Realtime publishers

Discovering Web Performance Issues Before Your End Users Do

The Essentials Series

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Copyright Statement

Using Web Monitoring to Improve IT Efficiency

In Web site development and maintenance, your IT group takes on a different set of roles than it normally holds. Your corporate Web sites become your organization's representation to the world. IT finds itself acting as your sales force, customer service team, accounting department, and many other functions all through the auspices of your organization's Web sites.

IT has a responsibility to ensure that those Web sites accurately depict the image your organization intends to project to the world. Sites should provide end users with a simple, error-free interface with your firm, and help them trust in your integrity and care for them.

Web monitoring from the cloud can provide IT with a quantitative view of the end user's perspective of those Web sites. By providing clear, easily interpreted graphical representations of the performance and functionality of the sites, external Web monitoring can help IT focus on the areas of the site that require the most work. Monitoring can proactively find errors on the site and allow them to be corrected before they become major issues.

Web Sites Are Only Effective If Users Use Them

It is amazing how many organizations build Web sites and receive no real advantage from them. Users find them difficult to use or incapable of helping the users conduct business with the sponsoring organization. Often, these sites are abandoned because the sponsoring organization only viewed the site from their perspective and never really saw the site the way that their end users saw the site. To reach a broad audience of users worldwide, the Web site owners need to track how their users experience the site on objective terms, and continually improve the site to make that experience richer with each visit.

Sites Need to Perform

Most enterprises track the number of people who wait on the phone to talk to a representative. They know how long the average call takes, and work to shorten that time. Shortening the time to work with a representative makes customers happier.

IT has the same responsibility to ensure that the Web site pages are responsive. They need to regularly measure how long pages take to download and give the user what he/she needs to interact with the organization. They also need to consider the conditions that users have to connect with the site (different devices, different browsers, different networks, and so on) and understand the performance in all these varied circumstances.

Cloud-based Web monitoring can test the Web site under this wide variety of real world conditions and provide objective measures as to how the sites are performing. They can validate that things are running as the organization expects them to. They can also warn IT when performance begins to deteriorate. Catching changes in performance early can help minimize customer dissatisfaction and avoid larger problems.

Sites Should Be Error-Free

No one likes to work with someone who cannot seem to do their job. It is frustrating when orders are wrong, shipments are missed, and the company cannot seem to get things right.

Web sites with errors on their pages do the same thing. Users avoid sites that are error prone. Worse, unmonitored sites can go for weeks or months with broken pages. Users just learn to avoid the pages. And sometimes they avoid the organization.

Cloud-based Web monitoring provides an automated touchstone to check that pages work without error. They can be used to provide objective evidence that service level agreements (SLAs) are being met and users are being well cared for. When errors do occur, email warnings can be sent immediately to IT so that the problem can be dealt with proactively. The objective results of the monitoring test provide an excellent starting point for where to begin troubleshooting.

Sites Represent Your Organization

Web monitoring from the cloud helps IT focus on keeping the site performing well and running free of errors. Sites thus cared for are favorites of users, who return to them again and again. They help build your organization's brand and cultivate user loyalty.

Focus on Performance

A good Web monitoring program can help IT identify the key areas of the site that perform well and the areas that need improvement. This information helps the site designers and server operators focus on what matters to end users.

Identifying the Root Causes of Performance Problems

When users complain about performance issues, it can be difficult to identify exactly what they mean. Most of them are not Web page designers, and they do not understand how the individual components on the page download and interact. Their descriptions are relevant, but they do not always give IT what it needs to address the issues at hand.

An effective external Web monitoring program will start by reproducing the problem mentioned by the user with their browser and their network conditions. It will measure the individual components. It will identify the errors in clear terms. Graphical representations of this performance make problems easy to understand and help the site administrators isolate and deal with the individual problems on the page.

Tracking Performance Changes

When sites are first published, they perform well (you would not have published them if they did not). But as time moves on, things change: demand increases, and response times drop. Servers are multi-tasked and have less capacity to serve the Web site. Performance can slip.

Web monitoring from the cloud can keep baselines on performance and show changes over time. They can help organizations see when it is time to add servers or increase capacity to help sites meet their SLAs. They can help IT adjust with seasonal changes, or gear up when promotions or special events put more stringent demands on the system. The decisions are made on the most important metric—the user experience.

Providing End User Advocacy

At times, IT and the user community find themselves at odds with one another. The servers report the site is working fine and there are no errors. Users complain that the site has errors on their end, or that it performs poorly. IT has no real means of validating user complaints or even determining whether IT has indeed addressed the problem at hand.

