



The All-in-One, Intelligent WLAN Controller

- Centralized management for up to 64* APs
- ZyMESH mitigates complex, inconvenient cabling Wi-Fi deployments
- Client steering enhances efficiency of wireless spectrum utilization
- Auto healing maximizes Wi-Fi service availability
- Seamless integration with external AD, LDAP, RADIUS authentication
- Best investment protection with built-in RADIUS server

Delivering a good wireless LAN service that stands up to the demands of connecting users to the rapid evolution application is not easy. The latest BYOD (Bring Your Own Device), mobility and smart handheld technology all present scalability, manageability and functionality challenges to business Wi-Fi installations. To enable businesses to addressing these challenges ZyXEL has developed the NXC2500, an all-in-one, intelligent Wireless LAN Controller. The ZyXEL NXC2500 is designed to provide resellers and businesses with a solution that works as an AP planning, deployment, monitoring and maintenance solution while offering management, authentication and guest access within an all-in-one device.

The ZyXEL NXC2500 Wireless LAN Controller supports the management of the ZyXEL Unified, Unified Pro and NWA5000 Managed Series of Access Points to provide complete wireless LAN functions for the business. As standard the ZyXEL NXC2500 supports the initial management of 8 APs and provides scalability with a maximum supported total up to 64* APs, the "pay-as-you-grow" principle provides reassurance and future proofing for small and medium-sized businesses, hotels and educational institutes to implement secured, centralized wireless LAN networks.

Benefits

Adaptive and resilient Wi-Fi deployments with ZyMESH technology

Surpassing the mesh networking technology, ZyMESH creates wireless mesh links with easy configuration, better management and enhanced reliability. ZyMESH eases extending Wi-Fi coverage to places where cabling is difficult. In addition, each repeater APs can have multiple route selections to provide high resilience achieving non-stop Wi-Fi service. In the past, administrators had to assign channel and MAC addresses in each AP while setting up a WDS link to extend Wi-Fi service; now they can make initial provision and centralized management with ZyMESH and ZyXEL NXC2500 controller to manage and deploy networks easily.

Enhanced RF management and WLAN optimization

All wireless networks face a major challenge: ensuring Wi-Fi clients get service levels they'd need. The difficulty to resolve is that different kinds of Wi-Fi clients exist on the network, and these users tend to make their own connectivity and roaming decision.

