



Radford College uses Nutanix to advance its IT, helping students perform even better while staying on the right side of its budget

Canberra's prestigious Radford College takes pride in an innovative approach to education. With over 2000 students on a 46-acre site, their three-tier infrastructure was holding back the school's IT strategy. Development was proving challenging due to an ageing infrastructure and its management complexity. Lack of infrastructure support for robust business continuity and disaster recovery (DR) policy was also an issue.

Radford's IT team needed to transform the data centre and enable IT flexibility. Simplified administration was required to make upgrades easier, extend the use of the cloud, and reduce costs.

Nutanix enabled Radford College to meet their goals. Business continuity and DR policies have reduced the risk of disruptions to the school day. The school was able to rapidly adjust to COVID-19 disruptions and the need for remote



"Nutanix has simplified our IT management so that it's no longer a burden. We can stay focused on things that matter—like delivering IT services that support strong academic performance."

- Carl Flanagan, IT Manager, Radford College

INDUSTRY

Education K-12

BENEFITS

- Reduces management costs by AU\$150,000-\$200,000 per year
- Avoids consulting fees on upgrades
- Lowers powering expense by AU\$40,000 per year
- Improves DR with daily snapshots
- Meets COVID-19 lockdown with no issues
- Lays the foundation for hybrid cloud development

SOLUTION

- Nutanix AHV
- Nutanix Prism management software
- · Nutanix Xi Frame
- Nutanix Clusters
- Nutanix Flow

Applications

- Learning management system
- Administration and information system
- Microsoft SQL Server



learning. In addition, simplified management has lowered IT spend by AU\$150,000-\$200,000 per year. A consolidated IT footprint has cut power bills by around AU\$40,000 per year.

Looking ahead, Radford College has a foundation on which to develop a hybrid cloud strategy, with Nutanix managing applications across multiple environments.

CHALLENGES

Radford College in Canberra is a thriving independent school, providing co-educational services from pre-kindergarten to Year 12. The school consistently ranks highly among schools in the region around Australia's capital city.

For several years, the school has extended the role of technology in helping ensure academic excellence. Today, a learning management system (LMS) administers, tracks, reports, and helps deliver educational courses. Administration and information systems backed by Microsoft SQL Server databases support the school's operations. Plus, a 1-to-1 ICT Program means all pupils from Year 4 to Year 12 use their own personal devices in class.

Carl Flanagan, IT manager at Radford College, thinks that "students' use of technology to support and enrich learning is more important than ever." Flexible technology is increasingly vital in the school environment. Radford College had to take action when the weaknesses of its three-tier infrastructure began to impact progress.

"The system was complex to manage," shared Carl. "Upgrades were stressful experiences with the potential to cause problems." The system's intricacy meant that at times the IT team required the support of expensive third-party consultants to help with the upgrade process.

A key concern was the infrastructure's lack of storage capacity for a robust disaster recovery (DR) and business continuity policy. This limitation prevented the creation of efficient rollback points for the school's systems. The limited snapshots taken before upgrades were not always sufficient if something went wrong. As a result, issues disrupted school operations when data couldn't be restored quickly.

With so many issues competing for the IT team's attention, the infrastructure needed an overhaul. Flanagan found that legacy architecture prevented the school from developing its IT systems. "Replacing our legacy architecture became a priority," he said. "Downtime for students and staff was an unacceptable risk."

SOLUTION

Flanagan was impressed by the Nutanix hyperconverged infrastructure (HCI) when he attended an event hosted by IT solutions company Qirx. Hearing the positive outcomes that other schools had experienced with Nutanix and Qirx was reassuring. "It was a big step forward that meant we needed to get a lot of people on the same page," Flanagan recalls. "The school looked at multiple solutions during the review process. There was a thorough review to get the most effective long-term solution." Attending a Nutanix Bootcamp and visiting nearby Nutanix customer, the University of Canberra, were pivotal in the decision making process. "There was real excitement as we left the University of Canberra," Flanagan shared. "Suddenly it seemed possible that we could achieve our IT goals and establish Radford College at the forefront of technology in the education landscape."



