



The All-in-One, Intelligent NXC Controller

- Centralized management for up to 200 APs
- ZyXEL Wireless Optimizer for easily planning, deployment and maintenance
- AP auto discovery and auto provisioning
- Visualized AP service quality map
- Comprehensive Internet guest account generator
- Support of multiple authentication methods

Delivering a good wireless LAN service that stands up to the demands of connecting users to the latest high bandwidth applications is not easy. The latest BYOD (Bring Your Own Device), mobility and 3G Wi-Fi tablet and smart phone technology all present scalability, manageability and functionality challenges to business Wi-Fi installations. To enable businesses to address 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 NWA3000 and NWA5000 Series of Access Points to provide complete wireless LAN functions for the business. As standard the ZyXEL NXC2500 supports up to 200 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

Simplifying BYOD

The ZyXEL NXC2500 helps businesses to meet BYOD challenges. As more and more people are bringing their own devices to work, the workplace has gradually evolved from “one device for one person” to “multiple devices for many people”. The NXC2500 has been designed to work with ZyXEL Unified, Unified Pro and Managed Series of Access Points with no pre-configuration required. The NXC2500 provides the business with multiple auto-discovery methods, Broadcast, DHCP option and DNS. With IETF standard based CAPWAP (Control And Provisioning of Wireless Access Points), secured communication can be established between the NXC controller and access points without changing the existing LAN infrastructure, this allows APs be deployed and provisioned quickly and securely within the network. The NXC2500 offers a non-stop wireless service, easy installation and secured Wi-Fi network for your business.

Visualized AP planning and WLAN health management

Efficiently estimating the number of APs needed and fast deployment of stable, high quality Wi-Fi coverage are two unavoidable challenges for every WLAN installation scenario. Monitoring and maintaining the health of the wireless network after deployment is equally important and usually can consume a lot of effort. In order to simplify the planning, deploying and maintaining, the ZyXEL Wireless Optimizer works in unison with the NXC2500. The Wireless Optimizer provides a pre-installation AP planning function and after installation delivers innovation that allows your WLAN Access points to act as Wi-Fi sensors to perform coverage detection that simplifies and speeds up deployment. The AP Wi-Fi sensor also provides a wireless quality index, and can be visualized into the Wi-Fi quality MAP within the Wireless Optimizer Application, where the maintenance and optimization of the Wi-Fi deployment is no longer an “invisible” and incredibly complicated challenge.

