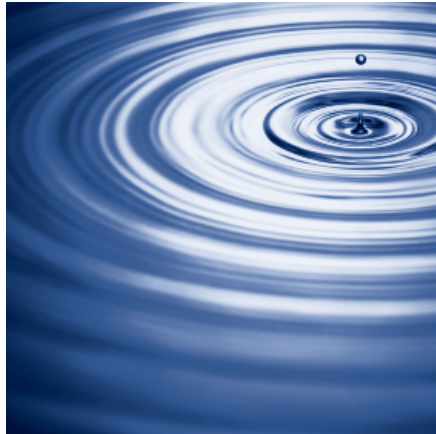


ABB Grain Turns to VMware to Integrate Acquired Businesses and Provide Platform for Growth

Deployment enables cost-effective application consolidation to SAP ERP



KEY HIGHLIGHTS

INDUSTRY: **AGRIBUSINESS**

CHALLENGE

ABB Grain needed to implement an infrastructure that could enhance disaster recovery capabilities while supporting the integration of new businesses and consolidation of corporate applications into enterprise-wide platforms

SOLUTION

By adopting VMware virtualization, ABB Grain was able to meet its DR requirements while rapidly integrating new acquirees into its business. The organization saved A\$60,000 in server maintenance costs while implementing a dynamic infrastructure

VMWARE AT WORK

- VMware Infrastructure 3 Enterprise, featuring: ESX Server 3.5, VirtualCenter, VMotion, Distributed Resource Scheduler (DRS), High Availability (HA), Workstation, Converter

RESULTS

- Recorded savings of A\$60,000 on server maintenance agreements
- Achieved a server consolidation ratio of 16:1
- Stabilized data center carbon emissions at 2006 levels despite business doubling in size
- Reduced server provisioning from days and weeks to two minutes

“VMware has delivered a robust, scalable, dynamic infrastructure that allows us to quickly integrate newly-acquired businesses and implement a standard corporate environment without making huge investments in new hardware.”

Tony Garland, Infrastructure Projects Supervisor
ABB Grain Ltd

ABB Grain Ltd

ABB Grain Ltd is a leading Australian agribusiness that has diversified from its traditional primary business of barley marketing. This growth and diversification is underpinned by ABB Grain’s mission to become Australia’s leading agribusiness.

ABB Grain is now Australia’s largest malt producer and among the top 12 internationally. Its suite of services includes storage and handling, transport and logistics, stevedoring, financial services, and wool and livestock exports. In 2007 the business established a joint venture in the Ukraine with French agri-industrialist Soufflet to accumulate and market grain and manage supply chain activities.

In 2006, ABB Grain selected VMware virtualization to support a disaster recovery infrastructure incorporating a co-located production data center managed by an external service provider and a secondary data center located at the organization’s head office in South Australia. However, facing a huge task to integrate the systems and information of acquired businesses, and with a new email platform and enterprise resource planning system (ERP) on the horizon, ABB Grain opted to extend virtualization across all applications and services.

“VMware has delivered a robust, scalable, dynamic infrastructure that allows us to quickly integrate newly-acquired businesses and implement a standard corporate environment without making huge capital investments in new hardware,” ABB’s Infrastructure Projects Supervisor, Tony Garland, said.

“We have achieved a 100 percent success rate in physical-to-virtual conversions of both our existing infrastructure and the servers of acquirees, thanks largely to VMware’s conversion tools.”

Cold DR not up to scratch

With ABB Grain embarking on a sustained growth program, the organization’s information technology team quickly realized its existing disaster recovery infrastructure was not up to the task.

“Three years ago, we had a minimal disaster recovery capability that would have required us to physically take backup tapes over to a cold site and manually retrieve our systems and information,” Garland said. “However, a combination of organic growth and acquisition saw our management task expand to cover more than 250 applications. We needed to implement a cost-effective infrastructure that could enable us to recover quickly in the event of a catastrophic outage.

“When we went to market for an infrastructure optimization solution, the name everyone brought up was VMware.”

Implementing virtualization based on VMware Infrastructure across a fiber-linked co-located production data center and a head office backup and recovery center met ABB Grain’s requirements.

