DELLTechnologies

Creating a groundbreaking digital learning environment

South Devon College builds Hi Tech & Digital Centre to develop skills for the benefit of the regional and national economy.

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> Head of IT Services at South Devon College

Business needs

South Devon College had secured funding to build a Hi Tech & Digital Centre that would satisfy the requirements of current and future students for a modern learning environment. It needed to source leading-edge technology that would deliver its vision for collaborative and cross-discipline teaching as well as remote working.

Business results

- Helps produce digital skills to support the local and national economy.
- Enables digital learning and collaboration across multiple disciplines.
- Supports remote and flexible working for all of its staff and students.
- Cost-effective solution is simple to roll out, manage and update centrally.
- Flexible solution can expand in line with the college's growth plans.
- Teaching staff can share and display content from anywhere in a classroom.

Solutions at a glance

- Dell EMC PowerEdge R740 servers with Intel® Xeon® Scalable processors

- Dell Wyse thin clients powered by Intel Celeron® quad-core processors

- Dell Latitude laptops based on Intel Core™ vPro® processors

- Dell EMC PowerSwitch switches and Dell Aerohive access points

- Dell 75 4K Interactive Touch Monitor (C7520QT)

South Devon College is a further education institution that provides a wide variety of courses on nine campuses within Torbay and the surrounding area. It is part of the University of Plymouth Colleges network and awards foundation degrees for students studying at University Centre South Devon.

The college had secured funding to build a Hi Tech & Digital Centre that would satisfy the requirements of students for a modern learning environment and help build digital skills for the regional and national economy. Paul Cooper, head of IT services at South Devon College, says, "Technology is now all-pervasive, touching every part of our lives. Students want to know they can access the latest technology, which they will use in the world of work as well as when building next-generation products and systems."

Cooper consulted with curriculum heads to identify their preferences for how technology could be used more effectively when teaching their subjects. "We wanted to apply lessons learned from other sectors about how teams could work in a more agile, flexible, mobile and collaborative way, rather than in 'subject silos' and traditional classrooms," says Cooper. "The new centre was designed to host local tech startups that students could work with, too."

Turning vision into reality

An initial open day to pitch the concept to suppliers did not yield any suitable solutions, but as part of a second round, the college asked Dell Technologies to develop a proof of concept for what would become the successful technology design. Intel helped by giving demonstrations of Intel Unite, which is now an integral part of the solution.

"Our focus was firmly on the user experience, not tin and wire," says Cooper. "We left it up to Dell Technologies and its Platinum Partner Nviron to design the specification, which also needed to be modular to support our planned growth as well as easy to roll out, update and manage."

Following a stringent selection process, the college asked Dell Technologies to build the chosen Intel-powered solution. It is based on end-to-end Dell Technologies equipment including Dell 75 4K Interactive Touch Monitors, Dell Wyse thin clients, Dell OptiPlex desktops and Dell Latitude laptops.

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It further includes VMware Horizon desktop and app virtualization software, Dell EMC PowerSwitch N3000 Series switches, Dell EMC PowerEdge R740 servers and Dell EMC SCv3020 storage.

The technology centre's wireless platform comprises 50 Dell Aerohive devices and is managed with Dell HiveManager NG Cloud. The college has also deployed Dell EMC OpenManage Enterprise and an Integrated Dell Remote Access Controller (iDRAC).

A variety of Intel technologies supports the Dell Technologies equipment, including Intel Xeon Scalable, Core and Celeron processing hardware, storage solutions with Intel Optane SSD, and persistent memory solutions.

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Nviron, in collaboration with Dell Technologies, was responsible for implementing the new platform during a challenging period, which included delays to the building's completion and final handover to the college. "The Dell Technologies and Nviron teams worked as one and were highly positive, responsive and supportive throughout the IT rollout," Cooper says. "They installed around 14 pallets of IT equipment in just a few weeks, which helped get our centre live as quickly as possible."

Collaborative, agile and mobile learning

A key goal of the new centre was to enable different groups of students — for example, those from engineering, creative and project management disciplines — to work together. Students can access technology on demand according to the task in hand, whether that's using a computer-aided design package or Microsoft Office 365, to collaborate on projects.

The centre has also changed teachers' experiences for the better. They can use mobile devices to cast lesson content onto large, high-quality interactive screens from anywhere, rather than being anchored to the front of the classroom. The screens have PCs with Intel Unite on them to drive screen sharing and enhance the learning experience.

The Hi Tech & Digital Centre was due to open officially in March 2020, but the college had to close for most students due to the COVID-19 pandemic. It quickly repurposed the VDI together with Microsoft Office 365, SharePoint and Teams to enable staff to continue working and teaching during lockdown.

"We have made sure we are at the forefront of digital learning with the system provided by Dell Technologies," concludes Cooper. "The centre will help us attract students from a wider area and equip people with the skills needed by the digital economy, both locally and nationally."