



Overview

Business challenge

The challenge was to find a replacement for older storage systems in Bunnings that supported vital business applications. The new storage needed to deliver enterprise-level performance and availability at a very affordable price.

Solution

Bunnings installed an IBM XIV storage system with 54TB of available storage. XIV storage systems use a virtual grid architecture based around commodity components and are designed to deliver the highest levels of reliability, performance, scalability and functionality at a low overall cost.

Bunnings builds on grid computing strategy with high-performance IBM XIV storage

Bunnings is Australia and New Zealand's leading retailer of home improvement and outdoor living products and a major supplier of building materials. It operates 243 stores across Australia and New Zealand, as well as 29 trade centres and seven frame and truss manufacturing sites. It employs more than 29,000 team members. In 2009, its sales were A\$6.2 billion. The national support office is in Melbourne, Victoria.

Bunnings is a subsidiary of the Wesfarmers Group, a diverse business with interests in supermarkets, department stores, home improvement and office supplies, coal mining, energy, insurance, chemicals and fertilisers, and industrial and safety products.

Wanted: Storage that is high-performance and efficient

Having migrated many of its middleware applications to IBM BladeCenter blade servers as part of a long-term plan to create a grid computing environment, Bunnings recognised the need to replace the storage systems these applications used.

"We had a requirement to improve the performance, stability, capacity and uptime of storage," says John Olszewski, Manager of Bunnings' 30-strong Infrastructure and Architecture team. "This was needed for our web servers, application servers and internal applications that covered procurement and inventory management."

Long trading hours at stores across multiple time zones significantly reduced the company's opportunities for overnight data processing, so performance and high availability were essential. The existing storage also consumed a great deal of power and the company was looking for something more efficient.

"When you create a grid infrastructure, you need to rely on lower-cost commodity systems," says Olszewski. "But at the same time, we had a lot of data to store and we couldn't compromise on stability or performance."

The company began evaluating the storage systems available on the market in late 2008.



Business Benefits

- Enterprise-level performance
 - Solid availability and data integrity
 - Powerful, easy-to-use management interface
 - Easy scalability
 - Low footprint and energy consumption
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— John Olszewski, Manager of Architecture team, Bunnings

IBM XIV – the next generation of storage

Following this market review, Bunnings chose an IBM XIV storage system. XIV systems are based around an innovative, virtual grid architecture designed to deliver the highest levels of reliability, performance, scalability and functionality at low overall cost.

IBM XIV storage delivers high reliability and data availability through active-active N+1 redundancy of all key components, partition mirroring, self-healing capabilities, rapid rebuild times and non-disruptive upgrades. It provides consistent enterprise-level performance through massive parallelism, disk utilisation and caching mechanisms.

“We’ve had a solid track record with IBM as a vendor and we’ve always felt safe investing with them,” says Olszewski. “When IBM introduced us to the XIV, at first we thought it wouldn’t meet our requirements but they provided some compelling documentation and presentations that convinced us.”

Working closely with the IBM team and IBM Business Partner Datacom, in September 2009 Bunnings installed an IBM XIV storage system comprising 11 modules with a total of 54TB in usable storage.

“In just a week, we did the initial installation and first host migration,” explains Olszewski. “All our storage is virtualised using IBM System Storage SAN Volume Controller, so the migration was very simple – we just moved the data over and changed the mapping.

“Datacom and IBM helped us validate our strategy, listened to the team’s needs and worked with us to delivering the new platform in rapid time.”

Over the next six months, the Bunnings team migrated production workloads to the XIV storage environment.

Smarter performance, reliability and features

Choosing an IBM XIV storage system gave Bunnings the performance, reliability and features usually associated with much more expensive equipment at an affordable price.

“The IBM XIV storage provides the highest levels of availability and data integrity and that is paramount for us,” says Olszewski. “It has levels of redundancy we couldn’t get with other similarly priced systems and it’s built using standard off-the-shelf components, which fits in with our grid computing model.”

The IBM XIV system’s powerful management interface has reduced the infrastructure and architecture team’s administrative requirements.

“The graphical user interface is really intuitive and since we’re only a relatively small team of 30 people, with only two team members managing the storage, anything that makes work easier for us is really helpful,” says Olszewski. “IBM also provides Tier-1 support for the XIV system so they manage all upgrades and maintenance.”

Support for future growth and green energy plans

The scalable IBM XIV architecture provides ample room to cater for Bunnings’ growth plans.

“We expect our data needs to grow about 20 percent year on year, so the ability to fit more storage per module, or add more frames as we need them, XIV will provide us the scaling we need” says Olszewski.

The success of its first IBM XIV implementation has encouraged Bunnings to invest in another system for its secondary datacentre.

“In our non-production datacentre we run development, testing and disaster recovery,” says Olszewski. “The storage we have at the second datacentre is really power-hungry and at its end-of-life. Putting in another IBM XIV unit will really reduce our footprint there. It will use less energy, take up a quarter of the space and be a lot cheaper to run.”

Solution Components

Industry

- Retail

Hardware

- IBM XIV storage system with 54TB of storage
- IBM System Storage SAN Volume Controller

Software

- IBM XIV management tools

Business Partner

- Datacom
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— John Olszewski, Manager of Architecture team, Bunnings

For more information

To learn more about IBM XIV storage, contact your local IBM sales representative or visit ibm.com/storage/au/disk/xiv/



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