SOLUTIONS

ENHANCING THE
STUDENT EXPERIENCE
WE GET HIGHER EDUCATION

IMPROVING LEARNING THROUGH INTELLIGENT IT

The UK’s Higher education institutions have long been admired around the world. But in a period of seismic change, only those able to meet new demands will retain their reputation as beacons of best practice.

Competition to attract UK students and protect revenue streams has never been fiercer. Meanwhile, Britain’s withdrawal from the EU has thrown future participation in student exchange programmes such as Erasmus into doubt, making it harder to attract foreign students at a time when higher education institutions are looking expand their appeal.

Leading universities and colleges are looking to respond to this changing environment in a positive manner, harnessing new technology to deliver more engaging living and studying experiences. This is exemplified by the emergence of exciting new concepts such as e-Sports, which require investment in gaming technology solutions that deliver the CPU and GPU performance to allow students to participate in what has become an extremely popular activity.

Increasingly, then, universities and colleges are deploying technology as a differentiator in an increasingly competitive market. The creation of smarter campuses is underpinned by a drive towards efficient management of expanding data sets, reliable services for students, lecturers and researchers, protection against cyber-attacks and the acceleration of innovation.

As digital transformation gathers pace, leading institutions are developing capabilities in AI, ML, RPA and IoT applications - enabling us to offer complete orchestration of IT across multiple sites, wherever they are located.
Today’s students are digital natives, expecting flexible, agile and easy-to-use technologies that deliver immediate results. CDW helps universities and colleges respond to the expectations of its students through the creation of smarter and more interactive campus environments, supported by powerful and reliable digital infrastructure.

We understand that no two educational institutions are the same in terms of how they engage and inspire their students. That’s why CDW partners with an unparalleled range of vendors to bring the best technological solutions to market, from hardware and software, through to data centre infrastructure.

Our partners include – Apple – Cisco – Citrix – Hewlett Packard – Lenovo – NetApp – VMware - to name but a few.

PARTNERING TO MEET STUDENTS’ DIGITAL EXPECTATIONS

Support throughout your journey

INFRASTRUCTURE MANAGEMENT
We can manage your existing estate while helping integrate new technologies.

FINANCE
From purchase to leasing, CDW can help you affordably expand your IT infrastructure and device fleet, providing better visibility of Capex and Opex.

INSURANCE
Accidental loss and damage are always a risk; we ensure you can keep devices in the hands of your staff and students.

SUPPORT SERVICES
Throughout your technology journey, CDW’s team can be available 24/7 to solve problems and provide support, delivering customer satisfaction.

WIFI & SECURITY
We can help you build a safe a secure wireless environment for your users.

DEVICE PLANNING
Knowing how to select, deploy and use your devices is key to improving learning and returning value.

MOBILE DEVICE MANAGEMENT (MDM)
Just like a corporate environment, you need to manage your mobile fleet throughout its lifecycle. CDW can offer the guidance and tools you need to keep control.

APPLICATION PLANNING AND MANAGEMENT
Knowing which applications will work best for your students and staff requires experience, and we aim to get you up and running with the right tools from day 1.

VIRTUAL LEARNING ENVIRONMENTS (VLE)
Collaboration is one of the great benefits of bringing technology into schools. VLEs bring teachers and pupils together to reinforce relationships and improve learning.
PUTTING ESPORTS AT THE HEART OF EDUCATION

The concept of electronic sports (esports) has emerged as a phenomenally popular digital pastime, with competitive multiplayer video games often played out at organised events in front of hundreds of spectators. Indeed, according to recent research, the global esports market will reach a staggering $1.8 billion by 2022, as it continues to gain wider acceptance.

Increasingly, esports presents education institutions with an excellent opportunity to deploy technology as a means of providing students with a modern and stimulating learning environment. Not only do students enjoy watching and participating in esports competitions, but many also see it as a means of learning transferrable skills that can offer a route into careers in areas such as broadcasting, event management, digital marketing, and more. No wonder a growing number of universities and colleges are installing esports infrastructure to help students meet their ambitions.

