D-Link®

nuclias cloud Solution Guide

100% cloud-managed networking solution for SMBs and large enterprises seeking professional-grade networking without the hassle.

Nuclias Cloud is D-Link's complete cloud-managed wireless networking solution for small to medium-sized businesses (SMB) and large enterprises. Nuclias Cloud is designed to make the transition from unmanaged consumer-grade equipment to a managed professional-grade solution as easy, effortless, and worry-free as possible. This is done by eliminating the learning curve and guaranteeing reliability, so that you can get on with your business. It's Wi-Fi that doesn't draw attention to itself, and just works.

Why Nuclias Cloud?

Seamless reliable connectivity has become mission-critical to the modern business model. But with wireless devices, online transactions, cloud applications, ransomware attacks, and other security threats all proliferating, businesses can no longer run the risk of just getting by with unmanaged Wi-Fi anymore. They need professional-grade Wi-Fi that ensures minimal downtime and maximises what their business can do.

Nuclias Cloud removes the technical barriers to obtaining such a network through...

- DIY installation and operation
- Remote management of your entire network
- Robust automation with minimal downtime

What is Nuclias Cloud?

Nuclias Cloud is a 100% cloud-managed networking solution where network devices such as Access Points and Switches are controlled through the Nuclias Cloud Management Platform, accessible via web browser or management app. Monitoring and management tasks can be carried out through the platform for any device, site, or network anywhere in the world, with multi-tenancy enabled, and device scalability unlimited.

The Nuclias Cloud platform also delivers configuration settings to newly-installed or replacement network devices, enabling a Zero Touch Deployment process that requires no IT personnel onsite. Simply plug in a device, let the configuration settings download from the Cloud, and it's operational — it's that simple.



Who Needs Nuclias Cloud?

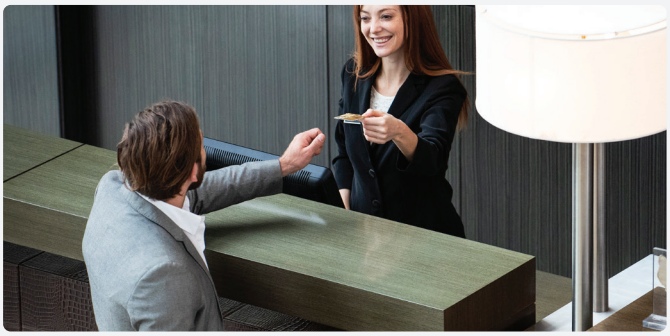
SMBs & Large Enterprises

It delivers the technical capability & network reliability small to medium-sized businesses or large enterprises need to fully embrace Digital Transformation, the Internet of Things (IoT) and Cloud Operations. Deploy easily without the need for new IT networking skills and get started immediatly.



Hospitality

Create a secure and easy to access Wi-Fi environment with features such as a customisable captive portal to enable multi-channel marketing. Real time traffic and analytics, virtualised floor maps and mapping of customer foot print gives deeper insights and aids you to better understand guest behaviours.



Retail Chains

Real time traffic analytics and insights help you tailor your customers Wi-Fi experience and further drive sales. Features such as customisable captive portal maintain secure and easy to access Wi-Fi, and also enables multi-channel marketing. Meanwhile, a powerful network can support business functions such as digital signage and point of sale (POS) devices.



Education

Versatile deployment options allow support for a network across multiple campuses. Connectivity enhancing features such as airtime fairness and channel optimisation enable stable digital collaboration. Web content filtering and application control protects staff and students from malicious sites and software. Resource intensive applications such as digital whiteboards, surveillance cameras and more are all supported.



Nuclias Cloud for MSPs

Nuclias Cloud is a true cloud management solution that enables rapid device installation, easy remote multi-site management and troubleshooting. This greatly reduces the amount of time Managed Service Providers (MSP) need staff onsite, while making it very easy for Enterprise Resellers to move upmarket in the MSP model.

