



More than Wi-Fi

How nuclias cloud or nuclias connect can provide you a flexible and scalable Wi-Fi solution.



nuclias for education

With modern learning techniques, it's crucial to address the common IT challenges faced by educational institutions of all sizes, from schools to universities. These challenges, including slow internet connections, inconsistent Wi-Fi coverage, and connectivity blackspots, often stem from outdated network infrastructure. Despite the critical nature of these issues, upgrading the infrastructure is frequently overlooked.

In the evolving educational landscape, institutions are increasingly adopting data-intensive technologies such as:

- Augmented Reality/Virtual Reality (AR/VR),
- Remote learning platforms,
- Cloud-based resources,
- Adaptive learning systems.

These advancements are essential for modernising education and enhancing the learning experience. However, inadequate network infrastructure can hinder the adoption of these technologies, potentially leading to decreased enrolment as students seek institutions that offer a more innovative and seamless learning environment.

The Challenge

The surge in the number of devices connected to the network, driven by these technological adoptions, places additional strain on existing infrastructure. This can disrupt critical systems on campus and impede e-learning efforts. Devices may underperform due to insufficient bandwidth, leading to slow or unresponsive applications and excessive video buffering, causing frustration among students and faculty alike.

Investing in robust network infrastructure is no longer optional but a necessity to support the integration of new technologies. Without this investment, educational institutions risk falling behind, negatively impacting students' e-learning experiences and making the institution less appealing to prospective students.

Evaluate your current infrastructure

It's essential to evaluate your current network infrastructure, particularly focusing on network switches. Are they capable of handling the increased load from new connections? Do they offer the scalability needed to accommodate the growing number of connected devices?

D-Link's Nuclias Cloud and Nuclias Connect solutions are designed to address these challenges head-on. Our solutions offer scalable, reliable, and easy-to-manage networking options that ensure your institution's infrastructure can support current and future technological demands. By choosing D-Link, you're not just upgrading your network; you're investing in the future of education, ensuring your institution remains competitive and attractive to both current and prospective students.

D-Link solutions – nuclias cloud

In the rapidly evolving educational sector, managing and scaling ad-hoc networks efficiently is crucial. D-Link addresses this challenge with our Nuclias Cloud solutions, designed to centralise network management and ensure scalability. These solutions enable educational institutions to monitor and maintain their network infrastructure from anywhere, providing a solid foundation for IT environments.

At the heart of a modern educational network should be robust switches and powerful Wi-Fi access points, ensuring reliable connectivity for all digital learning tools. Cloud solutions have transformed technology deployment, reducing the need for large teams to manage network components.

D-Link's Nuclias Cloud solutions cater to the limited resources often available in educational settings, offering centralised control over expanding networks. This approach not only simplifies network management but also prepares institutions for future growth and technological advancements. By choosing D-Link, schools can enhance their digital learning environments, making them more appealing to students and ready for the future of education.

Third party integrations

D-Link's Nuclias solutions include 3rd party integrations, offering educational institutions the opportunity to create an inspiring and productive learning environment supported by a safe and secure WiFi network. This partnership enhances the digital experience for both students and staff, ensuring they can leverage the full potential of the web in their educational pursuits.

Key benefits of integrating Nuclias:

- **Safe and Secure WiFi Connection:** Ensures that the network is protected against unauthorized access and cyber threats, providing peace of mind for both educators and learners.
- **User Management:** The ability to whitelist and blacklist users helps prevent network misuse, ensuring resources are used appropriately.
- **Automated Communications:** Send automated email and SMS messages to keep staff, students, and parents informed about important updates and announcements.
- **Streamlined Processes:** Enhance internal communication and operational efficiency through the Wi-Fi network, simplifying administrative tasks.
- **Wi-Fi Analytics:** Utilize Wi-Fi analytics to monitor attendance and engagement, providing valuable insights for improving educational delivery and campus management.

By integrating with Nuclias, your educational institution will enjoy a seamless, password-free, and secure Wi-Fi experience. This easy-to-manage network solution not only elevates the educational environment but also supports the administrative and operational needs of schools, colleges, and universities.

nuclias cloud for education



nuclias is designed to give schools, universities and other educational institutions the centralised management they need to provide seamless Wi-Fi connectivity to large numbers of students, across large campuses, without compromising their safety and privacy.



