D-Link®

The ultimate guide
to remote working

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D-Link can help you ensure your home network is ready for the challenges of doing business at home **in 3 simple stages...**


Planning...

The first step involves evaluating your current home network setup to identify any potential gaps in coverage, speed, or security.

Whether you're video conferencing, managing large files, or ensuring secure transactions, D-Link can guide you in planning a network that meets all your requirements.

Upgrade...

Based on the assessment, the next step involves tailoring your home network to meet the specific demands of your business activities . This could involve integrating high-performance routers, adding business-grade access points, or implementing advanced security features to protect sensitive data.
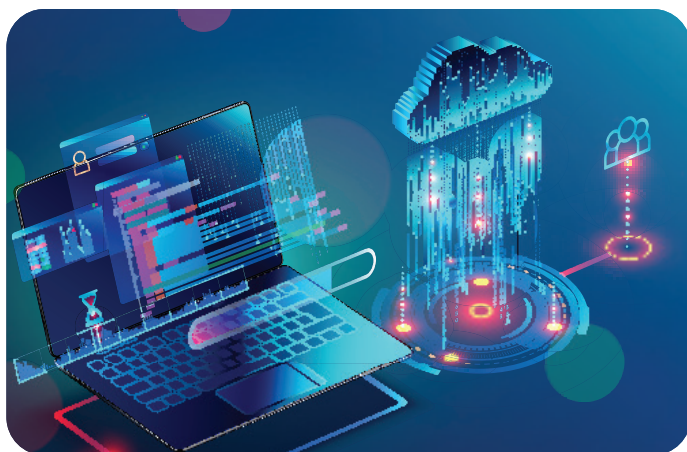
Management

With your network upgraded, the final stage focuses on management and security.

D-Link's Nuclias Connect software allows you to easily manage your network devices, set up multiple SSIDs, and monitor network performance. Additionally the latest WPA3 encryption and features like guest networks, providing a secure, enterprise-grade network environment in your home.

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In 2024, the trend of hybrid working has solidified as the preferred mode of operation for many, with individuals splitting their time between home and office workspaces. Regardless of whether you're working from home just one day a week or full-time, establishing a well-equipped home office is crucial. This might mean upgrading certain items or investing in new tools to enhance your work-from-home environment.

From minor annoyances like not having enough USB ports to charge your devices and connect peripherals, to dealing with outdated technology like a decade-old router that's slowing down your internet connection, addressing these issues is key for anyone working from home, whether on a permanent or hybrid basis.

Here is a great start, with D-Link's handy guide to remote working!

Planning your remote working setup

Before jumping into solutions, it's important to outline a clear plan. What are you aiming to achieve? Whether it's improved connectivity, faster internet speeds, enhanced data security, or increased capacity, several factors need to be considered:

Your Work Environment: Whether you're in a spacious house, a cozy apartment, or even planning to work outdoors in your garden, your workspace will influence the type of equipment you'll need.

Frequency of Home Work: Consider how often you'll be working from home. Is it an everyday affair, or just once a week?

Bandwidth Needs: Evaluate your internet usage. Do your tasks involve bandwidth-intensive activities like video conferencing or uploading and downloading large files?

Connectivity Preferences: Decide between wired and wireless setups. While wired connections can offer stability and speed, wireless setups provide flexibility and ease of use.

Security Requirements: If your work involves handling sensitive information, such as personal data or financial records, implementing robust security measures is non-negotiable.

By addressing these considerations, you can create a home office that not only meets your professional needs but also enhances your productivity and work experience in 2024's evolving work landscape.

Casual Home worker

For those who work from home on an occasional basis, or whose online activities mainly consist of checking emails, managing file transfers, and participating in video conferences, a simple and efficient home office setup is all that's needed. Let's explore the essentials for a basic home office configuration.