What Nuclias Cloud Delivers

Nuclias Cloud combines professional-grade Wi-Fi network capabilities with consumer-grade ease of use. Robust automation, customisation, connectivity and reliability minimise the time you'll need to spend on the Nuclias Cloud Management Platform, which is simple and intuitive. There are no special skills required to install devices, carry out management tasks, or enjoy the benefits that Nuclias Cloud has to offer. It's professional-grade networking, without the need for networking professionals.

1/ End-to-End Solution

Nuclias Cloud is a complete WLAN infrastructure solution that provides end-to-end control over every Access Point, every Switch, and every Site on your cloud-managed network. Compatible devices are available with a wide range of capabilities & price points. It is also a business solution comprised of a variety of tools (airtime fairness, customisable captive portal, front-desk ticket management) that enable a branded Wi-Fi experience, and with analytics providing an opportunity to know your customers better.

Benefits to You

- Minimal need for in-house IT skills
- Easy network management outsourcing
- Seamless branded Wi-Fi with fewer complaints

2/ Cloud Management

Managing a network from the Cloud brings tremendous advantages in terms of control and convenience. There are no technical limits to the numbers of sites and devices. No need for specialised management hardware or software. Additionally, with Nuclias Cloud's Zero Touch Deployment capabilities, there's no need to carry out repetitive configuration tasks onsite. Network administrators can access the platform and carry out their various tasks from literally anywhere with an online connection, with no need for complex dedicated software.

Benefits to You

- Zero Touch Deployment
- Unlimited Scalability
- Easy multi-site management

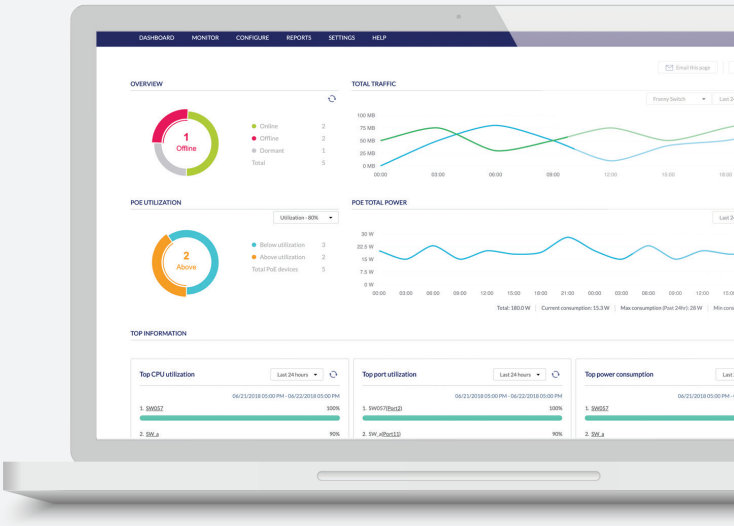


3/ In-Depth Analytics & Automated Reporting

Nuclias Cloud enables an extensive understanding of your network and its users through timely traffic analytics and status reports, which can be automated. Insights derived from this data can be used to create business value. Traffic can be viewed across the entire network, down to the level of a single device.

Benefits to You

- Easy determination of trends & patterns, which can be used to guide marketing and purchasing decisions
- Spot irregularities before they become problems and detect possible cyberthreats
- Easier troubleshooting



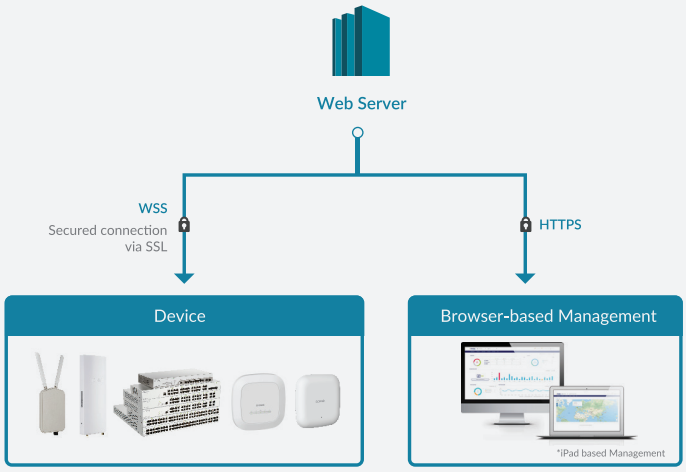
▲ Statistics – Hourly Network Activity

4/ Peace of Mind

Of all the things businesses have to worry about, the Wi-Fi shouldn't be of them. Our Cloud Platform carries a 99.9% Service-Level Agreement (SLA), with standalone operational backup in place for your network devices, and End to End Encryption in place for your security. Robust automation capabilities are also enabled, whether it comes to network parameters, alerting & reporting or firmware updates.

