ZyXEL

Long-range, Powerful and Optimal Wi-Fi Connectivity for Businesses

- **High output power of up to 28 dBm delivers extended coverage**
- **2 external antennas with high 5 dBi gain optimized for mobile devices**
- **Fast 802.11n Wi-Fi with speed up to 300 Mbps improves transmission of large files or videos**
- **Easy deployment via client mode or repeater AP and IEEE 802.3af PoE support**
- **ZON Utility and ZAC minimize repetitive configuration processes and efforts**
- **Certified WPA2 Enterprise, access control management and user traffic control for strict network protection**

In the so-called BYOD trend, more than 80% of employees use at least one personally owned mobile device such as smart phones or tablets for business; however data transmission with these mobile devices is sometimes unstable because of their weak output power. To be the best accommodate mobile devices in the network, the new ZyXEL NWA1100-NH 802.11 b/g/n Long Range PoE Access Point features high output power and antenna gain to optimize wireless coverage and signal quality that are four times better for improved device connectivity. In addition, advanced management features also relieve tiresome configuration tasks for more than a few access points (APs). The NWA1100-NH is the best solution for businesses to streamline Wi-Fi connections.

Benefits

Boost Wi-Fi coverage for more than 30%

Today, speed is no longer an issue for Wi-Fi, but coverage still is. That is, longer distance causes serious drop in throughput. The boosted output power of ZyXEL NWA1100-NH improves throughput in the same distance and thus extends the coverage comparing other APs with regular output strength. With even the same number of AP deployed, users can still enjoy better performance within the coverage.

Adaptive to the existing wiring infrastructure

Compliant with the 802.3af standard consuming power of less than 15 Watts, the NWA1100-NH not only saves energy but also adopts latency switches; as such there's no need to change the wired infrastructure and it helps businesses to minimize extra cost on new equipment setup.

ZyXEL ONE Network experience

Aiming for relieving our customers from repetitive operations of deploying andmanaging a network, ZyXEL ONE Network is designed to simplify the configuration, management, and troubleshooting, allowing our customers to focus on the business priorities. ZyXEL ONE Network presents an easy-to-use tool, ZyXEL ONE Network Utility (ZON Utility), to realize speed network setup. ZyXEL Smart Connect* allows ZyXEL networking equipment to be aware and recognize each other and further facilitating the network maintenance via one-click remote functions such as factory reset or power cycling. ZyXEL ONE Network redefines the network integration across multiple networking products from switch to Wi-Fi AP and to Gateway.

* ZyXEL Smart Connect is supported on selected models. Please refer to specifications for more detail.

Secured Wi-Fi access control

The devices requiring Wi-Fi connectivity are mostly mobile units and are mostly not corporate assets, so management to access privileges of such Wi-Fi clients is definitely required to secure the business network. The ZyXEL NWA1100-NH offers various ways to verify Wi-Fi clients in order to keep unauthorized users from connecting to the network or taking network resources.

ZyXELonenetwork
Redefining network integration

NWA1100-NH
802.11 b/g/n Long Range PoE Access Point

Feature Highlights

Long range coverage
With the boosted 28 dBm output power and 5 dBi high antenna gain, the ZyXEL NWA1100-NH can amplify signal transmitted and received for mobile devices with weak output power to connect to the Wi-Fi networks with ease. Thanks to this feature, the NWA1100-NH is able to provide WLAN connectivity to serve most client devices.

Long Range

Powered device
The ZyXEL NWA1100-NH is designed to be flexible in various deployment scenarios. As a standard powered device (PD), the NWA1100-NH can work with 802.3af and 802.3at PoE switches to eliminate inconvenience caused by, for example, insufficient power outlets.

PoE Power Device

Wireless layer-2 isolation
The layer-2 isolation can protect the private network among client users and allow users to access the shared devices without entering the rest of private networks for enhanced security. Also, the intra-BSS blocking prevents peeping from Wi-Fi clients associated with same AP.

Wireless L2 Isolation

WPA2 enterprise certified
ZyXEL NWA1100-NH has been certified with industrial-strength WPA2 Enterprise protection and has wide range support of EAP (Extensible Authentication Protocol) types. It can be seamlessly integrated with corporate RADIUS servers.

