Hewlett Packard Enterprise

AUT

Objective
To deploy a robust storage solution to protect AUT's rapidly expanding valuable intellectual property data bank

Approach
Conducted an open tender for a high tier storage solution to replace ageing and unreliable storage infrastructure

IT Matters
- Ensured backup could now be completed before the start of teaching day
- Allowed IT team first time oversight of valuable data across random platforms
- Allowed IT team to deliver higher value services to students

Business Matters
- Facilitated better Business Intelligence (BI) and analytic capability
- Achieved 75% savings in power, cooling and rack requirements
- Protected and retained previously at risk valuable intellectual property

AUT tackles expanding data problems with new storage infrastructure solution

AUT deploys HPE 3PAR StoreServ storage to protect valuable intellectual property

Auckland University of Technology, New Zealand's fastest growing university, was experiencing annual data growth of almost 50%. It's ageing storage technology was unreliable with different technologies on multiple platforms. Outdated functionality was putting the retention of AUT's valuable intellectual property at risk. The HPE 3PAR, StoreOnce and BladeSystem storage and server solution overcame the "nightmare" scenario.

Challenge

Spectacular growth places heightened focus on critical IT capability
The technology solution put in place by the Auckland University of Technology (AUT) in the early 2000s was fit for purpose. But as New Zealand's fastest growing university underwent considerable change, the IT focus became a much more critical part of the organisation. Roy Cullum, director, ICT Infrastructure Services, says: "We are a multimillion dollar business which understandably leads to more focus on IT because, although IT is an enabler for students, it is also a cost."

Storage volume at AUT was growing between 40 and 50% annually as a result of students, lecturers and administrators creating documents. That data, the university's valuable intellectual property, had to be protected by copying, backing up and archiving to tape.

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> "We were facing a nightmare scenario. It became almost a whole industry around saving, keeping and protecting data. The storage backup solution was 'flaky' and unreliable, needing heavy user intervention. It was very much 'hit and miss' whether nightly backups could be completed. The problems were centred on multiple platforms, some with functionality that was out of date, some costing a significant amount in maintenance support, and some just unreliable."

— Roy Cullum, director, ICT Infrastructure Services

Cullum recalls: "We were facing a nightmare scenario where it became almost a whole industry around saving, keeping and protecting that data. The storage backup solution was 'flaky' and unreliable, needing heavy user intervention. It was very much 'hit and miss' as to whether nightly backups could be completed. The problems were centred on multiple platforms, some with functionality that was out of date, some costing a significant amount in maintenance support, some unreliable, and then there were different technologies not talking to each other.

"The risk was high because some equipment would not be supported by vendors due to its age. Matters were made worse because the support from one major multinational supplier was abysmal. The outcome for us was a very manual process with far too much technical involvement needed from expensive technical resources."

User dissatisfaction was growing as the slow legacy backup architecture did not allow for sufficient disk retention. Cullum says: "We had to resort to tape and a frustratingly long time was taken to restore deleted or corrupted user files. It was stretching to hours, sometimes days, to recover the data. Hardly an ideal situation with every call meaning a problem or something is broken and IT resources tied up fixing stuff just to keep things running. That adds no value."

Cullum recalls: "We had to get out of that cycle. Our goal was a 'set and forget' environment. It gave us a reason to start exploring the market. So in late 2013, we issued an open tender for our top tier of storage. Four vendors responded, including Hewlett Packard Enterprise."

Solution

More cost effective and technically superior solution

"HPE was a new experience for us. We'd never used them before. HPE products were definitely more cost effective and seemed technically superior. Our decision was to give HPE. Our first engagement was to deploy HPE StoreOnce 4900 backup hardware. This immediately freed up our IT team to tackle higher value tasks as well as delivering a much better user experience."

Cullum notes, as the relationship matured, AUT spoke to HPE about other issues it was experiencing in the storage space. The existing primary high performance data platform was struggling with the increasing importance and reliance the university was placing on Business Intelligence (BI) and analytics. User complaints were mounting about poor application and data performance and having to sit through one second latency delays. The cause was due to the loads being placed on the existing array for which it was not designed nor could cope.

