

Challenge

- Refresh existing technology to provide greater agility, scalability, resilience and availability

Solution

- HP BladeSystem c-Class chassis with Gig E switches and pass through modules
- HP StorageWorks 4000 Enterprise Virtual Array
- HP SAN Fabric: 32 switches with powerpack
- VMware Enterprise Edition and Virtual Centre software
- HP Data Protector Backup software
- HP MSL Tape Library
- HP CarePack for 24x7 support for 3 years
- Richardson Eyres Consulting Services to deploy and optimise

Results

- Reduction in hardware required
- Reduced power requirements
- Return of one computer room to the business
- Improved availability and resilience
- Easier system management
- Faster commissioning
- Increased development productivity
- Proactive response to potential problems
- Significant reduction in disaster recovery time

// Richardson Eyres provides solutions for data centre consolidation. It works with its customers to streamline IT infrastructures, freeing up time, resources and ultimately saving its customers' money.

It has partnerships with HP and VMware, and is one of a small number of HP Professional Services Partners (PSP) in the UK. It also provides solutions for companies globally, from their offices in the UK and the US.

Richardson Eyres develops long-term and mutually beneficial relationships working with its customers to ensure that it provides bespoke solutions to help their business run efficiently, effectively and above all, profitably.

With over 20 years experience as a data centre consultant, Richardson Eyres has extensive technical knowledge and the know-how to apply this knowledge to help organisations run their IT infrastructures more efficiently. Established in 1986, the company is privately owned and its headquarters is in Chesham, Buckinghamshire.
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//Virtualisation breaks barriers
for outside broadcaster

SIS is one of the most experienced television, production and outside broadcast companies in Europe. Launched in May 1987, the company was the first broadcaster in the world to create a dedicated, specialist sports channel for the UK betting industry and is a leading supplier of television programming and sports data to licensed betting offices in the UK and Ireland.

SIS also collates, manages and distributes millions of pieces of discrete data in real-time. This critical data enables bookmakers to take and settle bets. In addition, with proven content sourcing, presenting and production skills, SIS employs over 700 people across the UK and Ireland.

“Richardson Eyres showed a really innovative approach to designing a solution that met our specific needs. They were able to draw on their experiences with other customers, which was very helpful. In addition, they proved they have the ability to deliver what they promise, which is worth its weight in gold.”

Denzil Bonfield, Head of Service Delivery, SIS

Hitting a roadblock

As companies expand they often hit a roadblock, where the systems they have successfully used for many years can no longer accommodate the organisation’s growth. In 2006 SIS found themselves in just this situation. “The systems the company started with in the 1980s had a physical restriction of being able to manage a maximum of 24 race meetings a day and 14 events at each,” says Denzil Bonfield, Head of Service Delivery. “We were constantly hitting a barrier.”

In addition, competition in the market was increasing and new opportunities were appearing, such as virtual racing. “The business demands on our IT infrastructure were increasing exponentially,” continues Denzil. “In order to address the challenges, and be ready to take advantage of the new opportunities, we needed a radical re-design, to give us an agile, available, scalable, manageable platform.”

Possible cure

Denzil and his team began reviewing their options. At first they were considering a clustering solution, but a chance invite to a Richardson Eyres seminar uncovered another possibility.

“I’d been following virtualisation technology for some time”, explains Denzil. “I didn’t really go to the seminar with a problem in mind. I just wanted to get a feel for what the technology could do. But, by the time I had finished talking to Richardson Eyres, my eyes were opened to a possible cure for the problems we were experiencing.”

Comparative studies

To test the two options – virtualisation and clustering – SIS undertook two, month-long, comparative studies in a lab environment. Richardson Eyres were instrumental in helping SIS set up the virtualisation test.

“We had some concerns about whether virtualisation would meet our resilience and high availability requirements”, says Denzil. “But the result was unanimous. The tests proved that virtualisation exceeded the required service levels for resilience, while providing us with an infrastructure that would give us more agility. Clustering was a far more complex solution, requiring a higher level of technical expertise. In addition, we would have had to put in a significant amount of effort to make our applications cluster-aware.”

