ZYXEL
NETWORKS

Between a virtual whiteboard and a hard place

How MSPs can help schools and trusts to successfully implement flexible cloud-first IT strategies

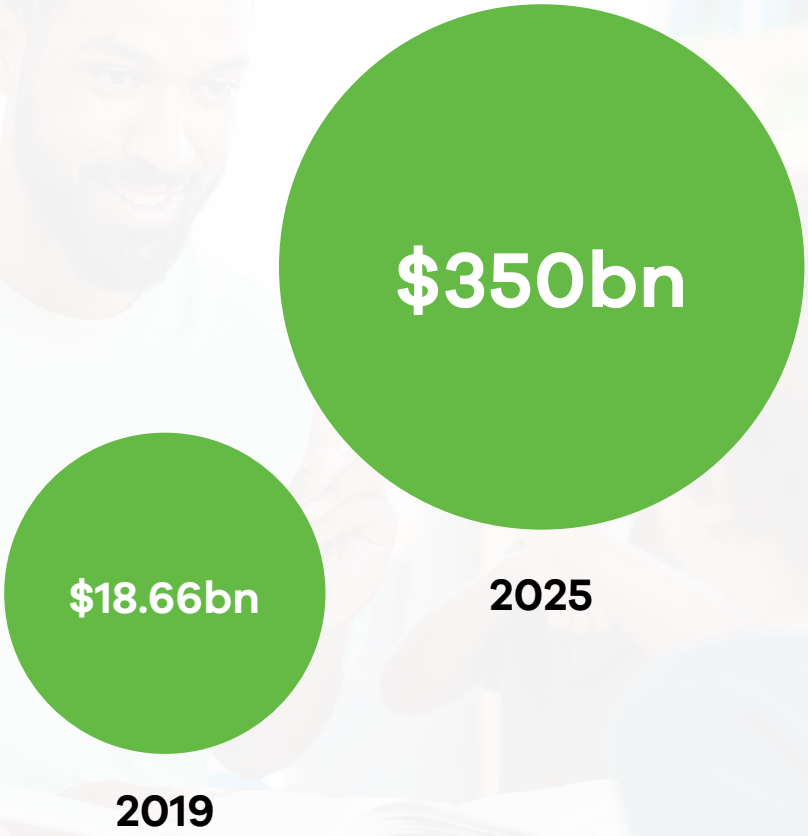
Education for MSP

Why a secure cloud first strategy in education is now key

A well configured network and IT infrastructure leads to better learning opportunities, and less work for teachers. IT's as simple as that – so much so that the UK government leads with these two benefits on its online guidance for schools looking to improve their digital prowess.

For the last two decades the evolution of classroom technology has continuously reshaped lesson plans, the curriculum and learning styles, and continues to do so. Despite this, digital transformation in the classroom has lagged behind other sectors, perhaps due to a lack of alignment between technology, curriculum and intention. However, this has changed dramatically in recent years as cloud technology became more accessible and the value became more inherent.

The last few years have seen high growth and adoption in education technology globally, with cloud technology opening new doors, resulting in EdTech investments reaching US$18.66 billion in 2019 and the overall market for online education projected to reach $350 Billion by 2025.[1]



EdTech investments reached US$18.66 billion in 2019 and the overall market for online education projected to reach $350 Billion by 2025.1

In addition to the growth of cloud, the pandemic has further accelerated the adoption and sophistication of digital and blended learning models powered by IT. The shift from “nice-to-have” to overnight necessity has meant this has happened at a speed that in many instances has outpaced the implementation of critical IT, infrastructure, and security needed for blended learning to work successfully.

Schools and trusts are now very aware of the importance of Networking and Security. As a result, the perception of IT within schools is changing from “utility” to “enabler”. Schools are searching for secure, reliable, and easy-to-manage IT estates that allow them to focus on delivering high-quality education without downtime, disruption, or disconnection.

Digital classrooms are becoming more apparent

Trusts that have implemented the right infrastructure, networking and security, and successfully centralised the management of the school’s networks are finding it easier to keep all their schools up to date with the latest technology.

Today, with IT playing a fundamental part of the curriculum at every level, it's never been more important for schools to ensure their wireless, networking and security equipment are cloud-ready, flexible and at a standard to support the high-bandwidth requirements of hundreds of users.

For education IT resellers and solution providers, this poses a unique opportunity. For schools to be truly "cloud ready", appropriate infrastructure and network security is vital. This means schools need to ensure that they have the right networking infrastructure in place. By upgrading their core switching and WiFi and securing their network, key stakeholders can provide students, staff, and visitors with a cloud ready school.

