

ThePetcheyAcademy



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The Petchey Academy, located in Hackney, opened its doors to Year 7 students on Friday 8th September 2006, working in high quality temporary accommodation. In September 2007 the Academy moved to its new building - an 11 to 18 school with accommodation for 900 students aged 11 to 16 and eventually a 300 place sixth form.

The specialism at the Academy is healthcare and medical sciences - a unique proposal, which the sponsor envisages will raise aspirations and open up opportunities traditionally unavailable to young people in Hackney. The specialism will encourage and promote healthy living through diet, physical activity and good citizenship.

In line with its specialization the Academy has developed partnerships within the medical and healthcare fields including teaching hospitals, the Royal College of Nursing, the National Health Service (NHS), the local healthcare trust, the Centre of the Cell -science and education centre, medical technology and pharmaceutical companies. These partnerships will support learning opportunities for pupils in the medical and healthcare fields across a broad range of skills.

Next to the Petchey Academy will be a Child Development Centre (CDC) managed by health, social services and education agencies which will provide coordinated child focused services. The Academy will benefit from a close working relationship with the CDC.



The Academy has facilities capable of delivering a 21st century curriculum, including:

- Flexible classroom spaces
- Excellent physical education facilities
- Excellent ICT facilities
- Ample space for storage, lockers and toilets
- A layout which facilitates but minimizes movement around the building

European Electronique worked closely with Cambridge Education Associates, the Academy's chosen consultants, to fine tune the Academy's requirements and provide best advice and guidance on; design, planning, project management and support of the entire ICT infrastructure.

Detailed below is a brief statement relating to each of the key areas of the project;

Converged Infrastructure

Design, Implementation and Full Managed Service Utilising Cisco's industry leading technology, the network was built around two fully resilient Cisco Catalyst 4506 chassis switches with a mixture of Cisco 3560 switching devices at the edge. The network provides fault tolerant wire speed gigabit connectivity to servers, edge switches and 802.1x authenticated users. Where required, power is provided via 3560 power over ethernet switches, delivering electricity to Wireless Access Points and IP Telephones reducing the requirements for electrical cabling and sockets. The network has been designed to provide the Academy with a fully redundant infrastructure, which is easy to manage, is highly secure and will facilitate learning for many years to come.

802.1x Authentication (dynamic VLAN allocation) has been installed and configured to enable users and IP devices to dynamically access secured network services and resources from any network port. This basically means that any data socket within the building can be used for different user types, such as Staff or Curriculum, or devices, such as Wireless Access Points and IP Telephones, without the need to re-patch or reconfigure the network.

Cisco Unified wireless technology is used extensively to ensure Wireless access is available throughout the whole building. This centrally controlled solution dynamically tunes the wireless environment, to make it possible for multi access point enabled Laptop trolleys to be utilised anywhere in the building. 802.1x Authentication is used to secure the wireless network, controlling wireless access to the Academy's network, applications and resources for Staff, Students and Guests. A feature rich Siemens IP Telephony system has been implemented providing authorised users with advanced simple to use features such as; "follow me" extension numbers; recorded announcements; conference calling and automated call distribution. A V-Brick EtherneTV solution captures, stores and distributes live and pre-recorded Video and TV content. The content can be displayed on Academy PCs, Laptops, PDAs, Plasma Display Screens and Interactive Whiteboards. The V-Brick solution allows the Academy's management team to stream informative messages to single or multiple plasma display screens and client devices around the Academy network. This system was implemented in full in 2006 in such a way that it could be transferred non-disruptively to the new building in 2007.

Network Services

European Electronique delivered a complete range of network services based on Microsoft's Server 2003, Exchange, ISA and SQL technologies. An industry leading fully resilient HP DL385 Server and MSA500 Storage infrastructure has been provided to ensure 100% availability to Academy networked services and user data stores. All services and user data stores are fully backed up, both on and off line, and archived to removable tape storage within two HP high capacity automated Ultrium Tape Libraries. All data and services are protected from Virus' by Symantec Enterprise Manager Software.

Software Systems

European Electronique delivered a complete range of network operating systems and applications based on Microsoft's Server 2003, Exchange, ISA and SQL technologies. Sentinels Ranger Suite of Products was installed and configured to provide the Academy with Desktop Security, Remote Control, Printing Control and Management Reporting. Surf Control and Symantec Enterprise Manager were installed and configured to provide secure controlled Internet access and Anti Virus protection. Symantec Ghost was provided to allow simple PC and Laptop image creation and delivery, Veritas Backup Exec and agents were installed to allow the backup of all services and user data stores.

The Academy procured a Microsoft Schools Agreement through European Electronique to licence all their Microsoft requirements.

