

Customer Success

Lancashire County Council

Key Highlights

Business Profile

Local government in the northwest region of England providing services to approximately 1.4 million residents.

Industry

Local government

Challenges

- > Improve backup window times
- > Improve reliability and speed of restores from less reliable and slower tape solutions
- > Attain reliable automation of backup processes
- > Future-proof investment

Solution

- > Two DD580 systems each with a disk expansion shelf
- > Data Domain Virtual Tape Library (VTL) software

Benefits

- > Faster, more reliable backup and restores
- > Eliminated tape as primary recovery system
- > Option to replicate backups to second data centre currently in planning stages
- > 18+ terabytes of data protected, including VMware, Oracle, SQL and Exchange
- > Restructure of end user file store

Reliability, Speed of Restores: Crux of the Matter

ICT Services (the in-house service provider at Lancashire County Council) is responsible for providing services to 5 Directorates which are Children and Young People, Adult and Community Services, Resources, Environment and Office of the Chief Executive. In addition, services are provided to internal Direct Service Organisations. Like many authorities, the council has seen its data stores escalate over the past five years at an average of 40 percent annually since 2003.



Lancashire County Council (LCC) recognised the functional limitations of its tape backup system. Today, Data Domain provides LCC with the reliability and speed it needs for backups and restores, as well as the confidence that it can recovery quickly and effectively from system events.

Customer Challenges

Lancashire County Council currently stores about 100 terabytes of backup data. With consistent growth in its data stores and its backup tape library reaching capacity, it had become apparent that a re-evaluation was needed of its backup infrastructure before investing more money. The council's goal was to retain 2 weeks of backup data on Data Domain storage except for end-user filestore where the backup retention was to be 1 month. ICT Services routinely receives up to half-a-dozen requests a day for file restores from customers. The ability to restore a file that was secured up to a month ago from disk storage instead of tape storage uses less technical support time and customers get access to their missing files sooner.

Relying on tape as its first line of defence in the case of disaster, ICT Services had serious concerns about its ability to recover quickly and fully in the event of a major system failure. A protracted recovery scenario would negatively impact council operations and employee productivity.

"Backing up to tape isn't a flexible solution and restoring large quantities of data from tape is both slow and vulnerable to media errors," said Dave Dickens, Assistant Director of ICT at LCC. "If failure occurred on the last tape used in a restore, we'd have to start the entire job again."

It had become quite clear that LCC required a more sophisticated data protection architecture than tape could provide.

Data Domain Solution

ICT Services conducted a thorough research of data de-duplication storage suppliers, looking into their scalability claims and costs. Eventually they decided to conduct pilots with 2 suppliers.

During the course of the Data Domain pilot, valuable exposure was gained of the capabilities of the system when a server running the pensions system experienced a severe hardware failure. The ICT Services team was able to quickly and successfully recover about 4.5 million files, or 300 GB data, from the Data Domain DD580 to a temporary server, avoiding serious service interruption to the pension staff.

Following the evaluation and subsequent contract award, the council installed two Data Domain DD580 appliances, each with an expansion shelf giving them a maximum 121 TB of useable logical capacity, at their current compression ratios, in just 30TB of raw disk. LCC uses Symantec Corp.'s NetBackup 6.0 with its Data Domain systems to protect 249 servers and uses Symantec's NetBackup Vault software to duplicate all of the backup images held on the Data Domain disks to physical tape on a regular basis. Data types protected include Oracle databases, Microsoft Exchange and Microsoft SQL*Server databases. LCC also backs up its VMware virtual machines and data to its Data Domain system. Beyond its network-based backups, LCC used Data Domain's VTL option to migrate and restructure end-user filestore to a new EMC Celerra NAS.

“The trial was the deciding factor. We were able to buy with confidence and we knew our money would be well spent.”

Dave Dickens
Assistant Director of ICT
Lancashire County Council

The Data Domain system also gives LCC a ready-made option to replicate to a second site if the council's plans for a second data centre come to fruition.

Business Benefits

Today, LCC runs full back-ups at the weekends with cumulative backups during the week, whilst maintaining a mixed retention of either 2 weeks or 1 month of disk-based back-up data for recoveries. For some devices, such as the organisation's Exchange servers, which are backed up nightly, or for its recent influx of new servers, the Data Domain system delivers the performance and flexibility to run backups to match the authority's needs. “We no longer have to schedule our backups around our tape system's limitations,” adds Dave.

If needed, large restores of the organisation's Oracle databases or email servers will be five times faster. With Data Domain, Lancashire County Council is now confident that it can recover quickly and dependably should any system failures occur without negatively impacting employee productivity or council operations.

“We know that the product works reliably and that the backups will be there when we need them,” said Dave.

Data Domain

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