The value of digital classrooms is becoming more apparent on a macro and micro level, and this is putting network technology to the forefront of the discussion. More and more, trusts are having serious discussions with MSPs about cloud technology, and are reaching out to technology specialists to support and manage long-term IT strategies with cloud at the core.

How can you solve the challenges of complexity and cost for schools and trusts?

A well configured network and IT infrastructure leads to better learning opportunities, and the ability to reduce IT costs by 25% - 45% while providing a better foundation for hybrid learning. Now's the time for education technology providers to add managed services into their portfolio to solve these challenges for customers while generating sustainable revenue streams for their business.

Yet, even the most sophisticated managed service proposition still requires a strong technology foundation; without a dedicated broadband connection and adaptive ICT infrastructure in place, the provision of remote learning is still challenging. To further complicate matters, IT security in schools is rapidly becoming a requirement that needs active management.

Network security that goes above and beyond traditional firewalls

The education sector is a hotbed for cybercrime. Schools are a popular target for hackers because they often have inferior protection, store a lot of sensitive or PII information, and are host to lots of users with limited security knowledge.

A 2021 cybersecurity survey from the UK government highlighted that as many as 26% of FE colleges, 6% of primary schools and 15% of secondary schools experience a breach or attack on a weekly basis.

Just like in a corporate environment, increasing reliance on IT infrastructure and remote resources introduces new risk vectors that need to be addressed to ensure the safety of data, resources, students and staff.

As school networks and dependency on cloud resources increases, so too must the grade of security. This fact is being recognised by senior figures within schools, governers, and trusts, with 96% stating that cyber security is a high priority. The real problem with simple, traditional firewalls is that they don't really do anything else except block, deny or allow traffic.

Cybersecurity survey highlighted attacks across education sectors*

26%
FE Colleges

Breach or attack every week

33%
Secondary Schools

Loss of control, data or money

Cybercriminals found ways around this kind of basic protection a long time ago. Today's multi-threat, multi-vector security threat landscape simply means that the "block" or "accept" approach is not effective enough. For next-generation protection, schools need next-generation security, in the form of Unified Threat Management (UTM). This provides much more intelligent monitoring of traffic flowing across the entry point to your network, and evaluates a range of factors of the incoming data. And, because many of the leading UTM platforms can be managed through the cloud, there's an opportunity here for MSPs to deliver managed services and build recurring revenue streams.

Discover Zyxel's range of education network security hardware ›

IT infrastructure that's top of the class

Poor infrastructure will have a negative impact on lessons and staff, as well as on the pupils' ability to learn – it's as simple as that.

Even with the best leased line and a well-aligned WAN and LAN networks, if the WAN and LAN networks are poorly designed or misaligned, or if the wireless and switching is inadequate, classes can be slow to start, resources may become inaccessible, there's a higher demand for expensive tech support, and more prone to outages.

Future-proofing your network by bringing in affordable yet high-quality switches is crucial. Faster, denser networks help to ensure and maintain quality when running multiple bandwidth-intensive applications across the network.

Being able to manage these switches remotely via cloud-managed functionality can also have a significant positive impact on resilience, agility, and uptime Being able to reconfigure, troubleshoot or even install a switch remotely will allow schools to manage their network with additional flexibility and address new or changing demands as they come up.

Discover Zyxel's range of education switches ›

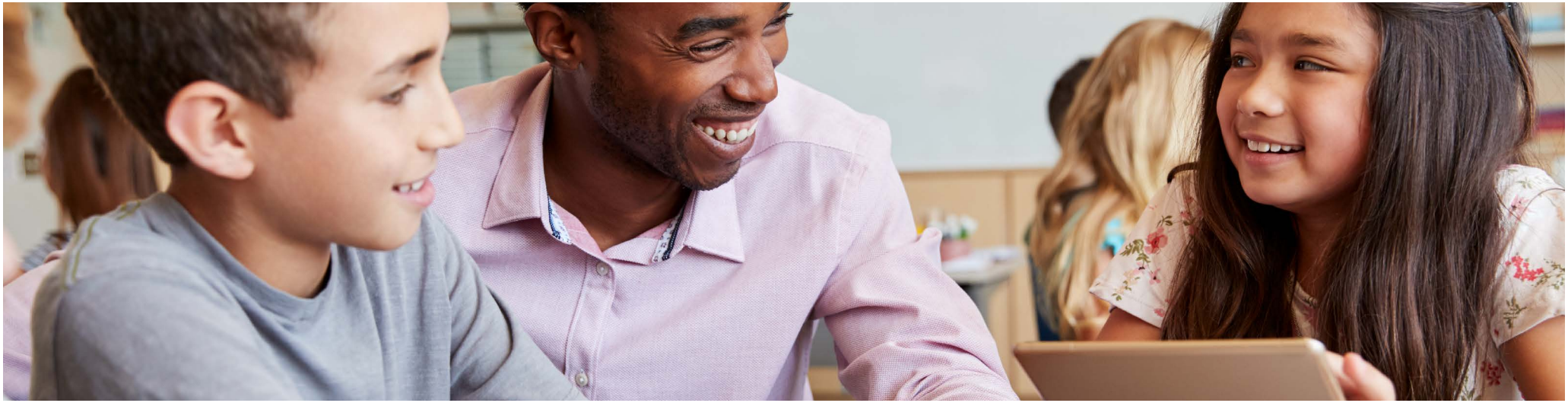
Why a secure cloud first strategy in education is now key

