



James Cook University accelerates access to student and business services with IBM XIV

Overview

Business challenge

James Cook University, based in Townsville, Queensland, needed to replace the ageing storage systems that supported its vital student administration and business management applications. The new storage needed to deliver enterprise-level performance and availability that could keep up with the exponential growth of the university's data needs.

Solution

The university became the first university in Australia to select IBM XIV for its storage requirements. It installed two IBM XIV storage systems, each with 43TB of available storage, for its primary and secondary storage. The XIV storage systems' virtual grid architecture provided high levels of reliability, performance, scalability and functionality at a low overall total cost of ownership.

Business benefits

- Enterprise-level performance at a low total cost
- Energy consumption halved
- Disk recovery time reduced from more than eight hours to nine minutes
- Easy-to-use management interface
- Ease of scalability to keep up with planned growth

James Cook University in Far North Queensland is one of the world's leading research institutions for marine science, tropical ecosystems, healthcare and tourism. Its focus on these disciplines is assisted by its proximity to the World Heritage-listed Wet Tropics of Queensland and Great Barrier Reef. The university's main campuses are located in Townsville and Cairns, and it employs more than 4,000 academic and support staff. Approximately 16,500 local and international students are enrolled in undergraduate, postgraduate and research studies.

James Cook University is one of 17 Australian universities listed in the Top 400 Academic Ranking of World Universities.

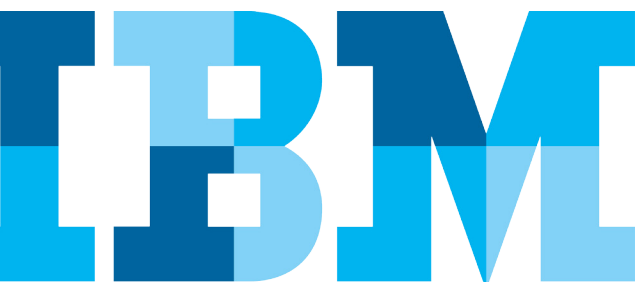
The university's Information Technology and Resources department is responsible for managing and maintaining local and wide-area networking services; providing computing services; and advising and assisting the teaching, research, administrative and library staff on general computing matters.

Keeping up with capacity, growth and environmental requirements

Between 2000 and 2009, the university's storage requirements grew at approximately 400 percent every three years. It also lacked disaster recovery capabilities, which exposed critical, high-value services to downtime and failure.

"We ran all of our corporate databases and storage – including financial data, human resources data, online learning services and the student management system – on three storage arrays from three different vendors," explains Lee Askew, Manager, Computing Systems and Architecture, James Cook University. "They were coming to their end of life, were expensive to maintain and couldn't keep up with our level of growth."

The restructure of the university's shared services divisions in early 2009 provided a catalyst for changing its methodology and approach to storage.



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“We needed a highly scalable storage system that we could implement on an as-needed basis,” says Mr Askew. “Like many educational institutions, people and funding are in short supply, so we have to work smarter. Our team of nine was already overstretched, so a reduction in management and administration time was a must-have.

“When comparing vendors we really focused on total cost of ownership – no hidden costs for software and licensing was also important.”

The university’s international reputation as a leading marine and tropical research institute meant it took the responsibility to reduce its environmental carbon footprint very seriously.

“Our existing storage systems consumed a great deal of power and cooling, so we were looking for something more efficient,” says Mr Askew. “Being in a hot and humid environment makes that requirement quite challenging.”

In early 2009, the university began evaluating the storage systems available on the market.

IBM XIV – the next generation of storage

James Cook University became the first university in Australia to choose IBM XIV storage. XIV systems are based around an innovative, virtual grid architecture designed to deliver the highest levels of reliability, performance, scalability and functionality at a 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.

Working closely with IBM Business Partner Future Townsville, James Cook University installed two IBM XIV storage systems in December 2009, each comprising nine modules with a total of 43TB in usable capacity – one for its primary storage, and a secondary non-production disaster recovery system.

“The time for deployment was brilliantly short and the mirroring, snapshotting and functionality built into the XIV worked out of the box as advertised,” says Mr Askew.

“We have a fantastic relationship with Future Townsville and that has been the key to the success of our operation,” he adds.

Over the next few months to February 2010, the university migrated its production workloads to the XIV storage environment.

Smarter performance, reliability and availability

Choosing an IBM XIV storage system gave James Cook University the performance, reliability and features it required at an affordable cost.

“I’m absolutely rapt with IBM XIV,” says Askew. “The virtual grid architecture means that finally, we’ve been able to stop worrying about traditional concerns such as RAID configuration, I/O performance and hot spots.”

“IBM XIV has levels of availability and redundancy we couldn’t get with other systems. We had a disk drive failure in February, and the recovery only took nine minutes. On our old storage system it would have taken anywhere between eight and twenty-four hours. That’s absolutely outstanding.”

Improved recovery rates, ease of management

The IBM XIV system’s powerful management interface has reduced the Information Technology and Resources team’s administrative workload.

“Now, we can manage a storage system twice the size of our previous system, with fewer people,” says Mr Askew.

“IBM also supports the XIV system, so instead of us having to do all the upgrades and maintenance, they look after it for us. IBM XIV lets me relax at night. Phone calls at 2am warning of service outages due to storage problems are a thing of the past.”

Floorspace, cooling and carbon footprint reduction

The university has halved the energy consumption of its storage systems, which means it can run a primary and secondary data centre without increasing the amount of power consumed.

“By consolidating our previous three storage systems onto the one primary XIV, we’ve been able to significantly cut our energy needs. We now deliver twice the capability – a primary and a disaster recovery site – with the same carbon footprint.”

Solution Components

Industry

- Education

Hardware

- Two IBM XIV storage systems, each with 43TB of storage

Software

- IBM XIV management tools

Business Partner

- Future Townsville
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For more information

To learn more about IBM XIV storage, contact your local IBM sales representative or visit:

ibm.com/systems/storage/disk/xiv/



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