D-Link

nuclias cloud

Product Highlights

D-Link Nuclias Cloud Management

Extensive range of management functions can be performed hassle-free from anywhere through the D-Link Nuclias cloud

Versatile Hardware Options

Featuring a wide range of models featuring 10, 28, or 52 PoE and non-PoE ports, and 2 or 4 GE/SFP ports configurations

Zero-Touch Deployment

Cloud-based auto-configuration allows for swift plug and play installation and eliminates the need for on-site setup

DBS-2000 Series

Nuclias Cloud-Managed Switches

Features

D-Link Nuclias Cloud Management

- Centralized cloud-based management
- Zero-touch deployment
- Intuitive web and app-based interface
- Real-time at-a-glance network information
- Management of multiple sites and devices through a single pane of glass
- Over-the-air firmware updates through the cloud
- Instant alerts and notifications

Best-in-class Built for Enterprise Switches

- Energy-Efficient Ethernet (EEE)
- PoE+ support with up to 30 W per port
- Supports 802.1D Spanning Tree (STP) and 802.1w Rapid Spanning Tree (RSTP)
- 802.3ad Link Aggregation
- Loopback protection and IGMP snooping
- Access Control Lists (ACLs)

D-Link's Nuclias Cloud is an innovative cloud networking solution that allows you to centrally manage your entire network from anywhere, any time through its intuitive portal interface or mobile app. Featuring a full range of cloud-managed access points and switches supported by zero- touch deployment, Nuclias Cloud enables small businesses and enterprises to quickly deploy and build a powerful and versatile global wired and wireless network.

The DBS-2000 Series Nuclias Cloud-Managed Switches are deployed as pre-configured, zero-configuration switches controlled through the Nuclias Cloud[1]. They are best-in-class switches designed specifically for distributed networks, featuring a wide range of models featuring 10, 28, or 52 PoE and non-PoE ports with 2 SFP or 4 combo ports configurations.

Comprehensive L2 and Network Security Features

Equipped with a complete line-up of L2 and security features, the DBS-2000 Series includes IGMP snooping, voice VLAN, Spanning Tree Protocols (STP and RSTP), Access Control Lists (ACLs) and Link Aggregation Control Protocol (LACP). Network maintenance features include loopback detection and cable diagnostics. Loopback detection is used to detect loops created by a specific port and automatically shut down the affected port. The cable diagnostic feature, designed primarily for administrators and customer service representatives, can rapidly discover errors and determine the cable quality, allowing hassle-free diagnostics and maintenance.

To ensure the safety and reliability of all sensitive traffic, all management data to and from the cloud is separated from regular data using an SSL encrypted out-of-band connection. In addition, Nuclias offers a range of industry standard authentication and authorisation methods to control user access. Administrator can configure external RADIUS servers and set up IP and MAC-based access control lists to authenticate and authorise clients and create a safe and trusted network environment.

Centralised Management with Nuclias Cloud

Designed to be managed through the Nuclias Cloud, DBS-2000 Series switches are easily set up with the help of the intuitive browser-based or mobile app interface. Centralised cloud management allows for zero-touch provisioning, enabling businesses to quickly configure, deploy, maintain, and expand their network remotely. Configuration settings can be set up, managed, and deployed through the cloud anytime, anywhere through any web browser or the dedicated mobile app, meaning devices can be deployed at a remote location without any need for trained on-site staff. Save time by configuring switches of the same model series in bulk. Similarly, if the same set of ports of multiple switches uses the same configuration profile, this port configuration can easily be deployed and updated in bulk.

Hassle-free Administration and Versatile Deployment

Using Nuclias Cloud, businesses can now more effectively organise their entire wireless network, manage multiple switches simultaneously and monitor live network statistics. With the user-friendly management dashboard, administrators have access to an intuitive way of organising the network into multiple sites, which simplifies management across multiple areas. With no limitation on the number of devices, businesses can easily cater to the demands of a growing network by simply adding more devices to the network. Over-the-air firmware updates can be automatically pushed to devices through the cloud.

Automated Monitoring and Alerts

Through the intuitive dashboard, administrators can remotely view real-time information about the network and get an instant overview of key network statistics such as performance, connectivity, and network usage. Through the dashboard quickly view both switch and access point status information such as link status and number of connected devices. Easily view your switches' real-time port traffic and connection status. For switches with PoE ports, you can even see real-time power consumption statistics. Administrators can filter and customise the dashboard to display only the necessary information for a more focused experience. Be ahead of any problems with instant push notifications and alerts that can be customised to ensure that administrators can swiftly identify problems and perform immediate troubleshooting.