Benefits to You

- Minimal downtime
- Robust data encryption
- Less attention needed for your infrastructure



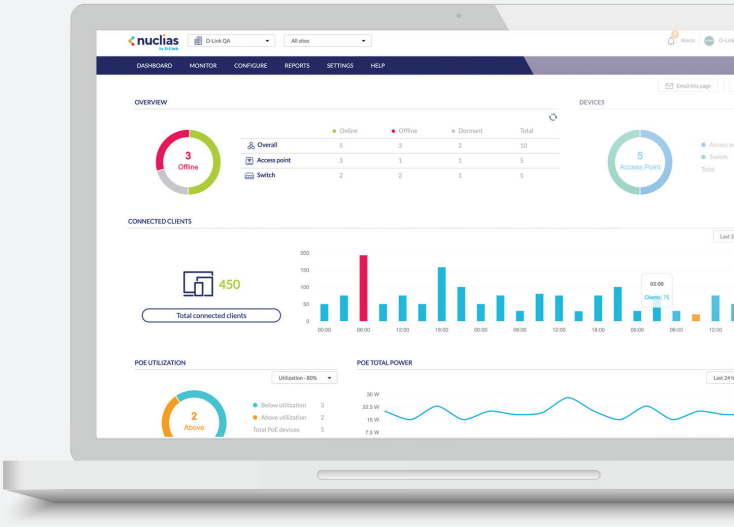
▲ End-to-End Encryption

5/ Ease of Use

Nuclias Cloud has an intuitive customisable interface that is designed to minimise the time it takes to carry out tasks, while enabling an at-a-glance understanding of what's happening on your network. Batch configuration, multi-tenancy and multilingual support make life easier for administrators, while Social Login, Airtime Fairness and Priority Bandwidth make life easier for users.

Benefits to You

- At-a-glance understanding of network status
- Less time spent on repetitive tasks
- Automated reporting available
- Better user experience



