

TECHNOLOGY FOR BUSINESS

LOST OPPORTUNITIES <<<



THE NEED FOR SPEED

HOW OFTEN HAS YOUR SITE TURNED AWAY POTENTIAL CUSTOMERS BECAUSE THEY DIDN'T HAVE THE PATIENCE TO WAIT FOR IT TO LOAD? WHO HAS THE TIME, WHEN THEY CAN JUST GOOGLE FOR A FASTER ALTERNATIVE! FAHED BIZZARI, CEO OF ONLINE ASSOCIATES, EXPLAINS HOW TO OPTIMISE YOUR SITE, WITHOUT SACRIFICING THE FRILLS



Have you ever reached a Website and been disappointed by how long it took? Did you then turn to trusty old Google for

an alternative? And why not! Do people think you have all the time in the world to wait for their site to load?

Now think about how many times this has happened to *your* site's visitors. Have you ever thought about the damage inflicted to your business by such a laggard of a site? How many potential customers have turned away from you?

Whilst the thought alone should send shivers down your spine, it's a reality that's commonly found in the UAE, and one which your company may well be living right now.

Slow Net speeds

Truth be told, UAE Internet speeds are slow! When I tell people in the UK how much we pay for broadband in the UAE, most don't believe me. While they pay £38 for a 50 Mbps connection (which is expensive for those in Japan, who pay

the same for 160 Mbps), we pay AED 2,795 at the office and AED 449 at home for a measly 4 Mbps connection.

For that reason, most consumers and SMBs go for slower connections and, as a result, the potential bail-out danger which sites face in the UAE is higher than anywhere else in the developed world.

Fortunately, as the saying goes, a problem is nothing more than a solution waiting to be found, and the solution here is "site speed optimisation" – the art of circumventing the Internet's bottlenecks to make your site load and react as fast as it can.

Yes to eye-candy, multimedia

Whilst old school techniques ask you to drop your graphics and multimedia content for the sake of speed, modern optimisation recognises that they play an invaluable role. Instead, we tweak everywhere else to compensate for the time needed by these assets.

Although it's a complicated art, there are a few optimisation techniques which remain true almost

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all of the time and I'm going to touch upon them here.

Reduce the size of your files

Always make sure your Website is on a constant diet. The less data needed by your components (such as images, styles, scripts, text, and so on), the less bandwidth they'll need, and the faster they'll be delivered to browsers.

There are many ways of doing this, but a few include:

1. Optimising images for Web delivery
2. Choosing the right format for your files
3. Removing useless code like comments and spaces
4. Transferring inline JavaScript and CSS to external (cacheable) includes

But beware; poor quality images negatively affect user perception, so do not sacrifice image quality for file size, like in the old days.

Compress where you can

Once every last byte has been squeezed out, the next technique is to use file compression wherever possible. Just like you might compress a file using WinZip before e-mailing it, the Net uses "gzip" and the weight of a typical style sheet, for example, can be reduced by around 75% using this technique alone.

Reduce the number of downloads

Unlike a PDF, for example, in which everything gets embedded into a single file, Webpage components are downloaded separately.

The problem here is that Internet browsers only support a few parallel downloads for each site, so component #3 can't download until #1 or #2 has finished, and #4 can't begin until one of the remaining two have downloaded, and so on for the rest.

So, even if your pages have become lighter than your average super model, they still face the problem of parallel downloads, and the first step in overcoming this bottleneck is to compile components of similar type into single files – JavaScript, style sheets and even images all get compiled.



Even images? Yep! Using the CSS Sprite technique, we compile images into master files and then use a window-like element to expose only that part of the master image taken up by the image we want to show.

Think about it: In a recent site-speed audit of a very well-known UAE brand, we found 25 JavaScript files which should have been combined into one, and seven style sheets which should have been combined into two.

Use different hosts for components

Another technique to help you get around the sequential download

problem is to serve your components through different hosts. This works because the parallel download problem is host-specific, so spreading your components onto different hosts can increase the number of parallel downloads by three or four times.

Take control of downloads

Another bottleneck which stems from the sequential download issue is that, if delayed, components create traffic jams behind them that prevent other components from downloading. Even if there aren't any technical delays, allowing the browser to download unneeded components first means that high-priority ones get delayed.

The technique here is to control the

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download order. Images below-the-fold, for example, should only download when the user scrolls there (or at least after the ones above-the-fold have downloaded). Similarly, content from third party servers (for example Google Ads) should not be allowed to download until your own content has.

Conversely, if you can guess the next step which a user will take, then preload the content before they get there. If a page has a pop-up slideshow, for example, download the first couple of images whilst the user is busy reading the content and download the next few images when the slideshow starts.

Think about it: If you ever wondered why BBC hosts its images on newsimg.bbc.co.uk and why Yahoo hosts them on yimg.com, now you know.

There's more

To be honest, there's a lot more to site speed optimisation than the techniques I've mentioned so far, especially when you find that some need to be traded off against others, but these are enough to make a big difference.

If you're into Web-DIY, download Firebug and see how these tweaks improve things. Otherwise, make sure that your Web agency or Internet consultancy knows about site-speed optimisation, and make sure that the work they do for you includes it.

Users don't measure the speed of your site – they experience it. So understanding user behaviour goes a long way towards creating a site that meets its objectives. Remember, most UAE Internet connections are slow, and your site is for your visitors with their slow connections, not for you. ■

ABOUT:

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