

ZYXEL NWA90AX

Zyxel WiFi 6 AX1800 Wireless Gigabit Access Point NWA90AX User Manual

Model: NWA90AX

1. PRODUCT OVERVIEW

The Zyxel NWA90AX is a WiFi 6 AX1800 Wireless Gigabit Access Point designed to provide high-speed, reliable wireless connectivity. It supports advanced features such as Smart Mesh, seamless roaming, captive portal, and WPA3 security, making it suitable for various environments including small to medium-sized businesses, home offices, and public spaces.



Figure 1: Top view of the Zyxel NWA90AX WiFi 6 Access Point.

Key Features:

- **Super Fast WiFi 6:** Enjoy up to 1.8Gbps (AX1800) speeds with dual 2x2 MU-MIMO technology.
- **Advanced Features:** Supports Smart Mesh, seamless roaming, captive portal, and WPA3 security.
- **Flexible Power Options:** Can be powered using PoE+ or the included AC power adapter.
- **Easy Setup:** Supports both local web interface and Nebula Cloud networking management.
- **High Device Capacity:** Simultaneously connect up to 256 devices.

2. WHAT'S IN THE BOX

The Zyxel NWA90AX package includes the following components:

- 802.11ax (WiFi 6) Dual-Radio PoE Access Point
- Power Adapter

- Mount Plate
- Mounting Screws

3. SETUP AND INSTALLATION

3.1 Physical Connection

Before configuring your Zyxel NWA90AX, ensure it is properly connected to your network and power source. The device supports Power over Ethernet (PoE+) or can be powered by the included AC adapter.



Figure 2: Rear view of the Zyxel NWA90AX, highlighting the UPLINK (Ethernet) port and DC 12V power input.

1. Connect an Ethernet cable from your router or PoE+ switch to the UPLINK port on the NWA90AX.
2. If not using PoE+, connect the included AC power adapter to the DC 12V port and plug it into a power outlet.
3. Allow a few minutes for the device to boot up. The LED indicator will blink green and amber during booting. Once ready for configuration, it will blink green.

3.2 Configuration via Nebula App

The Zyxel NWA90AX can be easily set up using the Nebula Mobile App. This method is recommended for quick and simple deployment.

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Video 1: This video demonstrates the step-by-step process of installing and configuring the Zyxel NWA50AX (similar to NWA90AX) using the Nebula mobile application, including scanning the QR code, registering the device, and setting up the WiFi network.

1. Download and launch the Nebula Mobile App on your smartphone or tablet.

2. Create a Nebula account if you don't have one, then sign in.
3. Create a new site within the app.
4. Scan the QR code located on the device label of your NWA90AX to add it to your site.
5. Follow the on-screen prompts to register the device and create your WiFi network name (SSID) and password.
6. Once configured, the device will boot and apply settings. The LED light will turn steady blue when the device is online and ready.

3.3 Configuration via Local Web Interface

For more detailed configuration options, you can access the NWA90AX's local web interface.

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Video 2: This video provides instructions on how to configure the Zyxel Access Point using its local web interface, covering initial login, time zone settings, password changes, radio settings, and SSID setup.

1. Connect your computer to the NWA90AX's default WiFi network (e.g., "Zyxel-XXXX", where XXXX are the last 4 characters of the AP's MAC address).
2. Open a web browser and enter the default IP address (usually 192.168.1.1 or 1.1.1.1 for initial setup, then check the device's assigned IP).
3. Log in using the default username (admin) and password (1234). You will be prompted to change the password for security.
4. Follow the setup wizard to configure time zone, radio settings (2.4GHz and 5GHz bands), and create your desired WiFi network(s) (SSID and password).
5. Review the settings and save your configuration.
6. Note down the IP address assigned to the device for future access to the local web interface.

4. OPERATING THE ACCESS POINT

The Zyxel NWA90AX is designed for optimal wireless performance and secure networking.

