SUCCESS STORY

UCL (University College London)

INDUSTRY
Education

SOLUTIONS
Virtualization, Modular Platform, Storage Management

Hardware — Hitachi Adaptable Modular Storage 2500 (1), Hitachi NAS Platform, powered by BlueArc® (2, hardware solution component)

Software — Hitachi NAS Platform, powered by BlueArc (2, software solution component)

Services — Hi-Track® Remote Monitoring system and service provided by Hitachi Data Systems Professional Services

"The Hitachi platform delivers the availability, manageability and backup features that we needed without high costs. This was something we didn’t feel we could get from another vendor."

Denis Timm
Head of Technical Services Group
UCL
Leading UK University UCL Lays Virtualized Tiered Storage Foundation with Hitachi Technology

UCL (University College London) faced increasing data storage requirements as the volume of unstructured data in various departments began to grow rapidly. It therefore decided to consolidate and simplify its aging heterogeneous storage environment to make it more flexible and scalable. After considering a number of options, it chose to deploy a virtual storage platform using the Hitachi Adaptable Modular Storage 2500 and Hitachi NAS Platform. This has enabled the IT team to work more efficiently, delivering better resourcing for academic departments and laying the foundation for a fully scalable virtual tiered storage environment to support future capacity demands.

UCL is London’s leading multidisciplinary university, with 8,000 staff and 22,000 students, who come from over 140 countries. Based in central London, it was the first university in England to welcome students of any class, race or religion and the first to welcome women on equal terms with men.

Rated seventh in The Times list of the Top 100 Universities worldwide, UCL delivers excellent teaching and research across a range of academic disciplines. With world-renowned centers for architecture and fine art, it also operates one of Europe’s largest and most productive centers for biomedical science, supporting 11 leading London hospitals.

With volumes of student work and research growing all the time, the university’s IT team is tasked with ensuring all departments have access to the information they need, whenever they need it, in order to maintain this level of academic leadership. However, its existing data storage environment was based on a heterogeneous hardware architecture, which was complex to manage and had limited scalability, meaning further growth presented a challenge.

“Our main priority was guaranteeing reliable data storage for the Computer Science department,” explains Head of UCL’s Technical Services Group, Denis Timm. “We needed to ensure the 1,000 or so users could access their email and research data reliably at any time, even in those fields, like medical imaging and bioinformatics, where capacity requirements are exploding due to rapid growth in unstructured data files. We had to be sure that we could also allocate more capacity to certain areas quickly when it was required, without any disruption for end users.”

While meeting this demand for capacity, which was moving from the terabyte to the petabyte level, UCL also wanted to develop the storage resources supporting the computational cluster used by the department.

UCL recognized that an effective way of meeting its scalability and manageability requirements was to deploy a virtualized storage environment with the flexibility to allocate capacity wherever and whenever it is needed. It therefore investigated the options available on the market from both large vendors and smaller solution providers.

After reviewing 10 solution proposals, the university decided that the offering from Hitachi Data Systems was the most appropriate for its needs. “We were very impressed with the enterprise-class storage capabilities offered by the midrange Hitachi Adaptable Modular Storage 2500,” says Timm. “We saw that with this platform we could get the availability, manageability and backup features that we needed without the high costs usually associated with them. This was something we didn’t feel

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we could get from another vendor, so the unique product offering combined with the reliable support provided by Hitachi convinced us.”

Timm and his team therefore purchased one Hitachi Adaptable Modular Storage 2500 with 128TB of capacity and two Hitachi NAS Platforms, powered by BlueArc®, to form a cluster pair. The Adaptable Modular Storage 2500 provides a high performance platform for virtualization and tiered storage while the Hitachi NAS Platform environment enables UCL to consolidate its file servers to simplify its IT infrastructure and storage management.

To supplement the hardware deployment, UCL chose to make use of the Hi-Track® Remote Monitoring system, which monitors the university’s storage environment and issues real-time alerts to any potential issues. Timm explains, “The Hi-Track remote monitoring system ‘call home’ service offers us complete peace of mind. HDS engineers can spot issues and alert us to them before they impact the system, which is really handy from a management point of view. It means we can keep the platform running at optimal productivity. “Following a smooth deployment of the new platform, conducted by the in-house team with support from Hitachi Data Systems, the IT team found that the speed and ease of allocating storage capacity to new projects was significantly improved. “It’s much more flexible,” says Timm. “While before, once we’d allocated capacity somewhere, it was fixed, with the new platform, we can change allocations as often as we need to.” The result of these changes is that researchers, students and faculty have a much more responsive and reliable IT platform, enabling them to work more efficiently. The new platform also enables the team to back up its computing cluster to ensure important research data is protected.

As an academic body, UCL is of course committed to optimizing its costs wherever possible, and the price-performance of the new storage environment fits well with this objective. The team has found that it brings return on investment in other ways too, however. “For one thing, the storage administration team is able to work much more cost-effectively now,” Timm explains. “We’ve got over 100TB of data in our environment at the moment and it used to take numerous employees to manage it all. Now, thanks to this consolidation and virtualization project, the administration can be done by one person, leaving more IT resource to focus on mission critical initiatives. This just wouldn’t have been possible a few years ago.”

“The new Hitachi Data Systems equipment and software was really a strategic purchase for us as it will enable us to build an expanding virtual tiered storage environment as we need to. By investing in these core elements, we’re able to extend the life of our existing resources, too, and in today’s tough economic climate, this is more important than ever,” concludes Timm.