▲ Intuitive Dashboard Interface

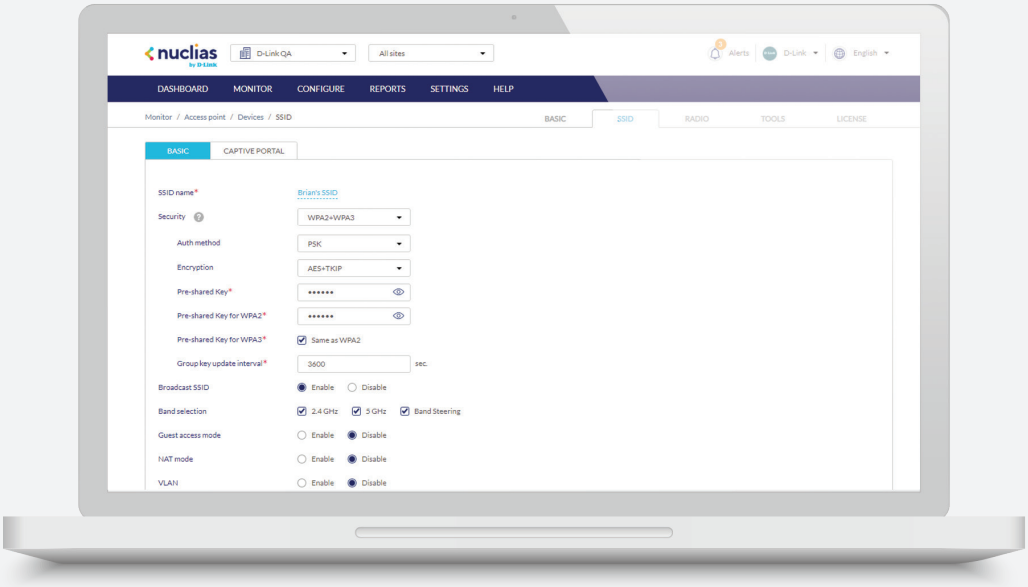
Nuclias Cloud for Admins

Nuclias Cloud supports multi-tenancy, so network admins can grant localised management authority for local networks. Furthermore, because APs can support 8 SSIDs per radio (16 SSIDs per dual-band AP), administrators have the option of using one SSID to create a guest network for visitors.

Nuclias Cloud provides direct AP discovery and provisioning when it shares the same Layer 2 or Layer 3 network with a given AP, allowing users to find APs and import profiles with minimal effort, which can be applied as needed to individual or groups of APs for even more effective configuration.

Since Nuclias Cloud operates transparently, an AP can be deployed anywhere in an NAT environment. Admins can provide & manage a variety of distributed deployments, including settings & admin account configuration for each deployment.

Nuclias Cloud allows for multiple user authentications while enabling specific access control configurations for each SSID, giving admins the option of configuring separate internal networks for different subnets, while enabling more advanced Value-Added Services, such as customisable captive portal or Wi-Fi Hotspot.



