



Uplands Community College

Uplands regenerates their Virtual Desktop Infrastructure using the combined IOPs of DataCore's SANsymphony-V10 with Flash Storage

ABOUT THE CUSTOMER

Uplands Community College is a secondary school in Wadhurst, East Sussex, England serving pupils between the ages of 11 and 18. The college is a special place to learn backed by a calm, warm, friendly and purposeful atmosphere. Core values of respect, kindness and compassion together with a culture of high expectations and aspirations, underpin the Colleges' ethos. The College constantly strives to inspire confident learners in an ever changing world, with a 'growth mindset' which supports every student to achieve their goals.

www.uplandsccl.com

Longterm DataCore user successfully merges SANsymphony-V with OCZ Flash SSD cards to invigorate VDI and application environment that struggled with performance bottlenecks.

Organisation Overview

Uplands Community College (UCC) is a senior school and sixth form college based in the leafy town of Wadhurst in East Sussex. With one thousand students and 200 staff, the college has developed a reputation as a centre of learning excellence especially in the fields of technology, arts and science. Being a technical specialism school, the college facilitates a consistent learning environment served across an optimised technical infrastructure that is served both onsite and remotely.

Neil Harris is the colleges' ICT Support Manager retaining total responsibility for IT and was instrumental in the march towards a flexible Virtual Desktop Infrastructure (VDI) upon joining 6 years ago. The transition then towards VMware's Horizon VDI gave students remote access to a central source for software application delivery and document storage and provided dynamic desktop provisioning as numbers fluctuated. Essentially, it also secured student's irreplaceable coursework which had previously been subjected to austere storage limits. But, like so many others, the college's VDI experience came with a price – the heavy demands it places on storage hardware to provide high performance, non-stop availability, manageability that can accommodate ongoing fluctuations over time. Neil expands on the colleges' journey: "We always knew that VDI would come with high performance requirements for the underlying storage. Put simply, it's extremely resource hungry. For 6 years we managed to secure the VDI environment successfully using DataCore's Software-defined Storage platform repeatedly deferring storage hardware refresh cycles." DataCore's SANsymphony solution flexibly pooled and stretched the capacity of former existing arrays. However stretch can only go so far and some of the storage hardware initially repurposed was now reaching end of life and with this EOL came an unacceptably high price tag for extension of support.

Challenge

For students and staff, the ageing hardware started to impact each day with regular performance bottlenecks especially at morning login which materialised in a 5 minutes wait for log-on as the ageing hardware struggled to cope with peaks of data throughput. Tipping the experience further still was the install of new Windows applications including Microsoft XP, together with intensive student use of graphic applications and video streaming. Across the timescale, budgets had also fluctuated according to student numbers, so the college decided to conduct a seamless overhaul on the storage to address the weakest links in the VDI chain, and to do so with a keen eye on the overall spend.

M-Tech/DataCore Solution

Neil again worked with the colleges' existing education advisor and DataCore Silver accredited partner, M-Tech Systems Ltd. "M-Tech have been with us throughout the VDI journey and once again they provided a strong but independent approach in which to address our performance and budget issues." M-Tech formally assessed the infrastructure and identified the weakest points of support for the thick and thin clients to lie with the integrated SAS drives within the ageing HP DL storage hardware. They recommended an upgrade to the latest version of SANsymphony-V v10 across the environment that would facilitate the colleges' two separate SANs to be united into one highly available, easily maintained, highly performant pool. This could be achieved simply by slotting in low cost, high performance Flash storage that could be added into a standard server and cost a quarter of the price of dedicated storage.

M-Tech recommended the addition of affordable OCZ RevoDrive 960GB Solid State Drive Flash cards to address ongoing performance disparity, slotted in directly into the storage pool to provide ongoing performance to directly feed hungry applications such as on-screen graphics. This, together with the unique way SANsymphony utilises its own caching technology rather than committing to disk, would provide unassailable leaps in performance for thin clients.

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Since using DataCore, our storage-related spending has been reduced by over 50%, and as a state funded organisation that is important, but not as important as providing a first rate user experience which we now have achieved, with a few tweaks along the way.

- Neil Harris, ICT Support Manager
Uplands Community College

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ABOUT DATACORE

DataCore is a leader in software-defined storage. The company's storage virtualization and Virtual SAN solutions empower organizations to seamlessly manage and scale their data storage architectures, delivering massive performance gains at a fraction of the cost of solutions offered by legacy storage hardware vendors. Backed by 10,000 customer sites around the world, DataCore's adaptive and self-learning and healing technology takes the pain out of manual processes and helps deliver on the promise of the new software defined data center through its hardware agnostic architecture.

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www.mtechsystems.co.uk

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Customer Benefits

Quite simply, the addition of the low cost Flash Cards and rejigging of the configuration revolutionised the student experience overnight with dramatic performance jumps. No longer were users stalled by long and unpredictable waits in peak times – their applications and desktops were served from the SAN within less than a second, giving users a fresh virtual server experience every time. Desktops remain highly available, assured and highly performing.



Back in the server room, IT continues to reap the benefit of easier VDI management. DataCore's SANsymphony-V provides enhanced productivity benefits to centralised management and automating storage related tasks across the college. For instance, using the re-invigorated SAN, Neil is now able to recreate all the desktops across 100 virtual machines in under 20 minutes. "The process of adding new VMs is very slick and fast," noted Neil. "Because SANsymphony mirrors the VM images on the volume at block level, we don't even have to take our virtual machines offline to backup the VM images. Simply, point and click and away it goes – it makes the process almost seamless." Rooms of 30 virtual machines are re-provisioned swiftly with Neil now seamlessly managing all storage devices and the new OCZ SSDs behind the same DataCore interface blissfully unaware of the model-specific variations. Should the college wish to add further SSD cards regardless of brand, then no problem, they too will fall under the same GUI, so no fear here of creating islands of stranded Flash isolation.

In addition, with DataCore, ICT can continue cost monitoring without fear of overprovisioning. They can monitor and procure the storage capacity as they need to support their data storage needs to centrally provide capacity on demand that expands with the student population and desktop growth. With DataCore's thin provisioning capabilities, SANsymphony presents pre-defined virtual volumes from the central storage pool to the applications, while the capacity is allocated automatically when really needed.

Neil confirms. "Since using DataCore, our storage-related spending has been reduced by over 50%, and as a state funded organisation that is important, but not as important as providing a first rate user experience which we now have achieved, with a few tweaks along the way."

For additional information, please visit datacore.com or email info@datacore.com



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