Nuclias by D-Link
is a complete cloud-managed networking solution for small to medium-sized organisations with one or more sites.

How it works

Wi-Fi coverage and network capacity are provided by high-performance Access Points and Switches deployed on site, while configuration and ongoing management can be carried out remotely through a web browser or tablet.

Zero-touch provisioning and centralised cloud-based control make the network simpler to install and easier to manage.

With Nuclias, network configurations and software updates are pushed to remote devices through the cloud, without the need to have specialised equipment or personnel onsite.

SSL encrypted, out-of-band network monitoring and management ensures secure connectivity whilst minimising bandwidth requirement.

Main features

- Zero-touch provisioning
- Role-based administration
- Auditable change logs
- Authentication via customisable captive portal, 802.1x and RADIUS server
- Social login for Wi-Fi access supported
- Advanced traffic report and data analysis
- Intuitive web-based interface with multilingual support
- Automatic monitoring and alerts
- Over-the-web firmware upgrades
- Searchable network-wide event log
- Intuitive VLAN Configuration
- Cloud based RF Optimisation

Simpler to install and **easier to manage**

Unlimited scalability of supported APs and switches

Reporting and analytics

Zero-touch provisioning

€ **Pay-as-you grow** Subscription

Technical Specifications

General	DBS-2000-10	DBS-2000-28	DBS-2000-52
Number of Ports	• 8 x 10/100/1000 BASE-T • 2 x 100/1000 Mbps SFP	• 24 x 10/100/1000 BASE-T • 4 x 1000 Mbps combo	• 48 x 10/100/1000 BASE-T • 4 x 1000 Mbps combo
Port Functions	• IEEE 802.3 compliant • IEEE 802.3u/802.3z compliant • IEEE 802.3ab compliant • IEEE 802.3x Flow Control • Supports manual/auto MDI/MDIX configuration • Supports half/full-duplex operation • IEEE 802.3az compliant		

Performance			
Switching Capacity	• 20 Gbps	• 56 Gbps	• 104 Gbps
Maximum Forwarding Rate	• 14.88 Mpps	• 41.7 Mpps	• 77.4 Mpps
MAC Address Table Size	• 8K Entries	• 8K Entries	• 16K Entries
Packet Buffer	• 4.1 Mbits	• 4.1 Mbits	• 12 Mbits
Flash Memory	• 32 MB		

Power Consumption			
Standby Mode	• 2.07 W	• 6.55 W	• 13.9 W
Maximum Power Consumption	• 7.09 W	• 17.32 W	• 34.85 W

Physical			
Power Input	• 100 to 240 V AC • 50/60 Hz internal power supply		
MTBF	• 1,379,273 hours	• 992,594 hours	• 400,667 hours
Acoustics	• 0 dB(A)	• 0 dB(A)	• 0 dB(A)
Heat Dissipation	• 21.59 BTU/hr	• 59.09 BTU/hr	• 118.92 BTU/hr
Weight	• 0.991 kg	• 2.15 kg	• 3.46 kg
Dimensions	• 280 x 125.8 x 44 mm	• 440 x 140 x 44 mm	• 440 x 210 x 44 mm
Ventilation	• Fanless	• Fanless	• Fanless
Temperature	Operating: -5 to 50 °C (23 to 122 °F) Storage: -20 to 70 °C (-4 to 158 °F)		
Humidity	Operating: 0% to 95% non-condensing Storage: 0% to 95% non-condensing		
EMI	CE, FCC, VCCI, BSMI		
Safety	UL, CB, LVD, BSMI, CCC		

Technical Specifications

General	DBS-2000-10MP	DBS-2000-28P	DBS-2000-28MP	DBS-2000-52MP
Number of Ports	• 8 x 10/100/1000 BASE-T PoE • 2 x 100/1000 Mbps SFP	• 24 x 10/100/1000 BASE-T PoE • 4 x 1000 Mbps combo	• 24 x 10/100/1000 BASE-T PoE • 4 x 1000 Mbps combo	• 48 x 10/100/1000 BASE-T PoE • 4 x 1000 Mbps combo
Port Functions	• IEEE 802.3 compliant • IEEE 802.3u/802.3z compliant • IEEE 802.3ab compliant • IEEE 802.3af/802.3at compliant • IEEE 802.3x Flow Control • Supports manual/auto MDI/MDIX configuration • Supports half/full-duplex operation • IEEE 802.3az compliant			

