



## KEY HIGHLIGHTS

INDUSTRY: EDUCATION



*Sheffield  
Hallam University*

## CHALLENGE

Reduce data centre footprint and improve delivery of IT services

## SOLUTION

VMware® Infrastructure 3 delivers substantial reductions in power and cooling requirements; over half the University's servers are now virtual machines

## VMWARE AT WORK

VMware Infrastructure 3 Enterprise, featuring:

- VMware® ESX Server 3
- VMware® VirtualCenter 2
- VMware® VMotion™

## DEPLOYMENT ENVIRONMENT

- Two HP DL580s, each with 4 CPUs and 18GB RAM
- Four HP DL585s, each with 4 CPUs and 32 GB RAM
- EMC CX700 SAN
- Guest operating systems: Microsoft® Windows® 2000, Windows 2003, Netware 6.5, Suse Linux, iChain
- Applications running in VMware include Microsoft Terminal Server, Apache Server, Novell Networks, Altiris, Novell Clusters, specialist academic applications

*"With the server farm growing towards capacity, we knew a completely new strategy was required. We decided that moving to a virtual infrastructure would be the most effective way to tackle cost management and space issues. Using VMware, we have made a huge impact on our power bills as well as leading to major savings in the deployment of new services to users."*

Dave Thornley

Service Support Manager, Sheffield Hallam University

## Sheffield Hallam University

Sheffield Hallam is one of the UK's most innovative and progressive universities with more than 28,000 students, over 5,000 staff and a turnover of around £150 million. The University has an ambitious growth strategy and counts multi-national companies, government agencies and local businesses as either partners or clients for its research.

The University required a number of new IT services to support its user community. This led to the number of servers within the data centre doubling within twelve months. The building's electricity grid could not supply enough power to reliably support the required number of servers within the main data centre, and physical space was also a major issue. Consequently, the University's IT team decided to use virtualisation to solve these problems.

By moving to VMware virtual infrastructure, Sheffield Hallam has made significant savings on power and cooling costs, as well as making servers within its data centre run more efficiently. The use of virtualisation has meant that the University is more flexible and responsive in the delivery of IT services, and virtual machine environments can be provisioned faster to users. Sheffield Hallam has also created a full business continuity and disaster recovery programme based on VMware.

## Results

- Overall cost savings of £350,000 to date
- 170 virtual machines created; over half of the entire server estate at the University is virtualized
- Power required to run 170 physical machines has been estimated at 686,000 kilowatt-hours (kWh) per year; the virtual infrastructure at Sheffield Hallam runs 170 virtual machines at only 60,500 kWh
- Annually, the university saves £43,000 on power bills alone
- The University saves 269 tons of CO2 emissions each year