Easy to use, easy to configure



Secure encrypted communication between the device and the cloud



Social login for Wi-Fi access supported



Advanced traffic report and data analysis



Over-the-web firmware upgrades



Zero-touch deployments



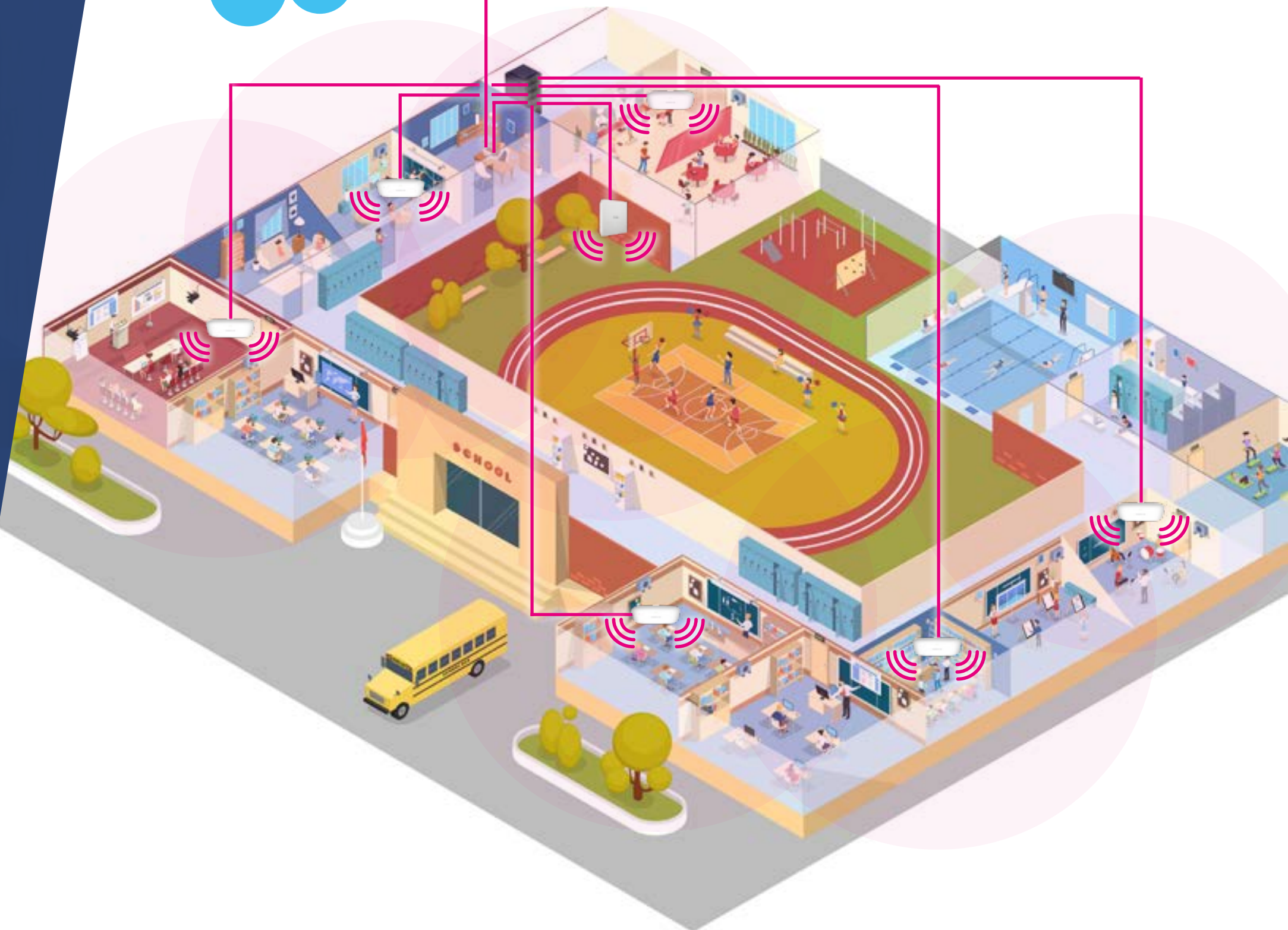
Automatic monitoring and alerts



Role-based administration



Intuitive web-based interface with multilingual support



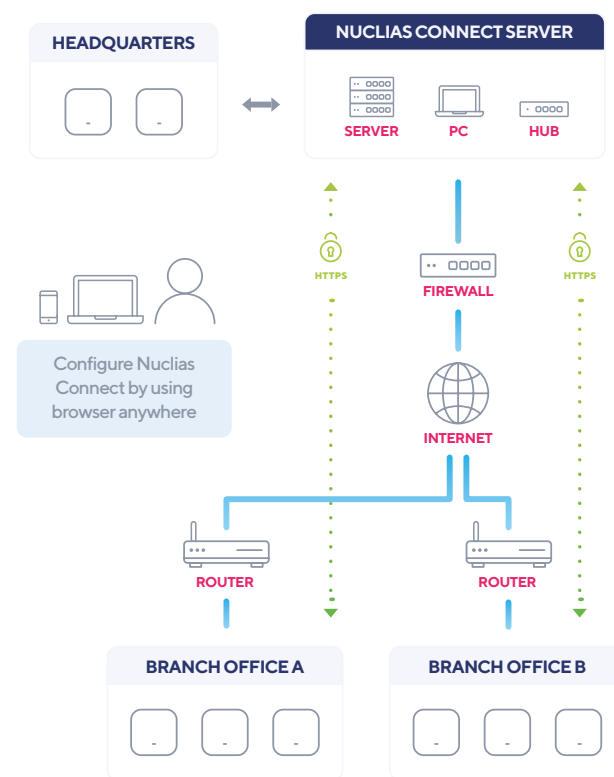
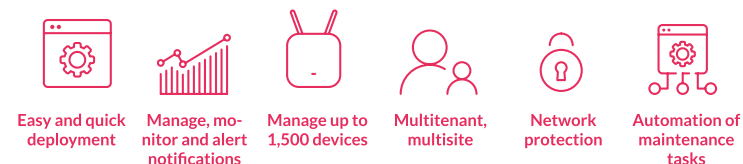
what is nuclias connect?

nuclias connect is a unique platform for managing and monitoring your network infrastructure, including switches, Wi-Fi access