

SURREY COUNTY COUNCIL

STORAGE AREA NETWORK

Delivering Data on Time

EXECUTIVE SUMMARY

Technology Challenge

Migrate business-critical data from old storage systems to new systems within a limited time window and without data loss or disruption to production SAN services

Solution

- Brocade® Professional Services
- Brocade Data Migration Manager (DMM)

Benefits

- A successful migration without interrupting the availability of vital information on the production SAN
- No data loss
- Migration performed in less than half the time allocated
- Significant cost savings

Surrey County Council provides support and services to over one million people in Southeast England. With over 55,000 staff and more than 8000 users of its corporate IT systems, the county council needed to transfer existing data from old storage systems to new systems. Through a Brocade Professional Services engagement, the county council successfully utilized Brocade Data Migration Manager (DMM) to migrate the data well within the allotted time window.

With a wide range of services to provide—including fire and rescue, education, highways, and social services—Surrey County Council regularly deals with and stores large volumes of data. However, the continued growth of data had created pressures on the county council's existing storage units to the point where it explored the possibility of upgrading to newer storage. This process resulted in the purchase of new storage hardware, but the council then faced a second challenge: how to migrate data from one disk array to another while minimizing IT downtime.

Any downtime to Surrey County Council would not only result in financial costs but also a loss of service provisioning. With the council's work spread across Surrey, the central IT group provides e-mail/Web services for members and staff, including social workers and the fire department. Downtime therefore results in a loss of service for vital staff dedicated to ensuring the safety of county residents.

In order to transfer the data, Surrey County Council initially considered using a simple file XCOPY method, which would take over 320 hours running end to end. Operating five file copy sessions simultaneously had the potential to reduce migration times to a 24-hour period, but this was under the unlikely assumption that there would not be any file copy errors. Even if errors did occur, they would likely be difficult to identify and laborious to resolve. For the county council, the solution was simply not viable.

**A FAST, COST-EFFECTIVE
MIGRATION SOLUTION**

In order to solve the problem of migrating data from one disk array to another within the council's implementation requirements, Surrey County Council had to use a system that could be implemented in a matter of hours and ensure secure data transfer. To meet these needs, the county council deployed Brocade Data Migration Manager (DMM) following a referral from Tectrade, the county council's IBM Business Partner.

Brocade DMM is an intelligent Fibre Channel platform that can be plugged into the data center fabric that contains a SAN and all the storage nodes that need the migrated data. The solution provides a wide range of advantages over traditional data migration offerings. Because Brocade DMM is a SAN-based solution managed by storage administrators, it is less disruptive, more flexible, and easier to plan for than server-based, array-based, or virtualization solutions.

Brocade DMM is designed for easy wire-once setup, so the county council could quickly implement it simply by connecting it to an existing SAN. In this way, it would provide a fast, predictable, and storage-centric migration solution tailored to the county council's particular requirements. With an easy-to-use interface and simple connectivity, the solution promised to reduce the overall administrative workload and minimize the level of disruption and application downtime.

A SMOOTH IMPLEMENTATION

Surrey County Council tested the Brocade DMM offline offering during an initial proof-of-concept project. This involved a limited test data move with transfer occurring in an offline state due to the RDAC technology. The setup was a simple process and involved 300 copies of an 800 MB file copied to SAN-hosted storage (from a FAStT700 storage unit to a new DS4700 unit). After a successful test, the county council decided to implement the Brocade DMM solution.

During and after the period of implementation (which occurred at night), Brocade Professional Services provided consultation with engineers monitoring the data transfer. Data was moved block by block from disk to disk with error-checking occurring during the move.

In total, Brocade DMM was installed and configured in less than one hour and the full process for data to be verified, processed, and transferred took nine hours with no disruption to live services. Even with the best estimates and assumptions, file copying could not compete with the transfer speed and reliability of Brocade DMM. After the migration was complete, Brocade DMM was easily removed offsite.

HIGH ROI TODAY AND FOR THE FUTURE

"Brocade delivered on its promises. They worked to the timescale—in fact, a little ahead—as advertised and did this while checking data integrity. In my opinion, few other products could achieve this at the

WHY BROCADE

- Industry-leading data center fabric infrastructure, including Fibre Channel SAN and routing solutions
- Unmatched expertise in application and data connectivity
- First to market with strategic high-performance data connectivity technologies

same cost," notes Ross Walker, Data Centre and Storage Lead, Surrey County Council.

Surrey County Council needed a pragmatic solution that came at an affordable cost, and Brocade DMM provided immediate ROI. The time needed to implement the migration was vastly reduced from a projected four weekends to just one evening. The reduced need for overtime also reduced costs by nearly half. This has allowed the council to direct savings to frontline services.

Walker adds, "We are very happy with Brocade's quality of service and products. We would certainly not hesitate to use their professional services again. Indeed, we are already in the process of purchasing products for an imminent migration project."

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