

Fujitsu's Landmark Sustainability Collaboration with the University Alliance

»The collaboration between the three universities is an Australian first. It is to deliver data centre capacity at a lower cost than could be achieved independently, while securing greater flexibility and setting high standards for sustainability.«

Professor Margaret Gardner, AO, RMIT Vice-Chancellor and President



In 2009, three of Victoria's leading tertiary institutions, the University of Melbourne, Monash University and RMIT University (the Alliance), instigated an innovative collaboration to develop a shared data centre that would make a significant contribution to reducing costs and cutting greenhouse gas emissions. The facility was to have the capacity to serve the exponentially growing administrative, educational and research needs of the allied Universities' combined 200,000 students and staff.

Challenge

To support students and online learning systems, the mission critical research programs and administrative loads, the three universities rely heavily on servers, storage and applications in data centres which have amassed across individual departments within each institution.

The universities were struggling with rising ICT infrastructure costs and looking for ways to guarantee application availability and deploy lower cost capacity. In parallel, there was increasing concern about the environmental impact of that infrastructure.

Professor Edwina Cornish, Senior Deputy Vice-Chancellor and Deputy Vice-Chancellor (Research) at Monash University said: "Victoria prides itself as a leader of Australia's research and innovation activities. To be able to maintain this position and to facilitate and enable global collaborative research, universities have to be able to provide researchers infrastructure to manage large amounts of research data. Capacity to store, reuse and access data efficiently is critical to ensure researchers are able to focus on cutting-edge research. The IT landscape is complex and difficult to manage. As universities, our core business is delivering teaching and research excellence. This partnership enables us to access data centres to support our core activities in a cost effective way whilst supporting our sustainability aspirations to reduce greenhouse gas emissions."

The universities came to the realisation that these issues were common to all and agreed to explore the possibility of jointly outsourcing to a single data centre provider.

The customer

Country: Australia
Industry: Education

The challenge

To expand the ability of three leading Victorian Universities to support core activities of teaching and research with an IT infrastructure capacity that is both cost effective and which would reduce greenhouse gas emissions

The solution

Fujitsu Green IT services and Data Centre services

The results

- The concepts of sustainable data centres and emissions control become a business reality
- Pooled data centre resources of the University Alliance has halved costs
- Demonstrable leadership in sustainability

Solution

Fujitsu's impressive technical offering and mounting environmental and energy management credentials were key to the University Alliance's selection process. Fujitsu's proven record in the design, construction and operation of mission critical, sustainable data centres supported the Alliance's decision to partner with Fujitsu.

Fujitsu won this prestigious tender despite having had no previous relationship with any of the universities and the lack of any precedent for a collaboration of this nature.

Professor Cornish said: "The universities' decision to partner with Fujitsu was influenced by its demonstrated innovation in sustainability and its long-term commitment to developing sustainable data centre environments."

Fujitsu's Green IT services are based on the ISO14001 environmental management system. Fujitsu has built sustainability into all its activities; from its new energy-efficient, recyclable, compact and lightweight IT products to its data centres which are designed for low emissions, draw on renewable energy and use naturally landscaped surroundings.

The Alliance required a data centre that was ranked Tier III by the Uptime Institute which stipulates concurrent maintainable site infrastructure and no down-time during maintenance.

The key sustainability commitments that are integral to the project, and which carried a 30 percent weighting in the tender, included:

- The provision of a renewable energy options study
- Free or efficient cooling, and hot/cold air containment
- Efficient UPS systems, including diesel rotary UPS
- Improved power factor correction
- Low energy lighting
- Water-saving devices
- Environmentally friendly paint finishes and carpets
- Detailed measurement and reporting of power usage effectiveness (PUE) and other metrics

Alison O'Flynn, Director Sustainability at Fujitsu Australia Limited said: "Internal collaboration between Fujitsu's Green IT Consulting and the Data Centre Services teams ensured these sustainability commitments could be met, and with specific financial improvement. The fulfilment of these customer requirements were further supported by Fujitsu's own market-leading sustainability commitments including absolute emission reduction targets."

Fujitsu's purpose-built 3,000m² facility in Melbourne's south-eastern suburbs houses client managed equipment including data centre operations and facilities management. It boasts 1:100 natural disaster event resilience and a 2-hour fire rating on all data hall doors and walls.

Service levels for the highest grade electrical, mechanical, fire and security systems are based on the exacting international standards requirements of: Information Security Management Systems (ISMS) ISO 27001, ASIO Technical Note 4 (T4), ITIL IT Service Management and ISO 9001 Quality System.

Benefits

The delivery of advanced technologies and sustainable solutions for the data storage facility is testament to Fujitsu's commitment to innovation, sustainable design, availability standards and facility performance. The concepts of sustainable data centres and emissions measurement and control have become a business reality.

The first stage of the University Alliance 10 year project was commissioned successfully in January 2010. The Alliance is experiencing cost savings with the leveraging of their combined space requirements to get better overall rate for each institution.

University of Melbourne Provost, Professor John Dewar, said the shared data centre was a win-win situation for the universities and the environment: "It brings considerable savings, the opportunity to increase data centre capacity in a more flexible and rapid way as demand increases, and there are substantial sustainability factors.

"This is costing us less than half what it would have cost to build a data centre on our own and that's without ongoing maintenance and management."

The Alliance universities are now confidently showcasing this environmental initiative to current and prospective students, as well as the wider community. Prospective students are placing increasing emphasis on the factors of sustainability and innovation when it comes to making a choice as to where they will study.

Further significant, measurable emissions reductions will result from the completion of the project's second stage; with the Alliance's expansion into a newly designed and constructed 2,000m² module to be completed by the end of 2011. The Alliance's future proofing of its capacity and storage requirements will be met by an expected increase of 100 square metres of space per year.

In collaboration with



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