CASE STUDY

University of Queensland

nimblestorage

University of Queensland Upgrades 33,000 Mailboxes with Nimble Storage

Ranked among the world's top 50 tertiary institutions, The University of Queensland is one of Australia's leading research and teaching organisations. The University of Queensland offers a diverse range of courses in areas such as business and law, engineering, medicine, and science. It currently has more than 50,000 students.

During 2014, a decision was made to migrate the university's existing Microsoft Exchange 2010 staff email platform to the latest version of Exchange. The project coincided with much of the hardware supporting the platform reaching its end of life and requiring replacement.

"Our first question was whether to remain on premises or shift our Exchange infrastructure to an external hosting provider," says Rochelle Harrison, infrastructure architect at the University of Queensland. "For a range of reasons, we opted to remain on premises, and so the next question was where to find suitable storage to support the new solution."

Harrison says the university's existing storage and backup implementations were unable to provide the capacity needed to allow email quotas to be increased for all users. "Our data centres were already very full, and there was no space to simply add more disks to our existing storage solution. We needed to find an alternative," she states. Storage and backup architecture changes were also needed to meet other objectives such as reducing physical data centre space and lowering costs all while raising quotas from 4GB per user to a more flexible 25GB per user.

She remarks that the university was also having issues with backups of Exchange data. Some backups could take up to three days to complete so there was a risk that some data could be lost. Quickly restoring data after failures was also an issue.

A Nimble Alternative

The University of Queensland IT team issued a tender for new storage and, after close examination of a number of alternatives, decided to deploy new Nimble CS300 arrays.

"We needed to find the right balance between storage that would meet our requirements while also measuring up when it came to price," says Harrison. "On both these criteria, Nimble measured up very well."

Harrison says due diligence was completed by speaking with a Nimble reference customer. "This gave us the confidence that the storage would be able to do what we needed it to do," she remarks.

Once the Nimble CS300 arrays had been delivered and racked, comprehensive Jetstress testing was undertaken to ensure performance would be satisfactory for the new Exchange installation. Harrison says the testing found performance was actually around five times higher than what was required.

One array was then deployed in each of the university's two on-campus data centres. A third was installed in a third, off-site data centre where it was to be used in place of tapes for longer-term backups. Migration of mailbox data to the new arrays was completed over the course of a two-week period in 2015.

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

Customer Challenges

- Required a high-performance storage to support a large Microsoft Exchange upgrade
- Needed a storage and backup solution that could support the delivery of large mailbox quotas
- Planned for a large number of thinly provisioned volumes and snapshots
- Wanted to reduce data centre footprint and associated power costs

Products

- CS300
- Infosight

Business Benefits

- Reduced backup costs by 50 percent
- Increased mailbox storage quotas for all users
- Significantly reduced backup windows and lower operating and management costs

"The Nimble storage arrays have provided performance levels well beyond our requirements and easily support our entire Microsoft Exchange infrastructure."

Rochelle Harrison, Infrastructure Architect, The University of Queensland

Business Benefits

Implementation of Nimble Storage provided the University of Queensland with a range of both technical and business benefits.

Deploying the new arrays meant the existing 63 rack units of space used for storage in each data centre could be reduced to just nine rack units, freeing up valuable space. This higher density also resulted in a significant reduction in power consumption and cooling requirements.

“We have calculated the cost of providing an individual mailbox has been reduced to less than half of what it was, and this has been achieved while increasing storage quotas to 25GB per mailbox,” says Harrison. “This has been an excellent result.”

Benefits have also been achieved when it comes to data backups, thanks to the snapshot capabilities of Nimble Storage solutions. Backups are taken every four hours with long-term copies retained in the off-site data centre.

“Previously, some backups could take up to three days to complete, whereas now it can be completed within minutes which is fantastic,” affirms Harrison. “We estimate that our backup costs have been reduced by more than 50 percent.”

Nimble Storage InfoSight™ predictive analytics is being used by the University of Queensland IT team to monitor the storage and ensure backups are occurring as scheduled. This means fewer resources are required for storage management, which will keep costs down in the future.

“Nimble Storage has been very responsive to our needs both during implementation and once the arrays had entered production,” says Harrison. “I am confident we now have storage in place that will continue to meet our requirements.”

NIMBLE STORAGE
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