



The All-in-One, Intelligent NXC Controller

- Centralized management for up to 24 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 (AD, LDAP or RADIUS)

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 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 24 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

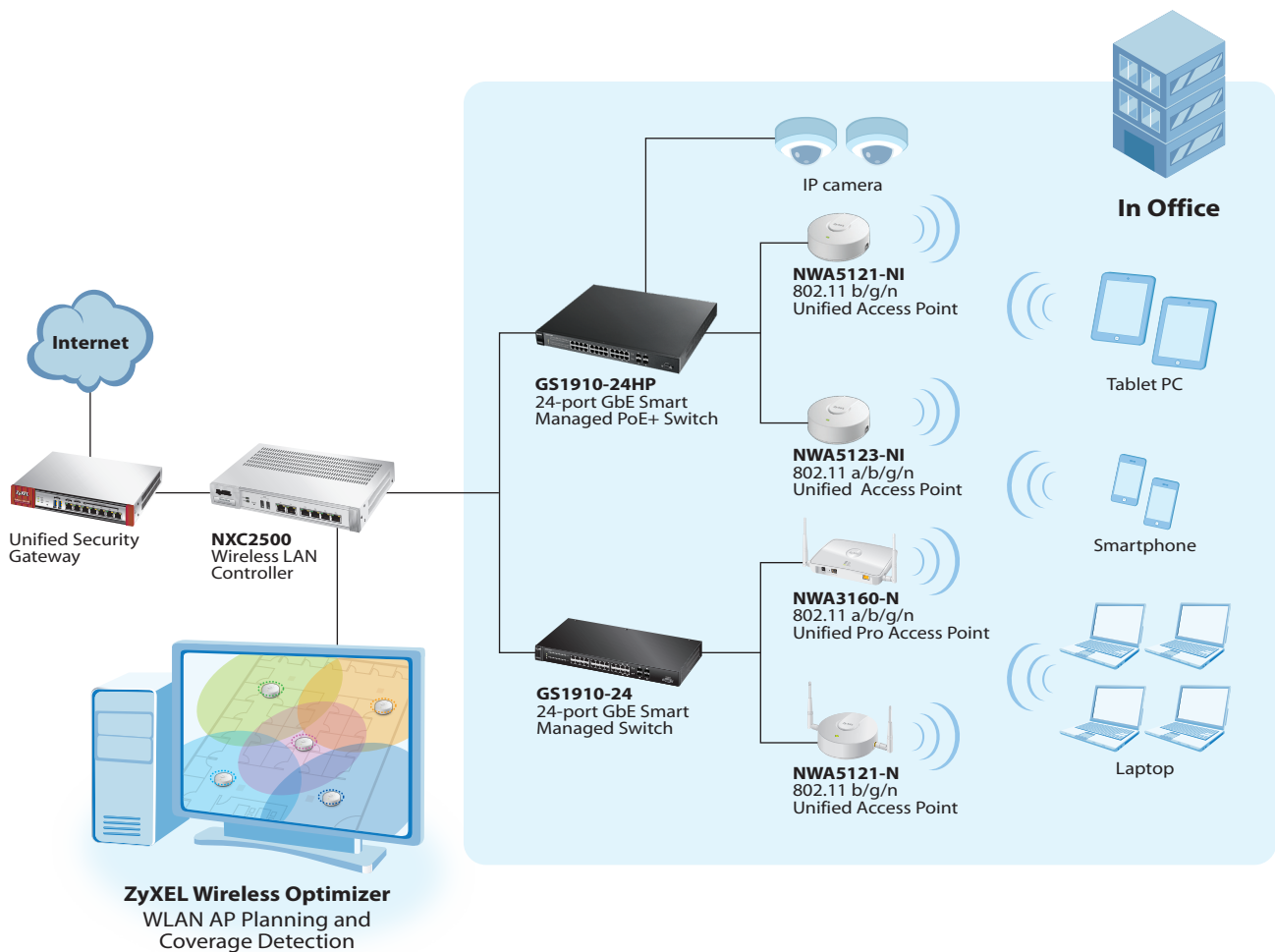
Optimal WLAN quality

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 AD, LDAP or 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



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.)	8/24	
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	
Security Features		
IEEE 802.1X	Yes	
Web authentication	Yes	
MAC filtering	Yes	
RADIUS authentication	Yes	
Microsoft AD authentication	Yes	
LDAP authentication	Yes	
Embedded RADIUS server	Yes (256 user)	
Rogue AP detection	Yes	
Identity-based user security management	Yes	
Wireless intrusion detection	Rogue AP detection	
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	Yes	
Dynamic channel assignment	Yes	
AP planning and site-survey	Yes (AP planning and coverage detection)	
Wire/wireless packet capture	Wired	
Network		
VLANs	Yes	
DHCP client	Yes	
DHCP relay, server	Yes	
NAT	Yes	
Static routing	Yes	
Policy routing	Yes	

Model		NXC2500
Access Control		
MAC filter list		Yes
MAC authentication		Yes
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		Yes
Multi-level administration roles		Admin, guest operator
User/Application Management		
Authentication		RADIUS/Microsoft AD/LDAP/Local
Local user database		Yes (256)
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		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
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	Detection	Detection	Detection (Standalone mode)
Packet capture	Yes	Yes	No
Data forwarding	Local bridge	Local bridge	Local bridge

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 24.

System Requirement

ZyXEL Wireless Optimizer	
Description	Easy for AP planning, coverage detection and monitoring
Operating system	Microsoft® Windows XP Professional SP2+ Windows Vista (32-bit) Windows 7 (32-bit, 64-bit) Windows 8 (32-bit, 64-bit)
Processor	Intel® Pentium® 4 1.4 GHz or higher recommended
RAM	2 GB recommended
Hard disk	100 MB of free disk space
Map import	A site map in the following supported formats: .bmp, .gif, .jpg, .png



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