

“With the ability to virtualize a number of key production applications, we have lowered our physical server count from 104 to 78, saving data center and maintenance costs. At the same time, we have increased our virtual server count to almost 400. This would not have been possible without the Hitachi infrastructure.”

*David Ruwoldt
Senior Infrastructure Architect
Catholic Education South Australia*



Catholic Education South Australia Delivers Quality Education With Advanced Hitachi Virtualization and Improved Service Delivery

Challenge: Enable better service delivery with virtualized server and storage infrastructure for the new data center.

Solution: The Hitachi unified infrastructure solution seamlessly migrated data and applications within a short timeframe.

Outcome: The new platform meets demands for greater systems performance and availability at lower operational cost.

The Challenge

Catholic Education South Australia (CESA) is a major private education provider within the Australian education system. In South Australia alone there are 103 schools, comprising approximately 7,000 staff and 48,000 students.

In line with CESA's commitment to deliver world-class education, the organization is investing heavily in digital learning and collaboration tools in the classroom.

At the same time, CESA has been moving toward offering more centralized applications and services, with a focus on high availability and performance. The goal is to provide schools with better and faster access to student and learning programs while trying to reduce the cost of IT per student.

For Senior Infrastructure Architect at CESA, David Ruwoldt, virtualization was the key to improving service levels delivered to schools over the network, while still maintaining strict control over the costs. However, its aging Hewlett-Packard storage platform, which had been in commission for five years, couldn't cope with the virtual workloads.

The latency of the legacy storage meant visible delays in the service delivery of core education systems. "Latency greater than 100 milliseconds was resulting in noticeable jitter in the services delivered to end users, including the central student information system," said Ruwoldt.

The move to a virtualized environment was not the only challenge CESA was facing. Its hosting agreement was



Catholic Education South Australia (CESA)

INDUSTRY
Education

SOLUTION
Virtualization

HARDWARE
Hitachi Unified Storage

SOFTWARE
Hitachi Dynamic Provisioning
Hitachi Tiered Storage Manager

SERVICES
Provided by Hitachi Data Systems Global Services Solutions

Outcomes

- Successful data center migration.
- 70% virtualized environment delivers cloud-like experience.
- Reliable infrastructure: minimal latency, 24/7 service.
- Support for ongoing move to virtualization, delivery of more services and business growth.

coming to an end, making it necessary to migrate its data center. Executives were particularly concerned with the storage component of the migration, and business continuity was very much the priority.

Finally, the infrastructure refresh also represented an opportunity to further improve reporting capabilities, vital for securing government funding.

The Solution

CESA selected Hitachi Unified Storage with Hitachi Dynamic Provisioning to support its data center migration and the delivery of new and better services to staff and students in a multivendor supported storage virtualization environment. Together with Hitachi Tiered Storage Manager, part of the Hitachi Command Suite Mobility software, the solution consolidates existing storage and data in a single, virtualized platform.

Its virtualization capabilities allowed CESA to seamlessly move server data between the old and new data centers as well as the simultaneous migration of the old storage system. Migrations were completed within minutes, as applications restarted in the new data center after final synchronization of data. It also enabled remediation, if the migration failed for any reason, with the ability to shift the application back to the old data center.

The Hitachi Data Systems Global Services Solutions (GSS) team helped to deliver an incident-free migration of 400 servers and 60TB of data in only two weeks over the Christmas period.

"The Hitachi Data Systems GSS team went the extra mile to ensure a successful data center migration, to give staff access to records and information prior to students returning," explained Ruwoldt.



"The built-in automated data tiering capabilities of the Hitachi infrastructure delivered superior performance and the scalability to meet current and future data growth challenges," he said. "We can now scale up to 4.5PB without having to add new storage."

The Outcome

Ruwoldt has observed significant improvements in performance. "Latency times have reduced substantially with typical latency times of just 4-5ms. The user experience has vastly improved and staff can be more productive."

Users have also benefited from increased uptime of its core education systems. "The solution is extremely reliable, we haven't experienced any downtime."

Moreover, storage costs are lower in this dynamically provisioned storage environment designed for virtualization. Only actual data is stored on disk, and there are reductions in maintaining and consolidating data management.

Already, 70% of the CESA environment (both server and storage) is virtualized.

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The ongoing process of virtualization aligns with the organization's plans to offer a "cloud-like experience" for its core education system.

"Staff can have immediate access to key data anytime, anywhere on any device. Additionally, individual schools will see considerable savings, as they won't have to invest in their own infrastructure," said Ruwoldt. "The Hitachi solution delivers the foundation as we move towards new service delivery models."

He added: "Having overcome fragmentation and information siloes, we can now look into to gaining more value from this data. It allows us to even more effectively demonstrate results back to government in exchange for funding."

About HDS

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