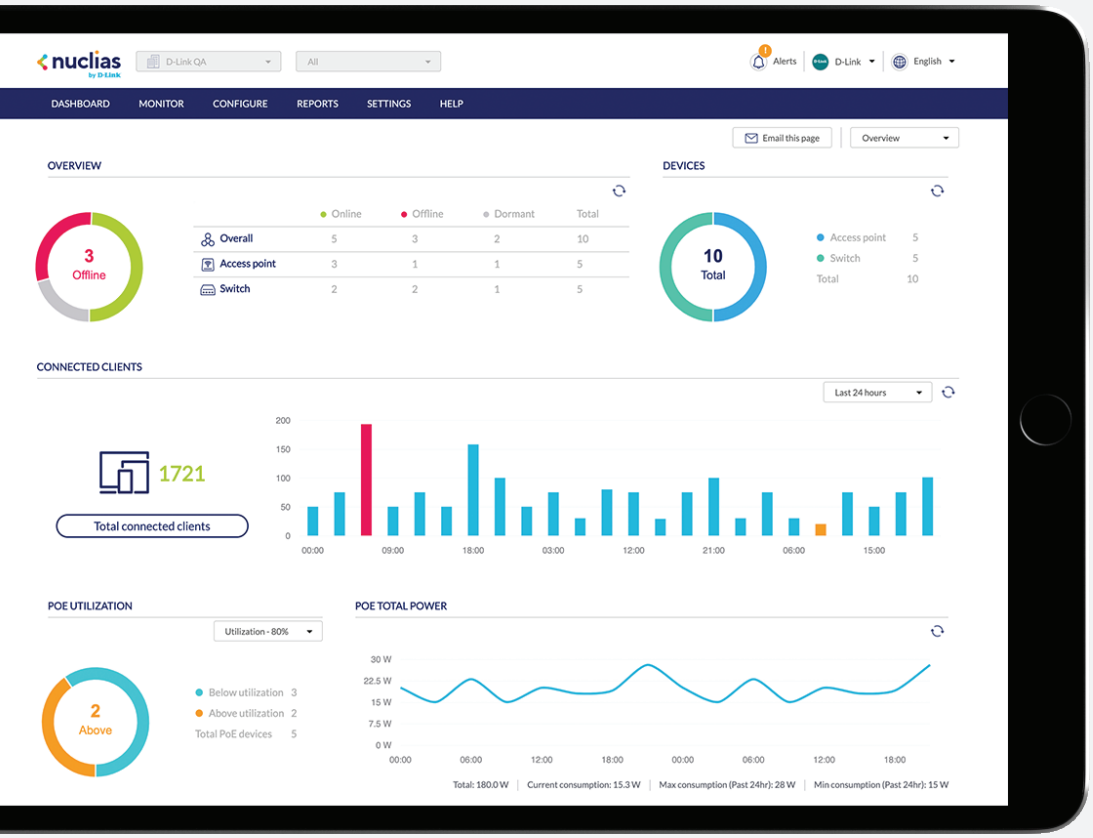
▲ SSID Configuration

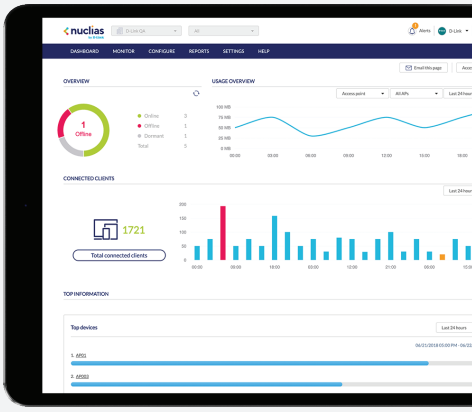
Key Features

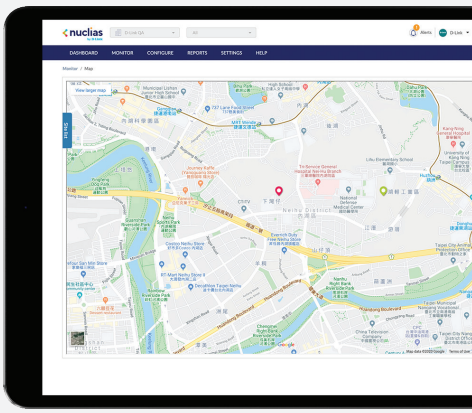
- Intuitive Interface
- Cloud Multisite Management
- End to End Encryption
- Zero Touch Deployment
- Automated Monitoring & Alerts
- Role-Based Administration
- Multilingual Support
- NAT mode & DHCP Server Support
- 99.9% Service-Level Agreement (SLA)
- Unlimited Scalability
- Over-the-Air Firmware Upgrades
- Traffic Reporting & Analytics

About the Nuclias Cloud App

Monitor and manage your network remotely on an iOS or Android tablet.







Intuitive Dashboard

Easy-to-View and Operate Dashboard allows complete monitoring of the network

Quick Setup via QR Code

APs and Switches can easily be added to the network by scanning the on box QR Code

Real-Time Monitoring

Visualise real time network activity

Comprehensive Configurations

The feature-rich APP includes multiple features found on the Cloud platform

Nuclias Cloud: Compatible Devices

— Cloud-Managed Access Points

Model	DBA-1210P	DBA-2520P	DBA-2820P	DBA-X1230P	DBA-X2830P
Product Image					
General					
Environment	Indoor	Indoor	Indoor	Indoor	Indoor
IEEE Standard	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11ax Wi-Fi 6 IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11ax Wi-Fi 6 IEEE 802.11a/b/g/n/ac Wave 2
2.4 GHz Speed	400Mbps	600Mbps	800Mbps	575Mbps	1147Mbps
5 GHz Speed	867Mbps	1299Mbps	1733Mbps	1200Mbps	2402Mbps
Functionality					
Number of SSIDs	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band	16 per device 8 per band
PoE					
PoE Support	802.3af	802.3at	802.3at	802.3at	802.3at
Physical					
Ethernet Interface	1 x 10/100/1000 Ethernet ports	1 x 10/100/1000 Ethernet ports	2 x 10/100/1000 Ethernet ports	1 x 10/100/1000 Ethernet ports	1 x 10/100/1000/2500 Ethernet ports 1 x 10/100/1000 Ethernet ports
Technical Specification					
Max Output Power	2.4GHz: 20dBm 5GHz: 20dBm	2.4GHz: 20dBm 5GHz: 25dBm	2.4GHz: 20dBm 5GHz: 26dBm	2.4GHz: 20dBm 5GHz: 23dBm	2.4GHz: 20dBm 5GHz: 20dBm
Antenna	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional	Internal Omnidirectional
Mounting Type	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop	Ceiling/Wall/Desktop
Security Lock	Yes	Yes	Yes	Yes	Yes

