

ACERNO

APPLICATION
DELIVERYaCerno Delivers Predictive,
Targeted Ads to Online Buyers in
Milliseconds**Challenge**

- Deliver predictive targeted advertisements to millions of online shoppers on the fly
- Process tens of millions of transactions daily in 150 milliseconds or less
- Build a network with 99.999 percent reliability to ensure network performance, meet service level agreements, and generate revenue

Solution

- Four Brocade ServerIron® 450 Plus Switches
- Two Brocade BigIron® RX-4 Switches
- Six Brocade FastIron® 448 Edge Switches

Benefits

- Brocade FastIron 448 switches perform 10 to 20 percent faster than competitors' edge switches
- Overall core switching and routing performance is about 30 percent faster than competitors' platforms
- Lower capital costs leave aCerno more budget for application development, product innovation, and development staff
- Superior Brocade performance and product stability translate to less time and fewer resources required for network maintenance
- 99.999 percent reliability ensures aCerno meets SLAs and generates revenue

aCerno delivers predictive targeted advertisements to online consumers as they are shopping. The company collects and analyzes data from a consortium of 450 brands and online retailers and has reached 140 million online customers—more than 90 percent of all online shoppers. The aCerno network processes tens of millions of online transactions per day, and each transaction is processed in 150 milliseconds or less.

SUMMARY

aCerno melds advertising and technology by delivering the right online ads to qualified potential buyers quickly and efficiently. The company dynamically predicts purchase decisions and delivers targeted advertisements to online shoppers. aCerno's back-end applications collect and analyze anonymous shopping data from a group of 450 brands and online retailers. That data helps to predict which products an online consumer is likely to purchase. Based on that knowledge, aCerno delivers the appropriate ad to that end user within milliseconds.

The aCerno network reaches more than 140 million online customers—more than 90 percent of Web shoppers. The network processes tens of millions of online transactions per day, and all transactions

are processed in 150 milliseconds or less. Nearly all network traffic stems from the aCerno applications, including reporting and business applications that help identify and predict consumer purchase preferences. The company's success hinges on the ability to gather and process analytical data within milliseconds.

aCerno's clients include a co-op of online e-commerce sites, as well as online advertisers and traditional brick-and-mortar ad agencies. aCerno works in conjunction with the National Advertising Initiative (NAI) and adheres to the established standards of privacy, ethics, and best practices for the online advertising marketplace. Founded in 2004 by a team of marketing, advertising, and e-commerce professionals, aCerno is a subsidiary of I-Behavior.

CHALLENGE

Processing speed and reliability are critical to aCerno. "We tell advertisers which ads will be most beneficial to which users, and it's all done completely anonymously," says Wayne Earl, aCerno's director of network operations. "Our applications are extremely

BROCADE

SUCCESS STORY

complex on the back end, and they execute in times measured in milliseconds. From the time of the query to the time the ad is served has to be 150 milliseconds or less.”

In addition to creating a high-performance network with 99.999 percent reliability, aCerno needed network hardware that would scale for network and user growth. Responsive and immediate technical support was critical as well.

After due diligence, aCerno selected the equipment for its two data centers. Brocade solutions’ processing speed and product reliability drove that decision, and the price was excellent, says Earl.

SOLUTION

Brocade has been part of the aCerno network since it launched in 2004. aCerno maintains two fully redundant data centers, one on each coast. The West Coast data center supports the Web infrastructure and handles the core analytic processing. The East Coast data center is dedicated to supporting the Web infrastructure. Each data center has two Brocade ServerIron 450 Plus switches and one Brocade BigIron RX-4 switch at the core.

The Brocade BigIron RX-4 switch handles core switching and routing, and the Brocade ServerIron E450 Plus devices with Web Switching Modules (WSMs) support Web services and ensure load balancing and availability. Brocade FastIron edge switches deliver traffic between the Web application clusters and the core network. The data centers are built for redundancy, performance, and high availability.

Brocade also supports aCerno’s future network growth—both vertical and horizontal. “We can add Web Switching

Modules in the Brocade ServerIron Switches for increased application capacity, or put additional Gigabit Ethernet and 10 Gigabit Ethernet switching modules in the Brocade BigIron switch to accommodate additional racks of servers. The Brocade equipment makes scaling very easy and affordable,” Earl says.

BENEFITS

When aCerno officially launched with Brocade equipment, the network performance, switching, and load balancing improved 300 to 400 percent, Earl says. “We’re measuring in millisecond and submillisecond times, so performance is very important to us.”

The Brocade equipment meets aCerno’s high-performance needs. Because aCerno’s Web services operate in sub-millisecond speeds, the company requires very high-speed, low-latency switching and routing capabilities throughout the network infrastructure. To extract the collected data from the aCerno applications, the Web server is pulled out of production. The task is automated and occurs constantly. “It’s been almost perfect in its implementation, and that speaks to the stability of the Brocade equipment,” Earl says.

Service level agreements are based on transaction processing time, so a slower network negatively impacts bottom-line revenues. “If we can’t meet 99.999 percent reliability, it costs us money and clients. One hundred percent of our revenue and profit is generated via our applications, and we’ve had no trouble meeting that,” Earl says.

In addition to high performance, the Brocade solutions have been able to support network growth. “The Brocade equipment scales

very well,” Earl says. At peak traffic levels, CPU load is 3 percent to 5 percent of the ServerIron application load balancing capacity. During the busy holiday shopping season the peak load will triple, and Brocade easily supports the additional traffic.

Competitive pricing was a bonus, says Earl. Other products that met aCerno’s technical requirements cost as much as 50 percent to 60 percent more than Brocade. With lower capital costs, Earl has more budget money to spend on staff and product research and development.

High performance and product stability have lowered operational costs, too. “The platform is rock solid. I’m not dealing with a lot of support tickets,” Earl says. Because the Brocade equipment is highly reliable, aCerno spends less time and money fixing network problems. Rather than focus on network maintenance issues, technical staff are free to concentrate on product innovation and application development. “Technical support and assistance is excellent, and Brocade engineers are responsive and available,” Earl says. “Brocade is the first and only company where the product purchase includes a switching engineer onsite for installation,” he says. “Senior Brocade engineers assist with the installation and configuration of new equipment, and partner with us in our network architecture and capacity growth brainstorming sessions.”

The return on investment is not limited to capital expenditures, Earl notes. “It’s dollars saved, time saved, and increased productivity. Brocade has a lot of reliability enhancements that are not quantifiable. The equipment pays for itself many times over.”

For more information, visit www.brocade.com.

Corporate Headquarters

San Jose, CA USA
T: +1-408-333-8000
info@brocade.com

European Headquarters

Geneva, Switzerland
T: +41-22-799-56-40
emea-info@brocade.com

Asia Pacific Headquarters

Singapore
T: +65-6538-4700
apac-info@brocade.com

© 2009 Brocade Communications Systems, Inc. All Rights Reserved. 03/09 GA-SS-1261-00

Brocade, the B-wing symbol, BigIron, DCX, Fabric OS, FastIron, IronPoint, IronShield, IronView, IronWare, JetCore, NetIron, SecureIron, ServerIron, StorageX, and Turbolron are registered trademarks, and DCFM, Extraordinary Networks, and SAN Health are trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries. All other brands, products, or service names are or may be trademarks or service marks of, and are used to identify, products or services of their respective owners.

Notice: This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered or to be offered by Brocade. Brocade reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This informational document describes features that may not be currently available. Contact a Brocade sales office for information on feature and product availability. Export of technical data contained in this document may require an export license from the United States government.



BROCADE