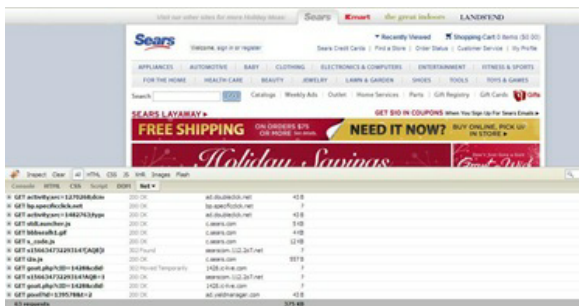


How Sears Could Have Used the Cloud to Stay Available Black Friday



Lori MacVittie, 2008-03-12

The prediction of the death of online shopping this holiday season were, apparently, greatly exaggerated. As it's been reported, [Sears](#), along with several other well known retailers, were [victims of heavy traffic on Black Friday](#). One wonders if the reports of a dismal shopping season this year due to economic concerns led retailers to believe that there would be no seasonal rush to online sites and therefore preparation to deal with sudden spikes in traffic were unnecessary.



Most of the 63 objects (375 KB of total data) comprising sears.com home page are served from sears.com and are either images, scripts, or stylesheets. The rest of their site is similar, with a lot of static data comprising a large portion of the objects.

That's a lot of static data being served, and a lot of connections required on the servers just for one page.

Not knowing Sears internal architecture, it's quite possible they are already using [application delivery](#) and [acceleration](#) solutions to ensure availability and responsiveness of their site. If they aren't, they should, because even the simple [connection optimizations](#) available in today's application delivery controllers would have likely [reduced the burden on servers](#) and increased the capacity of their entire infrastructure.

But let's assume they are already using application delivery to its fullest and simply expended all possible capacity on their servers despite their best efforts due to the unexpected high volume of visitors. It happens. After all, server resources *are* limited in the data center and when the servers are full up, they're full up.

Assuming that Sears, like most IT shops, isn't willing to purchase additional hardware and incur the associated management, power, and maintenance costs over the entire year simply to handle a seasonal rush, they still could have prepared for the onslaught by taking advantage of [cloud computing](#).

[Cloudbursting](#) is an obvious solution, as visitors who pushed Sears servers over capacity would have been automatically directed via global [load balancing](#) techniques to a cloud computing hosted version of their site. Not only could they have managed to stay available, this would have also improved performance of their site for all visitors as [cloudbursting can use a wide array of variables](#) to determine when requests should be directed to the cloud, including performance-based parameters.

A second option would have been a hybrid cloud model, where certain files and objects are served from the local data center while others are served from the cloud. Instead of serving up static stylesheets and images from Sears.com internal servers, they [could have easily been hosted in the cloud](#). Doing so would translate into fewer requests to sears.com internal servers which reduces the processing power required and results in higher capacity of servers.

I suppose a third option would have been to commit fully to the cloud and move their entire application infrastructure to the cloud, but even though adoption [appears to be imminent for many enterprises](#) according to attendees at [Gartner Data Center Conference](#), 2008 is certainly not "the year of the cloud" and there are still quite a few kinks in full adoption plans that need to be ironed out before folks can commit fully, such as [compliance and integration concerns](#).

Still, there are ways that Sears, and any organization with a web presence, could take advantage of the cloud without committing fully to ensure availability under exceedingly high volume. It just takes some forethought and planning.

Yeah, I'm thinking it too, but I'm not going to say it either.



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