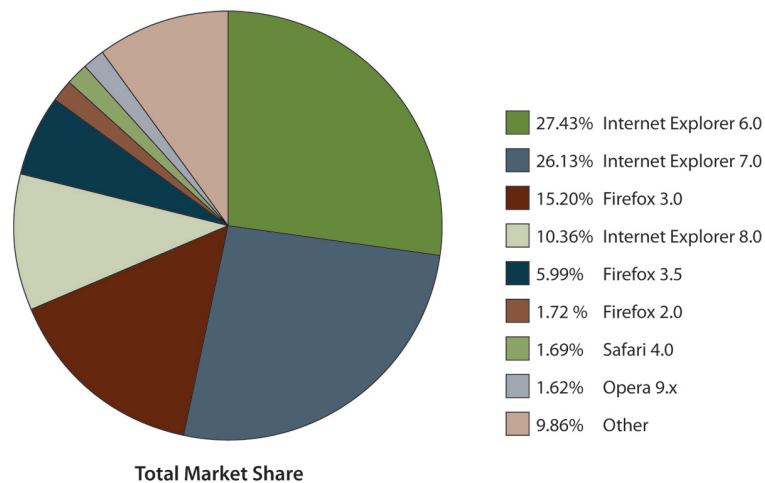
As websites become more complex — featuring richer applications, reaching a wider audience in newer ways (such as mobile devices) — the need for deeper, more insightful metrics has increased and is likely to expand.

Key considerations for Web performance monitoring include:

- **Performance insight across multiple browsers:** The browser market is fragmented and there is a constant battle for dominance — no one browser dominates the market. The performance differences across browsers such as IE7, IE8, Firefox, Safari and Chrome can be huge, primarily because of the way they process Javascript and make parallel host connections. Gomez data shows up to an 8-second difference in response time between the slowest and fastest browsers for some applications. For consistent customer satisfaction and maximum revenue for the business, Website managers must optimize performance for the browsers that generate the most revenue for their business.

### Browser Market Share December 2009

Browser diversity is at an all time high with no one browser dominating the market.



Source: <http://marketshare.hitslink.com/browser-market-share.aspx?qprid=2>

- **Global reach:** It's not called the "World Wide Web" for nothing. That's why testing under ideal lab like conditions provides only a partial view; you need real insight into end-user experience, especially at the last mile, to see your site as visitors do, from every point around the world where your customers are.
- **Mobile devices:** More and more consumers are accessing Websites via "smart phones" and other mobile devices. While a mobile device is very different than a computer, customer expectations remain the same: according to a recent Gomez study, 58% of mobile device users expect sites to download as quickly as they would on their home computers. Worse, a vast majority, 61%, said that poor performance would make them less likely to visit the mobile Website again.<sup>viii</sup>
- **Richer apps and features:** Web pages aren't static "pages" anymore, but a complex mixture of tools, features and composite applications that must execute perfectly to ensure a satisfactory end-user experience. Familiar ecommerce features such as shopping carts and interactive product catalogs now depend on sophisticated programs that run within end-users' browsers to make them more dynamic and engaging. Site managers must have visibility to the site as users see it in order to monitor their application's performance.
- **Third party content and providers:** Many of the features visitors expect are run by third-party providers contracted by the site owner. Gomez customers, for example, engage an average of eight hosts to present their Websites, many of which are third party partners, such as ad networks, CDNs and dynamic imaging providers.<sup>ix</sup> You need to monitor and measure the performance impact of these third parties on your Website.

