

Hydro Tasmania

CASE STUDY



Hydro Tasmania builds innovative IT environment that meets the needs of today and the future with Data#3

Objective

To refresh the existing data centre to avoid risk, manage costs, and deliver the best outcome to the people of Tasmania.

Approach

Hydro Tasmania is diligent in its approach to ensuring business continuity of its vital operations. As part of this process, funding is allocated to ensure that IT resources are kept updated and so, with end-of-life imminent for key data centre equipment, an open tender was issued seeking solutions that would provide the foundations for a strong digital future.

IT Outcome

- Reduced risk by replacing aging equipment with modern infrastructure.
- Common, vendor-backed platform across all business units.
- Flexible and scalable – additional nodes can be easily purchased as business needs grow.

Business Outcome

- Faster data processing, reporting and access, with some business units reporting improvements up to 80%.
- Easy allocation of costs to individual departments to help ensure optimum use of funding.
- Positions Hydro Tasmania for anticipated growth in capacity as the nation's leading renewable energy provider.
- Achieved all business case imperatives on time and under budget.

The Background

Hydro Tasmania is Australia's largest generator of clean, renewable energy. For more than a century, the organisation has powered Tasmania's communities and economy. Hydro Tasmania is now applying its traditional values of supporting its community and environment to modern challenges, and to do this, it relies on the skills, ingenuity and passion of its 1,100 staff.

As a government-owned organisation, Hydro Tasmania must draw maximum value from its IT investments. When its data centre infrastructure neared end-of-life, needs for a future-ready solution were defined and put to tender.

The Challenge

Like all modern organisations, technology plays a vital role in every area. Aging equipment was slowing data processing times and access to information, and it was clear that the time had come to make updates.

Hydro Tasmania employs a rigorous, ongoing risk assessment process that supported the decision to refresh its data centre. Program Manager, David Ovington, who oversaw the project, noted that updating equipment as it nears end-of-life is a key element of risk prevention.

"Primarily as equipment ages, there are consequent risks to business continuity," said Ovington.

"If investment is not made, there is a risk of outage to systems that support everyday operations. It is, of course, prudent to operate without interruption."

Cooling capacity had become a challenge, with very limited ability to cool new equipment. The ongoing support and maintenance costs of dated equipment was also an issue, and with multiple CPU generations and several vendors' equipment in place, the in-house IT team was kept busy.

"Old equipment becomes expensive, and increased risk of failure increases support costs," said Ovington.

From a business perspective, since Hydro Tasmania's main revenue source is from trading in the National Electricity Market, it was essential to build a system that could readily ramp-up and down to meet market demand, but the existing environment lacked such scalability. Meanwhile, with accountability key to offering optimum outcome to Tasmania, it was necessary to accurately allocate costs to individual departments.

"Our tender prioritised three things: good value for money, strong level of expertise, and a local value proposition," said Ovington.

"Data#3's proposal showed a continuing commitment to upskilling its local presence in Tasmania. Their follow-on benefits to our local economy were a key consideration."

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IT Outcome

The project was implemented in phases over the course of a year, with Data#3 negotiating a three-month extension on support of the outgoing equipment at no extra charge. The magnitude of moving to a completely new platform should never be underestimated, and Data#3's networking, security and data centre specialists worked closely with the Hydro Tasmania team and vendors including Dell EMC and Cisco to fine-tune the hyper-converged solution.

"There was a genuine commitment to understanding our business and delivering a good outcome on the project. This was a significant engagement for the local Data#3 team, and they showed an enthusiasm and willingness to understand what success looked like for us," said Ovington.

Cisco core network equipment based on application-centric infrastructure (ACI) was implemented, allowing seamless connectivity securely to any workload from anywhere, with software-defined networking (SDN) making for easier management. 40 Dell EMC VxRail hyper-converged compute/storage nodes were implemented across four data centres, giving agility and scalability as well as a robust business continuity measure. The flexibility of the new solution meant that as new workloads are introduced, additional nodes can simply be added, with minimal impact to business.

"The hyper-converged data centre infrastructure that Data#3 offered from Dell EMC gave us lots of benefits in terms of flexibility, scalability and ease of operation. It meant we were able to implement the environment we knew would meet the needs of Hydro Tasmania's business today and into the future," said Ovington.

"Using some familiar toolsets around VMware meant our team had a familiar environment with more contemporary technology capabilities beneath. This offered the right balance between skills the team already had and building on new skills, supported by Data#3 and Dell EMC – it made us self-sufficient."

Business Outcome

The first priority for Hydro Tasmania was to prevent the risk of downtime or system failure that is presented by aging equipment, and the transformation gives the business a well-supported, modern infrastructure that is both stable and powerful.

"As an IT project, when you get to the end and you have done what you said would do, on time and under budget, you can safely say you have achieved the business case benefits," said Ovington.

"Hydro Tasmania has achieved what it set out to do."

Also, a prime concern was the need to improve performance and data processing speed so that business units could reliably access up-to-date reports. Here, the project went beyond expectations, with some departments describing improvements of up to 80%.

"We have seen some measurable application performance increases across our SAP and trading environments," said Ovington.

"This gives us a user experience benefit and also allows us to complete our overnight batch processing safely within the available time window."

With infrastructure hosted across four data centres in Hobart and Melbourne, users directly access a cloud-based platform from anywhere, meaning that no unnecessary traffic is routed through head office. Since the system is node-based, Hydro Tasmania can easily understand the cost of individual workloads, along with associated storage and processing expenses. This makes it possible to charge outgoings to the correct department, instead of absorbing overheads in the IT budget.

Key also to Hydro Tasmania was to ensure that the state would benefit from the solution in terms of skills and investment.

"Our guidelines require us to consider industry development in Tasmania, and the solution delivered, with Data#3 increasing on their local presence in Tasmania," said Ovington.

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Conclusion

"The combination of well-defined objectives, careful planning and consultation with the business were key elements of the project's success. The expertise of Data#3's professional services and project management teams was enhanced by the skills of Cisco and Dell EMC specialists, and choosing partners well is critical when it comes to complex projects," said Ovington.

"My advice is to find a partner who is as genuinely committed to what you're trying to do as you are, and who is capable of delivering it," said Ovington.

"The Data#3 team was working on-site with us for a year, and operated with us as one team working towards the best outcome for Hydro Tasmania. You only get that attitude when it is genuinely threaded throughout the organisation, and it is part of the organisation's culture."

The new infrastructure has made life easier for the infrastructure team at Hydro Tasmania, with less time spent on troubleshooting aging infrastructure from many vendors.

"Our infrastructure team is able to work on improvement initiatives rather than firefight. This efficiency means a better value outcome for Tasmanians," concluded Ovington.




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**David Ovington, Program Manager,
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