



# Magento e-commerce application gets fitness boost with Zend

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Customer: Basic Research

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Geography: Salt Lake City, Utah

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Business: Quality tested sports fitness, weight-loss and skin care formulations carried by more than 17,000 individual retail outlets worldwide

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Challenge: Basic Research wanted to transform its Web assets to build brand awareness, educate consumers, and drive sales online and into major retail outlets. The IT organization adopted PHP-based Magento for e-commerce, and wanted to standardize on a platform for PHP Web application development that would support customization, optimization and scale-up of Magento across their various Web sites.

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Solution: Basic Research chose Zend PHP for its flexibility and completeness as a Web application platform from pilot through production. The company adopted Zend's integrated solution, Zend Studio IDE and Zend Server, for development, monitoring, optimization, scale-up and troubleshooting. With Zend, Basic Research improved its Magento-based e-commerce systems.

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**Jeff Stott**  
Director of IT  
Basic Research

## Modernizing Web Presence with PHP

Basic Research secures, develops and distributes some of the world's best-selling formulations addressing consumer health needs – from weight loss and sports fitness to anti-aging, joint health and skin care. The company's ethical product development supported by research has earned its products a place on the shelves at Macy's, GNC, Whole Foods and other major retailers worldwide.

Company leaders wanted to leverage the power of the Web to equip consumers with reliable information and ready access to the best products. As business grew, they sought a modern technology platform that could scale easily, offering flexible development options and a path to reliability and performance as well as affordability.

According to the company's Director of IT, Jeff Stott, "We adopted PHP with these goals in mind, and it quickly became clear that we'd found our Web application development platform of choice." Less than two years later, the IT group deployed Magento, a popular e-commerce software package written in PHP. They also began to explore ways to standardize on a LAMP technologies platform. Stott wanted his 12-member team to have the benefit of a core set of tested and proven PHP tools.

## Collaborative Development a Plus

"We wanted our developers to collaborate on projects in a common integrated development environment using the same editor. After evaluating several editors, we selected the Zend Studio IDE. Our developers liked its ease of use, which enabled them to bring new team members up to speed quickly and accelerate application development to meet tough project timelines."

The added demand to improve Web application performance led Stott and his team to adopt Zend Server. They chose Zend Server for its combined monitoring, code tracing and performance optimization features. Tight integration with Zend Studio meant an extra advantage of standardized platform support.

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## Optimizing Magento E-commerce

Stott and his team ran a month-long pilot program of intensive benchmarking, with a series of Magento e-commerce transactions that replicated the full checkout process, with entire page loads, at every step of the online transaction. Then they installed Zend Server and ran the same benchmarks.

“When we turned on Zend Server’s caching features during the pilot program, there was an immediate 25-30% improvement in responsiveness. Once we had Zend Server in full production, we were thrilled to see that the performance numbers were even better.”

“With Zend Server in our production environment with Magento, we were able to standardize our server installs to simplify and further speed up the process. Now we have the benefit of a ‘configure once across all servers’ proposition. We get a complete update and eliminate risk of business disruption, because each server will perform the same after an update.”

“Knowing that we had support for the entire PHP stack, with security patches and updates directly from Zend, was an added bonus, plus we have the libraries we need for Magento.

## Successful Integration and Scale Up

Stott’s team now manages development and support of six active Basic Research websites representing separate lines of dietary and cosmetic products. Health-conscious customers rely heavily on these sites to find relevant product information that informs their buying decisions. The IT group launched all six e-commerce sites running on Zend Server with Ubuntu and a MySQL back-end database. The sites and traffic are all load balanced across multiple Web servers running Magento, with each web server as an identical instance.

“January is our busy season, when consumers are starting off the New Year with inspired resolutions for diet and health. We started integration on December 7th and made our December 30th deadline without a hitch. Since then, we have achieved great time savings in the system administration end.”

“Working with Zend has allowed us to move beyond basic Linux support to gain broader support for the full PHP stack. We’ve recouped valuable time needed for site customization, system administration and QA. Now we can take advantage of integration with Zend Studio to do debugging, error detection, etc. In fact, I hadn’t

considered our current strategy for the Magento implementation until my development team brought in Zend Studio. We launch new retail services and promotions regularly, things like adding PayPal support, and Zend helps us implement updates like PCI (payment card industry) compliance to keep our platform secure.”

## High Availability through Peak Loads

Basic Research conducts TV, web and print advertising campaigns, which drive consumers to the Web and brick & mortar retailers to familiarize themselves with the company’s products and make purchases. The Web sites must be able to handle traffic spikes during major network TV promotions such as the one we launched in January.

“Our ads generated big spikes in consumer traffic during the first 4-5 minutes of every half hour of programming, yet our sites maintained crisp response times and we eliminated any downtime. Zend Server’s application monitoring provided us with a real-time PHP log right there in the Administrator console, which revealed things that might not have shown up on the Apache log.”

## ROI and a Bright Horizon

“We had clear metrics established to measure ROI for our project with Zend, such as page loads of 3 seconds or less, reduced abandoned sessions, and increased conversion rates. We met our targets for response times, availability and conversions within the first six months, and we expect to see further productivity gains in the second half of the year.”

“Now we are enhancing Basic Research sites with new e-commerce features, a Partner portal, and new content including video blogs, testimonials and giveaways. Zend Studio’s debugging features and its tight integration with Zend Server are playing a key role in this effort. We’re also considering Zend Server Cluster Manager to share session and data caching across our servers in a clustered environment. Our team has more time to focus on these projects because we’re not preoccupied with infrastructure and plumbing issues anymore.”

“On the horizon, our approach enables us to continue benefiting from open source technology that’s supported by Zend and other companies committed to the long-term viability and success of PHP.”

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