

Product Highlights

Powerful Wireless Management

Can manage up to 48 unified APs with a single switch and up to 192 APs in a Peer Group.

Secure and Reliable

Supports RADIUS based authentication, with or without a captive portal. Also supports L3 tunneling allowing roaming across different L2 networks.

Comprehensive L2+ Switch Features

In addition to managing your wireless network, the DWS-3160 series can act as a powerful L2+ switch.



Limited
Lifetime
Warranty

DWS-3160

Unified Wireless Gigabit L2+ Switch

Features

Scalable Unified Wireless Switch Network Architecture

- Manages up to 48 D-Link Unified Access Points
- Up to 192 Unified Access Points can be managed by a Peer Group of four DWS-3160 switches

Robust Wired/Wireless Security

- Built-in captive portal
- Rogue AP detection and mitigation
- 802.1X authentication
- Access control list

Seamless Mobility

- Fast roaming
- L3 roaming support, ensuring continuous connectivity

Overview

The DWS-3160 is D-Link's latest Unified L2+ Gigabit Wireless Switch. Designed to be the ideal mobility solution for medium-sized and large enterprises and service providers, the DWS-3160 empowers administrators to exercise total control over their wireless networks by centralizing all aspects of provisioning and management. Able to manage up to 48 D-Link® Unified Access Points by itself and up to 192 in a Peer Group, the DWS-3160 can be configured to act either as a Wireless Controller in the core network, and as an L2+ Gigabit Switch at the edge, enabling it to be seamlessly integrated into any existing network infrastructure. The DWS-3160 comes in two models, with or without PoE support.

Simplified Management

The DWS-3160 is able to centralize all critical WLAN management functions, thereby eliminating the need to manage access points individually. The administrator simply assigns a profile to an individual D-Link Unified Access Point, and the configuration corresponding to that profile would be applied onto that access point automatically. In addition, the DWS-3160 can apply new firmware to all D-Link Unified Access Points on the network, thus greatly simplifying the upgrade process.

The DWS-3160 also excels as an advanced L2+ switch. Complete with RIPv1/v2 dynamic routing, ACL security, multi-layer QoS, comprehensive VLAN support, as well as Multicast Snooping capabilities, the DWS-3160 enables easy and flexible deployment. Furthermore, multiple DWS-3160s can form a Peer Group, which enables the administrator to configure all switches from one Peer Group Master. As the size of the Peer Group grows, so can the number of managed D-Link Unified Access Points. Up to 192 D-Link Unified Access Points may be managed by a Peer Group. This helps to significantly simplify management and reduce maintenance efforts when a network is scaled up.

Advanced Switching and Routing

- VLAN routing
- RIP v1/v2 support
- Spanning tree
- IGMP/MLD snooping
- IPv6 ready
- 802.3af PoE support
- Static Routing
- IPv6 support
- Auto Surveillance VLAN
- Port or VLAN-based Loopback detection
- Cable Diagnostics
- Configurable MDI/MDIX
- LLDP/LLDP-MED

Simplified Management

- Up to four switches may form a Peer Group, simplifying AP management enabling single-IP management
- WebGUI or command line interface
- sFlow support
- Dual image

Trap & Logs

- SNMP Trap
- Trap for SmartConsole Utility
- System Log

Trusted Security

The DWS-3160 offers a state-of-the-art Wireless Intrusion Detection System (WIDS), which empowers administrators to detect Rogue Access Points and Rogue Clients, effectively preventing them from causing damage to the network. The administrator can also activate various threat detections and use Radio Frequency Scan to sweep the entire wireless network to identify any possible security breach in advance.

When working in conjunction with D-Link Unified Access Points, Virtual Access Points may be easily configured and managed, allowing the administrator to assign different access privileges to different classes of users. In addition to WPA and WPA2, an added measure of protection is added with an advanced captive portal, thus enabling only authorized users to utilize the wireless network. On the wired side, the DWS-3160 utilizes Access Control Lists to tightly control what goes in and out of the network by setting up a number of simple rules. Along with other advanced security features, such as 802.1X Network Access Control and advanced Denial-of-Service Protection, the DWS-3160 provides robust and centralized security, ensuring maximum network reliability.

Automatic RF Management Saves Power and Money

When a number of access points are deployed close to each other, such as in a school or university setting, interference may result if proper RF management isn't implemented. The DWS-3160 monitors the radio spectrum utilization in the network, and will automatically assign the most optimized channel to each access point under its management. This greatly reduces RF interference and allows the administrator to deploy APs more densely.

To further minimize interference, the DWS-3160 can also adjust the transmit power of each radio independently. When a nearby AP is operating on the same channel, the DWS-3160 will automatically lower its transmission power to minimize interference. At any time should the nearby AP drop from the network, the DWS-3160 will instruct the neighboring access point to increase its transmission power to expand coverage.