4.1 Wireless Connectivity

Dual-Band WiFi 6

Smooth and fast connections on both 2.4 and 5GHz bands



Gigabit Ethernet PoE+

High-speed connectivity for uplink



Interference Immunity

Avoid interference from strong 4G/5G signals



Figure 3: Illustration of the NWA90AX's core features: Dual-Band WiFi 6 for smooth connections, Gigabit Ethernet PoE+ for high-speed uplink, and Interference Immunity against 4G/5G signals.

- **Dual-Band WiFi 6:** The NWA90AX operates on both 2.4 GHz and 5 GHz frequencies, providing faster speeds and reduced congestion.
- **MU-MIMO Technology:** Enhances efficiency by allowing the access point to communicate with multiple devices simultaneously.
- **Smart Mesh:** Creates a unified wireless network with seamless roaming, ensuring devices automatically connect to the strongest signal as you move.
- **High Client Capacity:** Capable of simultaneously connecting up to 256 devices, ideal for busy environments.



Figure 4: The NWA90AX supports simultaneous connections for up to 256 devices.

4.2 Security Features



Secure Authentication

Protect business networks with
captive portal and IEEE802.1x
authentication



Figure 5: Secure authentication is provided through features like captive portal and IEEE802.1x.

- **WPA3 Security:** Provides enhanced encryption and protection for your wireless network.
- **Captive Portal:** Allows for guest access management, requiring users to authenticate before gaining network access.

4.3 Management Options

The NWA90AX offers flexible management options to suit your needs.



Up and running in minutes!

Configure and monitor all your
network devices with a single
interface with zyxel nebula.

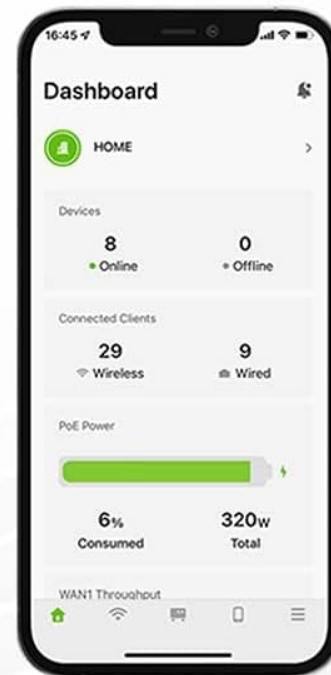


Figure 6: The Nebula app allows for quick configuration and monitoring of network devices.

- **Nebula Cloud Management:** Manage your access point remotely from anywhere via the Nebula cloud platform or mobile app. This provides centralized control and monitoring for multiple devices.
- **Local Web Interface:** Access the device's web-based interface for direct configuration and monitoring.
- **NebulaFlex:** Easily switch between traditional standalone mode and the license-free Nebula cloud management platform.



NebulaFlex.

Easily switch between traditional standalone mode and our license free Nebula cloud management platform with just a few clicks.

