



KEY HIGHLIGHTS

INDUSTRY: EDUCATION

**CHALLENGE**

Deal with space, power and cooling issues and simplify provisioning and management

SOLUTION

VMware Infrastructure 3 delivers 12:1 server consolidation and high availability of key applications

VMWARE AT WORK

- VMware® Infrastructure 3 Enterprise, featuring:
 - o VMware® ESX Server 3 with VMFS
 - o VMware® VirtualCenter 2
 - o VMware® Virtual SMP
 - o VMware® VMotion™
 - o VMware® Distributed Resource Scheduling (DRS)
 - o VMware® High Availability (HA)

DEPLOYMENT ENVIRONMENT

- ESX Server on 12 Single-core, Quad-CPU HP DL 585
- 2 x NetApp FAS 3020C SAN
- Windows 2000 Server, Windows 2003 Standard and Enterprise, Windows NT 4.0, Windows and SUSE Linux Enterprise Server
- Applications: Active Directory, Payroll Systems, Citrix PS4.5 Farm, Identity Manager, Microsoft ISA Array, Novell Netware Clusters 6.5, Novell Zen Works
- Virtual appliances – Sugar CRM, Leostream Desktop Connection Broker

“VMware has provided us with a really flexible and robust infrastructure. We can now deploy new applications in minutes rather than days and routine management is so much simpler. Virtualisation has freed up so much of our time that we have been able to start working on new initiatives that we would never previously have been able to consider.”

Jody Popplewell, Senior Network Administrator
Hull College

Hull College

Hull College is one of the largest colleges in the north of England with around 1,500 members of staff and around 35,000 student registrations each year.

With a rapidly expanding portfolio of over 250 applications Hull College was beginning to face serious problems caused by its growing server estate. Space, power and cooling issues were becoming major concerns and management of the overall infrastructure was becoming particularly difficult. Further expansion of the college's IT resources was not possible, so multiple applications were being run in the same server environment. This made maintenance work a massive headache for the IT team and greatly increased the effects of any server downtime.

“VMware Infrastructure 3 has proven to be the answer to our problems. Being able to treat our virtual infrastructure as a centrally-managed pool of resources has allowed us to be more efficient, flexible and streamlined in the way we deliver services to staff and students,” says Jody Popplewell, Senior Network Administrator at Hull College.

The college is now running 99% of its applications on VMware Infrastructure and takes a ‘virtual-first’ approach to deployment. Using VMware HA and VMware VMotion the college is able to ensure the availability of applications and eradicate downtime caused by maintenance work. Using a virtual backup appliance it takes live backups of running servers and replicates these to a secondary site for DR purposes. Hull College has also started to look at virtualizing its desktops environment and has downloaded a Virtual Appliance running Leostream's desktop connection broker software to help with this project.

Results

- Reduced downtime due to hardware failure and maintenance
- Achieved server consolidation ratio of 12:1
- Increased average CPU utilization rates per server from 10 percent to 80 percent
- Reduced power and cooling consumption by over 50 percent
- Reduced CO2 emissions by over 1,500 tonnes per year
- Reduced deployment time for new server to approximately 30 minutes