Wi-Fi Security

ZyXEL ONE Network utility
To streamline the management process, the ZyXEL NWA1100-NH comes with ZON utility for administrators to assign IP addresses of multiple APs through just one platform. Administrators can save the hassle logging into each AP to change the default IP addresses before physical installation.

ZON Utility

ZyXEL AP Configurator
After deploying a number of APs, repetitive configuration for the units takes time and effort. The ZyXEL AP Configurator (ZAC) allows batch AP configuration, backup and firmware upgrade in three easy steps to significantly reduce configuration time and effort.
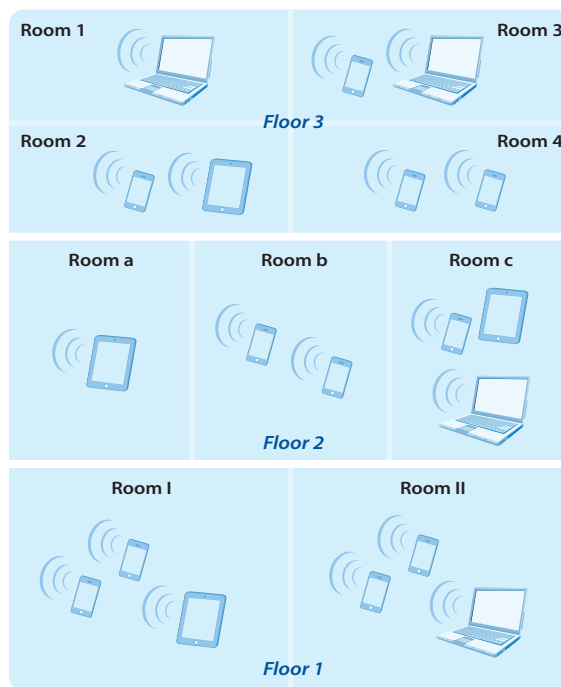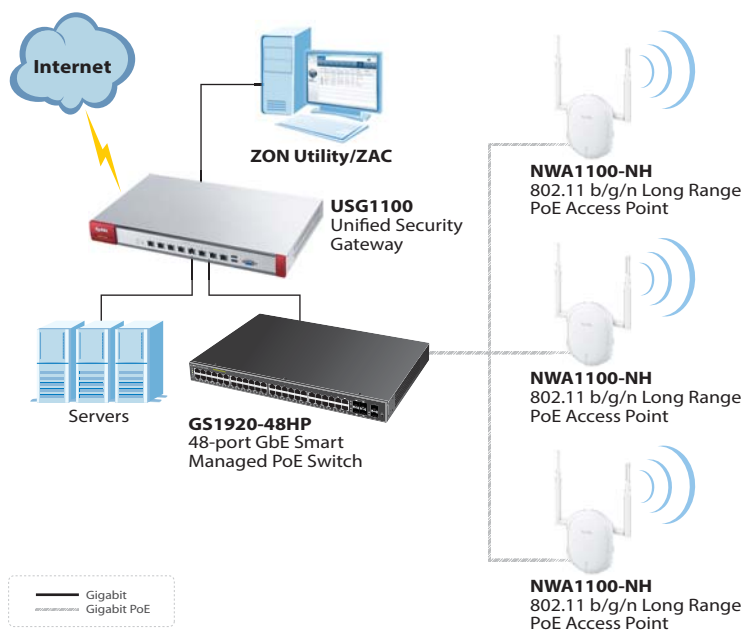
ZyXEL AP Configurator

Access control list
For company without existing RADIUS server, administrators can utilize the Access Control List (ACL) to grant or block Wi-Fi access by entering MAC addresses of the client devices.