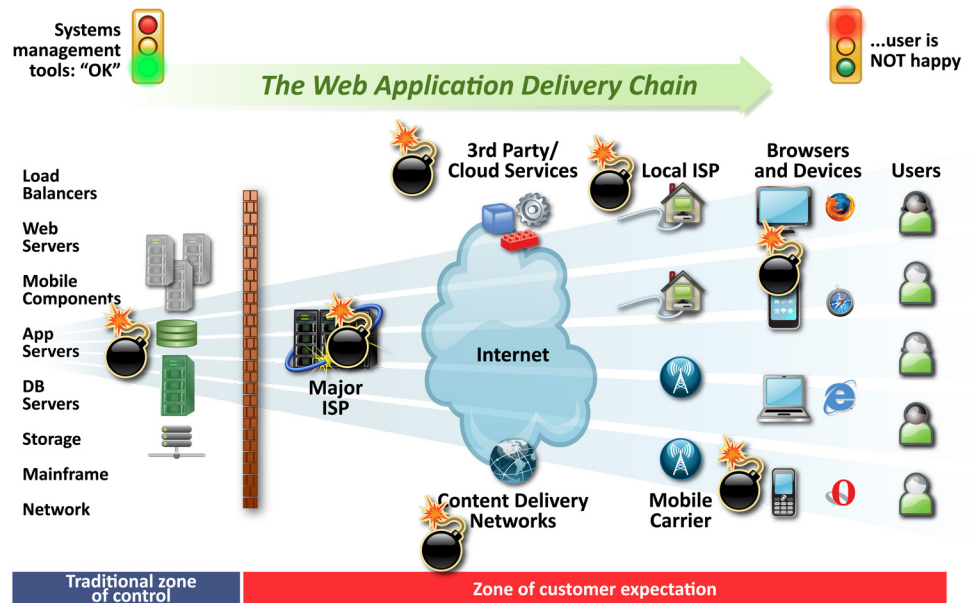
## Test your mobile readiness online:

<http://www.gomez.com/mobile-readiness-instant-test/>



## The Challenge of Delivering Web Applications

It is important to monitor the Website as real end-users experience it because of the many factors that can impact performance outside your firewall.



The best Web businesses know that response time and site availability has a demonstrable affect on business results. These businesses monitor performance from the perspective of their real end users with a goal of finding and resolving problems before their customers do. To do so, they use Gomez to manage key aspects of their sites, including:

- **Quantifying business impact of Web performance:** Aberdeen's research shows that **49%** of the best-in-class enterprises have a real-time view into performance of revenue generating transactions, compared to 19% of the average companies and 15% of the "laggards."<sup>iii</sup> For example, Gomez customer Coolibar was able to trace abandoned checkouts — a clear indication of revenue loss — to page load delays caused by its dependence on too many vendors.
- **Resolving business problems *before* customers find them:** According to a study by Aberdeen Group, users of Gomez Web Performance monitoring and analysis were **50% more likely to improve response times and 42% more likely to reduce mean time to repair** than enterprises that did not use the service.<sup>x</sup> Example: BuildDirect used Gomez to help it reduce downtime by 45% and improve page-load time by 23%.
- **Measuring quality of real end-user experience:** The ability to see the customer's genuine experience — by key segments, and across browsers, devices and even regions — is crucial for success. Sixty-six percent of best-in-class site operators have the ability to measure the quality of end-user experience, as opposed to 51% and 14% for average and laggard operators, respectively.<sup>iii</sup> For instance, eBags, a leading retailer of luggage and related accessories, leveraged Gomez' cross-browser testing capabilities to optimize performance on more than 50 browsers, resulting in a 10% increase in conversions.
- **Benchmarking the competition:** You cannot understand your site out of context. Aberdeen reports that benchmarking is one of the top strategic actions that organizations are taking to improve Web application performance. For 2009, 24% of organization are benchmarking or are planning to benchmark their application performance against competitors or industry leaders.<sup>iii</sup> Scottrade, a leading online investment firm, used Gomez benchmarks to measure performance while they added new site features and reduced response time. Reducing response times to 3 seconds and keeping availability at over 99% enabled Scottrade to achieve the top spot on Gomez's benchmark and become a central component in a marketing message that resonated with customers who value the time it takes to make a trade.

