

White Paper:

Server Speed and SEO

March 2008



Table of Contents

Introduction	3
What effects SEO?	3
Search Engine Popularity - an overview	4
Hints and tips for SEO	5
Why use a Linux server for more effective SEO?	6
Conclusion	8
Contact Information	8

Server speed and SEO

Introduction

The challenge of a search engine is to provide the most relevance to its users.

Website response speed helps search engines to assess the site's relevance because speed is one of the criteria recognised in a successful site.

If a more powerful, faster server is used, the site loads more quickly and is rewarded by being moved higher in the search engines's displayed results.

What affects SEO?

Search engines place weight on several other factors when it comes to ranking the importance of sites.

The web servers should respond quickly for the best SEO results so as not to interfere with a search engine's crawling.

Because search engines reward sites for giving good customer experience, server speed and a quick web response time can really help businesses when it comes to SEO.

This is because a fast response time offers visitors a good internet experience.

A fast web server allows a site to be indexed faster and updated more frequently by search engine spiders and robots.

So businesses and organisations should look for a server of a higher specification with excellent connectivity to host their websites.

Before a business invests in a server it is important to research the hosting provider to make sure they are able to provide the high quality hardware and speed necessary for effective SEO.

Because server speed and SEO are intrinsically connected, the more a business invests in its server, the

higher in the search engines it will go. A well marketed, extremely visible site brings in more visitors and when a site handles more visitors or traffic, search engines see it as being an important site and reward it.

Additionally, when a site is visible to more people, in all likelihood the business' sales will increase and the company's brand will be promoted.

Search engine popularity: an overview

Although different search engines work in slightly different ways, in essence what they do is trawl the internet looking for relevant information to feed back to the searcher.

There are a plethora of search engines available to web users. The best known of these is Google, which captures 46.47% of the market share worldwide. See table below.

Current market share*

Most popular search engines worldwide, Dec. 2007[5]

Company	Millions of searches	Relative market share
Google	28,454	46.47%
Yahoo!	10,505	17.16%
Baidu	8,428	13.76%
Microsoft	7,880	12.87%
NHN	2,882	4.71%
eBay	2,428	3.9%
Time Warner (includes AOL)	1,062	1.6%
Ask.com and related	728	1.1%
Yandex	566	0.9%
Alibaba.com	531	0.8%
Total	61,221	100.0%

*wikipedia

In the UK, Google handles even more of the market share. Hitwise UK figures from February 2008, show that between Google.co.uk and Google.com, the organisation deals with a massive 87.56% of UK searches. Other search engines don't come close with Yahoo operating at a mere 3%. See below table for more details.*

Rank	Search Engine	Volume
1.	www.google.co.uk	73.68%
2.	www.google.com	13.88%
3.	uk.search.yahoo.com	3.00%
4.	www.uk.ask.com	2.87%

*Source - Hitwise - February, 2008 - based on volume of searches.

Hints and tips for SEO

SEO can be very useful in promoting a business if it is done correctly but it is not easy to get right. In the past it was common to simply stuff pages with meta information.

However, this is not the case anymore as search engines tend to punish websites for irrelevant meta and keywords.

Different search engines use different optimisation strategies to rate websites. There are various search engine optimisation factors that need to be considered when designing and marketing a website. For example:

It is more effective to use a specific phrase rather than a generic keyword or keyword combinations.

Inbound links are very important in enhancing ranking. Links from other sites to a website using target keywords and phrases as the link text are a key factor.

Reciprocal links can be very useful so provide links on pages to other websites with relevant content. However, it is important not to let this spiral out of control because it can lead to blacklisting in search engines.

Make sure pages are not too technical and advanced so they are compatible with older browsers. Use HTML links and avoid framesets to ensure a crawler can index a page.

A good way to get links back to a site is to post articles and press releases to other sites.

Content is key. Any content you have on your site should be relevant and to the point. Correct use of

punctuation and grammar is also imperative.

Search engines prefer standards-compliant and semantically correct sites so make sure HTML code is well formatted and make suitable use of the H1, H2, and alt tags.

Accurately revealing the content of a page by using meta tags including page title, keywords and description helps some search engines list websites.

Don't include hidden links, keywords or cloaking. Search engines can find cheaters and sites that get found will be penalised, if not emitted completely.

Create sitemaps as search engines and visitors prefer them.

Why use a Linux server for more effective SEO?

Web servers with a Linux based operating system are often faster than their Windows equivalent.

It is often the case that they respond better because of higher levels of efficiency and more bandwidth.

Linux servers also run more quickly as they do not rely on a graphical user interface (or GUI) but instead rely on a command line only interface.

This has been proven to make such a difference that Microsoft will be using a command line only interface in their newest products. However this new version is still limited in its use because of what can be run.

Another factor which adds to speed is that the software on Linux servers is compiled specifically for the platform. Modules are easily customisable.

With Linux-based hardware TCP/IP stacks can be tuned to different purposes. A website serving video content can tune TCP/IP stacks to handle larger file sizes. For sites serving standard web content TCP/IP stacks can be tuned the other way, delivering information considerably faster.

A Linux-based machine can be customised throughout the entire operating system. This means a Linux server can be run with the bare minimum of features that are required to serve users with content.

Because there are fewer processes operating in the background the hardware is able to assign the required memory and CPU allocation to that request, in turn serving content much more quickly. Furthermore, users are given more control with Linux than with Windows because on the Microsoft OS many applications are built into kernel and can't be removed.

An example of this is switching off web access logs. These can be turned off so the system doesn't create a log of everything a user does on the web. Although for some people it is important to log web activity, for others this can be a waste. When less resources are needed for logging the system processes less so servers run at a faster speed.

The final benefit to having a Linux-based server is that a business is able to tune hard drive parameters. Whilst using Linux it is possible to modify hard drives dependent on the type of work that will be undertaken on that particular hardware. For example, content for a web server can be modified to have a faster read speed as that is the majority of the requests a web server will process.

Conclusion

Server speed is intrinsically linked to search engine optimisation.

If a server operates at a higher speed the business is more likely to be noticed by search engines. This is because Google, which is the world's favourite search engine, offers rewards for businesses that provide excellent customer service.

A fast server provides a quick response rate, which is a key point in providing good customer service.

When a business is rewarded by a search engine it appears higher in the rankings.

Good customer service promotes a company's brand image, so this, combined with the benefits of being very visible in the search engines, drives visitors to the website.

There are additional benefits to this because search engines monitor traffic. So if a site has more visitors, the search engine ranks it as being more important.

Additionally, a fast server means spiders and robots find it easier to trawl a website. This means your website is indexed on a more regular basis and updated more frequently by search engines.

However, it is always important to remember website content. If this is poor even despite all other factors, a site will more than likely continue to sit at the bottom of the rankings.

Contact Information

UKFast

City Tower

Piccadilly Plaza

Manchester

M1 4BT

tel: 0845 458 4545

fax: 0870 458 4545