NXC2500
Wireless
LAN Controller

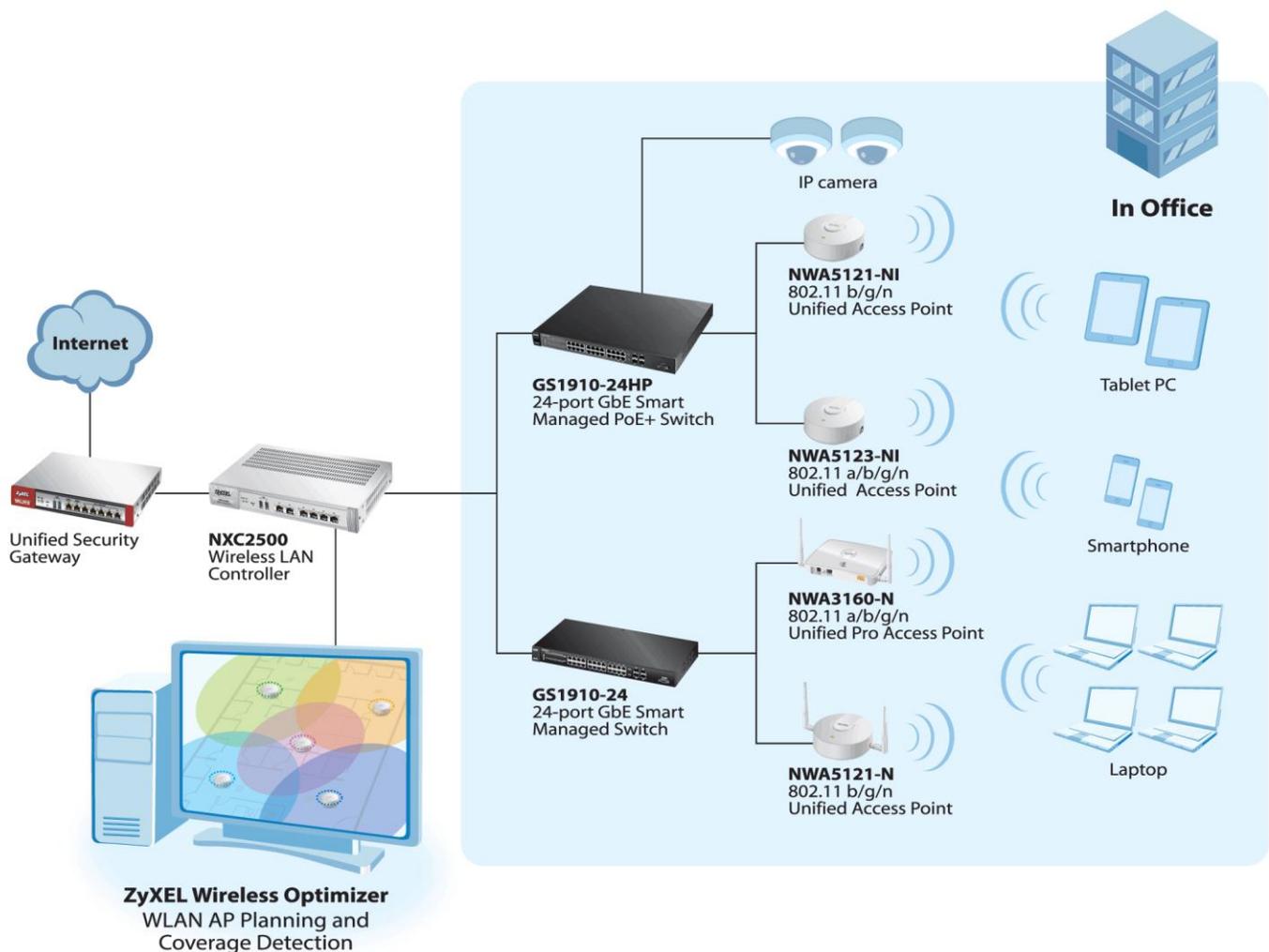
Optimal WLAN quality

The ZyXEL NXC2500 comes with a range of advanced RF management functions that minimizes administrator efforts for optimized Wi-Fi quality and performance. The auto channel selection function can provide continuous, automated RF optimization to relieve administrators from the need to worry about channel settings and to determine the right channels. AP load-balancing parameters can also be set to distribute traffic while the number of served clients among multiple APs can also be detected to improve overall efficiency.

Authentication with simplified management

The ZyXEL NXC2500 uses comprehensive authentication methods to manage Wi-Fi accessibility for laptops, tablets or other mobile devices with RADIUS authentication servers. The NXC2500 also provides a built-in RADIUS server, captive portal server and DHCP server. It has the capability for fully customizable portal pages allowing you to deploy secured employee and guest access without the need for any additional servers and the user friendly guest account generator can dynamically create user accounts for guests at reception or as easily by the business office administrators. The flexible, powerful, yet friendly design all helps to demystify the professional Wi-Fi deployment and make the implementation of business class Wi-Fi easy.

Application Diagram



Specification

Model	NXC 2500
Product name	Wireless LAN Controller 
Port Density	
10/100/1000 Mbps LAN ports	6
USB Port	2
Performance	
Firewall throughput (Gbps)	1
Managed AP number	200
Fanless	Yes
WLAN Features	
Standard compliance	802.11a/b/g/n, 802.11d/e/i/h
WMM (Wi-Fi certified)	Yes
WEP	Yes
WPA/WPA2-PSK	Yes
WPA2 (Wi-Fi certified)	Yes
WPA/WPA2-Enterprise	Yes
Bandwidth limit	Yes *
Security Features	
IEEE 802.1X	Yes
Web authentication	Yes
MAC filtering	Yes
RADIUS authentication	Yes
Embedded RADIUS server	Yes
Identity-based user security management	Yes
Wireless intrusion detection	Rogue AP detection, Rogue AP Containment*
Control and Provisioning	
Managed AP discovery	Broadcast/DHCP Option/DNS/Manual
CAPWAP	Yes
AP data forwarding mode support	Distributed (local bridge)
Management interface	HTTP/HTTPS/Telnet/SSH/SNMP
Output power control	Static and Dynamic*
Dynamic channel assignment	Yes
AP planning and site-survey	Yes (AP planning and coverage detection)
Wire/wireless packet capture	Yes
Network	
VLANs	Yes
DHCP client	Yes
DHCP relay, server	Yes
NAT	Yes
Static routing	Yes
Policy routing	Yes

Specification

Access Control		NXC 2500
Policy routing		Yes
Customizable web login portal		Yes
QoS		
WMM		Yes
WMM power saving		Yes
DiffServ marking		Yes
AP load balancing		Yes
Management Features		
CLI with SSH		Yes
Web UI with SSL		Yes
SNMP		Yes
Multi-level administration roles		Admin, guest operator
User/Application management		
Authentication		RADIUS /Local
Local user database		Yes
MAC authentication		Yes (Internal/External RADIUS)
User/group policy		Yes
Captive portal		Yes
External portal page		Yes
Page upload		Yes
Other		
Dynamic channel selection		Yes
System diagnostic tool		Yes
Certification		
EMC		FCC Part 15B CE EN55022, EN55024:2010 ERP Lot 6 C-tick AS/NZSCISPR22:2009 BSMI CNS13438:2006
Safety		LVD EN60950-1:A12:2011 BSMI CNS14336:2010
Power Requirements		
Power supply		12VDC, 100~240VAC
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° - 40°/32°F - 104°F
	Humidity	5~95% (non-condensing)
Storage	Temperature	-20° - 70°/-4°F - 158°F
	Humidity	5~95%
MTBF (hrs)		815,464

Access Point Compatibility List

Series	NWA3000-N Series	NWA5000 Series	NWA5120 Series
Model	NWA3160-N NWA3560-N /v2 NWA3550-N	NWA5160-N NWA5560-N NWA5550-N	NWA5121-NI NWA5121-N NWA5123-NI
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	No
- Rogue AP	Yes	Yes	Yes (Standalone mode)
- Packet capture	Yes	Yes	No
Data forwarding	Local bridge	Local bridge	Local bridge

Other Information

System Requirement	
Tool	ZyXEL Wireless AP Optimizer
Description	Easy for AP planning, coverage detection and monitoring
Minimum System Hardware	<ul style="list-style-type: none"> • CPU: Intel P4 1.4 MHz • Memory: 2GB • Free Disk Space: 100 MB
OS support	<ul style="list-style-type: none"> • Windows XP Professional • Windows Vista (32-bit) • Windows 7 (32-bit, 64-bit) • Windows 8 (32-bit, 64-bit)

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



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