

# The University of Huddersfield



## The University of Huddersfield Anticipates Complete Return on its £1 million EMC Implementation in 36 Months

EMC has changed the way the University of Huddersfield looks at information. Until recently, the University stored its data on 180 disparate, disconnected servers. The result was a massive drain on the University's resources, in terms of staff, time, and money. EMC changed all that. By unifying critical information in an Automated Networked Storage infrastructure, and having the flexibility to switch data to the most cost-effective storage device, the University is embracing EMC Information Lifecycle Management. The result? Information is now securely protected, infinitely easier to administer, and considerably cheaper to manage.

The University of Huddersfield is a dynamic and expanding institution in the North of England. It offers a comprehensive portfolio of academic courses to 18,400 students (2001/02) and 3,300 post-graduate students from all over the UK and more than 80 other countries. The University has strong links with industry, commerce and the arts and is among the UK's top five providers of 'sandwich courses' where students can take advantage of a paid work placement in industry or commerce. In a recent survey, 90 percent of students canvassed said that they would recommend the University and their course to others.

The University is a textbook example of the need for server consolidation. Until recently it relied on up to 180 separate, disconnected servers to operate its administrative and academic affairs. Almost every time a new technology implementation was needed, another server was purchased. And a significant amount of staff time was devoted to administering backups.

### **A cost-effective, scalable, and resilient storage infrastructure**

According to Alan Radley, Infrastructure Systems Development Manager, at the University, there was an urgent need to deploy a more cost-effective, scalable, and resilient storage infrastructure. "We had very little control over how students and academic staff stored

---

their data. Students moved between buildings on campus, taking course data with them on floppy disks. Academic staff had much the same problem—their data was stored on zip drives or any other backup device they chose. Our goal was to consolidate our server and storage environment into a single, unified entity. Besides saving a considerable amount in infrastructure management costs, resources, hardware and software, it would protect course and e-learning data, and provide the blueprint for a best-practice information architecture.”

The original server consolidation initiative concentrated on the development of a Storage Area Network (SAN) with a number of separate servers devoted to file and print. “When EMC and DELL became involved, our next-generation infrastructure really began to take shape,” says Radley. “EMC suggested that instead of having straightforward file and print servers to complement the SAN, we should consider a NAS head. All the other vendors we spoke to had only recommended file and print solutions.”



“Our students and staff will win through the deployment of a secure, efficient information storage environment. The University will win through the cost savings arising from the consolidation of Web servers, Apache servers, Oracle and SQL databases and other systems.”

—Alan Radley, Infrastructure Systems Development Manager

The final architecture format then began to evolve. The University set out a detailed requirements specification for its automated network storage architecture to five leading technology vendors. The primary goal of the infrastructure was to act as a secure data store for students. It also had to consolidate fragmented academic and administrative staff data, and provide a centralised backup system. Next, it needed to host a data warehouse running Oracle and SQL databases. And it needed to deliver low total cost of ownership, automated administration, and seamless scalability.

### EMC went the extra mile

“We shortlisted four vendors, and then further shortlisted this down to two vendors—one of which was EMC,” Radley continues. “EMC really went the extra mile, answering all the tough questions we put to them. We eventually chose them for a number of reasons. Firstly, the maturity of their NAS solution and the associated management software is unequalled. Whereas other vendors are only just launching NAS devices, EMC has scores of live deployments, and their products have been fully tested in real-world scenarios. Secondly, The EMC SAN and NAS solution offers unprecedented scalability. We needed to be certain that the solution would connect to any device and that capacity could be added easily and cost effectively at any point in the future. Thirdly, we were very impressed by EMC MirrorView. This allows the University to implement a two-way mirrored solution between our primary and secondary site. Finally, at the time, EMC was the only company to offer us the high capacity, more cost-effective ATA disk drives for our secondary site. None of their competitors could offer this.”

The University of Huddersfield is now implementing the framework for a state-of-the-art EMC Automated Networked Storage infrastructure. It comprises two EMC CX600 systems—one with 8 terabytes of Fibre Channel at the primary site, the other with 8 terabytes of ATA at its secondary site 600 metres away. The EMC Enterprise NAS solution provides a highly scalable file sharing gateway into the SANs at both locations utilising the high-end Celerra Clustered Network Server (CNS) at the primary location and the mid-tier NS600G NAS gateway at the secondary site. The EMC NAS solution will provide home directories and shared public folders for the entire University campus. The SAN fabric is supported by two ED12000B Directors with the full Brocade enterprise software suite. This is complemented by EMC software including EMC SnapView, EMC MirrorView, EMC Navisphere Manager, and

---

the NS600G tools EMC SnapSure, EMC Replicator and EMC Antivirus. Consolidated backup management is provided through CommVault solutions.

### Significant cost savings

The fiscal benefits are significant. With the system live, there will be cost savings in reduced management of the backup drives, reduced cost in managing two storage devices as opposed to managing a 180-strong server farm, and reduced administration. Overall, the University forecasts that it will receive a complete return on its £1 million program investment in 36 months. "It's a 'win-win' situation for the University," says Radley. "Our students and staff will win through the deployment of a secure, efficient information storage environment. The University will win through the cost savings arising from the consolidation of Web servers, Apache servers, Oracle and SQL databases and other systems."



"This flexibility has one key advantage: it enables us to move data to the most cost-effective storage device as its value changes. This endorsement of EMC Information Lifecycle Management will provide the appropriate levels of protection, replication, and recovery at the lowest possible cost."

—Alan Radley, Infrastructure Systems Development Manager

Looking ahead, how does Radley envisage the infrastructure developing? One plan is to conduct an inter-university disaster recovery plan and share systems with other campuses as a means of maximising the value of the investments. "It's the intuitive flexibility of the EMC Automated Networked Storage that makes it so valuable to the University," he concludes. "This flexibility has one key advantage: it enables us to move data to the most cost-effective storage device as its value changes. This endorsement of EMC Information Lifecycle Management will provide the appropriate levels of protection, replication, and recovery at the lowest possible cost."



**EMC Corporation**  
EMC House  
40-48 Pyrcroft Road  
Chertsey  
KT16 9SS  
UK  
Tel: 0870 608 7777

EMC<sup>2</sup>, EMC, CLARiiON, PowerPath, and Symmetrix are registered trademarks and AutoS, Automated Networked Storage, Automated Resource Manager, EMC Control Center, SAN Manager, Celerra, SRDF, StorageScope, TimeFinder, Volume Logix, and where information lives are trademarks of EMC Corporation. All other trademarks used herein are the property of their respective owners.

© 2004 EMC Corporation. All rights reserved.  
Produced in the UK.