* Management of 64 APs is supported with firmware version V4.10 or above



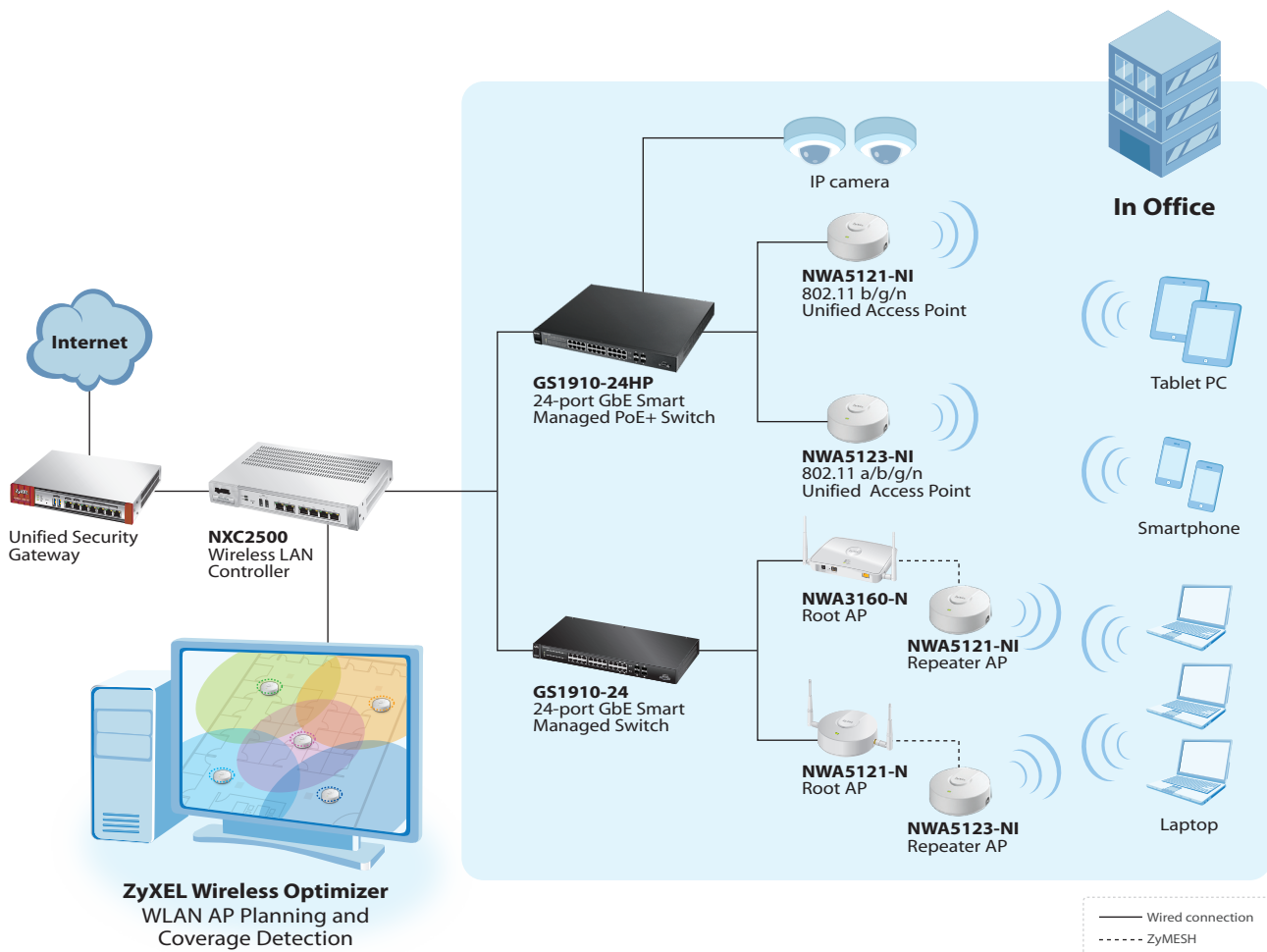
NXC2500
Wireless LAN Controller

The ZyXEL NXC2500 features with advanced WLAN optimization technologies that help administrators monitoring and maintaining health of the wireless network easily. Client steering utilizes functions of band select and client signal threshold to match every Wi-Fi client to the best radio of the best AP. Band select sets 5 GHz as the first priority to optimize network connectivity for dual-band clients. Client signal threshold ensures all clients connect to the APs with stronger signal. Auto healing is another WLAN optimization function that deployed APs detect status of nearby APs and adjust power automatically while failure occurred in neighboring AP. Auto healing provides reliable and always-on wireless coverage. The ZyXEL NXC2500 also features dynamic channel selection to optimize Wi-Fi quality and performance while minimizing administration efforts by auto, instant channel selection.


Authentication with simplified management

The ZyXEL NXC2500 uses comprehensive authentication methods to manage Wi-Fi accessibility for devices with AD, LDAP or RADIUS authentication servers. The NXC2500 also provides a built-in RADIUS server, a captive portal server and a DHCP server to facilitate small and medium businesses deploying secured employee and guest access services without any additional server. The user-friendly guest account generator can dynamically create user accounts for guests at reception or equally easy by office administrators. The NXC2500 also supports applying external customized portal pages which largely benefit the access authentication in hospitality venues like hotels. Also, with IETF standard-based CAPWAP, secured communication can be established between the NXC controller and access points without changing the existing LAN infrastructure. The NXC2500 can offer a secured Wi-Fi network with easy installation for your business.

Application Diagram



Specifications

Model	NXC2500
Product name	Wireless LAN Controller 
Port Density	
10/100/1000 Mbps LAN ports	6
USB port	2
Performance	
Throughput (Gbps)	1
Managed AP number (default/max.)	8/64*
Fanless	Yes
WLAN Features	
Wireless security (WPA/WPA2-PSK, Enterprise)	Yes
Dynamic channel selection	Yes
Client RSSI threshold	Yes
Wireless multicast setting	Yes
Rogue AP detection	Yes
AP load balancing	Yes
AP planning and site-survey	Yes (AP planning and coverage detection)
ZyMESH	Licensed service
Band select	Yes
Client signal threshold	Yes
Auto healing	Yes
Security Features	
IEEE 802.1X	Yes
Layer-2 isolation	Yes
Web authentication	Yes
MAC filtering	Yes
RADIUS authentication	Yes
Microsoft AD authentication	Yes
LDAP authentication	Yes
Embedded RADIUS server	Yes (512 user)
Rogue AP detection	Yes
Identity-based user security management	Yes
Wireless intrusion detection	Rogue AP detection and containment
Control and Provisioning	
Managed AP discovery	Broadcast/DHCP option/DNS/Manual
CAPWAP	Yes
AP data forwarding mode support	Distributed (local bridge) and Centralized (data tunnel)
Management interface	HTTP/HTTPS/Telnet/SSH/SNMP
Output power control	Yes
Wire/wireless packet capture	Yes
Network	
VLANs	Yes
DHCP client	Yes
DHCP relay, server	Yes
NAT	Yes
Static routing	256
Policy routing	256

