



## Retailer Moves from Linux/IBM to Microsoft Web and Data Solutions to Ease Management

### Overview

**Country or Region:** United States

**Industry:** Retail and hospitality—Grocery and specialty food

### Customer Profile

Bashas', a grocery retailer based in Chandler, Arizona, has approximately 13,000 employees and owns more than 160 stores.

### Business Situation

When its Web hosting company closed, Bashas' wanted to manage its Web sites in-house for more efficiency. And, with an upgrade pending on its IBM DB2 database, it decided to standardize on one software vendor.

### Solution

Bashas' migrated its Web sites from Linux and Apache Web server software to Windows Server® 2003 and Internet Information Services 6.0, and it moved from the DB2 database to Microsoft® SQL Server® 2005 data management software in a 64-bit Windows Server environment.

### Benefits

- Simplifies management
- Achieves high availability and reliability
- Improves performance by 400 percent
- Delivers high scalability
- Enhances security
- Lowers total cost of ownership

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Chase Cabanillas, Director of Infrastructure, Bashas'

In 2007, grocery retailer Bashas' brought its Web sites in-house when its Web hosting company discontinued its service. Bashas' wanted more insight and control of its systems, and decided to standardize on a Microsoft®-based infrastructure. It migrated the Web sites from the Linux operating system to the Windows Server® 2003 Standard Edition operating system and deployed Internet Information Services 6.0. It also migrated its pricing application from an IBM DB2 database to Microsoft SQL Server® 2005 data management software, which it deployed on a three-node cluster running Windows Server 2003 Enterprise x64 Edition. The migrations went smoothly, and Bashas' achieved simplified management, high availability, and reliability. It increased the performance of some tasks by 400 percent. With its new, scalable, and highly secure infrastructure, Bashas' also cut its total cost of ownership.



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## Situation

Bashas’, a grocery chain, was founded in 1932. Today, the company operates more than 160 stores under the names of Bashas’, AJ’s Fine Foods, Food City, and Dine Markets. The company announced more than U.S.\$2 billion in sales in 2007.

For several years, the three Bashas’ customer-facing Web sites were managed by an independent Web hosting company. The Web sites were running on a software platform using the Linux operating system and Apache Web server software.

Then, in 2007, the hosting company announced it was ending its service. Bashas’ saw the termination as an opportunity to resolve some of the issues it had faced with external hosting. “We didn’t have any visibility into what was happening with the Web sites,” says Chase Cabanillas, Director of Infrastructure, Bashas’. “And turnaround times were also long. Sometimes it took a week to make a change.” So Bashas’ did not want to contract with a new hosting company and potentially face the same issues.

Briefly, Bashas’ considered moving the Linux-based solution in-house. The hosting provider even offered to help with the move. “But we would not have been able to manage the system as we would have liked,” says Cabanillas. “It was much easier for our IT team to manage ... and monitor server software made by Microsoft.”

Bashas’ was also using an IBM DB2 database running on a UNIX platform for its vertical application for retailers. The company uses the application for pricing and inventory management at all its stores, and pricing is updated weekly. The application is integrated with other business management software for accounting and business intelligence. Data from the software is incorporated in several different business reports—including

analyses for sales and promotions. “This application touches all of our departments in some way,” says Cabanillas. “It is critical to our business.”

Because the DB2 software would soon need upgrading, Bashas’ began to consider moving to a single-vendor solution for both the Web sites and the price management application, believing it could increase efficiency and reduce costs. But the new database solution needed to maintain high availability and performance, and handle large amounts of data.

## Solution

For Bashas’, the choice of a single vendor was easy. “We have a lot of expertise with Microsoft® operating systems and databases, and they have worked well for us for several years. So choosing Microsoft as our vendor was the best way to extend our resources,” says Cabanillas.

Before standardizing on a Microsoft-based environment, Bashas’ turned to its hardware vendor Insight for advice. Insight referred Bashas’ to Statera, a system integrator. Both companies are Microsoft Gold Certified Partners.

In July, Insight provisioned three independent HP ProLiant servers for the Web sites. Then, the deployment team moved the Web sites from the Linux platform to the Windows Server® 2003 Standard Edition operating system and Internet Information Services (IIS) version 6.0. The team used the built-in tools of IIS 6.0 to move the Web content from the Apache server. IIS 6.0 keeps the Web applications—such as those customers use to find stores, print electronic coupons, and view products—separate from each other, so that if one application fails, it does not affect other processes.

The Web site deployment was completed in a couple of months, but the migration of the

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DB2 database and price management application took a little more time. After about a month of extensive testing, Statera began the migration from the UNIX-based system to Windows Server 2003 Enterprise x64 Edition, and from DB2 to Microsoft SQL Server® 2005 data management software. Statera set up SQL Server 2005 in a new, three-node cluster of HP BladeSystem ProLiant server computers with quad-core Xeon processors in the 64-bit Windows Server environment. The cluster operates in active/active/passive modes, meaning that two nodes each run one instance of SQL Server 2005, while the other node is used as a standby server in case of a failover situation. “The deployment went smoothly,” says Pete Miller, General Manager, Southwest Region, Statera.