### What are Website delays costing your business?

Use the FREE Gomez F.A.S.T. ROI Calculator to find out:

<http://www.compuware.com/fastcalc>



## How is your Website performance affecting your customers' experience?

The Web changes every day, taking on fresh and unexpected roles with the introduction of new technologies and the Internet's ever-increasing presence in ordinary life. For the businessperson, however, one thing remains constant: your site's performance is too important to be ignored. Achieving business objectives requires a clear look into your end users' website experience. To assess the business impact of your site, you should be able to answer the following questions:

Web Performance Checklist for Website Business Managers	Yes	No	Not Sure
1. Do you know how competitors' and industry leaders' websites perform, and how your site measures against their benchmarks?			
2. Can you ensure that your customers across the globe share a consistent experience of your site?			
3. Does your site deliver a consistent customer experience, regardless of browser type?			
4. Do you know how third-party technology and services, such as dynamic search, Content Delivery Networks, Ad Networks and site hosting, affect your site's performance?			
5. Do you know how mobile users are experiencing your site — across key devices, browsers and service providers?			
6. Is your site — including new promotions and/or new features — ready for peak traffic periods around major events, holidays and new ad campaigns?			
7. Can you tie customer satisfaction levels to your Website's performance?			
8. Can you quantify how your Website response time and availability impacts your business results and conversions?			
9. Do you use dashboards to give both business and IT the actionable insights they need to support your Website's business goals?			
10. Do you have a common set of measures and metrics that make your site's performance a shared responsibility of both IT and business professionals?			

For even more information on site performance, talk to a Gomez Web Performance expert by writing [info@gomez.com](mailto:info@gomez.com) or calling 877-372-6732 today.

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- <sup>i</sup> Forrester Consulting, "eCommerce Web Site Performance Today: An Updated Look At Consumer Reaction To A Poor Online Shopping Experience" A commissioned study conducted on behalf of Akamai Technologies, Inc., August 17, 2009
- <sup>ii</sup> 150 Gomez customers, 34,000 Web pages and over 150 million page views captured between November 10 and December 10, 2009
- <sup>iii</sup> Simic, Bojan, "The Performance of Web Applications: Customers Are Won or Lost in One Second" November 2008, Aberdeen Group
- <sup>iv</sup> Schurman, Eric, Bing and Brutlag, Jake, Google Search, "Performance Related Changes and their User Impact" 2009 Velocity Conference
- <sup>v</sup> Artz, David, AOL, "The Secret Weapons of The AOL Optimization Team" 2009 Velocity Conference
- <sup>vi</sup> Croll, Alistair and Power, Sean. <http://www.watchingwebsites.com/archives/proof-that-speeding-up-websites-improves-online-business> September 2009, Watching Websites on Strangeloop Networks Study
- <sup>vii</sup> Dixon, Phil, Shopzilla, "Shopzilla's Site Redo – You Get What You Measure" 2009 Velocity Conference
- <sup>viii</sup> "Why the Mobile Web is Disappointing End-Users" A study of consumers' mobile web experiences conducted by Equation Research on behalf of Gomez, Inc." October 2009
- <sup>ix</sup> 3000 Gomez customers, data as of October 2009
- <sup>x</sup> Simic, Bojan, "Gomez Users Rise Above the Best-in-Class in Monitoring the End-User Experience May 2009 Aberdeen Group

## About Gomez

Gomez, the Web performance division of Compuware, provides the industry's leading platform of Web application experience management solutions used by organizations to optimize the performance, availability, and quality of their Web and mobile applications and proactively identify business-impacting issues. The on-demand Gomez platform integrates solutions for Web load testing, Web performance management, cross-browser testing, and Web performance business analysis that test and measure Web and mobile applications from the "outside-in" — across all users, browsers, devices, and geographies — using a global network of over 100,000 locations. Over 2,500 customers worldwide, ranging from small companies to large enterprises — including 12 of the top 20 most visited US Web sites — use Gomez solutions to increase revenue, build brand loyalty, and decrease costs.



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