

Case Study - Birkbeck College

21ST CENTURY DATA PROTECTION AT BIRKBECK COLLEGE

Key facts

The client:

Birkbeck College, University of London

The issue:

Need for disaster recovery and backup for critical data

The solution:

VBAK Plus from LMN and InTechnology

Benefits to teaching and scholarship:

Academic research and core MIS data protected in remote Data Centre

Benefits for students:

24 x7 access to files and rapid restores

Benefits for research:

Terabytes of capacity on demand for major projects

Overview

The distinguished contribution of Birkbeck College to 21st Century teaching and research is now protected by the powerful VBAK Plus solution, delivered via London Metropolitan Network by InTechnology.

A unique mission in higher education

Birkbeck College is a unique university for London, combining world-class research with excellence in part-time and full-time education by evening study. Located in Bloomsbury, the College is multi-disciplinary with courses in the Arts, Sciences and Social Sciences attracting 4,000 undergraduates, 3,500 postgraduates and 15,000 students in the Faculty of Continuing Education.

One of its principal aims is to provide part-time higher education courses which meet the changing educational, cultural, personal and career needs of adults, in particular those who live or work in the London region, enabling adult students from diverse social and educational backgrounds to participate fully.

The highest quality research training is offered in all subject areas and the College aims to make available the results of research, and the expertise acquired, through teaching, publication, partnerships with other organizations and the promotion of civic and public debate.

Corporate issues

With a location in Central London, the senior management team of Birkbeck College is committed to all appropriate risk management procedures to protect the Institution in case of any major security incident.

At the same time, a standard approach is required for the management of centrally held corporate and personal data in order to meet legal obligations on the College.

The Central Computing Services at Birkbeck College have a remit to support learning, teaching, research and administration activities in the institution.

Previously, data was locally backed up to tape on a variety of different servers within Central Computing Services and also on servers within some of the departments. Tapes were then removed offsite to a nearby secure location; these arrangements were not considered to be adequate, given the new regulatory and security (eg area incident) considerations.

A complex server and storage infrastructure

With a successful expansion programme attracting increasing numbers of students, Birkbeck College was experiencing rapid growth in data volumes to be secured and backed up.

An increasingly complicated server and storage infrastructure was evolving to meet the demands of a growing number of users and the need to meet requirements for performance, data accessibility and security.

Capacity issues were also causing concern around the backup tape library system, which lacked the necessary, on demand scalability.

Backup cycles were over-extending and technical support staff were required to spend increasing amounts of time checking backups and recovering data from tapes for the file restores.



The requirement

High availability and protection of critical data related to email management and the College web site were essential requirements. Furthermore, critical management information on, for example, student records, had traditionally been held in individual departments of the College but, in the interests of a secure and coordinated IT strategy and infrastructure, data was increasingly being centralised within the Central Computing Services.

As a result, Dr Jasbir Gill, Director of Central Computing Services at Birkbeck College, was able to consider an integrated, corporate approach to data backup.

"We were looking for simplified management of data backup and restores, with a high degree of reliability and security," said Dr Gill. "It was important to us that critical data would be securely backed up and stored remotely, so that it would be safe in case of any disaster."

"Scalability was also important – we wanted to be able to meet likely future increases in data volumes without having to re-engineer the solution."

Network services for the academic community in London

Dr Gill and his colleagues at Birkbeck College discussed their requirements with the London Metropolitan Network, which connects over 100 Higher and Further Education institutions in the London area to each other and to the UK Joint Academic Network for Education and Research (JANET).

"The London Metropolitan Network has been proved to be highly reliable – with availability of 99.98% in 2003–4," explained Dr Gill.

"It is ideally placed to provide managed network services to member institutions and was already providing online backup as a Managed Service to London Business School and other colleges of the University of London. LMN members had identified online backup and restore as a key requirement for the future and, after reviewing service providers, LMN had selected InTechnology as a partner for this service."

"We were confident that we could work with InTechnology because of their expertise in data storage, their experience of working within a partnership model and their wide variety of Public Sector clients."

The solution

Dr Gill and his colleagues at Birkbeck College decided to subscribe to the Managed Services for offsite online data backup and recovery delivered via London Metropolitan Network by InTechnology – the VBAK service and VBAK Plus service.

"We had been aware of this type of service but had always assumed it would be too expensive, compared to upgrading our tape or SAN solution," said Dr Gill. "We had also been concerned about more general issues on security and loss of control with an outsourcing solution – the traditional academic culture is to handle everything in-house."

"However, when LMN explained the benefits to us, we were convinced."

