

Scotmid readies for expansion by consolidating and virtualizing with a complete IBM solution

Overview

■ Challenge

To refresh the retailer's aging IT infrastructure, while accommodating for growth and enhancing business intelligence capabilities

■ Solution

Consolidating 23 HP servers onto an IBM platform that includes five IBM System x™ 3850 M2 servers, a clustered network attached storage solution featuring IBM System Storage™ N5300, an IBM System p® 510 server, an IBM System Storage TS3310 Tape Library, and virtualization through VMware

■ Key Benefits

Improved flexibility and scalability, faster processing speed and data access, improved systems reliability and availability, and improved disaster recovery capabilities



As one of Scotland's leading retailers, the Scottish Midland Co-operative Society, or Scotmid, has roots that go back almost a century and a half. Presently, the co-op operates 260 supermarkets and retail stores that will soon grow to 300, with more plans for expansion in the works. It also has other interests, including Scotmid Funeral Services and commercial and residential real estate investment. Headquartered near Edinburgh, the company has about 4,200 employees.

As with any retailer, Scotmid was searching for a way to efficiently handle large amounts of sales data and use it to maximize sales returns. They were also at a point where it was time to update their aging infrastructure.

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– Peter Haley, Technology Manager, Scotmid

“We were reaching the end of life for our brick servers, and we needed capital investment to replace a lot of them,” says Peter Haley, Technology Manager for Scotmid. “We needed to be more flexible about how we provided our IT infrastructure and business, and we were also looking at bringing on board our information management system and the large database that that required.”

The majority of Scotmid’s legacy servers were underutilized and underperforming. Their backup window had also increased to the point that it impacted the company’s daily workload. Considering that Scotmid was planning to replace ISDN with a new Multi-Protocol Label Switching (MPLS) network and ADSL broadband for all their stores, the company wanted to move in a new and more flexible direction, implementing virtualization as part of a major infrastructure upgrade.

The company turned to a group of trusted partners, including IBM and IBM Premier Business Partner b2net Ltd., to help them design a scalable and long-term infrastructure solution that would best fit their needs.

A trusted solution

Scott Kerr, Head of IT at Scotmid, says the company looked at several vendors, including HP and EMC, but chose IBM for their comprehensive offerings and superior support.

“We have a certain trust in the IBM brand,” says Kerr. “I had worked with IBM in the past, and there was just a level of input and support from IBM that we weren’t getting from other vendors.”

Scotmid replaced 23 HP servers with five IBM System x3850 M2 servers running Linux® and Microsoft® Windows®. These servers support the vast majority of the company’s mission-critical applications, including financial, payroll, and management information systems; file, print, e-mail, and Web applications; and even Blackberry connections. The infrastructure is virtualized with VMware, giving Scotmid an integrated and highly scalable platform to help control IT complexity.

The IBM solution also includes a System p 510 server, which Scotmid uses to run their e-commerce warehouse system. They chose the clustered N5300 for storage, along with a TS3310 Tape Library. Tivoli® Storage Manager provides Scotmid with a robust tape-based backup solution with integrated disaster recovery.

The right partners

Scotmid worked with b2net to design and implement their infrastructure solution, and chose IBM Global Technology Services to provide hardware maintenance and software support. The implementation was completed in phases over the course of

less than a year. The team migrated the more business-critical applications at the end of the process to ensure that everyone was comfortable with the implementation and that the team fully understood the technology.

“b2net took their technological experience and applied it to our particular requirements,” Kerr explains. “It’s not something we could have implemented or managed on our own in-house. It was important that we have the right partner, and b2net certainly gave us confidence and support all the way through.”

“This whole project was a quantum leap for Scotmid,” adds Haley. “It’s been a very big change in how we operate technology-wise.”

Fast returns

Scotmid has seen a marked improvement in the speed, performance and scalability of its IT infrastructure with the wholesale replacement of its legacy equipment. All of the company’s business-critical functions are now up and running on the virtualized environment, including six SQL databases ranging in size from 40 to 500 GB.

“We’ve definitely noticed an improvement in the servers,” says Haley. “Even coming off a server with a 3.4 gigahertz processor going down to a single-core 2.4 gigahertz, we haven’t lost any speed on that box. The IBM infrastructure is proving to be very efficient in the virtualized environment. And the fact that we can move the servers from one to another is a major benefit to us.”

“Before, we were facing all these individual discreet servers running their own applications, and all the inherent problems that brings,” adds Kerr. “Since we implemented the virtualized infrastructure, it’s given us flexibility and scalability.”

Another anticipated benefit will be the reduced energy costs the company expects to see after consolidating 23 physical servers to five.

“We certainly expect power usage reductions,” says Kerr. “And with energy prices the way they are currently, that is definitely something important to Scotmid in the long term.”

Running a more intelligent business

The IBM solution has also given Scotmid the resources to enhance their business intelligence capabilities, allowing them to leverage large amounts of sales data to improve product placement and sourcing in order to maximize sales. With an upgraded communications system and expanded processing and storage capacity, Scotmid can now capture, store, and analyze granular transactional data—terabytes of data that the previous infrastructure could not handle.

Solution Components

Hardware

- IBM System x3850 M2
- IBM System Storage N5300
- IBM System Storage TS3310 Tape Library
- IBM System p 510

Software

- IBM Tivoli Storage Manager
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"We can certainly supply our products, stock them and sell them," says Kerr. "We're very good at that. But up until now, we haven't been as good at using the information we have in our systems to sell the right things to the right people. So if there was anything we were trying to focus on with this solution, it was the ability to hold large amounts of sales information down to the basket level, and to use that data to improve the way we sell our products."

Planning for the unexpected

As an added benefit of the virtualized environment, Scotmid is moving forward with the implementation of a disaster recovery site at a remote location.

"Cost-effectively, we certainly didn't have that ability before the virtualization," says Kerr. "This disaster recovery site will essentially be a slightly scaled-down virtualized environment, and we are able to do that because we implemented VMware and the attached storage."

Better positioning for a dynamic environment

Scotmid is now better positioned to react to business change and can pursue future strategic projects with confidence, including deploying trial runs of applications in the virtual environment that before would have required the installation of a new server. With the virtual environment, servers can also now be taken offline without downtime, more effectively meeting the needs of the fast-paced retail world while efficiently maintaining equipment.

Scotmid has plans for geographical expansion in the next few years, and plans to extend the size and performance of their server infrastructure to handle that growth.

"Last year, if any of our executives asked me, 'Do we have the infrastructure to support this level of growth?' I would have said no," Kerr explains. "This year, the answer would be yes."

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