

# VMware Data Protection

## Challenges

- No support for VMware agent-less backups – every virtual machine requires an agent
- Has transitioned to an almost entirely virtualised environment and backups are still OS agent based and therefore less efficient
- Poor performance – backups are not completing in the time available
- Administrative overhead of managing a mixture of internal and out-sourced solutions
- Many systems are not being protected due to the high cost associated with expanding the out-sourced solution

## SNS Solution

### VMware backup

Using VMware's vStorage APIs for Data Protection (VADP), a physical server, attached to the FC network at each site provides direct access to the Virtual Machine Disk files to maximise throughput for weekly full backups. Incremental backups use Change Block Tracking to reduce nightly backup windows, while still allowing 'FULL' restores.

### De-duplication

Block level de-duplication on the Magnetic (disk) Libraries maximises the quantity of data retained on-disk. For application agent based backups, source-based de-duplication minimises networks traffic and maximises backup throughput.

### Replicated Magnetic Libraries

Once the primary backup job has completed a secondary Auxiliary copy job automatically runs to create a second off-site backup. A de-duplicated replication process sends only new unique data to minimise both network traffic and synchronised times. Key data is streamed to tape for long term retention.

### Application and physical server backup

File system and application agents were deployed on physical servers and on a small number of virtual machines where granular recovery was required.



## Background

The University of Westminster was founded as Britain's first polytechnic in 1838. Since then it has developed into a University that combines both metropolitan and cosmopolitan dimensions, and which is closely involved in business, professional and academic life within London, as well as overseas.

The University has always been, and continues to be, imaginative in recognising new needs and developing appropriate offerings for its many target markets.

## Benefits

- Faster agent-less backups of VMware virtual machines
- Automatic backup of new virtual machines using VMware vCenter datastore discovery policies
- Significant increase in backup performance – daily incrementals complete in under 6 hours and weekly fulls in under 13 hours
- Replication of daily backups negates the need for tape for anything other than long term retention. Reduces administration time, tape storage costs and tape management costs
- Increased reliability of backups and reduction in tape usage
- Rapid restores as 90 days of backups are retained on disk
- Automatic off-site replication of backups utilising minimal network bandwidth
- Seamless integration of tape and disk -files can be restored in seconds from the primary or secondary disk copy, or tape

## At a glance...

<b>Company Size</b>	1,001-5,000 employees 20,000 students
<b>Industry</b>	Education
<b>Applications</b>	Microsoft Exchange, SQL and SharePoint Oracle
<b>Previous Environment</b>	Out-sourced IBM TSM and internal EMC NetWorker backup solutions 500 VMware vSphere virtual machines deployed across two sites
<b>Solution</b>	Backup and Recovery
<b>Technology Highlights</b>	Commvault Simpana Data Protection with agents for: VMware vSphere Microsoft Exchange, SQL and SharePoint Oracle Apple Mac NDMP



*As most of our estate is running on VMware vSphere we needed to be able to backup the VMs within the available backup window – this goal was achieved giving us headroom for growth. Just as importantly, administration has been reduced significantly - we no longer need to install agents or configure backup policies as new VMs are backed up automatically. We not only have a platform that meets our current data protection needs, but one that we can build on moving forward – be it adding archiving, search or laptop backups*

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## About us

# SAXIS delivers infrastructure solutions to match your needs and budget

We are not just a technology reseller, we are specialists that deliver high quality, well planned IT solutions to maximise your return on investment. Our role is to listen, understand and help you with an on-going strategy that will address the key IT challenges of your organisation.

We have a proven track record of delivering IT solutions across the UK from medium to large organisations. Our customer references clearly demonstrate how we have helped many organisations to reduce cost and boost productivity with high quality IT solutions and support. [SAXIS. Complex IT Problems, Simply Solved.](#)