“The fibre links ensure data is fully replicated between the two sites and we can seamlessly transition our production applications and services to head office if the co-location site experiences a problem,” said Garland.

“As well as hardware-independent disaster recovery capabilities, we have lower hardware maintenance costs and more efficient use of utilities and data center real estate.

“In a disaster recovery context, we have an agreement with ABB Grain’s business managers that we can have our live production environment up and running in two days. However, thanks to our virtual infrastructure, we can achieve 100 percent recovery in eight hours while recovery of our core business systems can be completed in just two hours.”

ABB Grain Ltd has recorded savings of A\$60,000 on server maintenance agreements and achieved a server consolidation ratio of 16:1.

DEPLOYMENT ENVIRONMENT

- ESX Server on six HP ProLiant DL585 G1 servers with four dual-core 2.4GHz AMD Opteron processors with 32GB RAM
- ESX Server on three IBM xSeries x3850 servers with four quad-core 2.4GHz Intel Xeon processors and 64GB RAM
- VirtualCenter on IBM eServer BladeCenter HS20 blade server
- Sun StorageTek 6540 Array
- Guest operating systems: Microsoft Windows 2003
- Applications: SAP ECC6, Microsoft Exchange Server 2007, SQL Database

"The project was not initially savings-focused, rather it was disaster-recovery driven," Garland said. "Our costs actually rose as we purchased new storage equipment and servers but we have achieved greater capacity and ability to support growth."

Opting to implement a virtualized infrastructure for disaster recovery, ABB Grain banked on its capabilities to seamlessly transition the information of acquired businesses into its infrastructure.

"VMware's physical-to-virtual (P2V) conversion tools enable us to take a snapshot of an existing physical server run by an acquired business and convert it to a virtual machine incorporating an exact clone of the operating system and application," Garland said. "This usually takes between 30 minutes and four hours, depending on the information residing on the server."

Using virtualization has enabled ABB Grain to constrain what would otherwise be a massive hardware administration task spanning multiple server brands, configurations and ages across geographically distributed locations.

VMware infrastructure supports SAP

The virtualized infrastructure has also laid the platform for ABB Grain to consolidate its multitude of corporate applications to a single SAP ERP Central Component 6.0 ERP system supporting 1,500 users.

Concurrent user numbers are expected to rise from around 200 to 500, once the first wave goes live in late 2008. The project is due to be finalized in 2010. The new environment includes SAP portal, business warehousing and customer relationship management technologies.

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"We'll be bringing all of our business units on board over the course of a staged and slow migration," Garland said.

ABB Grain is running 130 virtual machines across test, development and production environments on six HP DL585 ProLiant and three IBM System x3850 servers, supported by two Sun StorageTek Arrays with 30TB storage capacity each. SAP is set to run on two production ESX Server hosts and one test and development host, ensuring multi-layered backup and redundancy. If two of the hosts fail, the system can run on the third host, albeit slowly.

"Because ESX Server allows us to provision virtual machines quickly and dynamically, and redirect computing resources to meet business needs, we can minimize the hardware infrastructure investment required for our new SAP environment," Garland said. "We can deploy a new virtual machine in just two minutes."

"While we need a bit longer to undertake client backup, evaluate system loads, and set up patches and updates, the actual server setup takes just three or four mouse clicks."

Along with the SAP implementation, ABB Grain plans to continue running its legacy applications and services in a virtualized environment for at least seven years to meet corporate governance requirements. The legacy environment is to be hosted on six physical ESX Server hosts.

"We will also be implementing a whole-of-business archiving solution on the virtualized platform to ensure ABB Grain can effectively control and manage information," Garland said.

"ABB Grain is also migrating its email platform from Microsoft Exchange Server 2003 hosted on dedicated physical hardware to Microsoft Exchange Server 2007 running on a virtualized platform," he added.

"We are just undertaking load testing for the deployment of 1,500 mailboxes across the business. About 500 of these are located in head office and the remainder across Australia and overseas."

The consolidation project has also allowed ABB Grain to reduce its data center carbon emissions. These have remained constant since 2006 while ABB Grain has doubled in size. The company has also reduced its power and cooling system consumption.