“We needed a mechanism that allowed us to be more efficient when provisioning storage and consolidate our existing storage assets. We now have a storage environment that is over 50% virtualised, and with the vast scalability provided by the Virtual Storage Platform we can quickly meet project requirements, no matter how big or small.”

Colin Rutherford
Senior Network Engineer (Infrastructure)
HBF

**HBF**

**INDUSTRY**
Insurance

**SOLUTIONS**
Enterprise Platform, Virtualisation
- **Hardware** — Hitachi Virtual Storage Platform
- **Software** — Hitachi Command Suite, Hitachi Dynamic Tiering
- **Services** — Provided by Hitachi TrueNorth™ Partner UXC Connect

Solution delivered in partnership with:
HBF Embraces Virtualised Storage Infrastructure with Hitachi Virtual Storage Platform

HBF is the largest private health insurer in Western Australia and has been supporting the health and well-being of Western Australians for nearly 70 years. With a network spread across 19 service centres and its head office, HBF was planning to introduce a virtual desktop infrastructure and needed a way to efficiently manage and store this data. Hitachi Data Systems was selected to meet this requirement with Hitachi Virtual Storage Platform.

Background
Established in 1941, HBF (http://www.hbf.com.au) is Western Australia’s leading health insurer, providing health coverage for 900,000 members across the region. HBF also sells general insurance products, including travel, car, life, and home and contents insurance and prides itself on providing the best personal experience possible for members. It is a strong supporter of community initiatives, such as the HBF Run for a Reason and the HBF Rottnest Channel Swim. In 2010 and 2011, HBF paid out AUS$928 million in health benefits, equating to over AUS$2.5 million every day.

HBF has around 650 staff spread across 19 service centres and its central office in Perth. These users all require access to the data and internal business applications located at the head office. With an enterprise storage platform that was beginning to sprawl and components of that platform nearing end of life, HBF was looking to modernise its storage infrastructure and bring greater flexibility in the way it stores and manages its data.

“Our existing storage network was starting to become fragmented and difficult to manage with aging storage practices. We were ultimately limiting any future scalability,” says Colin Rutherford, senior network engineer, HBF. “We have multiple management points for storage infrastructure, so were looking to introduce storage virtualisation to underpin all new and existing storage resources. This would allow for easier data migrations off aging hardware and consolidation of storage resources for improved utilisation, performance and a revamped storage architecture all in the one package,” he explains.

“In addition, with a looming virtual desktop infrastructure (VDI) project that involved more than 650 desktops being brought into the data centre, we needed a platform that would deliver a seamless user experience when transitioning from physical to virtual desktops. Performance tiering and dynamic pooling efficiencies were also key to meeting the highly volatile and performance-critical VDI workload without costing the earth,” Rutherford adds.

The Solution: A Virtualised Storage Infrastructure
HBF engaged independent information and communication technologies (ICT) provider UXC Connect to identify the most suitable solution to meet its storage requirements. Following an assessment of the key technologies in this space, HBF decided on Hitachi Virtual Storage Platform (VSP), with UXC Connect providing support with the configuration, builds, quoting and ordering of the products.

Enabling virtualisation of external SAN storage from Hitachi and other vendors into one pool, Hitachi VSP is the only 3D scaling storage platform designed for all data types and the only enterprise storage architecture that flexibly adapts for performance and capacity.

Combined with Hitachi Command Suite management software, the VSP gives...
optimal infrastructure growth in all dimensions and supports automated storage tiering, known as Hitachi Dynamic Tiering, to automate the movement of data between tiers for higher performance and lower cost.

Sitting above 3 existing Hitachi storage systems (Hitachi Adaptable Modular Storage 500 and 2500, as well as Hitachi Network Storage Controller 55), the VSP enables HBF to view all of its data as one entity. This means data can be easily moved, allocated and provisioned across environments. The VSP now hosts HBF’s core internal applications, including VMware View for its 650 virtual desktops, Microsoft SQL Databases, MRM (Siebel/ Tibco/UDB) and Microsoft collaboration tools Lync and SharePoint.

“Hitachi has proven its success in delivering high performance and reliability in the last 10 years that we have been using its storage systems,” says Rutherford. “Its technology concepts are easy to digest, with benefits immediately recognisable, and it integrates seamlessly into our existing infrastructure environment.

“We needed a mechanism that allowed us to be more efficient when provisioning storage and consolidating our existing storage assets. We now have a storage environment that is over 50% virtualised, and with the vast scalability provided by the VSP we can quickly meet project requirements, no matter how big or small,” he explains.

“Furthermore, with storage lead times often delaying projects, we now have a mechanism to help alleviate the impact. This is achieved through dynamic provisioning and zero page reclaim to see the actual storage being used and implementing temporary overprovisioning,” says Rutherford.

The Result: Improved Disk Utilisation and Lower Costs

Since deploying Hitachi VSP, HBF has been able to seamlessly introduce its VDI project, progressively deploying a new fleet of HP thin client PCs to its 650 users across all offices. The organisation has also been able to lower its information technology services disk costs by taking advantage of storage pooling and tiering.

“When introducing a technological change that affects so many end users, the user experience factor is absolutely crucial,” notes Rutherford. “The leading storage performance provided by the VSP has been an integral part of this successful deployment, giving us an extremely flexible and scalable virtual storage infrastructure.”

“To serve our performance requirements we are able to use our existing disk assets and dynamically tier across them. Rather than having all our data sit on Tier 1 disk on a single storage system, we can now tier this data via pools and automatically place the most frequently accessed data on the more efficient, faster disk, while the least accessible data is moved to the less expensive, slower disk.

“During periods of high performance demand, we can dynamically move our data up to a higher tier to get the best performance. This functionality was a key reason for us choosing the Hitachi solution, as it allows us to use far less physical disks,” recalls Rutherford.

HBF has also been experiencing faster response times following the deployment, which has resonated well with its end users.

“Our core VDI deployment is currently experiencing 3-4 millisecond response time when accessing ‘writable disks’, and the replicas are peaking at 1 millisecond per 650 desktop read requests. Users have really embraced the technology as the performance has been better than that provided by the previous physical desktops.”

Rutherford adds: “While providing us with a better user experience, it allows us to react quicker to growth demands and provision storage more effectively.”

An added benefit is that HBF has the flexibility to decommission old storage systems and move data between storage systems without any outages or impact to performance, ensuring business continuity at all times.

A Look Forward

HBF is looking to further consolidate its SAN storage platform in line with growing its virtual-to-physical server ratio. Having tight storage integration to support this will be crucial, as more reliance is placed on virtual infrastructure as opposed to physical infrastructure.

HBF will also be looking to take advantage of cloud storage offerings where possible, particularly with its development and testing environments. Additionally, the company is looking to the cloud for data replication and disaster recovery capabilities.
"Over the coming months the VSP will allow us to further consolidate our storage platform, leading to a reduction in cooling and power costs and freeing up valuable rack space in our data centre," says Rutherford. "The VSP uses energy-efficient technology such as 2.5 inch drives, which consume up to 40% less power than 3.5 inch drives." According to Rutherford, over time, disk costs will slowly drop as more and more projects can take advantage of the pooling and tiering technology. Traditional spindle to performance relationships no longer exist.

"With its VMware integration, the VSP also allows for a move toward private or public cloud, with IT infrastructure being treated as a service to the business. HBF is a keen adopter of new technologies that can help improve business operations, so cloud for us is not a matter of ‘if’ but ‘when’ and the VSP is a step in the right direction," concludes Rutherford.