

Heart of Worcester College's continued journey with DataCore's Block SDS solution achieves resource savings, flexible expansion and total peace of mind from the storage layer.

KEY BENEFITS



Auto-tiering and correct allocation of data to most appropriate storage



Stretch budgeting - No rip and replace of existing HP hardware



Complete management overview of estate



Application continuity even in maintenance windows and with fluctuating remote user numbers



It's difficult to put a price on actual savings using SDS. What I can tell you confidently, is that we haven't had to spend IT budget on spinning disks for over four years allowing us to reallocate budget into the student's digital experience. But it's also a reflection on the peace of mind that DataCore affords, seamlessly doing everything for us without complaining or demanding. We're firm fans!

Ed Haworth
IT Lead Engineer
Heart of Worcestershire College



DataCore's SANsymphony, installed 8 years ago, continues to reap IT infrastructure rewards.

Heart of Worcestershire College (HoW College) is a leading academic institution offering further and higher education in the West Midlands with campuses at Worcester, Malvern, Redditch, and Bromsgrove. HoW College was established in August 2014, following the merger of Worcester College of Technology and North East Worcestershire College, with the College's IT Lead Engineer, Ed Haworth, keen to continue the College investment into software-defined storage for the emerging new institution.

THE CHALLENGE

"Even eight years ago when we swapped to DataCore's SDS platform, we were strong advocates of storage virtualisation, having realised and used SDS effectively for management and consolidation of our VMware estate." Ed reflects. "When the two local colleges merged in 2014, we were eager to continue with the software-based approach running behind our infrastructure, not least so that we could flexibly increase demand using the hardware already in place."

Indeed, after the merger into HoW College, expansion was exponential. Academically, HoW increased breadth, offering hundreds of new courses and increasing student numbers. Today the College continues to grow, offering cutting edge courses to over 10,000 students including establishment of a gamification centre of excellence. Within IT, supporting over 700 staff alongside the student community, the Team offers access to critical apps across 200 Virtual Machines, including Microsoft SharePoint, Moodle, Exchange, Windows, in house apps, security apps, and SQL across a total 33 TB pool of storage data, all working in a synchronously mirrored configuration.

THE SOLUTION

Using the existing hardware doesn't mean that innovation has been hampered. Quite the opposite. What the team have been repeatedly successful in doing is using SANsymphony as the framework for digital innovation using SDS's inherent policies to slot in new performance booster technology. For instance, auto-tiering toward SSDs to achieve enterprise grade performance and an easy non-invasive way to add storage to the pool has been repeatedly utilised since 2015. Now, HoW automatically tiers their hottest data to the highest performing, NVMe Flash cards and then cascades downward to SSDs in a logical tiered hierarchy based on data usage and importance. In total, the College now has four tiers of NVMe and Raid 10 SAS disks, accommodating the top tier applications such as SQL and databases. As the tiers fill, policy-based provisioning means that older, less used data automatically drops into lower tiers.

Moving forwards, when hardware is added, replaced or maintenance scheduled, HoW continues to confidently operate knowing that downtime will be avoided. Acting in an active:active configuration across the Worcester campus, the two DataCore nodes are in-sync at all times to ensure business continuity. With DataCore, no applications appear offline and data remains constantly available with new storage provisioned within clicks. The DataCore management console provides complete visibility of the entire vSphere infrastructure without having to jump between screens and interfaces, improving efficiency. Storage pooling is also integral. The team doesn't have to consider correct allocation of storage for new virtual disks, they are allocated automatically.

"I guess when you have been using SDS as long as we have, it's easy to become complacent as to its inherent benefits. One thing that we love, and have always enjoyed, is that usage of a software layer gives you true vendor choice and independence without being constrained by the hardware that sits beneath or become beholden to any one vendor." Ed cites. "Even in the recent past when we have been presented with incredibly cheap HCI hardware offerings, we are always thinking about the total lifecycle costs and what might happen in three years down the line."

Further resilience is currently planned for adding a third DataCore node to be housed at the Redditch campus that will utilise three-way mirroring to support mission critical SQL clusters and applications. So even if the Worcester sites were to experience total fallout or loss of power, the IT team remains confident that applications will continue to perform and allow online learning to continue with 24x7 access.

**For more information visit:
www.howcollege.ac.uk.**



“*For the Heart of Worcestershire College, SDS has emerged as the historical victor over hardware in supporting the number of students and the availability of critical applications, even in remote learning times. Better still, we have been able to stretch the use of the original HP Storage Arrays and haven't had to go through the trauma of rip, replace and redo since.*”

Ed Haworth
IT Lead Engineer
Heart of Worcestershire College

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