VMware solution

SIS had previously successfully used VMware Workstation for prototyping and general testing work, so it was a natural extension to look at VMware software for the virtualisation test. The product Richardson Eyres used was VMware Virtual Infrastructure 3. This transforms physical servers and their attached network and storage into a pool of virtual servers, which are fundamentally easier to recover, restart, copy, test, manage and deploy than physical machines.

In addition, VMware Virtual Infrastructure 3 provides added functionality and management capabilities to dynamically provision, load balance, fail over and back up critical application environments and manage them through a single console. By creating a unified pool of resources, VMware Virtual Infrastructure 3 enables companies to gain the benefits of cost savings and reduced project cycles, through consolidation, as well as providing the agility to meet new business requirements quickly and effectively.

Blade technology

The testing was undertaken on equipment SIS already had, so there was still the question of which hardware to use for the refresh. Denzil was thinking of using blade technology and talking with Richardson Eyres only strengthened his opinion. “At the time we had several different technologies”, he explains. “I wanted to move to a consistent, scalable, interchangeable infrastructure. Blade technology seemed the obvious choice.”

HP had just launched its HP BladeSystem c-Class with a number of innovative technologies for reducing power consumption and administration. Richardson Eyres arranged for Denzil to see the system in action at HP’s Central London office. “The HP BladeSystem c-Class seemed to tick all the boxes of what we were looking for”, says Denzil. “But the visit to HP gave us a really good opportunity to see what it looked like and assess its capabilities.

The presentation from HP was very useful, but what really sealed it for us were the in-built management tools, which made the servers easier to monitor and administer.”

Due diligence

With the solution specified, SIS asked for quotes from a number of people. “Price isn’t our only consideration when purchasing”, comments Denzil. “The service we receive is equally important. Richardson Eyres had been really helpful in assisting us to decide on the best solution for our needs and we were very happy with them. However, due diligence meant we needed to be sure we were paying market rates. As it turned out, Richardson Eyres prices were extremely competitive.”

Straightforward commissioning

Prior to installation SIS and Richardson Eyres developed detailed plans to make sure all the necessary pre-requisites were in place, such as access and power, before the equipment arrived. “The installation went very well”, says Denzil. “There were some minor hiccups with some switches, but Richardson Eyres pulled out all the stops and it took them just five days to install the Storage Area Network (SAN), the blade infrastructure and the virtual infrastructure on top of it.”

SIS carried out its own commissioning and testing, the latter being vitally important given the real-time nature of SIS’ business. “Everyone took to the new infrastructure well and the commissioning was very straightforward”, comments Denzil. “In a two week testing cycle we emulated real-world situations and simulated every eventuality we could think of that would cause a failure. At the end of that time we were ready to go live.”

Tangible benefits

As a result of the new infrastructure SIS is seeing a number of tangible benefits. “We’ve already reduced the amount of equipment we have”, explains Denzil. “That will give us a reduction in power consumption. In addition, because we now have a scalable infrastructure, we can eliminate reactive purchasing. Whereas a new project would have meant buying three servers, one each for development, operations and backup, now we can provision three servers from one.”

As virtualisation effectively allows more servers to be deployed in a smaller space, Denzil is also looking at closing one computer room, returning the real estate to the business and reducing power consumption further. The reduction in power consumption is a particularly significant benefit, as SIS were running out of power at their Central London location.

Future plans

Denzil is also enthusiastic about extending the benefits of virtualisation in the future. SIS currently has a second, disaster recovery site in Milton Keynes. “By deploying the same infrastructure at Milton Keynes we can replicate the systems and data at the two sites and run them collaboratively”, he says. “The advantage of that is that we can run the business from either site. As a result, disaster recovery will be smarter. Plus we can pull either of the sites down for maintenance with no impact on our customers. That’s important for a 24 x 7 operations like ours.”

“The combination of the HP Blades and SAN, VMware Virtual Infrastructure 3 and services provided by Richardson Eyres has given us an infrastructure that enables the business to extend its reach in a dynamic and increasingly competitive industry,” continues Denzil. “We can not only assure customers that critical systems are highly available, we also have the ability to rapidly deploy credible, long-term solutions in response to increasingly demanding requirements from the business.”

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