

CASE STUDY
SHODEN DATA SYSTEMS FOR UTI PHARMA



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INTRODUCTION



Addicted to healthcare

Since its launch in 1993, International Healthcare Distributors (IHD) grew to become the leading pharmaceutical distributor in South Africa, serving end-dispensers such as pharmacists, doctors, clinics, and hospitals, as well as wholesalers.

IHD developed and implemented a unique distribution model, that was supported by its information technology platform and employed sophisticated supply chain engineering and logistical practices to ensure the integrity of the sensitive products it handles, while lowering costs and enhancing profitability for pharmaceutical manufacturers.

In 2004 UTi Worldwide acquired IHD. The acquisition deepened UTi's global capabilities in the pharmaceutical distribution arena and further expanded UTi's contract logistics footprint.

UTi Worldwide develops specialised client-specific supply chain solutions including contract logistics, domestic ground transportation and transportation management. UTi Pharma (the new company name for IHD) makes sure people everywhere have the medicine and healthcare products they need to keep them well.

UTi Pharma is the specialised logistics arm of UTi and with its systems, technology, a global and local web of pharmacy-grade warehouse facilities, fleet of vehicles, and passionate people, it makes sure that patients always get the original quality medicine they need, when and where they need it.

UTi Pharma has developed its business hand-in-hand with many of today's leading pharmaceutical companies, providing them and millions of patients with reliable, value-for-money access to healthcare products. The company stocks over 2,000 product lines.

Each of the five UTi Pharma distribution centres, located in Johannesburg, Cape Town, Port Elizabeth, Durban and Bloemfontein, features climate-controlled, state-of-the-art, leased warehousing facilities to assure proper storage and handling of client inventory.

The company provides a next working day delivery to customers in metropolitan areas surrounding its distribution centres and within two working days to outlying areas.

With the dramatic growth that UTi Pharma experienced in South Africa following the acquisition of IHD, the organisation had the need to improve its internal IT systems, particularly with regard to data storage.

Owing to changes in legislation, an increasing need for archival storage, and in order to improve the overall performance of the organisation's enterprise resource planning (ERP) systems, UTi Pharma contracted the services of Shoden Data Services in 2008 to assess its current systems and implement a future-proofed storage solution.

Shoden Data Systems prides itself on providing innovative, data centre-class solutions to many of Southern Africa's leading organisations.

With its mission to deliver The Data Centre Advantage by understanding its customers' challenges, Shoden is at the forefront of storage technology in South Africa and implements optimised solutions that not only save money but deliver real business value, coupled with excellent support.

Through strategic partnerships, Shoden provides complete, reliable, scalable, flexible and integrated data centre solutions, using technologies that are widely acknowledged to be of the best in the world.

When the initial engagement with UTi Pharma took place, UTi was running legacy storage technology based on simple modular disk systems supplied by Sun Microsystems.

Although the existing technology had sufficed in terms of their historical business requirements, changes in the industry and the business had resulted in additional pressure being placed on an already aged technology infrastructure.

The engagement with UTi Pharma led to the organisation purchasing the Hitachi Data Systems Universal Storage Platform VM (USP-VM) based on the reliability, availability and scalability that this enterprise storage technology offers.

The Hitachi USP-VM blends enterprise-class functionality with a smaller footprint to meet the business needs of entry-level enterprises and fast-growing mid-sized organisations, while supporting distributed or departmental applications in large enterprises.

Medium-sized organisations can enjoy the same benefits as large enterprises in deploying and managing their storage infrastructure in a way never possible before.

The USP-VM solution delivers a proven and innovative enterprise-based cache centric architecture that allows for controller-based virtualisation, logical partitioning, synchronous and asynchronous journal-based replication and many other features for open systems and mainframe environments in a rack-mounted storage services platform.

The industry's highest reliability and availability storage solution is backed by a set of storage and data services that include thin provisioning with Hitachi Dynamic Provisioning software, application centric storage management through Tiered Storage Management and logical storage partitioning, as well as simplified, unified data replication across heterogeneous storage systems.

Combined with the feature-rich capabilities, UTi Pharma believed that this technology would significantly outperform the existing infrastructure while providing an enterprise storage platform that would be flexible to meet UTi's changing business requirements.

THE CHALLENGE

After having the core storage technology in place for over a year, the dynamic nature of the pharmaceutical industry resulted in a new requirement for UTi Pharma to enhance its storage technology so as to align with the business's organic growth and new projects.

The initial investment made into the USP-VM technology by UTi Pharma was for its mission-critical Solaris applications. At the time, the Microsoft Windows environment was deemed to be less critical to the business and therefore the existing infrastructure on which it resided would suffice.

However, as with many organisations, the role of Microsoft-based applications within the organisation became more critical and in order to attempt to manage the growth of the Microsoft environment, UTi Pharma invested in server virtualisation technology from VMWare, which would help them realise higher efficiencies in server resource utilisation and simplified management of the server landscape, ultimately resulting in cost savings and reduced total cost of ownership (TCO).

Although server virtualisation would offer greater efficiencies through consolidation and higher utilisation, UTi Pharma required that its Microsoft and VMware platforms operate on the relevant storage tier which would allow for growth and sufficient performance without impacting on the mission-critical Solaris environment.

UTi Pharma's initial thought was to increase the amount of storage in its data centre, and allocate additional storage to both its Windows and Solaris environments, which could be filled in years to come.

Although UTi had a global relationship with an alternate vendor and had instructed UTi Pharma to continue this relationship in South Africa, the Shoden solution had proven price and performance superiority over what competitors had to offer.

Local management was convinced that Shoden would be a better partner, and persuaded the parent company to support its decision to engage in a partnership with Shoden.

