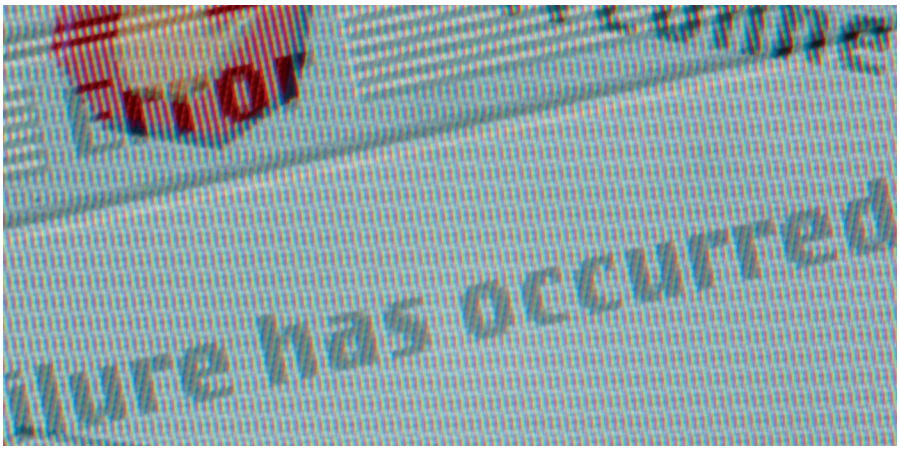
Industry: Retail

Quixtar, a leading online retailer, deploys solution that supports 24 x 7 operations and enables planned maintenance

Solution from IBM and Lakeview Technology gives Quixtar capability to easily meet its recovery time objective of two hours or less in event of outage



Overview

The Challenge

To support 24 x 7 online retail operations by making critical information and applications available with minimal interruption in the event of a system outage

The Solution

IBM WebSphere® MQ V5.3, IBM WebSphere Application Server V6, IBM System i5® 570, IBM DB2® Universal Database® for iSeries™ and MIMIX for WebSphere MQ and MIMIX ha1 from Lakeview Technology

The Benefit

- *Two hour recovery time in event of outage*
- *Extra capacity to handle excess workload*
- *Sustained productivity and customer satisfaction*
- *Planned system maintenance with minimal interruption to business*

Sometimes a solution yields benefits well beyond the initial business requirement. That's exactly what happened when Quixtar, Inc., an online health and beauty retailer, sought a high availability solution for its backend business applications.

Quixtar, based in Ada, Michigan, markets products in a business model that allows individuals to become "independent business owners" (IBOs) who can build their own businesses by driving sales to Quixtar.com. IBOs recruit customers, and whenever these parties buy items at Quixtar.com they generate profits for the IBO. IBOs further build their businesses and increase income by sponsoring new IBOs. Essentially, Quixtar follows the same business model pioneered by Amway. Both are owned by Alticor, Inc.

As Quixtar built its e-commerce infrastructure in 2000, the company wanted to ensure availability for all its inventory and order management data and processes to support 24 x 7 operations, even in the event of a system outage.

"We needed to be certain that, should we ever have a system failure of any sort, we could get all our backend applications up and running again within two hours or less and keep our business functioning," said Steve Keselring, manager, IT infrastructure at Quixtar.

"IBM has created an ecosystem where partners can effectively target sales and marketing efforts and team up with other partners to provide innovative solutions to clients."

Marty Leamy,
executive vice president
and general manager,
Lakeview Technology

IBM partnership provides Lakeview with expertise to help clients be innovative

Benefits

- Meets recovery time objective of less than two hours in event of unplanned system outage
- Enables scheduled swap between primary and backup systems in just 20 minutes, in order to perform maintenance and upgrades
- Helps sustain productivity and customer satisfaction
- Extra capacity available to handle excess workload at peaks in business cycle
- During transition to backup system, customers can continue to place orders online

Quixtar turned to IBM and Lakeview Technology, Inc., an IBM Business Partner, headquartered in Oakbrook Terrace, Illinois. The solution includes IBM WebSphere MQ V5.3, IBM WebSphere Application Server V6, IBM System i5 570, IBM DB2 Universal Database for iSeries and MIMIX for WebSphere MQ and MIMIX ha1 from Lakeview Technology

"We already had IBM infrastructure in place, and MIMIX software works seamlessly with IBM technology, so it was a perfect fit," Keselring said. The Lakeview MIMIX line of products provides a variety of multiplatform data replication and clustering options to meet the needs of information enterprises. Lakeview is a leading provider of information availability and disaster recovery solutions.

The solution implemented at Quixtar has helped the company become the No. 1 online retailer in the health and beauty category based on sales, and 14th among all e-commerce sites, according to Internet Retailer's "Top 400 Guide." Quixtar IBOs and customers generated revenues exceeding $1 billion for the fiscal year that ended August 31, 2005 -- the third consecutive year in which the company surpassed the billion-dollar mark.

IBM also cited the solution and Quixtar as one of five winners of its IT Innovation Awards. The System i Innovation award in the Business Resiliency category noted the high-availability back-up system that enabled Quixtar to achieve high availability for its business applications while meeting customer demand.

