

# STORES

September 1, 2008

## Speed Sells: Faster Page Loads Drive Increasing Revenues for JC Whitney

By Craig Guillot



A few seconds might seem like an insignificant period of time, but it may as well be an hour when customers are waiting for a web page to load. Retailers are discovering that in order to maximize online sales, their websites must be operating at optimal performance.

Through solutions from Internet technology giant Akamai, auto parts marketer JC Whitney & Co. discovered that adding a little bit of speed to a website can result in lots of additional revenue. It has boosted page-load speeds by 50 percent, leading to a 10 percent increase in conversion rates.

One of the largest direct marketers of name-brand automotive parts and accessories, JC Whitney offers more than six million items that cover more than 25 million automotive applications. It sells parts for cars, trucks and motorcycles dating to the 1920s.

A cataloguer for more than 90 years, JC Whitney has significantly shifted its business to the web in the new millennium, says vice president of e-commerce and technology Geoffrey Robertson. Since 2001, it has implemented features like personalized recommendations, live chat, third-party advertising, product reviews and Q&A sections.

As JC Whitney's web operations grew, so too did the need for more advanced technologies. Robertson had used a number of tools over the years to monitor performance, including the Gomez Experience First platform that allows management of web applications from development through deployment.

By pinpointing sales and activities geographically, it didn't take long to discover that website load speeds were slowing down significantly in coastal states — and that sales were declining there, too.

"We weren't sure if it was economic or technology-related but we were able to start seeing a correlation with the decline in sales with disproportionate declines in service," Robertson says.

In the world of high-speed e-commerce, a 10-second wait doesn't feel much different from a checkout line 10-people deep. Most of the time, shoppers blame the retailer when a page is slow to load – and many of them aren't inclined to wait.

Handling approximately 20 percent of the world's Internet traffic, Akamai leverages advanced technologies to ensure that web pages load as quickly as possible. The company's Dynamic Site Accelerator is built on a platform of more than 34,000 servers and 1,000 networks in 70 countries.

For its customers, this translates into performance that is up to five times faster than their original web infrastructure. More than 75 of the top 100 retailers use the company's platform to boost website performance.

A 2006 study by Jupiter Research found that after waiting four seconds for a web page to load, one-third of consumers will abandon the query, and the report ranked poor site performance second only to high prices and shipping costs as the main dissatisfaction among online shoppers. It also revealed that 75 percent of shoppers who had a poor experience on a website were likely not to return.

"Consumer tolerance for page response time has certainly decreased tremendously," Robertson says, "and their expectations in terms of performance have increased at the same time."

### **Web caches**

While surfing the web can allow browsers to visit pages from all over the world, large geographical distances between servers and users can create delays. The farther away a web browser gets from a data center infrastructure, the more the response times increase. Web caches, which can be deployed by Internet service providers, corporations or intermediaries, store popular documents in order to reduce bandwidth usage, server load and perceived lag times.

Because jcwhitney.com uses the Akamai platform, its customers will experience the same response times no matter where they are. Akamai increases the speed of the web by utilizing its global platform of thousands of specially-equipped servers. It detects and avoids Internet problem spots and vulnerabilities to ensure that websites perform optimally, media and software download flawlessly and applications perform reliably.

Akamai's Dynamic Site Accelerator gives customers performance that is up to five times faster than their original web infrastructure, and its EdgePlatform pulls and caches fresh content onto servers that are closer to the end user. The dynamic mapping system directs user requests for application content to the nearest edge server, which then finds the most reliable path back to a company's data center.

"We speed up the path between the end user and the origin infrastructure," says Pedro Santos, Akamai's senior product marketing manager. "We're constantly calculating what the fastest path around the Internet is to ensure that if you are requesting that particular site, you are getting that content as quickly as possible."

That means that clients like JC Whitney experience much faster page load times and faster, more reliable contact with their customers; in some of the slowest locations, page

load times were reduced by up to 80 percent. “We knew that the site was getting slower and that we could speed it up if we could put some better caching solutions up,” Robertson says. “We needed to get to the edge and as close to the customer as possible.”

### **Off-loading traffic**

Akamai also allows retailers to “off-load” traffic that can bog down their existing infrastructure. Since implementing the solution, JC Whitney has off-loaded nearly 97 percent of its traffic to Akamai servers. With the main computing power being pushed to Akamai edge servers, fewer resources are required on the back end.

This is especially beneficial during holidays and seasonal periods when many retailers experience a surge in business. Instead of having to add new servers to handle the peak periods, Akamai can pick up the slack.

JC Whitney implemented Akamai’s solutions just before the 2007 holiday season and was able to get up and running in a few days. It saw page-load times drop even as it rang up record-breaking holiday sales on site traffic that increased 40 percent.

But what really pleased Robertson was the fact that his team no longer had to spend much time on performance-related issues.

“Now we’re able to work the functionality queue,” he says. “We were loading literally 3.5 million new make/model/applications. That kind of adjustment from infrastructure into real development tasks is where I can see a huge value for us.”

JC Whitney still maintains and controls the hosting of its website and caching rules; the Akamai solution merely takes those pages and pushes them out on servers closer to where the users are. By taking a heavy load off of JC Whitney’s internal servers, it has increased performance throughout the website. And because the site is faster, it also has better indexing rates on Google.

“The website is just more scalable for us and that keeps translating into more revenue opportunities,” Robertson says.