



King Edward VI College pupils powered by a widespread and robust Wi-Fi network



Building on an initial successful installation, King Edward VI College Stourbridge wanted to expand its wireless coverage to its entire college campus to provide access to 1,500 students and staff. D-Link and the chosen reseller, working closely with the college IT team, completed detailed site surveys to ensure full coverage to meet with the demands of users in different locations, and implemented the solution in a short timeframe with minimal disruption.

Students and staff can now access the network from anywhere on campus, using their own devices to browse the internet as well as college equipment in lessons, while the college IT team can centrally and easily manage the switches and 80 access points.

About King Edward VI College

King Edward VI College in the West Midlands is one of the leading sixth-form colleges in the country, providing A-level training to nearly 1,500 students. It ranks highly in national tables for academic achievement, is a Beacon College and in its latest Ofsted report was ranked as outstanding. As well as attainment, the Ofsted inspectors particularly highlighted the college's excellent support for students.

Located in Stourbridge in Dudley, the college has a historic campus which has been sympathetically developed, blending old buildings with modern facilities. This mix of the old and new, traditional values and up-to-date teaching techniques, extends to IT and the provision of a network infrastructure to support that.

Over the past two years, the College has undergone a number of IT infrastructure improvements. First, it relocated the server room from an old building where lack of ventilation and the presence of water pipes made it a less

than ideal environment for housing IT equipment. Second, it was going through an update of its backbone network, re-cabling the whole college with fibre optics. As part of this exercise a new core switch was implemented and the opportunity was taken to deploy a managed wireless network. This older 'G' standard network covered key areas of the site, and had grown to 13 access points as demand increased.

Sam Hartley, IT systems manager at the college, says: "The wireless was available and people could come in and go to hotspots to check their e-mail if they had a laptop. But with more and more students with smart phones, netbooks and tablets we thought having the ability to access the network anywhere in the college would be very beneficial."

Solution and Benefit

The new improved set-up from D-Link now includes 'N' standard wireless, with 80 access points spread across the entire college and Gigabit Ethernet switches bringing it right up to date with the best networking infrastructure available, all being managed by a D-Link central (unified) controller.

The site-wide wireless is more in tune with the way teaching is delivered, and it also saves space where rather than having a dedicated IT suite where students would go to use the computers, they could access the network from any classroom. "It addresses the difference in the way children are learning," says Hartley. "They can take their notebooks around the college campus. Or they can use their smart phone to look at something on the web."

The servers are now located in the IT Zone in a specially designed server room with racks, and a better environment for storing IT equipment.



"Hartley says: "You know it's working when you see students on their phones, checking their e-mails, and working away on their laptops."

— Sam Hartley, IT system manager at King Edward VI College



“The presence of a D-Link engineer was a big plus. It was fantastic really to have the manufacturer on board to answer any questions and to assure us it was going to work. They’ve seen multiple installations in different environments, so if they’ve seen something before they can advise us because they’ve got the experience and vision.”

— Sam Hartley, IT system manager at King Edward VI College

It was essential to test the equipment in situ because obstacles such as concrete floors, under floor heating or thick walls can cause obstruction to the signal.

The implementation was designed to cause minimal disruption to the college, with all the equipment preconfigured off-site, all the ports and access points set up with the correct addresses so engineers onsite just had to set them in place, and test them. Although cabling took two weeks and installation a week, the jobs ran simultaneously so the whole project was completed in a two-week window.

“We also had post-deployment support where D-Link came out to assist us with one or two set-up issues,” adds Hartley. A couple of issues related to co-channel interference, which is inevitable with 80 access points across the college were ironed out easily, while some devices needed drivers updating to be able to fully utilise the wireless network.

The fact the network is a managed environment also makes life easier for the IT team. “The management features all work well and the Power over Ethernet simplifies it further,” says Hartley. Being a managed solution, once a device is registered with the wireless it can be used anywhere around the college. “In

the past, each access point had independent configurations, whereas now if we change a setting or password on the system, it can be pushed out around the campus within a matter of minutes.”

The college is trusting in allowing students to use the internet with their own devices, with the necessary controls and security in place. But the drive to upgrade the network came from the top and the principal and senior management team were keen to ensure all students had access to the network. “There’s no question this ability to provide the network campus-wide was seen as a great leveller, as not every student that comes here would be able to afford 3G,” says Hartley.

For the college, Wi-Fi is also seen as a differentiator. “It is quite a big selling point. It does set us apart. Students don’t have to pay data charges to use their devices, so it helps from their viewpoint, and there’s this always on technology which they can use to look up some information to help with their studies.”

The set-up not only puts the college ahead of the curve today, it also allows it to develop going forward, with the ability to expand the network to cater for future growth or extra access requirements.