Access Control List

Application Diagram

• Assign IP address of multiple APs through ZON utility
• Batch AP configuration, backup and firmware upgrade through ZAC

Internet

ZON Utility/ZAC

USG1100
Unified Security Gateway

Servers

GS1920-48HP
48-port GbE Smart Managed PoE Switch

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Gigabit
Gigabit PoE

Room 1 — Room 3
Floor 3
Room 2 — Room 4

Room a — Room b — Room c
Floor 2

Room I — Room II
Floor 1

ZyXEL

NWA1100-NH
802.11 b/g/n Long Range PoE Access Point

Specifications

Model	NWA1100-NH
Product name	802.11 b/g/n Long Range PoE Access Point
Main Design	
Wireless frequency	2.4 GHz
Radio	1
RF Specifications	
Number of antenna	2T2R MIMO
Antenna gain	5 dBi
Frequency band	2.4 GHz (IEEE 802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz • Taiwan (TW): 2.412 to 2.462 GHz
802.11n premium features	• 2x2 multiple-input multiple-output (MIMO) with two spatial streams • Maximal Ratio Combining (MRC) • 20- and 40-MHz channels • PHY data rates up to 300 Mbps • Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx) • Cyclic Delay diversity (CSD) support • Maximum Likelihood Demodulation (MLD) support • Low Density Parity Check (LDPC) support
Max. transmit power* US (FCC) 2.4 GHz	28 dBm, 2 antennas
EU (ETSI) 2.4 GHz	18 dBm, 2 antennas
Received sensitivity	2.4 GHz • 802.11b/g, min. up to -92 dBm • 802.11n/20 MHz, min. up to -91 dBm • 802.11n/40 MHz, min. up to -87 dBm
LAN	
Number of 10/100/1000M LAN	1
PoE	Yes
PoE power draw	6 W
WLAN Security	
WLAN maximum net throughput	Up to 110 Mbps
WMM (Wi-Fi certified)	Yes
WEP	Yes
WPA/WPA2-PSK	Yes
WPA/WPA2-Enterprise	Yes
EAP types	PEAP, EAP-TLS, -TTLS, -SIM, -FAST, -AKA, -MD5 and -GTC
Number of multiple SSID	8
IEEE 802.1x	Yes
MAC filtering	Yes
Layer-2 isolation	Yes
WLAN access control list	Yes
RADIUS authentication	Yes
Network	
IPv6 support	Yes
VLANs	Yes
DHCP client	Yes

*: Max. total channel

Model	NWA1100-NH
Management	
ZAC	• Batch AP configuration • Batch AP firmware upgrade • Batch AP profile backup
ZON Utility	• Discover ZyXEL switches, APs and gateways* • Centralized and batch configuration ▪ IP configuration ▪ IP renew ▪ Device reboot ▪ Device locating ▪ Web GUI access ▪ Firmware upgrade ▪ Password configuration ▪ ZAC access
Standalone AP mode	Yes
CLI	Yes
SNMP	v1, v2c, v3
Others	
Power supply	Input: AC 100 - 240 V -50/60 Hz 0.3 A; Output: DC +12 V 1 A
MTBF (hr)	1,018,459.6
Standard Compliance	
Ethernet	IEEE 802.3, IEEE 802.3u, IEEE 802.3az, IEEE 802.3af
PoE	IEEE 802.3af
WLAN	802.11b: DBPSK, DQPSK, CCK 802.11g: BPSK, QPSK, 16-QAM, 64-QAM 802.11n: BPSK, QPSK, 16-QAM, 64-QAM
Certifications	
Radio	FCC Part 15C ETSI EN 300 328, EN60601-1-2 DGT LP0002
EMC	FCC Part 15B EN 301 489-1, EN 301 489-17, EN 55022, EN 55024, EN 61000-3-2/-3/EN60601-1-2 BSMI CNS13438
Safety	EN 60950-1 IEC 60950-1 BSMI CNS14336-1

Physical Specifications		
Item	**Dimensions (WxDxH)(mm/in.)**	153 x 110 x 38/6.02 x 4.33 x 1.5
	Weight (g/lb.)	240/0.529
Packing	**Dimensions (WxDxH)(mm/in.)**	285 x 210 x 72/11.22 x 8.26 x 2.83
	Weight (g/lb.)	602/1.327
Included accessories		• Power adapter • Mounting screws
Environmental Specifications		
Operating environment	**Temperature**	0°C to 60°C/32°F to 140°F
	Humidity	10% to 95% (non-condensing)
Storage environment	**Temperature**	-30°C to 70°C/-22°F to 158°F
	Humidity	10% to 95%

Gateway supports of the ZON utility will be available on the second half 2014.