

## BI-LO Reduces Costs by 28%, Improves Performance with Champion Solutions Group and IBM Power 6 Technology



### Highlights:

#### INDUSTRY

Retail Grocery

#### CHALLENGE

BI-LO was seeking a server and storage infrastructure for 70 percent of the company's mission-critical applications. Key goals included reducing lease costs by 15 percent, improving performance and increasing growth capacity.

#### SOLUTION

Champion Solutions Group thoroughly assessed BI-LO's existing environment and implemented an architecture centered around IBM Power 6-based System p570 servers. Champion also helped BI-LO develop a tiered storage model, comprised of IBM System Storage DS8100 and DS4800 subsystems.

#### RESULTS

- ✓ BI-LO has reduced its lease costs by 28 percent, exceeding its financial goals by nearly 100 percent
- ✓ Recognized significant performance improvements, cutting processing times in half for several applications
- ✓ The company has room to scale for the foreseeable future and has reduced its data center footprint by 30 percent

Founded in 1964, BI-LO, LLC continues to bring its philosophy of "low prices, high quality and excellent service" to life in more than 225 supermarkets and grocery stores throughout the Southeast. Like most retailers today, BI-LO must constantly balance the need to provide excellent service and quality products with the increasing pressure to control costs – dueling goals that impact every aspect of the business including information technology. When BI-LO's end-of-life server infrastructure was approaching end of lease, the company engaged Champion Solutions Group to help them implement a new architecture that would reduce its existing lease costs by 15 percent while providing capacity for growth in its storage environment. Champion delivered, helping BI-LO achieve an architecture featuring IBM Power 6-based servers and tiered storage that has lowered lease costs by 28 percent, doubled performance and ensured easy scalability for the future.

#### Seizing the Opportunity for Technology Change

More than 70 percent of the BI-LO's mission-critical business applications – from pricing and data warehousing systems to order and fulfillment applications – were running on older-generation IBM Power 4-based servers. Although the environment performed adequately, it was becoming expensive for BI-LO to maintain and support the aging servers. In addition, the company's storage environment, which consisted of an IBM System Storage DS8100 and an IBM ESS800, was approaching capacity and beginning to impede application performance.

"At BI-LO, we follow strict lifecycle management procedures," said Jason Breazeale, manager of information management planning for BI-LO. "Our server leases were set to expire early in 2008, and we had the perfect opportunity to assess our overall environment and make some significant changes in the open systems environment."

Breazeale had several key goals for the project. "Cost savings is always a top priority for our executive committee," explained Breazeale. "In this case, we had a specific goal of cutting our total lease costs by 15 percent – all while realizing improvements in performance, virtualization and storage capacity."

Pleased with the IBM servers it had utilized in the past, the retailer expected it would upgrade to the proven Power 5 class of servers; however Breazeale also wanted to explore IBM's newer Power 6 processor option.

"Anytime we're investigating new technologies, we like to seek outside expertise with close ties to the technology industry," said Breazeale. "We engaged several IBM business partners to work with on developing our architecture including Champion Solutions Group, a long-standing partner with whom we've had great success in the past."

#### A Forward-Thinking Architecture

Over a 30-day period, Champion Solution Group's architects worked with BI-LO to thoroughly assess BI-LO's existing applications and infrastructure using the company's time-tested methodology. Based on BI-LO's existing application data and stated requirements, the team then presented detailed configuration options for BI-LO's server and storage environment, highlighting variables including cost, performance curves and functionality for both the Power 5 and the newly available Power 6 processor-based servers.

"BI-LO could have met its goals with either class of server, but the Power 6-based System p570 servers ultimately became the compelling choice. Beyond the power gains that these servers could provide, they also include a partition mobility function," said Chris Collins, BI-LO client liaison and VP, Retail Technologies for Champion Solutions Group. "It literally allows administrators to move servers on the fly to decrease downtime and maximize utilization – a feature BI-LO was eager to explore."

**"Champion's team was a tremendous asset throughout the life of this project and has become the gold standard to which I hold all other business partners," concluded Breazeale. "We couldn't be happier with the results we've achieved nor the effort put forth on our behalf."**

*Jason Breazeale, Manager of Information Management Planning – BI-LO*



"These new features in AIX virtualization were very important to BI-LO, as we have a long standing commitment to virtualization on all platforms and architectures. It was also important for us to be forward-thinking in terms of where we were getting on-board in the hardware lifecycle so we didn't find ourselves with excessive service costs down the road," explained Breazeale. "On the other hand, we had to balance the risk of implementing brand new technology. In the end, Champion's knowledge of the Power 6 technology gave us the confidence to move forward."

For storage, Champion proposed replacing the existing IBM ESS800 with an IBM System Storage DS4800, allowing BI-LO develop a tiered storage model. To enable growth, Champion would add 45 terabytes of capacity to the company's existing IBM System Storage DS8100. Champion also presented many options for storage technologies to help BI-LO decide which best fit each tier of data.

"Companies tend to install storage at the highest-common denominator, which can quickly become expensive," explained Collins. "A tiered storage approach can help companies such as BI-LO lower costs dramatically and reserve the high-performance equipment for the workloads that truly need it."

Although other vendors bid for the project, the thoroughness of Champion Solutions Group's assessment, pricing, and services were key decision drivers. "Champion went beyond the call of duty – even helping to write the business case justification for our executive committee," said Breazeale. "The cash flow analysis documentation the team created helped move the deal forward and allow the implementation to proceed."

#### **Exceeding Expectations: Reduced Costs, Improved Performance**

In a phased approach, Champion and BI-LO jointly completed the solution implementation – a major undertaking that first involved upgrading BI-LO's operating environment from AIX 5.2 to AIX 5.3 in preparation for the Power 6 processors.

"We were migrating 70 percent of our business stack so it was critical to proceed cautiously," said Breazeale. "Champion's architects helped mitigate our risk and avoid any 'gotchas' through their knowledge of the newly released servers. As a result, we never experienced a single unplanned outage during production."

"In addition, we ended up spending less on services than we initially projected," said Breazeale. "Champion provided such extensive knowledge transfer during the early stages of implementation that we felt comfortable completing more of the project in-house."

The savings only continued from there. With the new architecture now in place for almost a year, BI-LO has cut its lease costs by 28 percent, exceeding its original goal by nearly 100 percent. The company also discovered that it had even more server capacity than anticipated after the migration. "Several internal departments had budgeted for separate servers, but we were able to accommodate all of them with the new virtual server architecture and save that money. Even with three unexpected applications on the p570 servers, we still have room to grow by 25 percent." The new tiered storage environment also offers easy scalability and will meet the company's growth needs for the foreseeable future."

In addition to added flexibility for growth, the company has seen significant performance gains from the new architecture.

"The execution time for one of our data-load processes was cut in half – from six hours down to three," said Breazeale. "We literally had groups clamoring to have their applications moved over to the new servers so they could realize the performance improvements."

Finally, the new architecture has reduced the company's data center footprint by approximately 30 percent and moved the company in a green direction – a goal that reflects BI-LO's ongoing commitment to both the environment and its customers.

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