

ZYXEL

Your Networking Ally



WiFi Expansion with Centralized Management

AP Controller Technology
Solution Brief



Zyxel**one**network
Redefining network integration

Best TCO integration

With the BYOD trend accelerating, Wi-Fi connectivity is now widely provided everywhere in offices, hotels and even schools. This significantly and quickly increases demand for Wi-Fi access points, which in turn leads to more provisioning and management issues for network administrators. In fact, a well-designed WLAN controller is usually a solution to relieve administrators from these problems.

Now, Zyxel makes its advanced AP Controller (APC) technology available not only to stand-alone NXC WLAN controller, but also to its various Gateway products. This enables businesses to easily scale up the Wi-Fi networks with less investment and management efforts.

Key Benefits

Best TCO

- Lower initial investment on equipment procurements
- Less configuring and maintaining efforts on multiple devices

Pay as You Grow

- Scalable license-based Wi-Fi AP management for more flexibility
- myZyxel.com offers a single friendly portal for managing the licensed services

Comprehensive AP Portfolio

- Wall mount, ceiling mount or even wall-plate installation for different needs
- Indoor/outdoor wide-coverage installation for all locations
- Comprehensive technology options: ultra-high speed 11ac and concurrent dual-band for high-density deployments

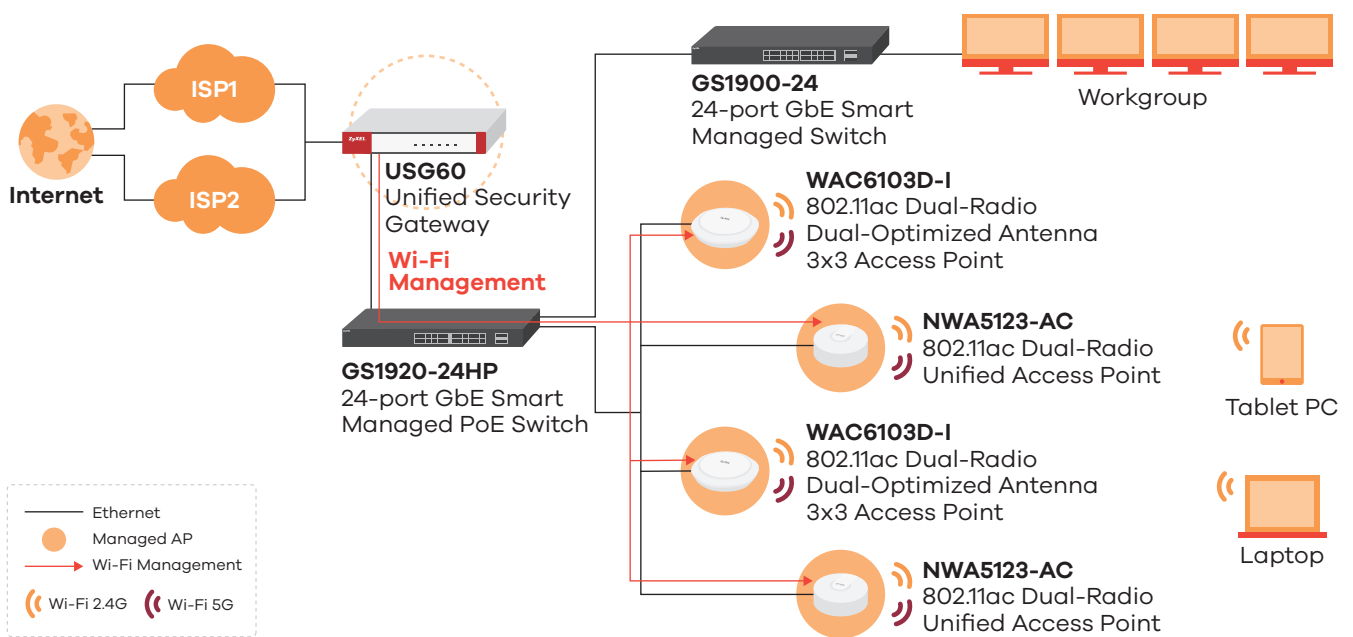


Application diagram

SMB

Zyxel's Next-Generation USG series integrates AP Controller Technology. It performs business Gateway, anti-malware protection and Wi-Fi centralized management at the same time.