Shoden was subsequently approached and briefed to assist with a storage solution that would complement the benefits offered by VMware, through a cost-effective, dynamic tiered storage solution.

Another challenge that UTi Pharma was facing was the complexities associated with allocating storage whilst ensuring that this allocation did not impact on any of the critical systems.

The business was not always aware of the capacity requirements, and the storage administrators would over-allocate to ensure that there was sufficient capacity for growth within the application.

Shoden conducted a meticulous interview and assessment process, which revealed that there was a huge potential to reclaim valuable capacity by moving away from the traditional method of allocating storage and adopting a new methodology of utilising the storage that was already in place together with a tiered approach to data storage.

STORAGE ECONOMICS

As part of the assessment process, Shoden made extensive use of Hitachi's Storage Economics methodology, which aims to re-define the way organisations measure the cost of storage.

At Hitachi Data Systems, Storage Economics is a suite of methodologies, tools, services and sales tactics that help customers identify the total cost of storage ownership and provide strategies to help customers reduce ongoing costs relating to data storage.

Physical disk price is only 25% of the total cost of owning the disk over a three to four year period, so Hitachi Data Systems employs Storage Economics to identify and characterise the remaining 75% of the TCO, and to present how new storage architectures can be instrumental in improving storage costs with excellent return on investment (ROI).

Storage Economics enables Hitachi Data Systems to expand beyond the Rand per megabyte (R/MB) discussion and help customers reduce long-term storage ownership costs and risk.

BEYOND R/MB

The R/MB metric is a popular sales technique used to compare vendors or track the downward trend of storage purchase price; however, it is ineffective in terms of illustrating long-term ownership cost differences.

One reason the R/MB technique is popular is because it does not require much information or analysis. Hitachi Data Systems can help customers realise that there are many costs involved with owning and operating the storage portion of their data centre.

For example, one vendor solution may enter with the best R/MB but might be very expensive to own, which is why R/MB should not be the only economic metric used to evaluate storage solutions. It is Shoden's job to help customers look beyond price and scrutinise all the costs involved with their storage solution.

Most customers around the world are concerned with operating expense (OPEX) cost reduction. These costs are those experienced after the sale and can include electricity, floor space, labour for management, risk of downtime, and hardware and software maintenance licenses, etc. Hitachi Data Systems has characterised 33 different types of storage operating costs.

ASSESSING THE NEEDS

It became evident that, although UTi Pharma was aware of which applications required additional or less storage performance, the organisation did not have the ability to easily change its configurations without having to resort to traditional storage practises where capacity was assigned on the basis of connectivity between the host application and also available storage capacity.

By working with customers to determine which of the 33 types of cost reductions they are interested in (every customer has OPEX reduction interests), Shoden can then lead discussions around storage consolidation, tiered storage, disaster protection, backup improvements and management automation, etc.

These initiatives or investments can be mapped directly to the types of costs that will create the total OPEX reduction.

While some solutions may not represent the lowest price to purchase, strategic architectures can be shown to provide the best cost over time, in that the cost of growth, cost of management, cost of outages, etc., can yield the lowest TCO. Using Storage Economics principles to distinguish price and cost is essential.

Although the proposal price is important when investigating technology offerings, IT planners and procurement groups need to understand the proposal value in terms of a reduced operational cost. By demonstrating a lower cost of ownership of its solutions, Shoden believes that the purchase price will become less of a deciding factor.

THE SOLUTION

Shoden, together with UTi Pharma's technical staff, implemented a three-tier storage solution, whereby UTi's data can be stored on different performance and cost tiers dependant on the business's requirements.

Additionally, the Hitachi Tuning Manager (HTM) software was implemented, which gave UTi Pharma total visibility from end-to-end of the performance, capacity and availability of each application, and will assist with any future storage, switching or server purchasing decisions.

Not only did UTi Pharma now have three tiers of storage, but also the ability to seamlessly migrate data between these tiers with no impact to any of the business applications.

This provided the business not only with the most cost-effective storage solution, but also removed the previous headaches that the storage administrators faced in that they had to "over cater" for performance and capacity in the event of an application requiring additional performance, either through business growth or other industry changes.

BENEFITS

Allocating storage without having any knowledge of the growth requirements is no longer a challenge for UTi Pharma. With the implementation of Hitachi's Thin Provisioning, UTi Pharma's storage administrators are now able to allocate only their immediate requirements, and the software will allow the storage allocation to grow as required.

All of the data that needed to be moved from their tier 1, 2 or 3 solution was undertaken using Hitachi Tiered Storage Manager (HTSM). This greatly assisted with their data move.

Through Dynamic Provisioning, **UTi Pharma now achieves improved storage utilisation rates**, whilst reclaiming as much as 30% of its previously-allocated "fat" provisioned storage.

The performance is now automatically balanced across all of the existing storage and disk drives, as well as any newly-allocated capacity, thereby removing the previous concerns and effort required to achieve the best performance.

Although UTi Pharma is an early adopter of the technology within South Africa, the Hitachi software solutions that were implemented are tried and tested with many well established customers worldwide.

CONCLUSION

So, what started as a request for additional storage capacity resulted in the creation of a mature storage strategy for UTi Pharma that leveraged off the capabilities of their initial Hitachi purchase and provided for further storage growth and financial efficiencies.

In the words of Gary du Bois, Technology Architect at UTi Pharma: "Admittedly, the resultant capital expenditure of the revamp was much higher than the initial simple expansion of storage resources, but the value proposition that Shoden was able to provide, in terms of reducing overall running costs over the coming years, far outweighed this challenge."

"The efficiency benefits, coupled with predictable running costs provided by Hitachi's Storage Economics and the new flexibility to grow the organisation's systems with minimal downtime, have met and exceeded the expectations of UTi Pharma," he concludes.



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