Cloud-based Web monitoring can be an indispensable tool in these circumstances. The results allow IT to reproduce the conditions of the user and objectively check for errors as well as measure performance. This data provides clear evidence of how the user receives the site.

The ability to simulate different user conditions of device, browser, network, time zone, and location also allow IT to adjust the site to accommodate changes in the user community. As users move from laptops to pads, or from large screens to the small screens on their phones, IT can proactively tune their sites to meet the demands of the new conditions and stay ahead of the changes in their user community. This environment can help retain customers.

Drive for Effective Site Improvement

Using the metrics collected by external Web monitoring can help focus the efforts of IT on continuous Web site performance. Using the information collected by the monitoring program to prioritize activity and deal with the most significant issues first can provide the most impact on customer satisfaction. And proactive handling of site issues can help avoid customer frustration.

Remediate Issues Before They Escalate

Proactive Web site monitoring can provide immediate alerts to your IT team when the site fails to perform or operate properly. Even when sites use third-party components, such as payment sites or shipping Web services, problems can be detected automatically.

The monitoring system can send an email to the IT response team to alert them of the issue as soon as it is discovered, even before a customer can bring it to your attention. The monitoring system can also confirm that the issue has been properly addressed.

Locate Areas of Chronic Poor Performance

Monitoring systems that track and organize baseline performance on your site pages can identify the pages that have chronic performance problems. These pages quickly become focus areas for your team to concentrate their efforts.

The monitoring systems will also identify the pages that perform well. The team can use the success of these high-performing pages to model other pages that will perform equally well. This progression becomes more important as sites move to develop toward alternative form factors, such as smartphones. Knowing what works well makes it simpler to create effective pages and sites.

Quantitative Mapping of Results

Using the results of the monitoring tool, IT can map the performance of pages to their effectiveness in achieving their goal (return visits, sales, delivery of content, and so on). The correlation of performance to effectiveness can be very revealing in choosing design patterns for additional Web pages.

Also, comparisons of form factors can help determine whether your sites are prepared to meet the needs of your user communities. As people use their smartphones, music players, and pads more frequently, the use of apps to replace traditional Web sites becomes more significant. Measuring performance can help determine when that type of a move makes sense for your organization.

Building Proactive Maintenance Teams

Cloud-based Web monitoring can provide the foundational alert system for mobilizing proactive maintenance teams. These teams, armed with clear, easily understood reports from the monitoring service, can move quickly to remediate performance issues and correct errors before they have a major impact on your business.

Alert Personnel of Problems

Many users find neglected sites on the Internet. The page has broken and no one has noticed. It can go on for weeks, even months. Users try the page, and when it does not work, they simply move on. The publishing organization squanders the opportunity to interact with those users simply because the organization did not care enough to keep their pages in working order.

The monitoring system can check pages on a regularly scheduled basis to ensure that the pages perform within their specified ranges and that they are free from error. Whenever the system detects an issue, an alert is automatically sent to the appropriate people so that the issue is dealt with as quickly as possible. Often, issues are handled before users are aware there was an issue. Users trust the site, and the company that sponsors it, because the site works consistently and reliably for them.

Reduce Customer Support

When sites work well, customers use them and the site can reduce the load from customer support. When they do not work well, they exacerbate the problem. Now, you have people contacting customer support for support on the Web site on top of the support for your products and services.

Cloud-based Web monitoring can help ensure that when customers access your sites, the sites are delivering the content in a performing, error-free manner.

Early Problem Detection

Site performance can be reduced for so many reasons. A Web page is a collection of resources that come together in the browser. Text, graphics, and software components work in harmony with one another. When a page fails, it is often only one of the components on the page that fails.

Web monitoring from the cloud can track the performance of each of the individual components in the Web page as they render. It can identify the problem component quickly and notify the staff that this individual graphic is missing, that this particular link is broken, or this bit of JavaScript is not working. The alert goes out immediately upon detection, and the IT response team has the specific information they need to correct the problem quickly.

Providing Better End User Advocacy

At the end of the day, your site is evaluated by end users through what they see. They stand as judge and jury on whether your site is doing its job. External Web monitoring allows you to quantitatively measure your site in the same context that your end users do. The monitoring tool becomes an advocate of end users' vantage point and provides IT with the insight to make that end user experience as good as it can be.

Improving the realized end user experience will build a strong, loyal user community. That community represents your customer, your employees, and your business partners. Their willingness to trust your Web site extends to their ability to trust your organization's products and services. Cloud-based Web monitoring can build that community and their level of trust in your organization.