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Buyer's guide

How Fast Growth Businesses Can Simplify And Future Proof Their Networks

Fast growth organisations have a lot to contend with; whether its attracting investors, securing loans, hiring staff or expanding into new markets, it all takes time, effort, resources and planning.

What these businesses can't afford to do is to waste time focusing on non-core business operational issues; nowhere is this more critical than with IT. It's vital that any technology that is chosen just works, with minimal management overhead. Even more importantly, it also needs to scale – fast growth organisations need fast growth infrastructure. The cost needs to scale too – they won't choose paying for capacity today that they won't need until tomorrow.

At the same time, there can be no compromise on quality; if these new and emerging businesses are going to compete with more established, larger, better-resourced competitors, they need an infrastructure that they can depend on. Fast-growing companies need robust infrastructure that enables them to experiment, transform, and engage more rapidly than more established businesses. In other words, this infrastructure needs to be the basis of Digital Transformation.

When it comes to network connectivity, in the past, fast growth organisations have had to make a choice between enterprise-grade networks that are over-engineered for their needs, costly to buy and complex to configure and manage or consumer grade basic connectivity that is much lower cost but lacks scalability, flexibility and fails to deliver the functionality their businesses need.

Now, with cloud-based managed networks, these same businesses can have the best of both worlds – high performance, highly flexible networks that are quick and easy to configure and manage and can adapt and grow as their business needs evolve and change.

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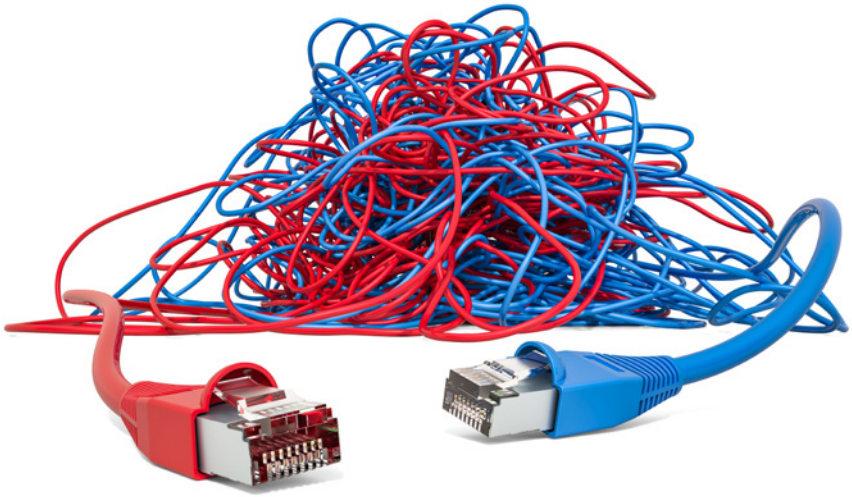
Network complexity suffocates growth

The network underpins all business operations; it's the glue that holds everything together and keeps people and applications working optimally. However, managing networks can be a burden and a distraction from day-to-day operations, particularly for those organisations that don't have large teams of in-house IT specialists.

In any business, employees need to be able to focus on their core jobs rather than being distracted into spending their time resolving network problems or reconfiguring the network. The costs of regularly pulling staff away from their primary functions in order to fix network issues, resolve outages, or undertake routine tasks like adding or removing users, means less time for them to work in the areas that drive the business forward. The time spent managing a network can add up to large amounts and can be a significant factor in the cost of running the business. Inevitably, network problems will lead to losses in employee productivity, further adding to the financial impact on the business.

With cloud-based management, enterprise-grade networks have become much simpler and easier to configure and run. This means easy management and lower running costs while at the same time delivering network performance that is closely aligned with business needs.



Check out all available options

One of the biggest mistakes that fast growth businesses often make is taking hasty, uninformed decisions about investing in the network infrastructure they think they need. By definition, fast growth businesses are in a hurry. They are busy managing their growth, dealing with customers, sorting their finances and a whole host of other issues. However, we all know that technology moves quickly, and it is important to take enough time to review the options, get advice and plan ahead. A little time spent in the early stages will reap rewards and pay off handsomely if it leads to a far superior network that has far more flexibility and scalability and comes at a lower cost.