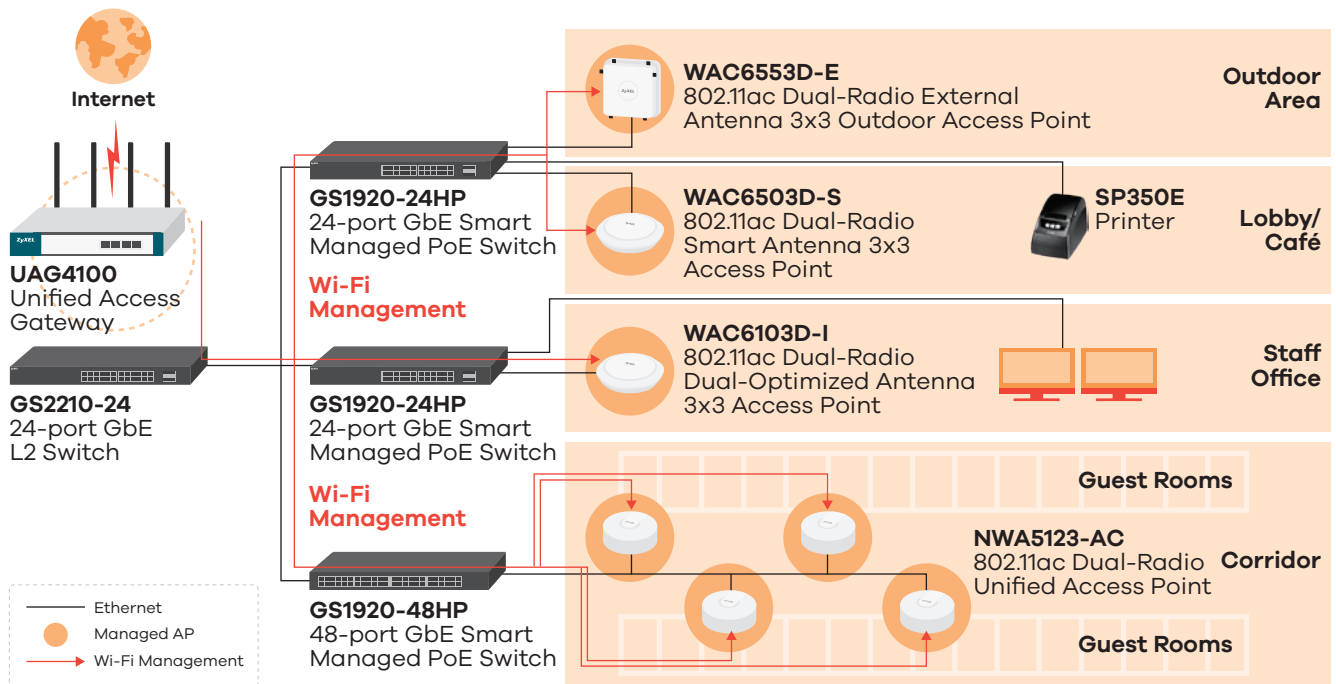
In case more Wi-Fi needs to be deployed and managed, an NXC WLAN Controller can be added for higher scalability.