To ensure that no access point is overburdened while others sit idle, the DWS-3160 can prevent D-Link Unified Access Points from accepting new association requests if its resources are fully utilized. A neighboring Unified Access Point will instead pick up the load. This ensures that proper load balancing is in place, and the network will function in the most optimal state.

Seamless Mobility

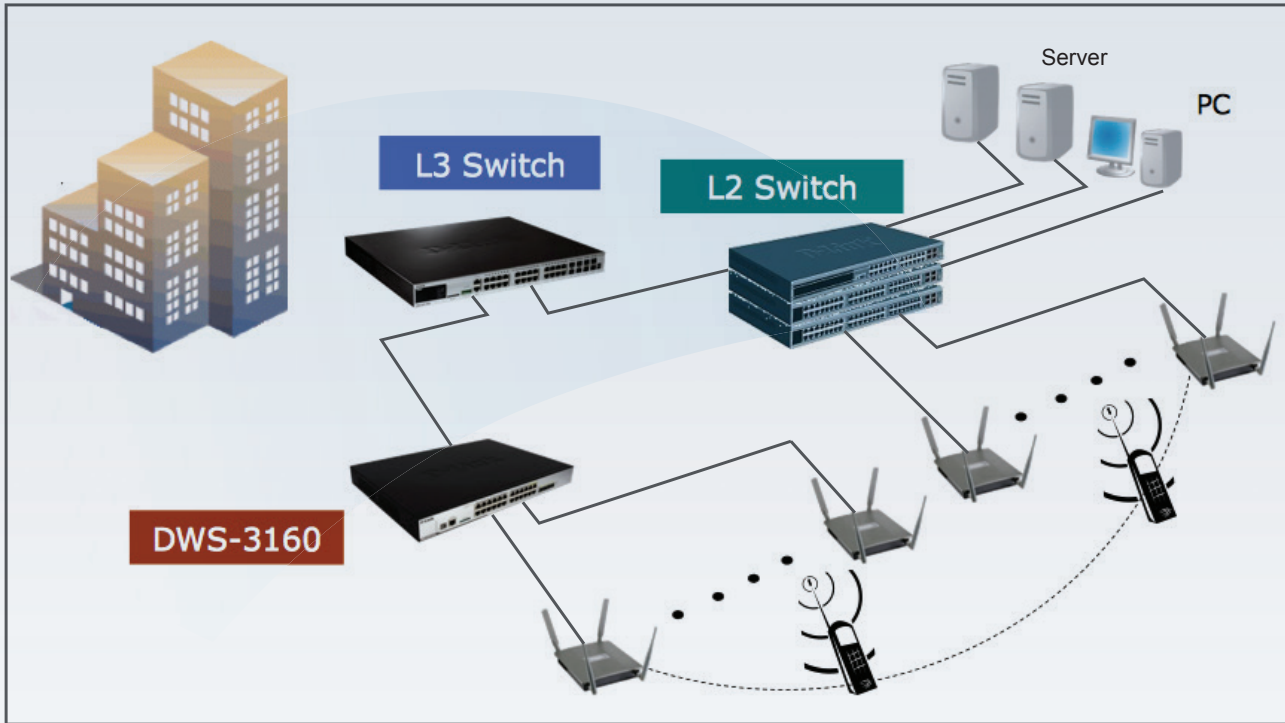
Wireless clients can enjoy seamless and uninterrupted roaming from AP to AP if they are managed by the same DWS-3160, even if they are not in the same subnet². Because the DWS-3160 employs various mechanisms such as pre-authentication and keycaching, wireless users can freely roam the entire network without needing to re-authenticate. This allows mobile users to travel freely within any premise covered by the DWS-3160's managed APs without having to worry about network connectivity, thus enabling for a truly mobile workplace.