* Management of 64 APs is supported with firmware version V4.10 or above

Model		NXC2500
Access Control		
MAC filter list		Yes
MAC authentication		Internal and external RADIUS
Guest account generator		Yes (512 user)
Customizable web login portal		Yes
QoS		
WMM/power save		Yes
DiffServ marking		Yes
AP load balancing		Yes
Management Features		
CLI with SSH		Yes
Web UI with SSL		Yes
SNMP		v1, v2c, v3
Multi-level administration roles		Admin, guest operator
User/Application Management		
Authentication		RADIUS/Microsoft AD/LDAP/Local
Local user database		Yes (512)
User/group policy		Yes
Captive portal		Yes
External portal page		Yes
Page upload		Yes
Other		
System diagnostic tool		Yes
ZyXEL Wireless Optimizer		Supported
Certification		
EMC		<ul style="list-style-type: none"> • FCC Part 15B • CE EN55022, EN55024 • ERP Lot 6 • C-tick AS/NZSCISPR22 • BSMI CNS13438
Safety		<ul style="list-style-type: none"> • LVD EN60950-1: A12 • BSMI CNS14336
Power Requirements		
Power supply		12 VDC, 100 - 240 VAC
Physical Specifications		
Item	Dimensions (WxDxH)(mm/in.)	242.0 x 175.39 x 35.5/9.53 x 6.9 x 1.4
	Weight (kg/lb.)	1.254/2.76
Packing	Dimensions (WxDxH)(mm/in.)	395 x 238 x 101/15.55 x 9.37 x 3.98
	Weight (kg/lb.)	2.49/5.49
Environmental Specifications		
Operating	Temperature	0°C to 40°C/32°F to 104°F
	Humidity	5% to 95% (non-condensing)
Storage	Temperature	-20°C to 70°C/-4°F to 158°F
	Humidity	5% to 95%
MTBF (hr)		815,464

Access Point Compatibility List

Series	NWA3000-N Series	NWA5000 Series	NWA5120 Series
	Unified Pro Access Point	Managed Access Point	Unified Access Point
Model	NWA3160-N NWA3560-N NWA3550-N	NWA5160N NWA5560-N NWA5550-N	NWA5121-NI NWA5121-N NWA5123-NI NWA5301-NJ
Functions			
Auto provisioning over WAN & LAN	Yes	Yes	Yes
CAPWAP	Yes	Yes	Yes
Auto channel selection	Yes	Yes	Yes
AP load-balancing	Yes	Yes	Yes
Monitoring mode	Yes	Yes	Yes
Rogue AP detection	Yes	Yes	Yes
Rogue AP containment	Yes	Yes	Yes
Packet capture	Yes	Yes	Yes
Data forwarding	Local bridge/Data tunnel	Local bridge/Data tunnel	Local bridge
ZyMESH	Yes	Yes	Yes

Other Information

License

Item	Description
Managed AP scalability	The NXC2500 Managed AP License increases the number of APs that can be managed by the NXC2500 WLAN controller by increments of 8 APs at a time. The maximum number of APs supported is 64*.
ZyMESH	This license enables the ZyMESH function on the NXC2500, supporting for root wireless mesh deployments.

* Management of 64 APs is supported with firmware version V4.10 or above



For more product information, visit us on the web at www.ZyXEL.com



Copyright © 2014 ZyXEL Communications Corp. All rights reserved. ZyXEL, ZyXEL logo are registered trademarks of ZyXEL Communications Corp. All other brands, product names, or trademarks mentioned are the property of their respective owners. All specifications are subject to change without notice.