points, and VPN routers, from anywhere, anytime. It's easy to use, free and without subscription charges.

With automated deployments, task scheduling and alerting capabilities, you save time by eliminating repetitive and routine maintenance and configuration tasks.

With nuclias connect, you can:

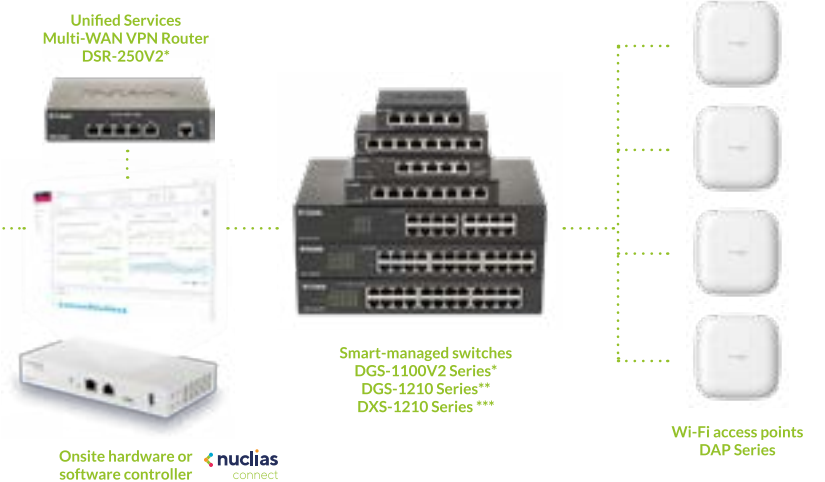
- Quickly and easily deploy networking devices from a single location
- Manage, monitor and maintain your entire network
- Secure your company's network and adapt when necessary
- Be alerted instantly with device malfunctions
- Compliant with public Wi-Fi legal requirements



How does nuclias connect work?