USB hub/docking station

As laptops become more streamlined for portability, they often sacrifice essential connectivity options such as Ethernet, HDMI, and multiple USB ports. While this might not be an issue in well-equipped office environments that provide docking stations, it can become a challenge when working from home. A USB hub serves a similar function to a docking station, allowing you to connect all your peripherals, charge your phone, and hook up multiple monitors with ease.

What is a Hub?
A hub expands the connectivity of your device—be it a laptop, desktop, gaming console, or another USB-enabled device—by adding extra USB ports. These ports can be USB-A or USB-C, catering to a variety of devices and uses. USB hubs are designed for plug-and-play convenience, meaning they're ready to use right out of the box. Their compact and lightweight design makes them easily portable, fitting into even the smallest spaces like a pocket or a laptop bag.

PD3.0
Power Delivery (PD) 3.0 technology revolutionizes how devices are charged, allowing for the simultaneous charging of your laptop and other devices through a single USB-C connection. By connecting your USB-C charger to the hub's dedicated PD port, you can power both the hub and your laptop, with up to 60W (20V @ 3A). This allows multiple devices to be charged without the hassle of carrying multiple chargers.
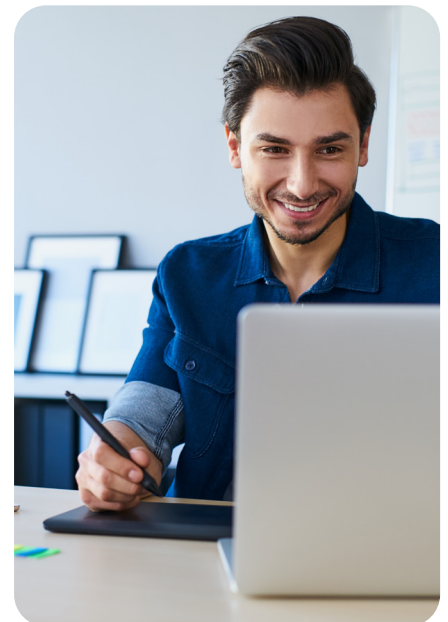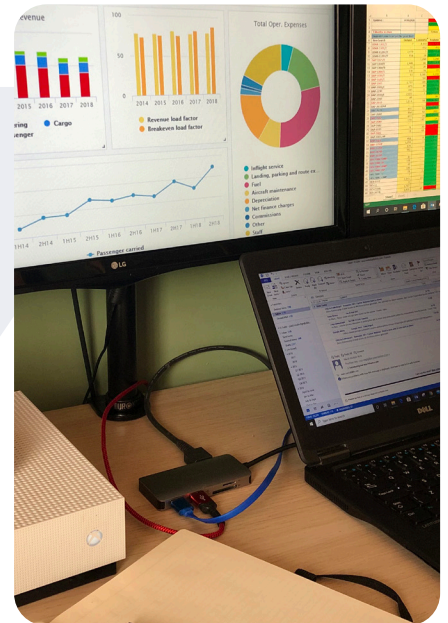
The router is the king

In the realm of home networking, the router reigns supreme. It serves as the cornerstone of your internet access, connecting all your devices to the online world. If you're still using the router provided by your Internet Service Provider (ISP), you might not be getting the best possible speed, security, or reliability. Upgrading your router can significantly enhance your internet experience.

So what makes a good router?

Wireless Speed
Wi-Fi 6 by D-Link - An evolution in wireless technology, offering speeds up to 6 Gbps. It's approximately 38% faster than its predecessor, Wireless AC, making it ideal for seamless browsing, 4K video streaming, and online gaming.**

Coverage Area
For those with larger homes or workspaces, a router with multiple external antennas will provide enhanced coverage. These antennas can be adjusted to direct the signal across different areas, ensuring a strong connection throughout.

x38% Faster

Wi-Fi 6 (802.11ax)