Nuclias Cloud: Compatible Devices

— Cloud-Managed Access Points

Model	DBA-3620P	DBA-3621P
Product Image		
General		
Environment	Outdoor	Outdoor
IP Rating	IP55	IP67
Housing Material	Plastic	Metal
IEEE Standard	IEEE 802.11a/b/g/n/ac Wave 2	IEEE 802.11a/b/g/n/ac Wave 2
2.4 GHz Speed	400Mbps	400Mbps
5 GHz Speed	867Mbps	867Mbps
Functionality		
Number of SSIDs	16 per device 8 per band	16 per device 8 per band
PoE		
PoE Budget	802.3af	802.3af
Physical		
Ethernet Interface	1 x 10/100/1000 Ethernet port	1 x 10/100/1000 Ethernet port
Technical Specification		
Max Output Power	2.4GHz: 20dBm 5GHz: 26dBm	2.4GHz: 20dBm 5GHz: 26dBm
Antenna	Internal Omnidirectional	External Detacheable Omni-directional
Mounting Type	Wall/Pole	Wall/Pole
Security Lock	Yes	Yes

Nuclias Cloud: Compatible Devices

— Cloud-Managed Switches

Model	DBS-2000-10MP	DBS-2000-28	DBS-2000-28MP	DBS-2000-28P	DBS-2000-52	DBS-2000-52MP
Product Image						
Number of Ports	8 x PoE Gigabit Ethernet 2 x SFP	24 x Gigabit Ethernet 4 x Combo SFP	24 x PoE Gigabit Ethernet 4 x Combo SFP	24 x PoE Gigabit Ethernet 4 x Combo SFP	48 x Gigabit Ethernet 4 x Combo SFP	48 x PoE Gigabit Ethernet 4 x Combo SFP
Performance						
Switch Capacity	20Gbps	56Gbps	56Gbps	56Gbps	104Gbps	104Gbps
Max. Packet Forwarding Rate	14.88Mpps	41.7Mpps	41.7Mpps	41.7Mpps	77.4Mpps	77.4Mpps
MAC Address Table Size	8K	8K	8K	8K	16K	16K
PoE						
PoE Standards	IEEE 802.3af/at	–	IEEE 802.3af/at	IEEE 802.3af/at	–	IEEE 802.3af/at
Number of PoE Ports	8	–	24	24	–	48
PoE Budget	130W	–	370W	193W	–	370W
Technical Specification						
Maximum Heat Dissipation	519.51 BTU/hr	59.09 BTU/hr	1521.99 BTU/hr	900.36 BTU/hr	118.92 BTU/hr	1634.01 BTU/hr
Maximum Power Consumption	152.3W (PoE on) 9.4W (PoE off)	17.32W	446.1W (PoE on) 29.8W (PoE off)	263.9W (PoE on) 30.6W (PoE off)	34.85W	478.9W (PoE on) 54.4W (PoE off)
Dimensions	330 x 180 x 44 mm	440 x 140 x 44 mm	440 x 250 x 44 mm	440 x 250 x 44 mm	440 x 210 x 44 mm	440 x 430 x 44 mm
Ventiltion	Fanless	Fanless	2 x Fans	2 x Fans	Fanless	3 x Fans
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)					
Green Technology	Compliant with RoHS 6, Time-based PoE (PoE models only)					

Nuclias Cloud: Compatible Devices

— SD-WAN Gateway

Model	DBG-2000
Product Image	
Hardware Specification	
CPU	X86 Quad-core CPU
Memory	DDR3 2GB
Console Port	RJ45 x 1
USB Port	USB 3.0 x 1, USB 2.0 x 1
Configurable GE port	4
Interface	2 x WAN 10/100/1000Base-T Ethernet 8 x LAN 10/100/1000Base-T Ethernet"
Key Software Features	
Firewall Throughput	950Mbps
VPN	Support PPTP/L2TP/IPSec/OpenVPN/GRE VPN
Content Filtering	Yes
Bandwidth Management	Yes
Anti-Virus	Yes
WAN Failover	Yes

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