Radford College engaged with Qirx to deploy a four-node Nutanix cluster supporting the school's production environment. As part of the implementation, the school migrated from a Citrix hypervisor to the Nutanix AHV hypervisor with its operational intelligence, security and 1-click management simplicity. Alongside AHV, the school also adopted Nutanix Prism, which allows the IT team to manage the entire cluster. Computing, storage, and networking are now managed through a single interface.

The first deployment was a huge success. Radford College has already extended the cluster by another three nodes for enhanced DR capabilities.

Qirx has been instrumental in identifying the right solutions for specific challenges and deploying Nutanix. Flanagan said that he has "an excellent relationship with Qirx and Nutanix." He went on to share that they are currently working with Qirx on a proof of concept (POC) for Nutanix Xi Frame, a desktop-as-a-service solution. "We're exploring the opportunity to upgrade the older workstations in our labs with Nutanix Xi Frame," Flanagan explained. "It will allow us to avoid costly replacements by using standard desktops with Nutanix software."

CUSTOMER OUTCOMES

Reduces management costs by AU\$150,000-\$200,000 per year

By implementing Nutanix, Radford College made significant cost savings on the daily management of its IT infrastructure. Flanagan calculates the figure could be anywhere between AU\$150,000-\$200,000 per year. The school welcomed the savings at a time when they want to focus resources on enhancing services. "The more time we can save on system management, the better," confirms Flanagan. "It allows us to focus on initiatives that will deliver real value to the school, like improving backups, pursuing a digital transformation agenda and implementing a robust identity management system."

Avoids consulting fees on upgrades

Using Nutanix Prism, the IT team completes all management tasks, including stress free upgrades. Better still, the school no longer needs to call in consultants to support any of the upgrade work. Flanagan says that "our team can now complete the whole process. Moving to Nutanix has put us in control of our IT."

Lowers powering expense by AU\$40,000 per year

The school consolidated its IT by switching from a three-tier infrastructure to a Nutanix HCI. The move took them from two full 48U racks to a single rack cabinet that is more than half empty. As a result, the school's electricity bills for powering and cooling the data centre room has reduced. "I remember the heat from the two racks; it's a lot cooler now!" says Flanagan, who estimates the cost saving could be as much as AU\$40,000 per year. The reduction in power usage also aligns with the school's environmental sustainability goals.

Improves DR with daily snapshots

The risk of disruption to a school day is much less now that Radford College has a robust business continuity and DR capability in place with Nutanix. Data backup takes place on a separate infrastructure thanks to the additional DR nodes. Regular snapshots ensure the IT team can quickly restore data without significant loss. "We're taking hourly snapshots on Nutanix of our critical applications," confirms Flanagan, "as well as daily snapshots across all systems. The routine we have in place ensures the continual running of the school."



Meets COVID-19 lockdown with no issues

When COVID-19 struck, sending staff and students into lockdown, Radford reacted quickly. The scalable performance of Nutanix and the fact that some of the school's systems are delivered as-a-service online meant they were able to stay ahead of the curve. "We adapted to seamlessly deliver the online learning experience to our students at home almost instantly," says Flanagan.

NEXT STEPS

Radford College is investigating adding the public cloud to its Nutanix and software-as-a-service infrastructure mix. The school could monitor and manage workloads across all environments using Nutanix Clusters and Nutanix Flow. "They seem to be just what we're looking for," comments Flanagan, who is keen on the increased adaptability and segmentation they offer. Using Nutanix Clusters, the IT would be able to move workloads across the environments without the cost or time of refactoring applications. Nutanix Flow will support the school to micro-segment their network for individual applications ensuring even greater security.

PARTNER

Qirx

Australian-based Qirx applied its established IT expertise in the education sector to design and deploy a Nutanix solution for Radford College. Qirx tailored a solution that met Radford's specific challenges and ensured the project stayed on schedule. With Qirx, Radford College gained a highly flexible IT platform that facilitates excellent educational outcomes.





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