That’s where CDW comes in. Our experts can help academic institutions build their vision for esports, whether it is installing a small number of gaming stations or constructing arenas that can seat large numbers of spectators. We also offer a full range of consultancy services, helping universities and colleges understand their esports requirements and partnering with best-in-class vendors to deliver the solutions they need.

Technologies needed to support esports

Compared to most traditional sports, an esports program requires relatively little investment by higher education institutions in the way of facilities and equipment. While it’s certainly possible to blow through a big budget by building out a state-of-the-art gaming arena, the barriers to simply enter the esports space—especially for a small trial—are relatively low. At a minimum, though, esports participants need the basic gaming equipment that allows them to compete on a level playing field with players from other schools.

This includes:

**COMPUTERS**

Different video games require different levels of processing power. Some can be played on a regular consumer-grade laptop connected to a hardwired Ethernet connection, CDW works with a several best-in-class vendors who produce computers specifically designed to accommodate gaming.

**MONITORS**

Here again, different types of hardware are best suited to different types of games. Historically, gamers have been forced to choose between the speed of 144-hertz twisted nematic displays and the outstanding picture quality of (generally slower) in-plane switching screens. Now, though, some monitors combine an IPS screen with a 144-hertz refresh rate, giving students the best of both worlds.

**GRAPHICS CARDS**

An upgraded graphics card can sometimes turn an existing computer into an esports machine or extend the life of a gaming computer that has aged its way toward obsolescence. The fastest graphics cards retail for several hundred pounds but a number of cards costing far less than that offer performance levels that will meet the needs of most gamers. Education institutions that aim to upgrade their gaming computers with graphics card upgrades should make sure that the machines’ power supplies can support the new GPUs.

**GAMING PERIPHERALS**

Successful esports play relies on precision, timing, and communication—all of which are enabled by gaming peripherals such as mice, keyboards and headsets. Even if participants are playing on standard PCs, teams should be outfitted with peripherals that will help them to be competitive. Gaming keyboards are typically more durable than regular keyboards and have mechanical keys that respond more quickly to a player’s input. Gaming mice are designed to be more sensitive, reliable and comfortable than normal mice while gaming headsets come with microphones and surround sound to improve communications.

**FURNITURE**

Gaming furniture has come a long way since the video rockers that sat in front of seemingly every dorm room television in the early 2000s. Today’s gaming chair is typically a cross between a professional office chair and a race car seat, with adjustable headrests and ergonomic pillows, reclining capabilities and sharp designs.

**NETWORK INFRASTRUCTURE**

Often, an education institution’s existing network infrastructure is not adequate to support esports. Some colleges and universities, however, have built out practice spaces with their own dedicated Internet pipes.

CASE STUDY

Cranfield University save 80% on time management with IT orchestration by CDW

**CHALLENGE**

With two ageing on-site data centres, housing traditional three-tier server architecture, Cranfield University wanted to modernise its IT infrastructure, reducing its physical footprint to allow for site redevelopment. It also needed to address the amount of time and resource dedicated to managing the data centres, with the need for daily operational oversight dominating the task list of the university’s IT team. However, close alignment with government bodies and private sector partners required the university to have robust, compliant and secure storage arrangements, with large volumes of research data being generated, processed and analysed across the campuses by staff and students. An opportunity existed, therefore, to look at the whole infrastructure stack and all server overheads and to provide a more secure and flexible solution.

**SOLUTION**

CDW’s Integrated Technology Solutions Team organised a series of workshops to discuss the available options with Cranfield’s IT leaders. This pre-sales, technical consultancy phase resulted in the development of a technically sound solution which best met the university’s needs and provided the foundation for the ongoing relationship that followed. The proposed hyperconverged infrastructure solution had the ability to run workloads on-premise or in the cloud, depending on the specific need. This reduced reliance on operational expenditure and encouraged a more efficient spending model. Cranfield chose to run two sites, one being a large primary data centre and the other a smaller secondary facility. Nutanix was selected as the hyperconverged platform because it offered the flexibility to incorporate VMware along with futureproofing to allow for future changes.

**OUTCOME**

Improving data centre security was an imperative, with CDW orchestrating the wider deployment of virtualised networking and security to promote a more responsive software-defined data centre environment.