Admittedly, this can be easier said than done. All areas of IT are filled with jargon. The industry is famed for its TLAs (Three Letter Acronyms) and networking is no different from the rest of the industry. To the uninitiated, the use of an almost endless stream of technical terms covering different industry standards, categories and types of equipment, access methods, types of interface etc can make it very difficult to know where to start.

Traditionally, enterprise networking equipment has been designed for use by IT and networking specialists. Professionals who have been trained and are experienced in this area. Businesses without dedicated IT teams rely on outsourcing the installation and management of these systems, an expensive option that for many small-to-medium sized businesses is overkill.

Often, even systems that are marketed as solutions for SMBs (Small Medium Businesses) are stripped-down versions of larger, enterprise systems and are almost equally difficult to understand, configure and manage without incurring a lot of expense.

At the other extreme are consumer network switches (known as unmanaged, layer 2 switches). These offer raw connectivity for smaller environments of a few users. Although unmanaged layer 2 switches can provide good basic connectivity, they offer none of the functionality, scalability, performance or security features that all but the tiniest businesses require.

The introduction of cloud-managed switches is an innovation that provides an ideal solution for many SMBs. They meet the need for high-performance, high-reliability networks with easy to use management that enables non-IT professionals to quickly and easily configure and run their company networks. They also provide a low cost of entry with almost unlimited expansion capabilities across both wired and Wi-Fi networks.

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Buy what you need today, add additional functionality as required

Networking can be expensive, especially for cost-conscious start-ups and SMBs that need some enterprise features, but not all of them, and certainly not at a price point that's designed for the deep pockets of larger businesses. The flexibility of cloud-managed switches means that only the functionality and capacity that is needed today is purchased. Additional capacity and features can be purchased and added later as a business evolves and needs change.

Many high-end, enterprise networking vendors charge a high premium for their products because they leave customers paying for features and support contracts that they simply don't need. It is not only the cost of buying equipment that pushes up costs, the complexity of some switches means that specialists are needed to work on them. This means the cost of employing and training in-house IT staff or taking out expensive support contracts.

Another long-standing problem in enterprise networks is vendor lock-in, this can add a significant additional cost. Choosing closed technologies by opting for proprietary solutions that aren't based on industry standards can be an expensive mistake.

The bottom line is that with cloud-based management, SMBs now have an alternative option that offers a better solution that is more in tune with their needs.

The cloud brings simplicity

Just as cloud-based file storage and applications, with their pay-as-you-grow model, have gained popularity with fast-growth companies, so too can cloud-based network management. Smaller firms – with no specialist IT or networking personnel on the team – can benefit from these easy-to-use services which include intuitive consumer tech interfaces. Meanwhile, more established firms can keep their tech teams focused on business critical and revenue generating activities by using cloud-based tools to greatly simplify network management.

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Networking, refreshed.

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The 6 ways Nuclias cloud-based management keeps business-class networking simple

1 Zero-touch deployments for straight-out-the-box functionality

Consumers expect their phones and tablets to work straight out of the box. The same should be true for wireless access points (APs) or network switches that arrive at a shop or branch office, ready for deployment. Staff on the ground shouldn't have to do anything more than open up the box, plug in the equipment and power it on. Everything else should be automatic or managed remotely.

This is the case with Nuclias Cloud, there's no need for any engineers to carry out installations on site. Its zero-touch deployment feature means a device simply needs to be taken out of the box and plugged it for it to work. All configuration and upgrades can be remotely managed via the Cloud.

2 Role-based permissions at the touch of a button, to ensure only the right people can access the right information

It is important that a management solution makes it quick and simple to set and enforce rules around which staff and guests can access resources on the network via what devices.

For organisations with lots of casual visitors – cafes, restaurants, schools, libraries, leisure and health facilities, for example – it's useful to provide an option for guests to use their social media logins to gain access to public Wi-Fi. In contrast, employees will need access to other, more secure parts of the network, but it is important to avoid a one-size-fits-all solution which gives staff blanket access to all information and resources on the entire network. Instead, it should be possible to decide who can access what, based on their role, for example, there's simply no reason why waiting staff taking orders using a tablet, should be able to use that device to see HR or financial files.