Performance

	DBS-2000-10MP	DBS-2000-28P	DBS-2000-28MP	DBS-2000-52MP
Switching Capacity	• 20 Gbps	• 56 Gbps	• 56 Gbps	• 104 Gbps
Maximum Forwarding Rate	• 14.88 Mpps	• 41.7 Mpps	• 41.7 Mpps	• 77.4 Mpps
MAC Address Table Size	• 8K Entries	• 8K Entries	• 8K Entries	• 16K Entries
Packet Buffer	• 4.1 Mbits	• 4.1 Mbits	• 4.1 Mbits	• 12 Mbits
Flash Memory	• 32 MB			

PoE

	DBS-2000-10MP	DBS-2000-28P	DBS-2000-28MP	DBS-2000-52MP
PoE Standard	• IEEE 802.3af/at	• IEEE 802.3af/at	• IEEE 802.3af/at	• IEEE 802.3af/at
PoE Capable Ports	• Ports 1 to 8	• Ports 1 to 24	• Ports 1 to 24	• Ports 1 to 48
PoE Power Budget	• 130 W	• 193 W	• 370 W	• 370 W

Power Consumption

	DBS-2000-10MP	DBS-2000-28P	DBS-2000-28MP	DBS-2000-52MP
Standby Mode	• 5.2 W	• 16.6 W	• 17.1 W	• 31.6 W
Maximum Power Consumption	• 152.3 W (PoE on) • 9.4 W (PoE off)	• 263.9 W (PoE on) • 30.6 W (PoE off)	• 446.1 W (PoE on) • 29.8 W (PoE off)	• 478.9 W (PoE on) • 54.4 W (PoE off)

Physical

	DBS-2000-10MP	DBS-2000-28P	DBS-2000-28MP	DBS-2000-52MP
Power Input	• 100 to 240 V AC • 50/60 Hz internal power supply			
MTBF	• 1,274,005 hours	• 469,262 hours	• 277,967 hours	• 236,406 hours
Acoustics	• 0 dB(A)	• 51.7 dB(A)	• 51.7 dB(A)	• 52.4 dB(A)
Heat Dissipation	• 519.51 BTU/hr	• 900.36 BTU/hr	• 1521.99 BTU/hr	• 1634.01 BTU/hr
Weight	• 1.77 kg	• 3.75 kg	• 3.94 kg	• 6.26 kg
Dimensions	• 330 x 180 x 44 mm	• 440 x 250 x 44 mm	• 440 x 250 x 44 mm	• 440 x 430 x 44 mm
Ventilation	• Fanless	• 2 x Fans	• 2 x Fans	• 3 x Fans
Temperature	Operating: -5 to 50 °C (23 to 122 °F) Storage: -20 to 70 °C (-4 to 158 °F)			
Humidity	Operating: 0% to 95% non-condensing Storage: 0% to 95% non-condensing			
EMI	CE, FCC, VCCI, BSMI			
Safety	UL, CB, LVD, BSMI, CCC			

Software Features

VLAN	• 802.1Q Tagged VLAN • Management VLAN • Voice VLAN	• VLAN Group • Supports 256 static VLAN groups

L2 Features	• Flow Control
	  • 802.3x Flow Control
	  • HOL Blocking Prevention
	• Jumbo Frames
	• IGMP Snooping
	  • IGMP v1/v2/v3 awareness Snooping
	  • Supports 256 Groups
		• Cable Diagnostics
		• LLDP
		• Spanning Tree Protocol
		  • 802.1D STP
		  • 802.1w RSTP
		• 802.3ad Link Aggregation

Security	• SSL • DHCP Server Screening • Port Security	• Access Control List (ACL) • Max # of Entries: 768
Management	• Cloud-based through Nuclias[1]	• Nuclias mobile app
Green Technology	• Compliant with RoHS 6	• Time-based PoE

Optional SFP Transceivers

DGS-712	1000BASE-T copper
DEM-310GT	1000BASE-LX, single-mode, 10 km
DEM-311GT	1000BASE-SX, multi-mode, 550 m
DEM-312GT2	1000BASE-SX, multi-mode, 2 km
DEM-211	100BASE-FX, multi-mode, 2 km

[1] Active D-Link Nuclias Cloud account and valid device license required.

Find out more about Nuclias Cloud access points and switches at www.nuclias.com

For more information: www.dlink.com