* DGS-1100V2 compatible soon on models 10 ports or more
 ** DGS-1210 hardware revision Fx/Gx only
 *** DXS-1210 hardware revision Bx only



At the heart of your infrastructure is the nuclias connect controller. Software or hardware, the choice is yours!

The controller fulfils different roles and objectives:

1. Centralised zero touch deployment and provisioning of network devices through profiles. Management by profile allows you to save time by avoiding repetitive deployment tasks.
2. Monitor your network with deployment reports, network topology, Wi-Fi client statistics, switches port status, etc.
3. Alert you in the event of devices malfunctioning or going offline, firmware updates, configuration changes, etc.
4. Network troubleshooting with event logs.

Easier for you to install switches, Wi-Fi access points and VPN routers:

- Directly retrieve their configuration made on the controller
- Report various information to the controller (statuses, statistics, etc.)
- You have an overview of the network infrastructure and your different sites on a single interface.

Private cloud installation



If you prefer to create your private cloud instance, it's possible! Installing the nuclias connect software on your server or data centre allows you to manage your different sites on a private infrastructure controlled from end to end.

There are many advantages of hosting nuclias connect on a private cloud:

- A single, centralised controller for your various multi-site deployments*
- Total control of your infrastructure
- A large capacity of up to 1500 network devices
- Rapid integration of equipment into the existing private cloud infrastructure

Why use nuclias for Education?



Wi-Fi Access in every classroom

Digital learning is becoming more important in the classroom, it allows teachers to better engage with students and enrich their learning. D-Link's nuclias wireless solutions are designed to give your campus strong, reliable and seamless Wi-Fi coverage.

With outdoor AP's, your Wi-Fi network can cover the school grounds, meaning that learning is not just confined to the classroom.

Bring Your Own Device (BYOD)

With BYOD in place the School/College/University must have a strong, secure and flexible Wi-Fi network capable of supporting multiple client devices, as students will want to connect smartphones, tablets and laptops to the Wi-Fi.

There has never been a more important time to ensure a secure wireless solution for your school, which our nuclias platform can provide.

Implementing BYOD can bring with it its own concerns, however with nuclias cloud creating a segmented network to keep your important devices safe has never been simpler. Create wireless networks which allow internet access but not to school services and resources, ensuring peace of mind.



We'll take care of the plans!

D-Link's team of technical experts can plan the best Wi-Fi solution for you, no plan is too big or small! Arrange a site survey for your public sector project to ensure the best coverage and advice.

If you'd rather do it yourself, we have powerful free planning tools at your disposal, simply become a VIP+ partner to gain free access.

How to choose the right access points?

The choice of a professional Wi-Fi access point depends on several factors, such as the space area to be covered, the number of simultaneous users, the applications used, the security and the necessary functionalities.

Here are some criteria to consider when choosing a professional Wi-Fi access point:

- **Range:** Choosing an access point that offers sufficient range to cover the entire space is important.
- **Capacity:** It is essential to choose an access point that can handle a large number of users simultaneously, and that can support bandwidth intensive applications.
- **Security:** The access point must offer robust security features, such as support for WPA2 or WPA3 encryption protocols, intrusion detection and access policy management.
- **Features:** The access point should offer advanced features such as support for multiple SSIDs, centralised management, quality of service (QoS), and guest network support.
- **Compatibility:** The access point must be compatible with the existing network and other network equipment.
- **Management:** Choosing an access point that can be easily managed and configured, preferably via a web interface and a centralised solution, is essential.

Securing your Wi-Fi network

Securing a Wi-Fi network is essential to protect user data and prevent unauthorised network access.