Limited Lifetime Warranty

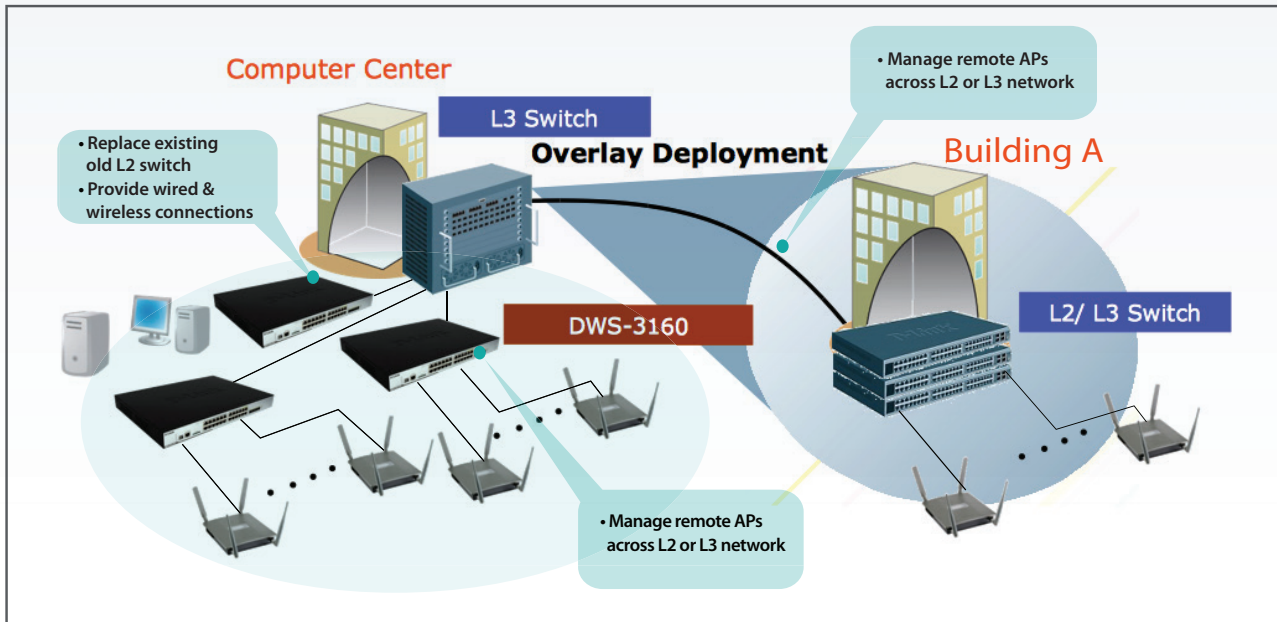
D-Link offers a Limited Lifetime Warranty on the DWS-3160 Series Unified Wireless Switches to further its commitment to product quality and long-term customer confidence.





Deployment: Wireless Controller



Deployment Scenario: Wireless Overlay



Technical Specification

	DWS-3160-24TC	DWS-3160-24PC
		
System		
Size	19-inch Standard Rack-Mount Width, 1U Height	
Network Interfaces	20 10/100/1000Base-T 4 Combo 10/100/1000Base-T/SFP	
Console Port	RJ45 RS-232	
MAC Address Table	16K	
Maximum Power Consumption	37.7 W	467 W (full PoE load)
Performance		
Switching Capacity	48 Gbps	
Maximum Forwarding Rate	35.71 Mpps	
Forwarding Method	Store and Forward	
Packet Buffer Memory	2 MB	
802.3af Power over Ethernet ¹	N/A	15.4 W Per Port 370 W Total Power Budget 740 W Total Power Budget With RPS
Number of VLANs per Device	4K	
Static Routes	512	
Jumbo Frames	13K	
Physical		
MTBF	561,829 hours	282,541 hours
Acoustic	Below 30 °C (86 °F):< 46.3 dB Over 30 °C (86 °F):< 33.0 dB	Below 30 °C (86 °F):< 39.8 dB Over 30 °C (86 °F):< 51.8 dB
Heat Dissipation	128.6 BTU/hr	With 370 W PoE load: 1593.5 BTU/hr
Dimensions	440 x 210 x 44 mm (17.32 x 8.27 x 1.73 inches)	440 x 310 x 44 mm (17.32 x 12.20 x 1.73 inches)
Redundant Power Supply	DPS-200 or DPS-200A	DPS-700

	DWS-3160-24TC	DWS-3160-24PC
Weight (without optional module)	5.63 pounds (2.55 kg)	11.55 pounds (5.24 kg)
Operating Temperature	32 to 122 °F (0 to 50 °C)	
Storage Temperature	-40 to 158 °F (-40 to 70 °C)	
Operating Humidity	10% to 90% RH	
Storage Humidity	5% to 90% RH	
EMI Certifications	FCC Class A CE ICES-003 C-Tick VCCI	
Safety	UL/cUL CB	

Software Specifications

Management

- Manages up to 48 Unified Access Points per switch, up to 192 APs per peer group
- Switch peer group for Single IP Management
- SSH
- SSL
- SNMP v1, 2c, 3
- sFlow
- Dual Image Support
- Web GUI
- Command Line Interface

AP Management

- AP Auto-Discovery
- Remote AP Reboot
- AP Monitoring: List Managed AP, Rogue AP, Authentication Failed AP
- Client Monitoring: List clients associated with each Managed AP
- Ad-hoc Client Monitoring
- AP Authentication Supporting Local Database and External RADIUS Server
- Centralized RF/Security Policy Management
- Automatic AP RF Channel Adjustment
- Automatic AP Transmit Output Power Adjustment
- Centralized Firmware Upgrade