In schools and colleges, the wireless network will often be congested with hundreds of pupils and staff all trying to connect devices in different places at different times – and all of them consuming rich, multimedia content and sending as well as downloading files throughout the day. The new 802.11be wireless networking standard, or WiFi 7 as it is more commonly called, addresses this challenge by increasing client density, and lowering latency. Ultimately, this means WiFi 7 access points can talk to more devices at once – and faster, reducing load times even in high-density environments.

With WiFi 7 there is no contention, no waiting, and no degradation in performance. This improvement – along with the much faster, multi-gigabit speeds that it delivers – make WiFi 7 a great technology for any school or college that often has many users and devices connected simultaneously.

It's worth noting that to get the full benefit of WiFi 7, schools also need to consider the bandwidth capabilities of their network infrastructure. Implementing multigigabit switches with PoE ports can help to ensure schools extract every penny of value from their WiFi investments.

Discover Zyxel's range of education access points ›



Why WiFi 7?

- WiFi 7 offers astounding speeds of up to 46Gbps, five times faster than WiFi 6/6E's 9.6Gbps.
- WiFi 7 supports new 320MHz channels in the 6GHz band, doubling bandwidth to accommodate more devices simultaneously.
- WiFi 7 adopts 4K QAM modulation, increasing data from 10 to 12 bits per symbol for a 20% boost in peak data rates.
- WiFi 7 latency performance is significantly improved, thanks to the new capabilities like Multi-link operation (MLO).

Providing managed services with Zyxel

The acceleration of digitalisation and hybrid learning represents a massive opportunity for resellers that can support the evolving requirements of their education customers. Adding a managed services layer that's easy to maintain – on top of your existing services – could help to facilitate this goal.

Zyxel can make the delivery of network-based managed services simple and comfortable – and help to provide a profitable, forecastable and stable revenue stream for your business.

Introducing Zyxel Nebula: the ideal Cloud managed networking solution to get started with Managed Services

Cloud-based netwworking monitoring and management

Nebula is Zyxel's cloud-based network monitoring and management system. It is designed to allow simplified, central, or remote configuration and management of devices. It provides comprehensive management functions and simple dashboards provide clear views of network and device status that can be interpreted and acted upon immediately.

Simple is key

Nebula can become the centrepiece of your managed network services proposition. In our view, becoming an MSP need not be complicated. We make it simple for our partners to learn about Nebula and become confident is using it for the configuration and management of network devices.

Full training

We provide comprehensive training, onboarding and support, so you can always be confident of being able to meet the needs of your customers, even in the early stages of developing your MSP business. Both sales and technical tuition is provided, and support is delivered locally. As well as formal training, a series of regular workshops and webinars are available to help you to deepen your knowledge and confidence in Nebula. You will not be asked to commit to any ambitious targets – only to essential sales and technical training.

Learn more about network management with Zyxel Nebula

Round the clock support

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Easy installation

Once a new device has been connected and switched on, it will automatically be recognised by Nebula, and the installation will be completed. This process will usually take only a few minutes. It is easy for everyone involved and also has the advantage of keeping costs down, as no physical site visit is necessary.

Remote configuration capabilities

Nebula's remote configuration capabilities make it ideal for the current circumstances, as you can set-up devices before they are delivered to the customer. This allows partners to circumvent any situation in which entry to the customer's premises for non-members of staff are restricted or even vetoed for the present time. The configuration of devices can also be changed with Nebula, so any adjustments can also be made remotely.