Here are some of the important things to consider when securing a Wi-Fi network:

- **Using a strong password:** The first step in securing a Wi-Fi network is to set a strong password for the wireless network. This password must be complex, difficult to guess and be changed regularly.
- **Use of an encryption protocol:** Encryption protocols, such as WPA2 or WPA3, allow the data sent over the Wi-Fi network to be encrypted, which prevents any unauthorised person from intercepting and reading these data
- **MAC address filtering:** This feature limits access to the Wi-Fi network to specific pre-approved MAC addresses. MAC addresses are unique for each device, and this feature helps ensure that only authorised devices can connect to the network.
- **Using a guest network:** A separate guest network allows visitors to access the Internet without having access to corporate private network resources.
- **Ensuring network equipments are running latest software:** Network equipment, such as access points, must be regularly updated with the latest security patches to avoid any vulnerabilities.
- **Use of a firewall:** Using a firewall allows you to monitor and control traffic entering and exiting the network and block unauthorised connections.
- **Implement a network access solution (NAC):** The NAC controls access to company resources through the establishment of authorisations and the application of policies. It is based on the 802.1x authentication protocol (RADIUS)

It is essential to combine several security measures to strengthen the protection of the Wi-Fi network and minimise the risk of attacks.

Case study

Paradigm Trust

Refreshed networks - Nuclias Cloud managed solution for an Educational Trust in London & Suffolk.



Customer: Paradigm Trust
Industry: Education
Location: UK
Challenge:
Full Campus Wireless coverage
Solution:
DBA-X2830P, DXS-3610, DGS-3610 & 3 year cloud licenses
Results:
Improved wireless coverage and security
Feature rich wireless network

Paradigm Trust (Paradigm) is a not-for-profit educational trust with schools in Ipswich and Tower Hamlets that are free and open to all. Paradigm has a very simple ethos: to develop and sustain great schools where we can make the biggest difference to pupils. Our values are:

- Integrity – doing the right thing even when no one is watching.
- Excellence – enabling everyone to achieve more through education.
- Community – working together; learning from, and supporting, others.

Paradigm are looking to improve and embrace a digital policy across their schools, by migrating towards a cloud managed solution, so they were pursuing a solution to improve their network speed and capacity, that's also easy to maintain.

Challenge

To deliver a robust and scalable Wi-Fi network to meet all current and future needs. Providing seamless roaming wireless across their campuses and office teams while segmenting the network to ensure that security and data remains safe and secure. Having a scalable solution was paramount, so that adding additional devices and increasing the network demand, didn't cause disruption to key systems within the school, hampering students' e-learning.

Solution

D-Link provided a cloud based solution via it's nuclias platform, setting up a full wireless network of high density access points to provide the highest speed and connectivity available.

nuclias access points DBA-X2830P were deployed for a state of the art wi-fi 6 wireless cloud managed solution, enabling the school to create the fastest campus wide wireless network possible, with PoE as standard. D-Link along with Levett consultancy, worked together to plan the best deployment of access points across their campuses in order to provide the required range of broadcast.

The Nuclias 3 year licence enables cloud management on the access points for an additional 3 years.

This solution was installed by our MSP partner Levett Consultancy provided a fully rounded service from design, project management and ongoing support of the solution - see their services here: <https://levettconsultancy.co.uk/solutions>

Result

The D-Link solution nuclias platform has delivered a fast & robust solution for the Ipswich academy, one of the Paradigm Trust schools students and staff. It has enabled them to make the most of technological advances in delivering e-learning seamlessly. Remote network management has taken a strain from the on-site IT resource.

Paradigm is following Levett Consultancies 'Your Cloud' strategy enabling flexible learning environments built on the foundations of a scalable and robust D-Link infrastructure

Products & Services



DBA-X2830P



DGS-3130-54PS



3 year nuclias cloud licences



DXS-3610-54S

D-Link and you A partnership and local support

D-Link's success as a provider of network and video surveillance solutions is based on our commitment to our partners. Our Value in Partnership + programme builds on these relationships and offers an end-to-end support that will increase your skills and profitability.



Benefits

- Free certified commercial and technical training
- Personalised support for your projects
- Special project prices
- Pre-sales tools: Wi-Fi planning, product selector etc.
- Technical resources: technical library, typical architectures, tutorials, etc.
- Priority technical support



Managed Service Provider

Everything included with the Value in Partnership + program

Plus

- Gold level VIP+ status
- Free product set for testing
- License discounts
- Marketing MDF

Contact us for more info!

The D-Link logo is rendered in a bold, white, sans-serif typeface. The letter 'D' is significantly larger and more prominent than the other characters, which are 'Link'. A registered trademark symbol (®) is positioned at the top right of the 'k'.

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