Nuclias includes role and privilege-based access control that enables different privileges to be assigned to users within or outside of the organisation to manage and monitor network and guest access. Multiple roles can be created to provide varying levels of management authority. Controlling network access in this way allows organisations to enhance security and prevent accidental or malicious network activities and traffic management.

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3 An easy-to-use console; keeping things simple

Few SMBs have a team of IT experts to remotely manage all the switches, APs, users, guests and devices that will connect to their networks. Cloud-based management delivers an easy-to-use, intuitive web-based portal or app that is understandable, simple to use, and doesn't bombard the user with too much information or jargon.

D-Link's Nuclias network management portal offers remote configuration, automated management, and, from a single interface, monitoring of Wi-Fi access points and wired switches. Using Nuclias, in just a few clicks it is possible to add new users, configure entirely new branch networks – often know as virtual local area networks (VLANs) – and automatically rollout software updates and security patches. Nuclias also provides up to date information on usage levels and traffic management.

4 Enterprise-grade security without the need for additional solutions encryption, network monitoring and more

When it comes to security, there can be no compromise. A data breach or network outage isn't just embarrassing, it can be devasting or even fatal. At particular risk are smaller businesses, which have limited resources to cover the cost of GPDR-related fines, lost sales and a ruined reputation.

Encryption is a must. With encryption, even if a hacker can gain unauthorised access to a network, they still cannot see anything of real value, for example, credit card numbers and customer details. All Nuclias Cloud access points support the latest WPA3 wireless encryption.

Another important security feature to look out for is round-the-clock, automated monitoring, where the network is constantly scanned for unauthorised or suspicious activity. If something dubious is spotted, real-time alerts should be generated so the business can take immediate and appropriate action.

With D-Link's Nuclias, accounts can only be accessed via HTTPS (Hypertext Transfer Protocol Secure) an extension of the Hypertext Transfer Protocol (HTTP). With HTTPS the protocol is encrypted, ensuring that all communication between an administrator's browser and the Nuclias Cloud server is secure. Additionally, all communication between the Nuclias Cloud server and Nuclias devices is secured using WebSocket over SSL.

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5 Compliance guarantees

Placing data in the cloud could heighten an SMB's compliance obligations, depending on where that data ends up residing. It is important to ensure only the management console is cloud-based, and that the actual data resides in a data centre or location that you're sure of and can vouch for.

Check whether the management tool will send any network traffic to the cloud. If it does, it could have serious implications for compliance. For example, sensitive data held by European businesses, and therefore bound by GDPR as well as individual EU country rules, might find its way to data centres around the world where data protection regulations aren't up to the same standard. Instead, opt for a cloud-based management solution where only the management functionality is in the cloud, not the network traffic. That way, businesses have more control over where their data resides and can rest assured they are compliant.

With Nuclias, user internet traffic does not pass through the cloud, compliant with the latest data protection and privacy regulations. Security is assured with an out-of-band, SSL-encrypted management plane backed with a 99.9% uptime service level agreement.

6 Support; SMBs don't have the patience or expertise to troubleshoot problems or work out complicated networking deployments.

It is critical to know when vendor support is available should the network not be functioning optimally. Some vendors may not have the appropriate service wrap for a non-IT savvy SMB. Look for a service that's backed up with real experts, offers enterprise-class uptime and has a robust service level agreement.

With D-Link's Nuclias, automated on-screen and email alerts allow users to take proactive steps to resolve problems. High availability is driven through 24/7 automated failure detection and optimised performance with servers that automatically scale to meet performance demands. This is backed up by cross time zone support available 24/7.

Examples of how cloud-based management delivers

Fast growth office-based small-to-medium businesses, supporting remote and flexible workers

These days, many small-to-medium businesses depend upon good quality Wi-Fi for network and internet connectivity. With many workers using laptops, smartphones and tablets, ubiquitous connectivity in the office is the lifeblood of modern office life. In today's digital workplace employee productivity is totally reliant on it and, as anyone who has worked in an office environment will know, when the company network goes down, activity just grinds to a halt.