"Working with IBM really helps us innovate in how we market to specific industries -- and in the solutions we provide to them," said Marty Leamy, executive vice president and general manager of Lakeview Technology.

Constant data replication yields high information availability

IBM WebSphere MQ delivers reliable integration for applications and Web services, allowing businesses to fully leverage their existing software and hardware investments. WebSphere MQ integrates virtually anything, including CICS, IMS, DB2, .NET and J2EE environments, and supports secure Internet communication with industry standard Secure Sockets Layer.

WebSphere Application Server V6 is a Java-based application platform which integrates data and transactions. Each configuration delivers an application deployment environment with application services that provide enhanced capabilities for transaction management, as well as security, performance, availability, connectivity and scalability.

DB2 Universal Database® for iSeries is an advanced, 64-bit Relational Database Management System that leverages the on demand features of IBM eServer iSeries. It supports a broad range of applications and development environments at a lower cost of ownership due to the self-managing autonomic technologies.

"DB2 does everything we've ever asked of it and then some," said Steve Mulder, lead system support specialist at Quixtar. "We have files with over 100 million rows, hundreds of users pounding away at the database, with transaction response times of .2 seconds--and all that with the system running flat out."

Prior to building the solution, Quixtar had been using IBM WebSphere MQ to run its order management processes. During its e-commerce transformation, Quixtar migrated the backend business applications from its mainframe to an IBM AS/400® (now known as System i5), kept the WebSphere MQ in tact and engaged Lakeview to provide the high availability software.

The Lakeview MIMIX component constantly monitors all operations on the primary i5 system and replicates any new information to the backup system within one second. Should there ever be a system outage at the main facility, Quixtar can pull the backup system into production and resume all business functions.

"MIMIX doesn't just replicate data, it replicates all components of the applications, so we expect our backup system to look identical to our primary system when we bring it up," Mulder said.

Benefits go well beyond the business requirement

First and foremost, the solution satisfies Quixtar's initial business requirement that its backend order management system will never be down for more than two hours in the event of an unplanned outage. Moving operations to the backup system maintains application continuity with no loss of data.

A key aspect is that during the two-hour transition to the backup system, customers can continue to place orders at Quixtar.com since WebSphere MQ will queue them and deliver them to the backup system once it's up and running. As a result, no business transactions are lost and customer satisfaction is sustained.

One result of the solution is that Quixtar can now do scheduled swaps between its primary and backup systems in order to maintain and upgrade the primary system. "In planned circumstances, we can move operations to the backup machine in just 20 minutes or less -- with no interruption to the business," Keselring said.

Besides allowing revenue flow without disruption, switching systems provides a much more efficient and cost-effective way to perform upgrades. "We used to have to cram system maintenance into weekends," Mulder said. "Now our tech support staff can make all upgrades in a timeframe that is reasonable and less prone to error."

Quixtar also now has the ability to shift workload from the primary to the backup system during peaks in its business cycle. "It's one of the more innovative ways we've found to use this solution," Keselring said.

With the ability to move back and forth between systems, Quixtar has achieved greater flexibility in managing operations. By eliminating downtime from its backend processes and ensuring business data and applications are always available, it facilitates a high level of productivity across the company.

"This solution keeps surprising us as we find new ways to leverage it," Keselring said. "Our investment is paying off in ways we truly never expected."

Key Components of the Quixtar solution

Software

- IBM WebSphere Application Server V6
- IBM WebSphere MQ V5.3
- IBM DB2 Universal Database for iSeries
- Lakeview Technology MIMIX for WebSphere MQ and MIMIX ha1

Hardware

- IBM System i5 570

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IT infrastructure,
Quixtar

Partnership enables innovation

Lakeview Technology participates in IBM PartnerWorld® Industry Networks, which offer a rich set of incremental industry-tailored resources to all PartnerWorld members who want to build their vertical market capabilities and attract potential customers in the markets they serve worldwide. Whether a company focuses on one or more industries -- or serves small, medium or large companies--IBM has the technology and resources to help members more effectively meet their clients' needs.

Lakeview is a member of the automotive, financial markets, healthcare and life sciences, insurance, retail, and wholesale industries, and it is "optimized" in each, which means it has developed further specialization by optimizing its applications with IBM on demand technologies, achieving success with their own on demand solutions and other criteria.

Other networks are banking, education and learning, electronics, energy and utilities, fabrication and assembly, government, media and entertainment and telecommunications.

"The bottom line is that participating in PartnerWorld Industry Networks generates business for us: it delivers results," Leamy said. "IBM has created an ecosystem where partners can effectively target sales and marketing efforts and team up with other partners to provide innovative solutions to clients."

For Lakeview, the partnership of 15 years is particularly valuable overseas, where the company is less known than it is in the United States, Leamy said. "In Europe and Asia, being connected to IBM opens a lot of doors for us and really helps drive business," he said.

In 2006, Lakeview will do quarterly marketing campaigns with IBM, which will include white papers, Webcasts and seminars, all of which will be focused on lead generation and closing business.

For more information

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To learn more about Lakeview Technology: visit lakeviewtech.com

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