



KEY HIGHLIGHTS

INDUSTRY: RETAIL

**Littlewoods
Shop Direct Group**
The UK's biggest shop @ home group

CHALLENGE

Implement new data centre to support business operations after company merger; increase efficiency of servers and availability of applications across business following data centre migration

SOLUTION

Full virtual infrastructure based on VMware® Infrastructure 3 Enterprise Edition supports company operations; use of virtualisation expanded to cover branch office support as well

VMWARE AT WORK

- VMware Infrastructure 3 Enterprise, featuring:
 - VMware® ESX Server 3 with VMFS, VMware® VirtualCenter 2, VMware® VMotion™, VMware® Distributed Resource Scheduler (DRS), VMware® High Availability (HA)
- VMware® VirtualCenter Management Server
- VMware® Server at branch offices

DEPLOYMENT ENVIRONMENT

- ESX Server on 18 HP ProLiant DL580 servers with four CPUs and 32GB of RAM; servers split across two sites to provide business continuity and redundancy
- IBM DS8000 and EMC DMX-3 Fibre Channel SANs connected to both sets of ESX Server hosts
- Guest operating systems: Windows Server 2003, Red Hat Linux ES3 & AS4
- Applications: Applications including MS SQL Server, IBM WebSphere, MQ, Chordiant, Apache, Tomcat, Oracle Grid Management, HP-SIM and Witness WFM
- VMware Server on HP ProLiant ML370 server with two CPUs and 16 GB RAM
- Host and guest operating system: Windows Server 2003
- Applications: Domain Controller, File Server, RIS, RADIA, Print & Backup Server, IIS

“Using virtualisation is a critical part of our IT strategy, both now and for the future: where possible, we take a ‘virtual first’ approach to deploying applications. Our migration to a new data centre infrastructure using virtual machines means that we have been able to reduce the impact of downtime on the business, as well as dramatically reducing the amounts of power and space required to support operations. VMware Infrastructure 3 provides us with a resilient, flexible platform that is used to support our central systems and make our server assets run far more efficiently; we are also seeing the benefits of virtualisation at several of our remote sites by using VMware Server to consolidate our branch office IT systems.”

Martin Butcher, Manager, Infrastructure Design & Capacity Planning
Littlewoods Shop Direct Group

Littlewoods Shop Direct Group

Littlewoods Shop Direct Group is the UK's leading online and home shopping retailer, responsible for over £2 billion of sales annually. With over five million customers across the UK and Ireland, Littlewoods Shop Direct is behind brand-names such as Littlewoods, Additions Direct, Kays and Marshall Ward. The Group also runs Home Delivery Network Limited, the largest delivery service company of its kind in the UK.

Following the merger of Littlewoods and Shop Direct Group, the Group required a new IT infrastructure to support its continuing business activities. Martin Butcher, Manager, Infrastructure Design & Capacity Planning for Littlewoods Shop Direct Group, was responsible for managing the migration of existing systems over to the new site. The Group also had a large number of small, under-utilised physical servers that were rapidly approaching the end of their useful lives for the company, and that would need to be replaced as part of any changeover.

Littlewoods Shop Direct Group worked with VMware Authorized Consultants Five IT to design a complete virtual infrastructure that would replace the existing physical systems and minimise the impact of the move on day-to-day activities. Using VMware, the Group could convert existing physical machines to virtual servers and then migrate them over to the new data centre. This approach reduced the amount of downtime incurred considerably, while ensuring that the IT systems were more efficient. Following this project, Littlewoods has also used VMware Server at six of the company's branch offices to support staff and reduce the amount of physical hardware required at each location.

Results

- Achieved full redundancy of IT operations across two sites
- Increased CPU utilization rates to 80 percent
- Better use of SAN disk rather than over large local disk volumes
- Consolidated more than 80 application instances onto 18 physical hosts
- Used extra capacity provided by the VM Farm to host over 60 additional servers rather than having to acquire additional hardware and saving capital expenditure
- Completed data centre migration with minimal impact on company operations
- Local Windows Server environment at six remote site locations now running on VMware Server
- Branch office server consolidation of 5:1

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