VBAK Plus

The VBAK Plus and VBAK solutions provide:

- Automated data backup service online
- Compatibility with the College's supported platforms in Windows and Unix
- Online restores
- Offsite storage in a secure Data Centre remote from central London
- 24 x 7 monitoring of data at the Data Centre by skilled data staff
- Exclusion of duplicated, infrequently-accessed and orphaned data
- Data compression technology to reduce data volumes being stored
- Encryption to ensure security of all data
- An easy to use management interface

Benefits to Birkbeck College

Prompt disaster recovery is assured – in case of any emergency, the latest copy version of all files can be restored rapidly from the Data Centre, either online or via portable disk restore

Data protection obligations are met because all data is securely encrypted, transmitted and stored

The VBAK Plus solution is a highly scalable service to meet potential future growth in data volumes

The service can be offered flexibly to individual College departments and research centres

A simple 'pay-as-you-use' charging model, based on the quantity of data held, means that the College enjoys real value for money, paying only for what is needed

By subscribing to the VBAK Plus service through LMN and their agreement with InTechnology, Birkbeck College enjoys reduced costs for its data backup – economies of scale mean that as more universities and colleges in London utilise the service, the unit cost for each of them is reduced.

The last word

"Selective outsourcing of IT services is in our interests and should be considered in specific areas where it can be shown to be both efficient and effective, as in the case of the LMN/InTechnology partnership model," said Dr Gill.

"The LMN/InTechnology partnership has yielded a cost-effective service to improve the security of our critical data, increasing the flexibility and convenience of online backups and restores."

"Our technical support staff are enjoying improved productivity and morale and we have peace of mind, knowing that critical data is stored in a secure offsite location."

Technical overview

VBAK and VBAK Plus automated back up and restore services offer unparalleled data backup and instant online restoration, completely eliminating the severe limitations of traditional tape based back up.

To ensure that the customer's business-critical data is protected at all times, a useable copy is held in a remote offsite location where it is immediately available for restoration in the event of data loss.

In the event of a major customer site disaster InTechnology, has invested in a 24 hour operations team who are on hand to respond to such an incident. The team react in accordance with a defined service level agreement and will deliver the customer encrypted backup data to the chosen DR site anywhere in the UK.

A replacement Virtual Service Gateway is also installed at the DR site to enable data to be transferred over the network in order to get the business back up and running.

Operations team available 24 x 7 x 365

Data recovered quickly from disk

UK wide recovery

SLA defined response times

Complements full DR strategy

The VBAK Plus Service uses Tivoli Storage Manager (TSM) in a high availability cluster to deliver a network based, fully automated and managed backup and archive service. VBAK Plus utilises a central TSM Backup Server connected to 2 Tape libraries.

The service consists of TSM clients installed on the customer servers that require backup or archive services. The TSM client performs the backup or archive function and transmits the compressed data to the TSM Server.

Successful pilots

Remote backup pilots using VBAK were carried out by Birkbeck College and InTechnology engineers on a representative sample of Central Computing Services Intel (Windows 2000) servers (including user file store, Microsoft Exchange, SQL and Unix Oracle databases and various application servers.)

Pilots using VBAK Plus were carried out on a representative sample of Central Computing Services Unix (HP/Solaris) servers (including servers utilised for email gateway, web, user file store, user registration system and Oracle databases.)

"InTechnology services met the agreed acceptance criteria and the pilots confirmed the functionality, performance and management aspects of both VBAK and VBAK Plus services," concludes Dr Gill."

"We are also happy with the technical support provided by InTechnology and have signed up to an operational service."



Unifying IT infrastructure

InTechnology plc is a 22-year-old AIM-listed public company, with an annual turnover approaching €1/2 billion, employing 500 people in France, Germany, Italy, Netherlands, Portugal, Spain, Switzerland, Belgium and headquartered in the UK.

InTechnology provides innovative IT infrastructure solutions, products and services to business, through a network of value-added resellers, systems integrators and consultants.

The company's offering unifies all areas of IT infrastructure to help organisations:

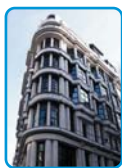
- **Store** data in the face of exponential growth in data volumes
- **Manage** data for optimum business efficiency and reduced operational cost
- **Protect** data against ever-increasing threats, from malicious attacks to data loss
- **Network** data to capitalise on network-computing opportunities
- **Liberate** corporate data to maximise its value for the organisation

More details about InTechnology (LSE, AIM: ITO) are available at www.intechnology.co.uk



Head Office
Nidderdale House
Beckwith Knowle
Harrogate
HG3 1SA

T: +44 (0)1423 850000
F: +44 (0)1423 877565



London Office
1 Threadneedle Street
London
EC2R 8AW

T: +44 (0)20 7786 3400
F: +44 (0)20 7786 3444



Reading Office
Building 1320
Arlington Business Park
Theale, Reading
RG7 4SA

T: +44 (0) 1189 711 511
F: +44 (0) 1189 711 522

W e b : www.intechnology.co.uk

E m a i l : info@intechnology.co.uk