By October, both the new Web sites and the price management application were running in their new Microsoft-based environments. “To achieve this in three months is a credit to Statera,” says Cabanillas. “They added a lot of value and expertise. The price management database is massive, and I expected the migration to cause a lot of grief. It didn’t—which was obviously a very good result.”

Bashas’ plans to run the price management application on its new system in isolation for a few months, but eventually the company expects to use the SQL Server cluster for other applications, as well.

### Benefits

Today, Bashas’ finds the management of its systems easier, while it has maintained high availability and reliability. It has increased performance and improved scalability and security. And it has significantly reduced its total cost of ownership. “We have definitely improved efficiency and achieved cost reductions with Microsoft SQL Server 2005 and Internet Information Services 6.0, as well as with the 64-bit Windows [Server] environment,” says Cabanillas.

### Simplifies Management

With the monitoring capabilities of Internet Information Services 6.0, the IT group knows what is happening with its server systems at all times. After the price management application is integrated with the rest of the company’s IT environment, the group will be able to manage everything from the Microsoft Management Console, which is included in Windows Server 2003.

In addition, Bashas’ can use the Active Directory® service to manage user accounts effectively, which it could not do before. “Password and Group [Policy settings] are consistent for all users now,” says Cabanillas. And even though the IT group has more systems to manage, Bashas’ has not had to hire additional IT staff.

Cabanillas finds another benefit with standardization, too. “With a Microsoft environment, we not only get the expertise of Microsoft, we also get a large pool of resources to draw from with Microsoft partners,” he says. “That wasn’t true with the previous solutions.”

### Achieves High Availability and Reliability

Bashas’ achieves higher Web server availability and reliability with IIS 6.0. If one application fails, it does not affect other processes so the IT group does not have to spend time restarting services to correct application-related processes. “Because we relied on a hosting provider before, we can’t make a direct comparison to our current Web systems,” says Cabanillas. “But we are pleased with the availability and reliability—which are so important to customer satisfaction.”

The new SQL Server cluster for the price management application has met all expectations. “The ability to run Microsoft SQL Server 2005 in a three-node cluster has increased the availability of the application, because if one node fails, there is another

one to take over," says Cabanillas. "The possibility of an outage has declined because of that feature, and it helps with disaster recovery, too. SQL Server 2005 is also highly reliable."

#### **Improves Performance by 400 Percent**

Bashas' is pleased with the increase in performance it has achieved running the SQL Server 2005-based cluster in the 64-bit environment. "It used to take us eight hours to run ad-pricing jobs," says Cabanillas. "Now, with Microsoft SQL Server 2005, it takes us about two hours."

The IT group used to get calls complaining about the slowness of the price management application, too. "With the increase in performance, our users are happy now," says Cabanillas.

#### **Delivers Exceptional Scalability**

IIS 6.0 is highly scalable and is designed to increase Web server throughput. As a result, Bashas' can host several Web sites and applications on a single server. "We can easily add sites or applications if we need to," says Cabanillas.

#### **Enhances Security**

By standardizing on a Microsoft-based environment, Bashas' believes it has increased the security of its applications and systems. IIS 6.0 offers several security features, including Secure Sockets Layer encryption, database encryption, and password policy enforcement. For Bashas', perhaps the most important security feature is the ability to manage its entire environment itself. "Because we are managing the systems ourselves with Microsoft tools, it is less likely that issues will be overlooked," says Cabanillas.

#### **Lowers Total Cost of Ownership**

The standardization on Microsoft software has reduced costs. "We were paying a high price for hardware, software licensing, and

maintenance, and for our Web hosting," says Cabanillas. "Now we have reduced our hardware costs, our licensing and maintenance costs, and our Web site hosting and management costs. Over time, we will move other applications [to] the new SQL Server 2005 cluster, as well. By consolidating, we will reduce our hardware needs."

Given those savings, the total cost of ownership for the new solutions is significantly less than for the previous ones. "The cost savings—and all the other exceptional features—make standardizing on a Microsoft[-based] infrastructure a solid business decision," says Cabanillas.

## For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: [www.microsoft.com](http://www.microsoft.com)

For more information about Insight products and services, call (800) 467-4448 or visit the Web site at: [www.insight.com](http://www.insight.com)

For more information about Statera products and services, call (602) 340-8500 or visit the Web site at: [www.statera.com](http://www.statera.com)

For more information about Bashas' products and services, call (800) 755-7292 or visit the Web site at: [www.bashas.com](http://www.bashas.com)

## Windows Server 2003

The Windows Server 2003 family helps organizations do more with less. Now you can run your IT infrastructure more efficiently, build better applications faster, and deliver the best infrastructure for enhancing user productivity. And you can do all this faster, more securely, and at lower cost.

For more information about Windows Server 2003, please visit: [www.microsoft.com/windowsserver2003](http://www.microsoft.com/windowsserver2003)

### Software and Services

- Microsoft Server Product Portfolio
  - Windows Server 2003 Enterprise x64 Edition
  - Windows Server 2003 Standard Edition
  - Microsoft SQL Server 2005 Enterprise Edition
- Technologies
  - Active Directory
  - Internet Information Services 6.0

### Hardware

- HP BladeSystem ProLiant server computers with quad-core Xeon processors
- HP ProLiant DL360, DL380, and DL500-series server computers

### Partners

- Insight
- Statera