All the configuration settings can be applied before the device is shipped. No technical knowledge or acumen is required to carry out the installation. The user can simply unpack the device and connect it as instructed. If required, reseller or MSP staff would be able to provide effective support via telephone or video conferencing.

Learn more about network management with Zyxel Nebula

Cross-platform usage

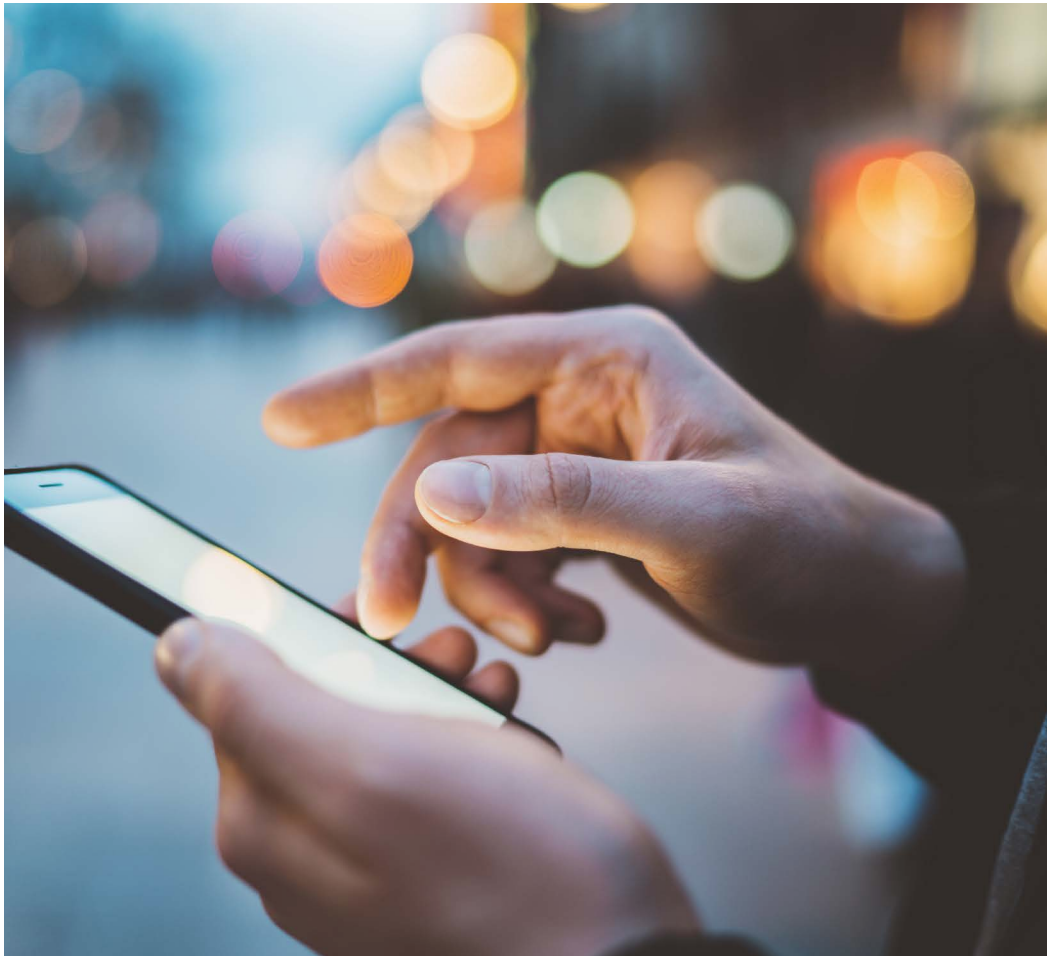
As well as any PC or laptop. Nebula can also be used on smartphones, allowing technical staff to check on network performance and make configuration changes or re-sets, wherever they are and at any time of day. If you are offering 24/7 monitoring, this could be vital.

Remote installation

The value of these capabilities can't be understated given the ongoing challenges that customer organisations are facing. Being able to set-up and configure devices remotely protects both the staff on the customer's premises, and the would-be installer. Once safely installed, monitoring of network devices can be carried out remotely by the MSP – or indeed by the customer's own administrators, if that is preferable.

Diagnostic tests available remotely

Another important benefit of Nebula is that it can be used to perform diagnostic tests remotely, so engineers can identify faults without having to physically visit the site. Subsequently, it may be possible to resolve the problem by re-setting or re-configuring devices over Nebula, or by ordering a swap-out which, due to the remote set-up capability, will not require a site visit.



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