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Kate Day, Head Teacher at Greenfields Primary School

Company name:
Greenfields Primary School

Industry:
Education

Company website:
greenfields.herts.sch.uk

Geographic region:
Hertfordshire, UK

Greenfields Primary’s wireless network fit for teaching 21st century children

SUMMARY

In 2022, Greenfields UK primary school replaced its existing, overstretched internal communications network with one that gives it the capacity, speed and reliability to support its pupils and staff, both now and in the future. Plus, the network fits around the physical limitations imposed by the main building’s heritage status. Designed, installed, and supported by Con Ed (an education IT specialist company), the network’s backbone is built using NETGEAR Pro WiFi access points and multi-gigabit Ethernet switches.

BACKGROUND

Located in Watford, Hertfordshire county in the UK, Greenfields primary school has just over 200 pupils ranging from age five to 11, with one form (class) across six years. Pupils are supported by approximately 40 adults on-site across teachers, teaching assistants, and administration staff, all under the guidance of head teacher Kate Day. The building itself is Grade II-listed, meaning it is defined as a UK building or structure that is ‘of special interest, warranting every effort to preserve it’, so any amendments are either limited or subject to permission from the relevant authorities.

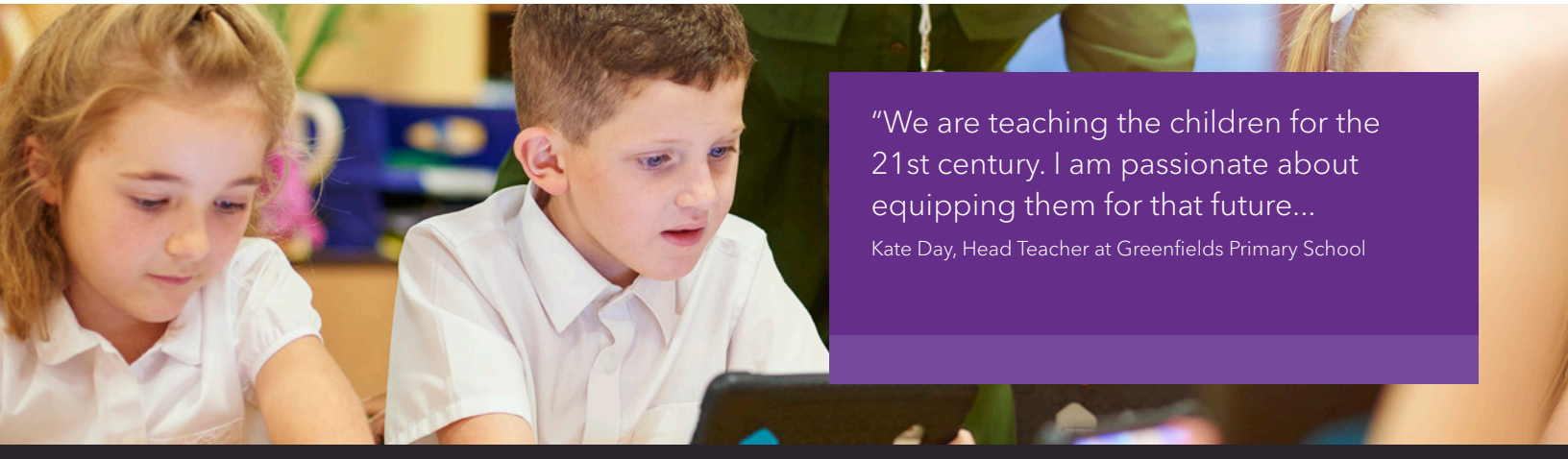
CHALLENGE

When Kate Day took over as head teacher in 2019, much of the computing equipment available to pupils was largely out-of-date. While a network was in place, the school layout and its Grade II-listed status presented a challenge. For example, when a new classroom was built and needed connectivity, rather than being able to install new cables, these had to go over the top of the main building. The network’s capacity was also struggling to keep pace with demand, which was expected to continue increasing. So Kate Day prioritised pupils’ most immediate technology requirements and began planning what was required next.

Then, the pandemic hit and children were taught from home, using new equipment distributed by the government. Teachers were either home-based or individually isolated within the school building. Suddenly, the strain on the already over-stretched network reached a new level. Since then, while children may have returned to physical classrooms, the demand on the network has remained.

Says Kate Day, “Even once the lockdown ended, it was clear that we could not continue with the existing network. We might have eight classes trying to use the network to download material at any time, with teachers using digital whiteboards and teaching assistants working separately with





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smaller groups. I, the deputy-head, and other team members could be in virtual meetings or carrying out PPA (planning, preparation and assessment) and needing to access the network."

SOLUTION

Kate Day turned to the services of Con Ed, which has supported the school since 2005. Focused on helping IT in schools in Hertfordshire, Watford-based Con Ed provides various tailored services across equipment installation, support, and training, including telecommunications and network requirements.

Says Kate Day, "We'd already got an established relationship with Con Ed and value their knowledge, guidance and expertise. So, I contact Shree Deb at Con Ed when we need technology help." On this occasion, Shree responded with a proposal aligned with the available budget and requirements while taking a longer-term view. Shree explains, "Our recommendation was to maximise return on investment by planning for the future. It's like planning for an eight-lane motorway instead of just three: while not all lanes are needed today, they certainly will be in five years."

At the heart of Con Ed's recommendations were 10 NETGEAR WAX630 Pro WiFi access points, supported by four NETGEAR MS108EUP multi-gigabit Ethernet network switches, to immediately give the school a significant uplift in both speed and capacity. In addition, since this wireless equipment from NETGEAR can use Power over Ethernet (PoE), the need for additional electrical wiring is reduced, an essential consideration in a listed building with planning restrictions. As well as the main network for school staff and pupils, a guest network for visitors is now provided and secured via its own VLAN.

Says Shree Deb, "We recommended the NETGEAR products because they provide the right balance of performance and price for the school. In fact, we could come in under budget by using NETGEAR." A further benefit is Insight, NETGEAR's cloud-based network management tool. "Insight means we can monitor the network, alert the school about any issues, and in most cases, fix those remotely."

www.netgear.com

Adds Kate Day, "NETGEAR is a name I recognised and knowing that I have a company like Con Ed that I can really trust, together with a reliable equipment manufacturer, I can be confident we were doing the right thing."

INSTALLATION

Once the school governors had approved the proposal, the next step was for Con Ed to test out the equipment off-site, followed by installation of the network in the school during the summer holidays (to minimise disruption to staff and pupils). The process took about three days, including dealing with some unforeseen issues, such as adjusting firewall settings for both legacy and new equipment interoperability.

Says Shree Deb, "We did need to have one product replaced, but the issue was dealt with as soon as it was raised, and the replacement was received the next working day. As this was our first experience with these products, we did use NETGEAR support services, which worked well for us."

RESULTS

Since installation, the network has provided the robust and improved performance the school was seeking. Kate Day explains, "Staff have noticed that network connectivity is much more reliable, with a smoother, better experience. For example, I have regular meetings involving many people, and I've not had a single issue with freezing or other problems."

"We are teaching the children for the 21st century. I am passionate about equipping them for that future, including introducing them to exciting new things and enabling them to use technology at school. Reliable network connectivity is part of that, and I would definitely recommend NETGEAR and ConEd to other local schools."

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