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HPE Technology Services consulted with AUT and advised on the optimum deployment of platforms and integrating them with backup software. The complete HPE end-to-end primary, secondary and backup infrastructure included HPE 3PAR 7400 All-Flash Array (AFA), 3PAR StoreServ 8200, StoreOnce 4900, c7000 BladeSystem chassis, Virtual Connect FlexFabric, ProLiant BL460c Gen 9 servers, consulting and support services.

Benefit

Delivering high performance to scattered student population

"The standardised HPE BladeSystem architecture is a holistic single architecture tool set and it freed up our IT team to focus on higher value tasks like applications delivery as opposed to simply keeping the lights on and tinkering at the back end."

The HPE storage solution was delivering high performance to the widely scattered student body totalling nearly 28,000 and the volume of complaints slumped. One example of introducing new services was the migration of all student email to Microsoft® Office 365. "When emails were on in-house storage, we could only give 200 MB of storage but now students can have a terabyte and easily share information. Meanwhile the university can populate their calendars on the run with critical information such as curriculum changes."

AUT do not own a dedicated data centre. It took a strategic decision to go to a commercially hosted data centre with Datacom housing the HPE storage solution. The HPE solution is delivering operational savings such as reduction in the data centre footprint and lowered power, cooling and rack requirements amounting to a 75% cost saving over a five year period. "We are achieving lower leasing costs and ensuring a robust Data Recovery (DR) environment to guarantee data integrity."

Solving the university's "shadow" IT problem

Cullum explains how the HPE 3PAR StoreServ Storage solutions solved what he described as AUT's 'shadow' IT problem. "There are lots of schools and organisations within the university that run their own IT systems. This is a risk for any university where a lot of data being created is of high value intellectual property. This is key research data which may lie on some random system and the great risk is that the university's IT team doesn't have an oversight across these platforms. Moving them to the new HPE 3PAR bulk store facility eliminates that risk."

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Customer at a glance

Application
Storage and server infrastructure

Hardware
- HPE 3PAR 7400 AFA
- HPE 3PAR StoreServ 8200
- HPE StoreOnce 4900
- HPE c7000 BladeSystem Chassis
- HPE Virtual Connect FlexFabric
- HPE ProLiant BL460c Gen 9 servers

HPE services
- HPE Consulting Services
- HPE Support Services
- HPE Integration and Deployment Services

"We needed serious help back in 2013 and Hewlett Packard Enterprise delivered it. It became a trusted partner and we now do 95% of our storage business with HPE."

— Roy Cullum, AUT director, ICT Infrastructure Services

He says the move has been positive with no negative feedback. "It really allows our team to fully explore their BI and analytic capability and they are hammering the array and it still lets them run all the queries they want."

Cullum reflects on how: "in the nightmare days, backups would not complete by the 6am backup window and used to run into the daytime. This caused extra network traffic which impacted 'business as usual' system performance. Since the HPE deployment, all backups are completed by 6am. We also used to only hold 15 days of data online. Now we hold 46 days on line which makes data recovery going back to 46 days quicker and easier."

Cullum sums up: "We needed help back in 2013 and HPE delivered it. HPE Services gave us that critical confidence and reduced risk. That meant we could focus on delivering value to our students and also protect their intellectual property. The HPE partnership covered consulting, integration and support services enabling us to make the most of the IT solution."

He recalls how HPE understood AUT's business requirements in terms of outcomes and then designed and implemented an appropriate technology that both met and exceeded the university's requirements. "We purchased HPE storage platforms plus installation and 5 year Proactive 24/7 support services. Support has been absolutely brilliant and when there were some configuration issues HPE has acknowledged that and stood by us until the issue is a thing of the past.

"The company continues to display great positive account management coming back quickly with forward looking ideas and solutions. When they release any new front line product HPE shows us how we can migrate to the new dimension from where we currently are. Their relationship with us went from strength to strength and they became a trusted partner. We now do 95% of our storage business with HPE."

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hpe.com/storage

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