



# Coleg Gwent Migrates to Viglen Storage Platform

IT's Personal

**C**oleg Gwent, in Southeast Wales, is the largest Further Education College in Wales, consisting of six campus sites as well as two satellite IT centres. Its mission is to become the most successful college in the UK. One of Britain's newer colleges, Coleg Gwent, formerly Gwent Tertiary College, was founded in 1992 and has seen a steady rise in both students and staff since then. Currently the institution has more than 35,000 students and approximately 1,500 staff.

## Technical Background

The campus sites of Coleg Gwent are all linked by a wide-area network (WAN), with predominantly 100MB connections between sites. Originally the network operating system was based on Novell Netware, using a third party email product on servers with internal disks. Although very happy with Novell and even though the IT staff considered using Novell Groupwise as the backend email system, Coleg Gwent made the decision to standardise on Outlook as their client email system.

Rather than stay the course with Novell Groupwise and give up some functionality, it was decided that integration would be a lot easier with Microsoft Exchange. The IT team had already recognised with the Novell solution they were very tight on capacity and that with 50GB disks per server they were only able to give each student 10MB of disk capacity. They also recognised the fact that they needed to continually do housekeeping in terms of deleting files that were



accessed the least. During the integration review process, it was further highlighted that Coleg Gwent had a potential disaster on its hands by having all of its data in one location.

Coleg Gwent maintains 1,500 staff mailboxes and 20,000 student mailboxes as well as academic shared drives. Not insignificant was the fact that it needed to routinely deliver 250MB to the ever increasing student population. Because Coleg Gwent had carefully monitored the use of its storage capacity, it recognised that a storage area network (SAN) was needed to meet the 70% year-on-year increase of disk usage. Performance had often been affected when the volumes were filled up and because the volumes were small that did not take much. The reality was that one individual who saved a large multi-media document could fill up the volume, which of course would put a halt to anybody else saving their work.

Because Coleg Gwent is a college where data is needed at all times by students and staff during term time, a key requirement in any new deployment and integration was that the migrations needed to be non-disruptive. With a major move such as this from Novell to Microsoft, the migrations had to take place during both the summer and half-term vacations.

Coleg Gwent issued a tender in 2005 for this phased project called Prometheus, which consisted of three stages: SAN installation, upgrading the NOS and installing Microsoft Exchange. Moreover, the project entailed replicating the data to another site on the separate storage platforms with minimum latency.

## Proposed Solution

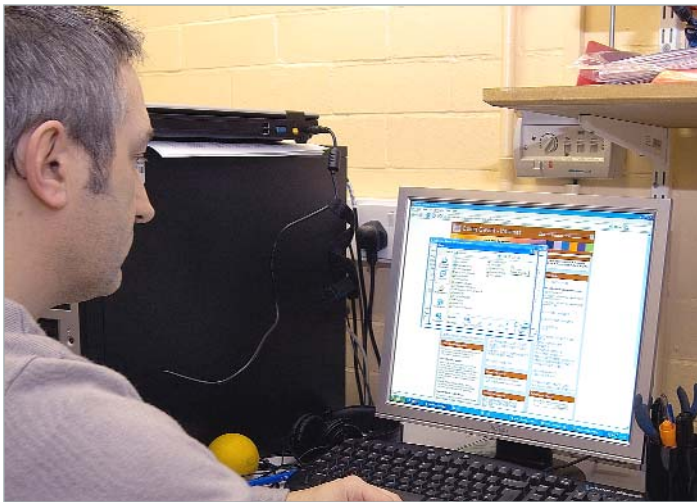
The Viglen Storage Group (VSG), who had already been advising Coleg Gwent for several years, tendered for and won the bid because of their recognised and proven ability to deliver solutions that met the college's needs, without overspending their budget. VSG originally





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proposed DataCore's SANSymphony product but soon realised that SANSymphony provided far more than Coleg Gwent initially needed. After consultation VSG finally proposed DataCore's SANmelody solution, which met all of Coleg Gwent's technical requirements as well as their budgetary constraints. According to VSG Account Manager Carl Gleeson, "VSG decided upon SANmelody because Coleg Gwent needed to replicate between two different storage platforms and DataCore have the best products for this."

## Implementing the Solution

The SANmelody solution provides Coleg Gwent with the ability to replicate data from the HDS storage on the main Pontypool site across to the InforTrend storage on the Usk site. SANmelody's use of commodity-priced memory has provided performance enhancements through its use of buffer/queuing using the cache. Pontypool hosts the main data with high availability provided via two synchronously mirrored storage servers, and Usk provides the DR site with asynchronous mirroring across the WAN. Evan Smith, Assistant Head of IT at Coleg Gwent commented, "We definitely made the right choice as it has given us the foundation and flexibility for the future to add more disks of our choice. Moreover, our SAN is now safe and secure."

The SAN configuration took a couple of days to set up, but once in place, Evan said, "It is incredibly simple to use. I see this as the first step – not the last – in this project, with the snapshot functionality still to use to help us recover files quickly. The SAN has had no visible impact on the network performance and has improved the performance in retrieving data".

Coleg Gwent were pleasantly surprised by the level of support given by DataCore, which they found to be unusual in the industry as a whole. While they were accustomed to the high-level of service that VSG

provided, the additional effort provided by DataCore was seen as an added bonus.

Evan was asked about the overall costs as well as the return on investment (ROI) aspects of the project. He commented, "The project's costs were in line with what we expected. However, the deployment has given us true security concerning our data. It is hard to put a price on the resilience that this system now affords our enterprise."

## Looking to the Future

The implementation of DataCore software is one element of the IT Strategic plans for Coleg Gwent. The College has plans to widen the availability for Remote Access to College systems through VPN's (Virtual Private Networks), Portal services and wireless technology. The college is also implementing an archiving system to provide appropriate storage media dependant on the age and usage of data files.

Bordan Tkachuk concludes, "Viglen Storage Group has been a valued partner to Coleg Gwent for a number of years now. Our relationship has been built around our understanding and awareness of the constraints and challenges Wales largest Further Education College possesses. We won the 'Prometheus project' tender based on our capability to deploy a unique and complex storage infrastructure project over a number of key stages, whilst minimising disruption. I am pleased to confirm that Viglen has met the colleges key performance indicators in a number of areas, particularly that of data retrieval performance. We look forward to supporting the college over the months and years to come, ensuring this capital investment in fully maximised."