European Electronique worked with the Petchey Academy and local Academy Learning Platform partners to ensure that Virtual Learning Platform (VLE/MLE) was assessable from both inside and outside of the Academy facilities over the London Grid for Learning (LGfL).

UPS Power Management

Uninterruptible Power Supplies were supplied and installed by European Electronique, providing electrical conditioning and emergency power backup to the Academy infrastructure in the event of a power spikes and outages.

"Follow Me" Printing, Scanning and Copying

In order to provide the lowest possible total cost of ownership, European Electronique provided a leading edge Hewlett Packard Safecom multi function printing solution. The solution enables staff and students to "pull" print jobs from a central server to any printer within the Academy, thus ensuring the minimal use of ink and paper resource. The solution was expanded during the relocation to the new Academy building in 2007. In addition the solution is interfaced via the student's Academy Mifare ID card which can be allocated credits for different types of printing activity. Please see Card Services see below.

"One for All" Card Services with MIS integration

European Electronique provided a Gladstone Education Cashless Catering solution and an Access IT Library Management system which interfaced with the Salto System Access Control Solution. All Academy students and staff were given Mifare photo ID cards, which were configured to allow secure access the Academy's Catering, Library, Access Control and Printing systems. All card systems integrated with the Academy CMIS Management Information System. These systems have remained consistent for the student and staff throughout the temporary accommodation and into the permanent Academy building.



Client Devices

Initially 40 HP “business class” PCs, 120 HP “business class” notebooks and 15 Toshiba Tablet PCs have been installed, which included the consultancy, design, creation, testing and rollout of software images and the physical securing and cabling of devices into The Academy’s ICT furniture. In 2007, when the Academy moved into the new building, the Academy’s PC and Notebooks requirements increased to 300 and 350 retrospectively

Mobile Classrooms (Laptop Storage)

European Electronique provided custom-made wireless enabled security trolleys for safe storage and recharge of Laptops. Wireless Access points have been integrated with each Lapsafe to enable a minimum of thirty wireless connected laptops to log on to the network in under 60 seconds.

Classroom Presentation Systems

European Electronique supplied and integrated classroom presentation systems into every classroom and breakout area. Equipment was either wall mounted or secured inside teacher’s lecterns. Items installed included, Smart Interactive Whiteboards, Sanyo Wireless Projector systems, Samsung Visualisers and Logitech 3.1 audio systems. The use of Tablets and visualisers with wireless projectors is particularly innovative and gives capability for a range of teaching styles.

Peripheral Devices

European Electronique has and will provide much in the way of other technology that does not necessarily fit into a single category. Examples include PDAs, digital cameras and camcorders.

Fully Managed Service and Becta FITS compliance

European Electronique has been entrusted with supporting the Academy’s infrastructure. This involves providing a fully managed service for the Academy Network Infrastructure, including proactive monitoring of the network and services. Unlimited telephone support during office hours and remote access for systems was provided 3rd line problem resolution and onsite engineering where required. A leading helpdesk with asset management system was provided and installed for the Academy ICT Staff to report track and catalogue, all faults adds moves and changes.

Project Management

European Electronique supplied, installed, configured and project managed the whole ICT installation for the Academy. European Electronique worked very closely with all stakeholders including consultants, construction, FF&E, M&E and sponsors to ensure that ICT was at the forefront of building design and operation.

In late spring 2006 the Academy's new systems were pre-staged at European Electronique's head office in Oxford. In July 2006, after extensive testing, the server and core network infrastructures were relocated to Petchey Academy in Hackney and re-commissioned. The physical rollout of PC's, printers, Classroom Presentation systems and other ICT equipment was completed in a 2 week window just prior to opening to minimise disruption and reduce any security risk.

Through stringent project management and management reporting by European Electronique the Academy has been delivered a 21st century ICT solution that exceeded expectations, fulfilled user requirements and met financial constraints. The Temporary Accommodation element of this two year project was delivered on time and on budget in September 2006. European Electronique has worked with the builder, Norwest Holst; M&E supplier, Mitie; Consultants, Cambridge Education Associates; and the Academy staff to ensure a smooth transition to the new building which was fully up and running for the September inset days and the beginning of term.

Training

As a new institution, training was a particularly key element to the project. Full training has been provided to the IT staff on all aspects of the solution. This involved a mixture of manufacturer training courses and training from European Electronique training staff. In addition to this it was considered prudent to make training available to all the teaching and curriculum staff. This was provided in the form of open IT workshops, specific workshops tailored to specialist user groups and floor walking to provide live assistance in the initial weeks of the Academy opening.

