

Enabling innovative education and operating models in the cloud

Macquarie University | Higher Education



Business opportunity

Every year more than 40,000 students and 3,000 faculty fill the halls of Macquarie University campuses in Sydney, Australia.

Ranked among the top 1% of universities in the world, Macquarie* is undertaking a digital transformation to enable innovative new education and operating models that are equal to its storied history and prestigious reputation.

Short term goals include redesigning professional services from the ground up, creating new shared services, and developing a premier virtual campus experience. Long term, the university looks to transform every aspect of the student journey, from application and acceptance to learning and networking. But standing in the way of transformation was an IT estate no longer fit for purpose.

* [QS World University Rankings, 2024](#)

Technical challenge

Despite strides in developing well-designed systems and applying automation, many of Macquarie's mission-critical applications were still hosted on disparate legacy systems and aging data centres.

A hardware failure became increasingly likely and on-premises systems were non-compliant with software versions and patches, creating risk that could suddenly disrupt operations. To support student learning continuity and lay a strong foundation for its digital transformation, Macquarie needed an updated, agile and resilient infrastructure.

The team needed to execute the cloud migration quickly and without interrupting the vital systems they depended on to support the university.

Our solution

Together, Macquarie and Kyndryl collaborated with Amazon Web Services (**AWS**) to design and build a **VMware** Cloud on an AWS Cloud platform. Using Kyndryl's expertise, the team seamlessly extended the network and enabled workload portability, avoiding upfront capital expenses.

With Kyndryl's assistance, the Macquarie IT team established an AWS cloud landing zone, decommissioned old workloads, and consolidated servers from 936 to 480 for migration, enabling them to run on VMware supported platforms, operating systems, middleware and databases. Kyndryl implemented disaster recovery for critical business applications, integrated Veeam Backup and archival service with AWS S3, and layered multiple technology tools to enhance management and security.

The result is an agile, more secure, and compliant hybrid cloud estate implemented without disruption to Macquarie's learning or operations. Kyndryl continues to support the team with managed services.

The power of partnership

- AWS was chosen to underpin the complete digital transformation at Macquarie. Kyndryl's close collaboration with the **AWS** team during the migration resulted in a scalable, modernised cloud environment.
- Direct collaboration with **VMware** enabled specific configuration of tooling, including an addition of VMware Cloud Disaster Recovery to provide an extra layer of security and resiliency.

“We wanted to reduce reliance on data centres, retire aging infrastructure, and simplify our technology landscape to position ourselves for the next step into cloud native delivery,”

- Stephen Martin, Head of Macquarie Technology Services



About Macquarie University

Distinctive, progressive and transformational, Macquarie University is located in Sydney, Australia and ranked in the top 1% of universities in the world.



What progress looks like

- 420 VMs migrated for foundational applications and 60 VMs for critical applications that require highest availability; migrated in 4 months with no business disruption.
- 50% VM count reduction by decommissioning over 456 systems through the use of AWS, VMware, and Veeam technologies for storage optimisation and efficiency, while significantly reducing CO2 emissions and costs.
- Disaster recovery (DR) capabilities provide failover on an application-by-application basis, cover more systems and includes orchestrated recovery, and has improved from partial to full functionality testing for easier execution.
- Improved user experience through semi-automated digital self-service tools through a modernised infrastructure management platform with a swivel integrated service management and catalogue.

What's your next digital business challenge?

Let's tackle it together. →

Meet the team



Stephen Martin
Head of Technology Services,
Macquarie University



Fadi Rizk
Partner and Client Unit Leader,
Kyndryl



kyndryl.

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