Hitachi Virtual Storage Platform Accelerates Move to Cloud With Flash for Accident Compensation Corporation

**Challenge:** Improve visibility, control and performance at infrastructure level as organization prepares to move to cloud.

**Solution:** Single infrastructure platform that consolidates storage across two data centers and introduces dynamic tiering.

**Outcome:** Applications run faster on flash and can port more easily to cloud from the all-virtual storage environment.

The Challenge
The Accident Compensation Corporation (ACC) provides comprehensive, no-fault personal injury coverage for all New Zealand residents and visitors. The government body is a highly transactional organization that sought a next-generation, storage environment with flash to boost application performance. This plan included specific requirements for the new Citrix hosted desktop environment for Microsoft® Windows® 7, which needed to support up 80% of the organization’s 4,200+ strong workforce logging on simultaneously.

“We heard stories of thin client applications creating a log-on storm in the morning. To avoid this scenario and ensure a smooth user experience, we calculated that the virtual desktop infrastructure (VDI) requires up to 56,000 IOPS,” said Matthew Rounthwaite, ICT security and risk manager at ACC.

At the same time, the New Zealand government’s “cloud-first” approach stipulates strict data governance and privacy requirements. To address these requirements, the ACC is currently working with a hybrid cloud model to improve visibility and cost control at the critical infrastructure level. Advanced storage and server virtualization will help the organization to port systems more easily to the cloud in future.

“We wanted an end-to-end view of the performance of core applications with the ability to drill down all the way into the database layer. Any lag has an immediate impact on SLAs [service level agreements], for instance how long it takes to lodge a claim,” explains Dwayne Carnachan, ICT asset manager at ACC.

INDUSTRY
Government

SOLUTIONS
Enterprise, Flash, Virtualization

HARDWARE
Hitachi Virtual Storage Platform, Hitachi Accelerated Flash

SOFTWARE
Hitachi Dynamic Tiering

SERVICES
Hitachi Data Systems Global Services Solutions

Outcomes
- 95% virtualized storage environment with three storage tiers.
- Critical applications run faster on flash with up to 56,000 IOPS.
- Sub-millisecond response time for more than 3,000 concurrent users.
The Solution

Following a rigorous comparison of market options, the ACC upgraded to Hitachi Virtual Storage Platform (VSP) with Hitachi Accelerated Flash (HAF) storage. The implementation allowed the organization to consolidate its storage environment in a single platform across its two data center sites in Auckland and Wellington. This included 16 flash module drives (FMD) to support the demand for concurrent, large I/O enterprise workloads as exemplified in the VDI project. Together with Hitachi Dynamic Tiering, the new infrastructure allowed the ACC to move from one to three storage tiers with full visibility and control over capacity allocation.

The migration, in spite of its complexity, was completed in less than six months.

“The project touched every single application. It was one of the most complex, multivendor projects we had gone through. The migration encompassed the migration of Oracle Financials, PeopleSoft, our own core applications for claim processing and other legacy applications for the insurance business, as well as our data warehouses,” said Don Montgomery, technology architect at ACC. “We see this as an internal best practice for a successful project implementation.”

Carnachan explained, “Working with the HDS team in Wellington made a huge difference. In addition, it gives us peace of mind that Hitachi Data Systems Global Services Solutions (GSS) monitors the system remotely. They provide regular health checks and an escalation path.”

The Outcome

Hitachi Virtual Storage Platform provides 1.2PB of high-performance storage for the organization’s extensive application portfolio. The user experience on the virtual desktop has improved dramatically with Hitachi Accelerated Flash, delivering response times of less than 1 millisecond.

“Hitachi Accelerated Flash gave us what we needed and more for the VDI. We now have enough IOPS as well as SAN to cater for multiple log-ons from different form factors, supporting between 2,000 and 3,000 concurrent users,” said Rounthwaite. “Other applications such as the claim and file system as well as databases have also benefitted from the move to flash in a tiered storage environment.”

With the latest upgrade, the ACC also reached a significant milestone for storage virtualization, with levels up from 60% to 95%.

“The Hitachi solution gave us the visibility and control to further advance our virtualization strategy and we now have 95% of our infrastructure virtualized as well as 80% to 90% of our server environment,” said Carnachan.

Most recently, the ACC also purchased Hitachi NAS Platform (HNAS) and Hitachi Content Platform (HCP) to consolidate unstructured data and gradually replace tape backup with archiving.

“This is another significant step toward our cloud-first mandate while meeting data retention and security requirements. We’re planning to use Hitachi Content Platform as an on-ramp to low-cost cloud storage, to reduce tape and backup licensing costs,” said Carnachan.

About HDS

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