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**HP customer success story:** Thomas Telford School deploys an HP solution to create a consolidated, virtualised server environment with enhanced storage capability

**Industry:** Education

## Thomas Telford School stays top-of-the-class with HP server and storage technologies



“The HP solution delivered by OCSL provides a reliable and scalable platform to deliver quality educational services within a challenging and dynamic environment. A high-quality infrastructure with no downtime is absolutely essential for our teaching methods and it supports important revenue streams.” Robert Cullen, IT director, Thomas Telford School, UK

### Objective:

Thomas Telford School (TTS) needed to equip a new state of the art data centre within its latest new Build Project – Madeley Academy and also consolidate its own server estate, introduce virtualisation and improve storage capacity to deliver educational services more efficiently.

### Approach:

- Deployed HP ProLiant server and StorageWorks technologies within a virtualised environment.

### IT improvements:

- Increased server utilisation ensures good service availability at peak times.
- Energy saving servers combat potential power constraints.
- Consolidation creates a scalable platform for future business needs.
- Improved service delivery strengthens the learning experience.
- Safeguards important revenue-generating activities.

### Business outcomes:

- Reliable, scalable, high-availability server and storage environments.
- Virtualisation with VMware ESX consolidated the server estate by 75 per cent.
- Enterprise-level storage safeguards important data.



Thomas Telford School (TTS), the UK's top performing City Technical College (CTC), is a comprehensive school catering for the educational needs of 1300 students aged between 11 and 18. The college's catchment area includes Telford and Wolverhampton and the surrounding villages and suburbs. The success of the School's online learning company has enabled Thomas Telford School to sponsor and build three new technology driven City Academies within the last six years. These include Walsall Academy, Sandwell Academy in West Bromwich and Madeley Academy, also in Telford. CTCs specialise in technical-based subjects such as technology, science and mathematics, and forge close links with businesses and industry.

“Through consolidation and virtualisation, we address the problems of limited space for future expansion and any potential power constraints. We needed a highly reliable infrastructure to maintain excellent educational standards and deliver effective services.”

Robert Cullen, IT director, Thomas Telford School, UK



### **A remarkable school**

TTS is unique in several ways. It has not one, but several deputy head teachers; makes daily broadcasts to each classroom in place of daily assemblies; has electronic whiteboards in every classroom; and lessons last three hours. The interactive technology used in the classroom allows for teachers to deliver three hour lessons without losing the interest of the students. Moreover, the school generates funds by selling its online curriculum content, to over 1,000 schools, reaching one million students nationally.

A recent Ofsted report described TTS as outstanding in all categories and stated: “Thomas Telford is a remarkable school. Students excel and make exceptional progress, both academically and personally.”

### **Increasing service demand and limited space**

TTS has long been at the forefront of IT for educational purposes. Five racks in the communications room contain appropriate networking, systems, audio-visual and security hardware. A Local Area Network (LAN) delivers services to numerous learning centres, resource

areas, study rooms and laboratories as well as the library, a technology centre, the school’s administration offices and a state of the art fitness centre. There are 520 computers and 67 electronic whiteboards connected to the network, all with internet access.

Traditionally, TTS has employed HP server and storage devices to populate its system racks including HP ProLiant servers, HP StorageWorks Modular Smart Arrays and, for tape backup, an HP StorageWorks MSL 5000 Tape Library. Backing up all the school’s teaching and administration data is essential to minimise disruption to the students’ lessons, maximising their learning experience. Equally, it protects important online curriculum content, a major revenue-generating stream.

However, to support key activities at all sites as demand for services grew and data volumes increased, the school decided to consolidate its server estate, initiate a virtualisation strategy and introduce more advanced storage technology.

“We have a continued desire to move the existing technology forward and maintain Thomas Telford’s

position as a leading CTC, both academically and technically. We require new technologies to aid the delivery of the curriculum and make our students' learning experience both effective and enjoyable," explains Robert Cullen, IT director, Thomas Telford School. "Through consolidation and virtualisation, we address the problems of limited space for future expansion and any potential power constraints. We needed a highly reliable infrastructure to maintain excellent educational standards and deliver effective services."

TTS therefore sought an experienced IT and business-focussed partner; one with a thorough understanding of the educational sector and who could deliver cost-effective solutions and support services for the foreseeable future.

"We were happy with HP technology and were impressed with the technical competency of OCSL, an HP Preferred Partner," says Cullen. "From day one, OCSL understood our needs well and its solutions were realistically priced. Its personnel were professional and they were able to meet tight deadlines."

#### **HP solution from OCSL fits the 'big picture'**

OCSL surveyed the site and recommended an HP storage and server solution. This involved introducing six HP ProLiant DL380 G6 servers, an HP StorageWorks Enterprise Storage Array (EVA4400) and an HP StorageWorks MSL 4048 Tape Library to provide a backup facility at Madeley Academy. Additional servers and EVA4400 Storage Arrays were also placed at TTS and Sandwell Academy. VMware ESX forms the virtualisation platform. Following a successful proof-of-concept, OCSL deployed the solution quickly and now provides on-going support.

"HP's Technology and OCSL's consultancy skills complement each other perfectly. Our experience and expertise ensured that we were able understand the big picture and provide TTS with an up to date enterprise class IT infrastructure. Our Accreditation as an Authorised Service Management Partner (ASMP) has meant we have been able to provide front line help desk services to TTS as part of our ongoing partnership engagement says, Steve Wilson, Director, OCSL.

## Customer solution at a glance

### **Primary applications**

- Data storage and backup
- Retrieval and management of enterprise information

### **Primary hardware**

- HP ProLiant DL380 G6 servers
- HP StorageWorks Enterprise Storage Array (EVA4400)
- HP StorageWorks MSL 4048 Tape Library

### **Primary software**

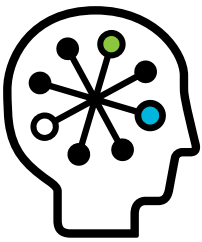
- VMware ESX Server

### Enhanced service delivery and learning experience

Today, all three sites involved in the project are benefiting from improved server and storage environments. The HP solution has created reliable, scalable server platforms with enhanced utilisation to cope with a growing demand for teaching and business services. The system safeguards important income-generating activities such as the sale of the school's online curriculum content. Moreover, the new enterprise-level storage equipment ensures that growing volumes of teaching and business-critical data at each site are stored safely. This capability minimises any disruption to lessons should any IT problems arise.

At the main school, virtualisation and the new HP ProLiant servers have reduced the physical server estate from 12 to 3, a 75 per cent consolidation. Importantly, the three ESX VMware hosts now support 25 virtual Microsoft Servers. The school no longer needs to worry about limited space for future expansion or potential power constraints, and will undoubtedly profit from lower Total Cost of Ownership (TCO).

"This shift to new technologies enhances service delivery, allowing us to provision new resources quickly and efficiently. This in turn provides a better overall teaching environment for staff and an engaging learning experience for students. Ultimately this will help to maintain our exceptional academic credentials," concludes Cullen.



## Technology for better business outcomes

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