Hotel

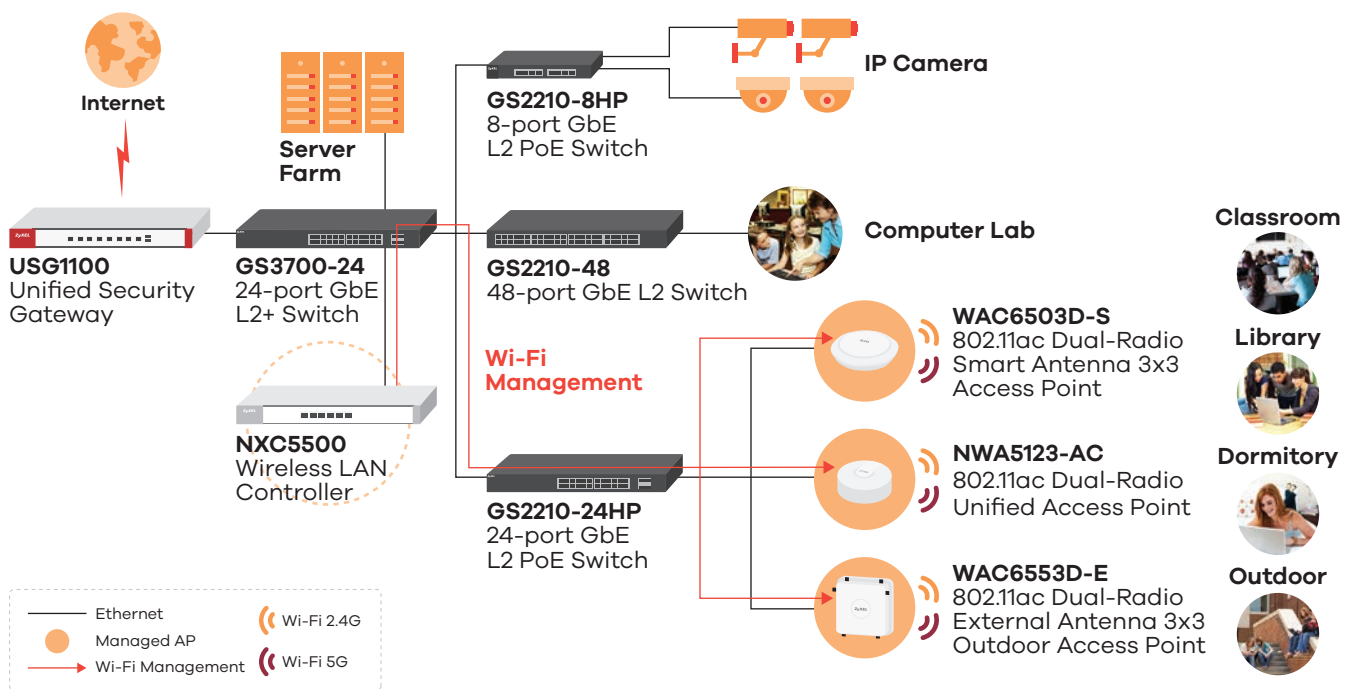
Apart from performing business Gateway and AAA Gateway, Unified Access Gateway (UAG) series, ZyWALL series and Unified Security Gateway (USG) series are also able to perform Wi-Fi centralized management with built-in AP Controller Technology (UAG) or adding

hotspot management license (ZyWALL and USG). In case more Wi-Fi needs to be deployed and managed, an NXC WLAN Controller can be added for higher scalability.



Education

An NXC WLAN Controller with high scalability can manage up to 1024 APs, making it an ideal choice for campus deployment.



Feature matrix

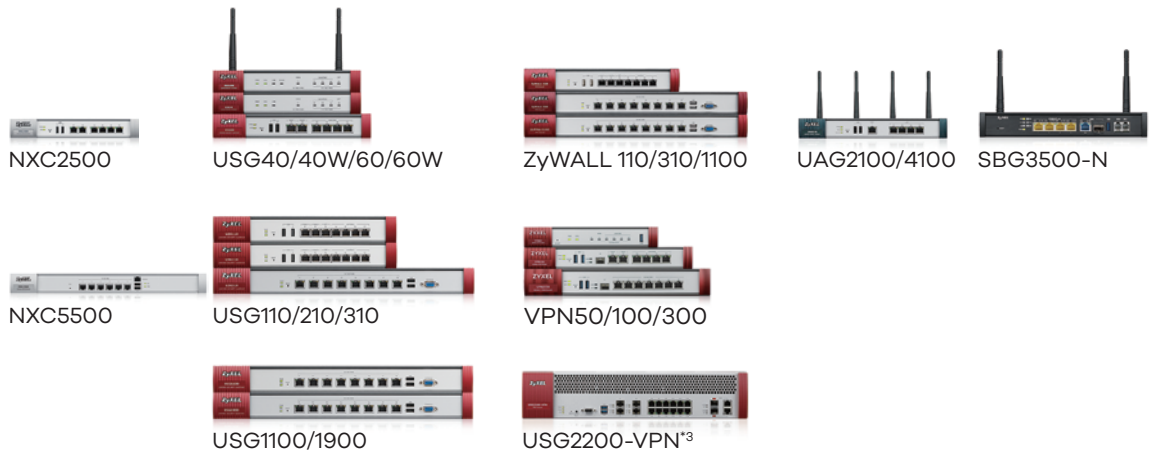
APC Version	APC3.0	APC1.97	APC Lite
RRM (Radio Resource Management)			
Client RSSI threshold	Yes	Yes	Yes
Dynamic channel selection	DCS3.0	DCS3.0	Yes
Band steering (Band select)	Yes (2.0)	Yes (2.0)	-
Auto power (Auto healing)	Yes	Yes	-
Security & Access Control			
MAC filtering	Yes	Yes	Yes
Blocking intra-BSS traffic	Yes	Yes	Yes
Role-based access control	Yes	Yes	-
Rogue AP detection	Yes	Yes	-
Rogue AP containment	Yes	Yes	-
Wireless L2 isolation	Yes	Yes	Yes
AAA (Authentication, Authorization, Accounting)			
MAC authentication with local database	Yes	Yes	-
MAC authentication with external radius	Yes	Yes	-
Captive portal (internal & external)	Yes	Yes	Yes
Captive portal customizable web login page	Yes	Yes	Yes
Dynamic guest account	Yes	Yes	-
RADIUS authentication	Yes	Yes	Yes
Microsoft AD authentication	Yes	Yes	-
LDAP authentication	Yes	Yes	-
Embedded RADIUS server	Yes	Yes	-
RADIUS accounting	Yes	Yes	-
RADIUS session resumption	Yes	Yes	-
Log-out page	Yes	Yes	-
Portal redirect on AP	Yes*1	Yes*1	-
802.1X accounting with managed AP	Yes	Yes*1	-
Wireless QoS			
AP load balancing	Yes (1.5)	Yes (1.5)	-
Smart classroom load balancing	Yes	Yes	-
802.11r support for Fast Roaming enhancement	Yes	-	-
WLAN station bandwidth limiting	Yes	Yes	Yes
Deployment			
Data tunneling	Yes	Yes*1	-
ZyMesh	Yes	Yes*1	-
ZWO (Zyxel Wireless Optimizer) AP planning	Yes	Yes	Yes
ZWO (Zyxel Wireless Optimizer) coverage detection	Yes	Yes	-
AP group	Yes	Yes	-
CAPWAP discovery method	Yes	Yes	Yes
Diagnostic Tool			
Wireless frame capture	Yes	Yes	-
High Availability			
Primary/Secondary controller support	Yes	Yes	-
License SKU			
MAPS	Yes	Yes	Yes
ZyMesh license	Yes*2	Yes*2	-