6000Mbps

802.11ac

802.11n
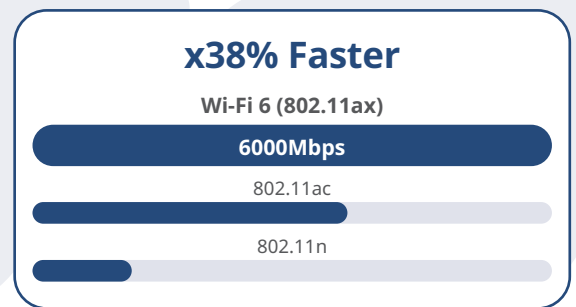
Routers feature set essentials

Mu-Mimo (multi user, multi input, multi output) MU-MIMO technology allows a router to communicate with multiple devices simultaneously, rather than sequentially. This boosts network efficiency and reduces wait times for data transmission.

QoS (Quality of Service) QoS settings enable you to prioritise traffic to certain devices over others. For example, you can ensure your work laptop or VoIP phone gets priority bandwidth over other devices, maintaining high performance where it's needed most.

App-Based Management Modern routers often come with dedicated apps that simplify setup, adjustments, and monitoring of your network. These apps allow for easy management of connected devices and timely updates to your router's firmware.

All feature;

Green technology - Target Wake Time (TWT) reduce power consumption by scheduling wake times for devices. This conserves energy & extends the battery life of your devices.

Security - 128-bit encryption, the highest standard, to protect your data and privacy.

**Maximum wireless signal rate derived from IEEE Standard 802.11ax and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, may lower actual data throughput rate. Environmental factors may adversely affect wireless signal range.
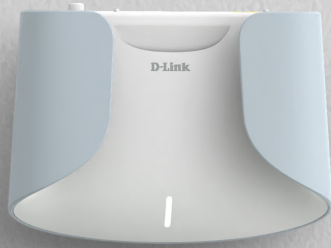
AQUILAPRO AI

Faster, orb-shaped coverage, with AI convenience.

Introducing the M30 AQUILA PRO AI Router with curved design which creates omnidirectional coverage, for Wi-Fi that reaches further and uses the latest Wi-Fi 6 technology to give you a faster online experience. And if you need more coverage, simply add more routers to create one powerful, seamless, AI-optimised mesh network.

AI-powered mesh that reaches throughout your home
The M30 is equipped with premium antennas to reach further with faster Wi-Fi and ensure high performance for high-bandwidth activities sch as 8k streaming, and lag-free gaming. From 1-storey flats to 4-storey houses, and basements to garden decks, simply add more M30 routers to build a smart 360° Mesh network. Enjoy seamless, high-speed Wi-Fi coverage that keeps you connected as you move from room-to-room, and eliminates deadzones in those hard-to-reach areas throughout your home.

Intelligently prioritise your network traffic
The M30's AI Traffic Optimiser reduces buffering and congestion by efficiently prioritising network traffic usage, maximising Wi-Fi performance for all devices during intensive applications so your Wi-Fi stays at the top of its game.

Latest Wi-Fi security & parental controls
Easily create profiles and restrict website access and create access schedules using advanced Parental Controls so your network usage stays on your terms. The M30 helps keep your home network secure around the clock with its ETSI EN 303 645 cybersecurity certification and the latest WPA3 encryption built in, designed to provide robust protection for your whole network.

M60

*Number of connected devices and coverage area are D-link test results. Performance may vary under different environments.

Switching – Wired Networks

If feasible in your home, opting for a wired network solution can offer superior stability and performance compared to wireless connections. This is because wired networks are less susceptible to radio interference and tend to lose fewer data packets that require retransmission. However, the practicality of running cables to every device in your home may not always be feasible. Therefore, it's advisable to use a wired connection for devices where possible and resort to wireless connections for others.

What considerations do you need to make for a wired network?

How many ports do you need?
Planning your network is crucial. A typical router comes with four Ethernet ports, so you'll need to consider all the devices you intend to connect directly—such as a desktop PC, smart TV, VoIP phone, gaming console, and the switch itself. From there, you can determine the number of ports you'll require. Switches commonly come in configurations of 5 or 8 ports, though options are available up to 52 ports for larger setups.