Managed Unified Access Points

- DWL-2600AP
- DWL-3600AP
- DWL-6600AP
- DWL-8600AP
- DWL-8610AP

Roaming

- Fast Roaming
- Intra-Switch/Inter-Switch Roaming
- Intra-Subnet/Inter-Subnet Roaming

Access Control & Bandwidth Management

- Up to 32 SSID per AP (16 SSID per frequency band)
- AP Load Balancing based on the number of users or AP utilization
- Flexible Mapping Schemes

L2 Features

- IGMP Snooping
- MLD Snooping
- 802.1D/w/s Spanning Tree
- 802.3ad Link Aggregation
- 802.1ab LLDP
- Port Mirroring (One-to-One and Many-to-One)
- Jumbo Frame Size: Up to 13 KB

L3 Features

- IPv4/v6 Static Route
- Routing Table Size: 512 Static Routes
- VRRP
- ARP Proxy

LAN Security

- RADIUS Authentication Management Access
- TACACS+ Authentication for Management Access
- SSH & SSL Support
- MAC Filtering
- 802.1X Port-based Access Control & Guest VLAN
- Denial of Service Protection
- Dynamic ARP Inspection
- Protected Port
- Broadcast Storm Control
- Access Control List

MIB

- 1213 MIB II
- 1493 Bridge MIB
- 1907 SNMP v2 MIB
- 1215 Trap Convention MIB
- 2233 Interface Group MIB
- D-Link Private MIB
- LLDP MIB
- Power-Ethernet MIB

LAN Flow Control

- 802.3x Standard in Full Duplex Mode
- Back Pressure in Half Duplex Mode
- Head-of-Line Blocking Prevention

QoS (Quality of Service)

- Voice VLAN
- Wireless Multimedia (WMM)
- 802.1p Priority Queues
- CoS-based QoS
- Per-Flow Bandwidth Control
- Per-Port Traffic Shaping
- Minimum Bandwidth Guarantee

VLAN

- 802.1Q VLAN Tagging
- 802.1V
- Subnet-based VLAN
- MAC-based VLAN
- GVRP
- Double VLAN
- Voice VLAN

DWS-3160 Unified Wireless Gigabit L2+ Switches

WLAN Security	
<ul style="list-style-type: none"> • WPA Personal/Enterprise • WPA2 Personal/Enterprise • 64/128/152-bit WEP Data Encryption • MAC Authentication • Station Isolation • Wireless Station and AP Monitoring based on RF Channel, MAC Address, SSID, Time 	<ul style="list-style-type: none"> • Rogue AP and Client Detection & Mitigation • Captive Portal • Security Profile • 802.1X Support • Guest VLAN
Warranty Information	
Warranty	Limited Lifetime Warranty ³
Unified Switch Ordering Information	
DWS-3160-24PC	Unified Wireless Gigabit 24 Port PoE L2+ Switch with 12 AP license
DWS-3160-24TC	Unified Wireless Gigabit 24 Port L2+ Switch with 12 AP license
Optional License Upgrades	
DWS-3160-24PC-AP12-LIC	12 Access Point License, adds additional 12 AP support to DWS-3160-24PC
DWS-3160-24TC-AP12-LIC	12 Access Point License, adds additional 12 AP support to DWS-3160-24TC
DWS-3160-24PC-AP24-LIC	24 Access Point License, adds additional 24 AP support to DWS-3160-24PC
DWS-3160-24TC-AP24-LIC	24 Access Point License, adds additional 24 AP support to DWS-3160-24TC
Optional Redundant Power Supplies	
DPS-700	Redundant Power Supply Unit (589 Watt RPSU)
DPS-200	Redundant Power Supply Unit, 60 Watt RPSU
DPS-200A	Redundant Power Supply Unit, 60 Watt RPSU
DPS-800	2-Slot RPSU Open Chassis for DPS-200/DPS-500
Compatible Unified Wireless Access Points	
DWL-8610AP	Unified Wireless PoE Access Point, Simultaneous Dual Band 802.11ac
DWL-8600AP	Unified Wireless PoE Access Point, Simultaneous Dual Band 802.11n
DWL-6600AP	Unified 802.11n Dual Band Access Point
DWL-3600AP	Unified 802.11n Single Band Access Point
DWL-2600AP	Unified N Single-band PoE Access Point

¹ PoE available on DWS-3160-24PC only. ² When using L3 tunneling. Please see product manual. ³ Limited Lifetime Warranty available only in the U.S.A.

For more information

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