



**Apica**

White paper

# 5 Steps to getting started with Web Performance monitoring.

Transaction-heavy and content rich media sites are beginning to pay a lot of attention to their Web Performance – testing monitoring and working proactively to remove performance bottlenecks. That doesn't mean that site owners with smaller visitor numbers and smaller IT budgets couldn't or shouldn't learn and adopt these best practices. Here's a simple 5 step approach to getting started with Web Performance monitoring. But before we dive in, let's have a look at WHY you should manage your Web Performance.

1. **SEO - Google have included “web site speed” in their ranking algorithm**
2. **A fast web site is key to visitor conversion & retention**
3. **Use of external Web 2.0 content on a web site can hurt it's performance**

## SEO & importance of web site speed



At the beginning of 2010 Google started to **include “web site speed” in their ranking algorithm**. If your business depends on successful SEO practices this is news to be taken very very seriously.

What it means is that if you suffer from bad Web Performance for one reason or another, even temporarily, **your ranking might be punished**.

If you're starting to lose ranking and can see no reason why, this might be the answer. And the only way to know for sure is to start monitoring your Web Performance - Every day. Just like you check your stats and analytics every day, you should make sure your most important pages have been up and running with healthy response times.

## Web site conversion and retention



It's a well known fact that **Internet users are impatient by nature** and will leave your site if it does not give them what they want, when they want it. Results from different studies vary, but in general you have something like a couple of seconds before a user will start to look elsewhere.

So imagine when that user you just persuaded to click, loads your page, the page goes into “hour-glass mode” and just hangs, and the customer goes back to Google, or wherever he or she came from, and goes to the next site on the list. So much for beating your competitor's ranking!

Online business is fiercely competitive in terms of customer acquisition, so you simply **cannot afford to let those expensive leads roll off your landing page**.

## How Web 2.0 content on your site hurts performance



Modern web technologies have made it so easy to share, embed, link & collaborate. This means that many web sites now are small versions of the web itself and present material which is gathered from a large number of other sites and services. There's nothing wrong with that, but since you have no control over how all that external content is delivered **you don't have any control over your own Web Performance**. We have seen so many examples of sites that are packed with analytics trackers, embedded video feeds, XML feeds and similar. And when you sum up the loading time of all those components the result is a sloooooow web page.

## Web Performance is now everybody's game

Web Performance management tries to answer two basic questions:

1. What are the **response times** for my most important web pages under normal conditions?
2. How many simultaneous users can I handle with sustained response times, in other words; what's my **maximum capacity limit**?

These questions have been viewed as the headaches of high volume sites such as the big media sites or online booking sites. That's because bad Web Performance is often a result of high loads. However, our experience shows that many web sites have a "saw tooth" response time pattern, even with few visitors. Uneven response times means that even though many visitors have an ok experience at your site, some unlucky ones will see a slow site and click away to somewhere else. Losing or keeping those leads could be what makes or breaks your campaign. So here's a 5-step introduction to **taking control of your Web Performance**.

### 1. Monitor your Web Performance

If you Google something like "web check" or "site speed" you'll most likely find some service where you enter the address of your home page and in a couple of seconds you'll receive a test result that shows the response time of your home page, sometimes broken down on the response times of individual components. This is what we call a "page scan". The problem with this approach is that response times often vary greatly over time. If you have a typical saw tooth performance pattern you don't know if the scan **hit your site at the top or the bottom of your performance curve**.

That's why you need to **set up a monitor that checks you site every 5 minutes or so**. When you do this you'll sooner or later hit the site in one of your "weak moments" and you'll be able to dig into the test results and start your troubleshooting.

### 2. Monitor from your user's perspective

You need to monitor using your visitors' perspective. Hosting companies and IT staff often monitor that servers, databases and so on are ok. But **just because your servers are up and the Internet connection is working it doesn't guarantee that your visitors have a fast web site experience**. There are still many links in the whole Internet delivery chain which can be broken or performing badly.

That's why Apica have networks of testing computers placed around the world. Software, or "testing agents", act as "virtual Internet users" and are instructed to go to your site, say every five minutes, using Internet Explorer 8, for example, and report the response times of page components.

Make sure you run those tests from computers placed where your customers are - Sweden, Poland, UK or wherever they happen to be. Performance depends on how your traffic is routed over the Internet, which means that visitors from different regions will have different response times.

### 3. Monitor your most important pages and components

Many Webmasters go no further than measuring the response time of the home page. That's not good enough in our opinion. **Most sites have a few critical functions that really make or break your online business.** It could be the registration page or the checkout process in an online store

If you want to make sure that you are delivering a quality web site experience you should monitor these functions. For example - Make sure that a user can fill in the newsletter form, click submit and receive a "subscription confirmed" page. And do it automatically every five minutes.

When you know that all your key components run without breaks every minute 24/7 then you know you are delivering a quality experience to your visitors.

### 4. Analyze and improve

When you choose a Web Performance monitoring service make sure that the software has powerful analysis and reporting functions that will support your troubleshooting.

You should be able to:

- ▶ **Locate an individual test result** with bad performance, drill down on the individual sample, sort all components after load time, find the slowest component which caused the bad performance and see the response time of that single component.
- ▶ Easily **compare test results** from different regions.
- ▶ **Display test results over time** so that you can spot if there are certain days or hours when you have problems.

When you have these and similar tools at hand, you'll be able to find your performance bottlenecks and remove them.

### 5. Be alerted when things go wrong

The Web Performance service you choose should have **SMS and email alerts**. Then you'll know instantly when things go down. SMS is of course better, since it'll be able to get your attention even when you're not at your computer.

When you set up email alerts remember to use a different domain address than the one you're monitoring. If you have your web and email server in the same place, it's not unlikely that your email will fail when your web does.

What you just read is basically a "Web Performance 101" but it actually goes a lot further than most Webmasters and other online businesses do today. The steps detailed above are quite easily accomplished, using the right software, and it's not very expensive either. So dive into Web Performance monitoring today and start seeing the improvement in your web site statistics tomorrow.