Switches are categorized based on the network speeds they support:

Fast Ethernet (10/100mbs) Fast Ethernet can handle speeds up to 100 Mbps, which is probably enough for some people, but those with superfast internet services, will lose the benefits.

Gigabit (10/100/1000mbs) 10x faster than FE, Gigabit Ethernet can handle the fastest home broadband connections and has the bandwidth to handle high local network demands.

Multi-Gigabit (2.5GbE) For the very fastest home networks - 2.5GbE is the best choice, move large files and have instant access to your content.

PoE support Power over Ethernet (PoE) allows network switches to deliver both power and data over a single Ethernet cable, simplifying the setup for devices like access points, cameras, or VoIP phones, especially in areas without convenient power outlets. A PoE-enabled switch can significantly enhance the flexibility and scalability of your home network by reducing the need for additional power supplies and cabling.

Fully Remote worker

For those working fully remotely, a basic home network setup might suffice, but it's far from ideal. Challenges such as managing work alongside children at home, sharing bandwidth with another remote worker, or covering a large house can strain your network. In such scenarios, having a dedicated 4G network could significantly enhance your work-from-home experience.

4G

A 4G network offers a robust solution for remote workers needing extra security or a distinct network. If your job involves handling sensitive data, it's wiser to operate on a separate network rather than sharing one that your children might use for social media activities like TikTok. Opting for a 4G network—whether for personal use or to segregate your children's internet usage—is a strategic choice. Our 4G offerings come equipped with dual-active firewalls (SPI and NAT) and the latest WPA/WPA2 wireless encryption, ensuring your network remains secure and your data protected.

4G networks shine, especially in rural areas where traditional broadband speeds may lag. One of the key benefits is the ease of setup—simply insert a SIM card, and you're ready to go. This immediacy and the potential for faster speeds make 4G an attractive alternative to fixed-line connections.

4G failover

D-Link 4G routers are engineered to provide uninterrupted internet connectivity. They offer failover support, seamlessly switching to a mobile broadband connection should your primary line fail. This ensures continuous internet access, allowing you to stay productive without any disruptions.

Internet ✕ **D-Link 4G Backup**
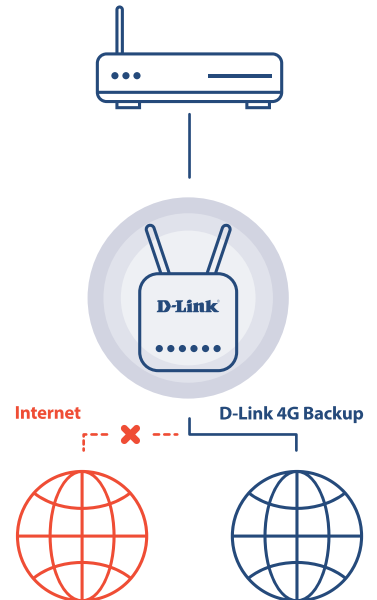
Router or hotspot?

D-Link 4G routers are designed to be stationary, supporting multiple wired and wireless connections for a comprehensive home network. On the other hand, a 4G Mobile Hotspot is compact and portable, ideal for providing internet access while on the move. Depending on your needs—whether a stable home office setup or connectivity for travel—a 4G router or hotspot can offer the flexibility and security required for effective remote work.

*Data rates are theoretical. Data transfer rate depends on network capacity, signal strength, and environmental factors.

The power of 5G

As of 2024, the expansion of 5G networks across the UK has significantly progressed. Ofcom, the telecoms regulator, estimated that in September 2023, 85 to 93% of UK premises could get 5G coverage outdoors from at least one operator.

The advent of 5G technology promises to revolutionize connectivity, offering peak data rates up to 20 times faster than those of 4G. This advancement means the potential for 1 GB/s speeds for multiple users within the same office space and the capability to support simultaneous connections for up to 1 million devices per square kilometer. In practical terms, this could allow for downloading an HD movie in just about 10 seconds.