That said, there are significant challenges facing small-to-medium businesses when it comes to setting up a company network, not least of which is limited budgets. Although the network is often absolutely critical to the operation of a company, small-to-medium businesses simply don't have large IT budgets to spend on complex enterprise networking equipment. They also don't tend to have teams of dedicated in-house IT experts to configure and manage complex IT environments.

One thing that SMBs do need is high levels of flexibility because the connectivity requirements of many small-to-medium businesses are a moving target. Their needs change as their businesses evolve and grow, often over short periods of time.

Cloud-based management overcomes these challenges by providing a low cost, flexible enterprise-quality network solution in a pay-as-you-grow format.

D-Link's Nuclias cloud-managed switches are quick and easy to set up (network switches that work straight out of the box - just plug in a go); have a simple to use management console (add or remove users, set access rights, configure new branch networks and automatically roll out security updates all in just a few clicks); and a low initial investment with the option to pay-as-you-grow (expand connectivity if and when required with unlimited scalability of wireless access points and wired switches).

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Examples of how cloud-based management delivers

Retail outlets, restaurant and café chains with multiple sites and the need to support guest Wi-Fi and payments systems

The demands being placed on networks in retail, restaurant and café industries have increased dramatically. Beyond the obvious need to support payment systems with dependable, guaranteed, (i.e. short) response times, companies in these areas are becoming more sophisticated in the systems they use.

Basic Point of Sale systems are evolving into cloud-based Point of Entry systems, designed to enable retailers to build closer relationships with their customers via location-based opt-in technology. This is in addition to the increased use of video surveillance and the almost universal need to provide guest Wi-Fi. There is compelling evidence that having good quality guest Wi-Fi improves customer satisfaction levels and retention so it has become a must-have option.

D-Link's Nuclias cloud-managed switches meet the needs of the retail, restaurant and café industries by providing a single, high-performance pay-as-you-grow solution that can support these different systems starting with a low initial investment and the ability to expand both wired and wireless connectivity as needed.

With easy set up (the switches and wireless access points work straight out of the box); simple to use, centralised, cloud-based management (meaning no need for on-site IT staff); and high performance, high-reliability network hardware, Nuclias can be deployed quickly and easily managed. Zero-touch provisioning means quick deployment, including rolling out guest Wi-Fi (including branded login screens to customise the set up) at any location without the need for an on-site IT expert.

Conclusion

Connectivity has become a critical part of business life with company networks playing an increasingly important role as much so for SMBs as for their larger counterparts. Across all sectors of industry, organisations rely on their company networks to underpin their operations. In many instances, without network connectivity companies simply could not function.

However, for small and medium-sized businesses, in particular, the high budgets, complexity and specialist skills needed to build and manage enterprise-grade networks have long been a barrier to entry and they've been confined to high operational costs or poorly performing networks.

With cloud-based management, enterprise-grade networking is now available to all in a cost-effective, easy to install and simple to manage format that reduces the complexity of deploying and managing company networks, incorporating both Wi-Fi and wired connections. Furthermore, the pay-as-you-grow model gives companies the option to start small and add capacity and functionality as required.

As demands on networks continue to increase further, with more devices, people and applications added, a flexible, reliable, easy to run and cost-effective network becomes an even more central requirement. Innovations in IoT, smart sensors, video, cloud computing and the continued evolution of the digital workplace will all contribute to making an easy manage, high-performance, enterprise network evermore critical. D-Link's Nuclias Cloud provides exactly that.

Nuclias by D-Link is a cloud-managed networking solution for small-to-medium sized organisations. It provides flexible, high-performance enterprise standard networking in a way that is simple to install and easy to manage.

Wi-Fi coverage and wired network capacity are provided by high-performance Access Points and Managed Switches installed on site with configuration and ongoing management carried out remotely through a web browser or tablet. Users can start with a small, inexpensive installation that can be easily expanded and modified as business needs change and grow.

With Nuclias, network configurations and software updates are pushed to remote devices through the cloud, without the need to have specialised equipment or personnel on site. Security is ensured with SSL encrypted, out-of-band network monitoring and management.