*1: When works with NXC2500 or NXC5500.

*2: NXC series support one Root AP for ZyMesh by default. To support more Root APs, NXC series needs ZyMesh license.

Supported models

APC Technology	APC3.0			APC1.97	APC Lite
Product Series	Wireless Controller	ZyWALL USG	ZyWALL VPN	Access Gateway*2	Small Business Gateway
Applied Products	NXC2500 NXC5500	USG40/40W/60/60W USG110/210/310 USG1100/1900	ZyWALL 110/310 ZyWALL 1100 VPN50/100/300 USG2200-VPN	JAG2100 JAG4100	SBG3500-N



Supported managed AP	WAC6502D-E WAC6502D-S WAC6503D-S WAC6553D-E WAC6103D-I WAC5302D-S NWA5123-AC NWA5121-NI NWA5123-NI NWA5301-NJ	WAC6502D-E WAC6502D-S WAC6503D-S WAC6553D-E WAC6103D-I*1 WAC5302D-S NWA5123-AC*1 NWA5121-NI NWA5123-NI NWA5301-NJ Forward compatible APs*4	WAC6502D-E WAC6502D-S WAC6503D-S WAC6553D-E WAC6103D-I*1 WAC5302D-S NWA5123-AC*1 NWA5121-NI NWA5123-NI NWA5301-NJ Forward compatible APs*4	WAC6502D-E WAC6502D-S WAC6503D-S WAC6553D-E WAC6103D-I NWA5123-AC NWA5121-NI NWA5123-NI NWA5301-NJ	NWA5121-NI NWA5123-NI NWA5121-N NWA5301-NJ
Default managed AP number	NXC2500: 8 NXC5500: 64	USG40/40W/60/60W: 2 USG110/210/310: 2 USG1100/1900: 2	ZyWALL 110/310: 2 ZyWALL 1100: 2 VPN50: 4 VPN100/300: 4 USG2200-VPN: 2	UAG2100: 0 UAG4100: 8	SBG3500-N: 2
Maximum managed AP number	NXC2500: 64 NXC5500: 1024	USG40/40W/60/60W: 18 USG110/210/310: 34 USG1100/1900: 130	ZyWALL 110/310: 34 ZyWALL 1100: 130 VPN50: 36 VPN100: 68 VPN300: 132 USG2200-VPN: 1026*3	UAG2100: 8 UAG4100: 16	SBG3500-N: 10

*1: Supported from APC1.97 or above.

*2: With UAG firmware ZLD4.15 or above

*3: Available with ZLD4.30 or above

*4: From APC3.0, commercial gateways supporting APC technology are able to recognize APs with FW release higher than APC3.0 as Forward Compatible APs. Customers are able to introduce new AP technology with basic features support while staying with existing APC device FW if needed.

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