For remote workers, 5G devices represent a transformative shift. With a 5G hotspot device, working from any part of your home, enjoying the tranquillity of your garden, or the local park becomes seamlessly possible – just be mindful of screen glare. The enhanced speed and reliability of 5G make video conferencing smooth, cloud-based work effortless, and accessing large files incredibly fast, redefining the flexibility and efficiency of remote working.

**The theoretical coverage in D-Link Lab testing may vary in different environments.

Business Grade Networking at Home

In the modern era, the distinction between home and business-grade network solutions is becoming increasingly blurred. Historically, business-grade networks were the domain of only the most technologically demanding organizations, requiring intricate network infrastructure and professional installation. However, the advent of cloud technology has democratized access to business-grade performance, making it available right in the comfort of your home.

With a significant rise in the number of people working from home, the demand for robust networking solutions has surged. Today, many of us manage mission-critical data from our laptops - sensitive personnel details, extensive client databases, and crucial financial records. The security of this data is paramount, and business-grade solutions offer the enhanced security and reliability needed to protect your business information at home.

Access Points - maximise Wi-Fi performance!

Business-grade access points can significantly extend your Wi-Fi coverage, whether you're looking to cover your entire house, garden, or both. With our intuitive Nuclias Connect software, managing these access points becomes a breeze, allowing you to do so from your laptop or mobile device on the go.

Point to Point

By setting access points to point-to-point mode, you can create a seamless 'wireless bridge' between devices, ensuring you can work effectively from any location on your premises—be it the attic or the far end of your garden.

WDS

Internet — Router/Switch — DAP-2610 — DAP-2610 — Router/Switch

Client Mode

Internet — Wireless Router — DAP-2610 — Computer

In the home

Garden office

nuclias connect

Free Management Software/App

Our Nuclias Connect software, available for free, offers comprehensive management of your access points. This software enables the broadcasting of multiple SSIDs and provides insights into your home network's performance. It allows for full customization of your network to meet specific privacy and security needs, ensuring that user data remains in your control.

Enterprise grade Features

All Nuclias access points are equipped with both Personal and Enterprise versions of WPA3 Wi-Fi encryption, marking the advent of a new era in wireless security. This latest industry-standard 128-bit encryption offers the highest level of security and privacy for devices and networks. Additional advanced features include:

• Selectable advanced auto channel selection
• Guest network client isolation
• Social media logins

• Access control listing
• Wi-Fi scheduling
• Bandwidth management
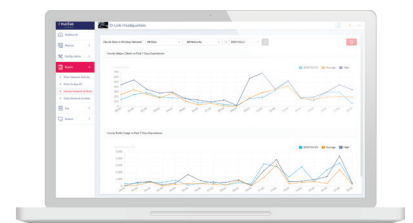
I've bought all my stuff,
how can I use the cool features?

As easy and plug and play as we have made the D-Link product range, to get the fullest out of your network, a few features will have to be set up in order to improve your work from home experience. Here are a few of the most essential features that D-Link products come with that will optimise your network speed.

Quality of Service

Quality of Service or QoS is a tool that will instruct your router how to prioritise the bandwidth on your network, so you can improve the performance of critical network traffic.

Make sure that your devices are prioritised, so you can hit your deadlines over someone streaming Netflix!

Guest Network

Separating your guest network from your home network is an added security feature that takes on more importance when you work from home. Letting your friends and family use your Wi-FI can cause a serious issue if one of their devices contains a virus and it spreads. Watch our full video - 5 tips to improve you Wi-Fi security to learn more and enhance your security.

Parental Controls

Parental controls allow you to keep your family safe online on your home Wi-Fi. Setting up parental controls enables you to filter inappropriate content, schedule internet access, and effortlessly manage your network using apps.

Watch the full video - whether you're a tech novice or a seasoned pro, our step-by-step instructions will help you create a secure and family-friendly internet environment.

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