

Agility, High Performance and Big Savings



"The financial and operational benefits just keep on coming, and so far we have not seen any downside. The performance of the architecture is incredible and every time we identify something new that we want to do, OCSL comes back with a good solid solution."

Bill Remmer, Assistant IT Director, UHL



University Hospitals of Leicester 
NHS Trust

2008
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Solid benefits in several areas as UHL rolls out storage and server virtualisation solution from OCSL

With the introduction of new applications such as Picture Archiving and Communications Systems (PACS), hospitals are experiencing an explosion in the volumes of data they must handle and store. The University Hospitals of Leicester NHS Trust (UHL), for example, has recently expanded its use of PACS from one to three hospitals, resulting in a fivefold increase in data volumes. In conjunction with other developments such as rapidly growing data warehouse whose usage is doubling every six months, this expansion led UHL to implement a new strategy for data storage.

UHL is one of the UK's largest NHS trusts. It provides services to two million inhabitants of Leicestershire and Rutland through three hospitals: Glenfield Hospital, Leicester General Hospital and Leicester Royal Infirmary. As well as maintaining a high-specification Storage Area Network (SAN), it has a substantial server estate that until recently consisted of 270 servers. But here again, UHL is making a new start.

“Our EMC storage architecture had become increasingly expensive to maintain over the years, and it was also extremely complicated,” explains Bill Remmer, Assistant IT Director at UHL. ***“As this architecture neared the limits of its capacity, we began to look for a more cost-effective alternative that would meet our needs over the next five years.”***

On the server side, a review of performance utilisation revealed that 90 per cent of UHL's central servers were using no more than 10 per cent of their capability, even at peak times, while most of their storage capacity was unused. With the warranty period for many of these machines coming to an end, UHL decided to tackle servers and storage together.

Refreshing approach

UHL carried out a major procurement exercise, aimed at identifying a supplier capable of delivering a scalable, resilient, high-performance storage solution. The supplier was also asked to design and implement a server virtualisation solution that would eliminate the inefficiencies associated with UHL's current server architecture.

Despite stiff competition from EMC, IBM and HDS, the contract was awarded to OCSL, whose proposed solution was based on HP technology and VMware. According to Remmer, the OCSL solution was clearly the most cost-effective and it also offered a multitude of other benefits. In addition, OCSL demonstrated a willingness to invest time in understanding the customer's needs.

“We deal with many suppliers but very few of them are prepared to listen carefully and discover exactly what we want,” says Remmer. ***“On this occasion, OCSL's people spent much more time with us than anyone else did. We found it very refreshing.”***

OCSL implemented a replicated SAN based around two HP StorageWorks Enterprise Virtual Array (EVA) 8000 systems, with 30TB of storage capacity, since increased to 70TB. Business continuity was ensured through the use of HP StorageWorks Continuous Access and HP StorageWorks Business Copy. There is also a backup solution based on an HP StorageWorks EML Tape Library and HP Data Protector. To build a consolidated management platform, OCSL took advantage of the HP Storage Essentials software suite.

It was decided that 80 per cent of UHL's server stock would be virtualised and linked to the SAN. This is being achieved using HP's blade server technology in conjunction with VMware. Over a five-year period, 15 HP BladeSystem servers will be introduced, providing a total of 105 virtual servers. To date, one-third of the existing servers have been virtualised.

Commissioning new servers in hours

Perhaps the most obvious benefit of the OCSL solution is the money it saves. UHL predicts substantial savings compared with the alternative approach of expanding the existing distributed architecture. The savings arise in many ways, including reductions in support requirements and in heat and power consumption.

"We are going to end up with four times more storage than we had, but thanks to HP and OCSL, it will be both cheaper and easier to manage," says Remmer.

New applications are also less costly to deploy and they can be rolled out much more quickly than before. Thus a new server can be commissioned in less than half an hour where it once took two days, and the associated cost has been cut by more than 66 per cent.

"One of our latest projects required a dozen servers to be made available as quickly as possible due to a last-minute change in the architecture. This would normally have taken two weeks, but this time we did it all within the space of a day," says Remmer.

According to Remmer, the new architecture also offers major performance advantages. For example, UHL is now running nine application servers on one physical blade server, with improved performance. Similarly, the four existing integration engines, running on four separate servers, have been replaced by ten integration engines running as virtual servers on two

machines. At the same time, the storage solution provides a platform for extending PACS to hospitals where it was not available before, with all the associated benefits. Even at the hospital that already had PACS installed, the increase in storage capacity means that images can now be stored online for 18 months rather than 6 months as before.

"The performance of our data warehouse was so bad that data from one day was never available until the following afternoon, so we couldn't book patient appointments at very short notice, for instance," explains Remmer. ***"If the data upload crashed, as it did about once a month, the delay became even longer. With server virtualisation and the new SAN, our data is always available before breakfast the next day."***

UHL is now planning a cost-effective deployment of PACS to several thousand users by pushing application packs to their PCs using Citrix. If a full implementation goes ahead, it will be possible to set up a Citrix server farm in two days using 30 server blades. In the past, 140 new servers would have been required and the deployment would have taken three months. This provides a vivid illustration of how UHL is now a much more agile organisation thanks to the OCSL solution.



Why partner with OCSL

OCSL is a leading Preferred Partner for Hewlett Packard and has just been announced as HP UK's Preferred Partner of the Year for our work with Corporate and Enterprise customers.

OCSL also works closely with software industry leaders including Microsoft, Symantec and VMware, to ensure we can always deliver the right solutions for our clients. We differentiate ourselves through our expertise in providing Technology Solutions to Business Issues. We supply to companies who care about their IT, who value their data and see it as critical to the business and who want a supplier with in-depth knowledge and resources who can prove ROI.

Accreditations

OCSL are a top HP Preferred Partner 2008 and have been awarded Fastest Growing Preferred Partner in Europe.

HP Accreditations:

HP StorageWorks Solutions Specialist
HP Data Centre Solutions Specialist
HP Computing Systems Specialist
HP High Performance Computing Specialist
Authorised Business Solution Partner (ABSP) - Service Specialist
HP Service Sales Specialist

Other Accreditations:

Microsoft Certified Partner
VMWare Enterprise VIP Partner and Gold VAC (Consulting Partner)
Symantec Gold Partner (Enterprise Vault Accredited)
Red Hat Advanced Partner (Linux)
Oracle Certified Partner

What to do next

From our Support Sales Team to our Technical Consultants, it is the quality of our people and the level of the accreditations they hold that makes us the company we are.

We'd welcome an opportunity to show how OCSL's Technology Solutions have helped our customers Increase Profitability, Reduce Risk, Improve Business Agility and Lower Costs. We'd welcome the opportunity to be benchmarked against your current suppliers because we know OCSL can offer you smarter alternatives.

Simply contact OCSL on 0845 605 2100, email info@ocsl.co.uk or visit the website at www.ocsl.co.uk

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