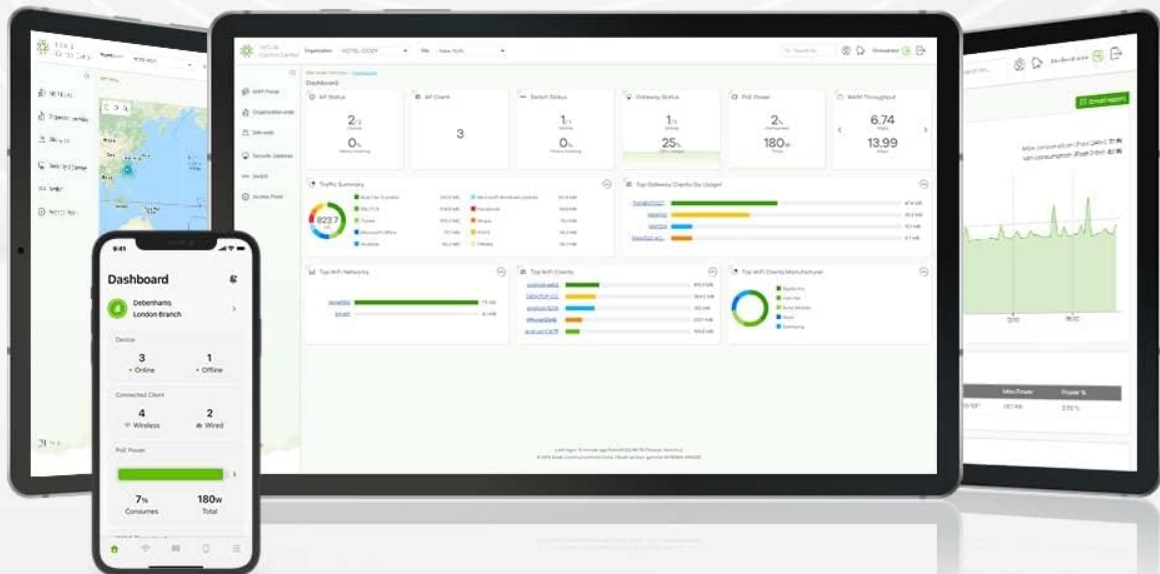


Figure 7: NebulaFlex offers flexibility to choose between standalone and cloud management.



Manage It Your Way!

With Nebula cloud networking, you can configure, monitor, and manage a wide range of products within a single easy to use platform.

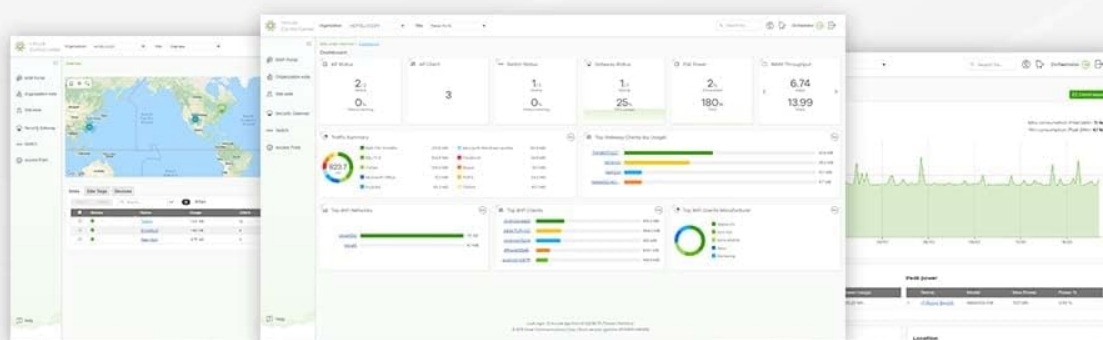


Figure 8: Nebula cloud networking enables unified management of a wide range of Zyxel products.

5. MAINTENANCE

To ensure optimal performance and security of your Zyxel NWA90AX, regular maintenance is recommended.

- **Firmware Updates:** Regularly check for and apply the latest firmware updates. These updates often include performance improvements, new features, and security patches.
- **Network Monitoring:** Utilize the Nebula cloud management platform or local web interface to monitor network traffic, connected clients, and device health.
- **Physical Inspection:** Periodically inspect the device for any physical damage or obstructions to ventilation.

6. TROUBLESHOOTING

If you encounter issues with your Zyxel NWA90AX, consider the following troubleshooting steps:

- **LED Indicator Status:**
 - **Blinking Green & Amber:** Device is booting.

- **Blinking Green:** Device is ready for configuration.
 - **Solid Blue:** Device is online and connected to the network.
 - **Solid Green:** Device is connected to the network and operating.
- **Connectivity Issues:**
 - Ensure the Ethernet cable is securely connected to the UPLINK port.
 - Verify that your router or PoE+ switch is functioning correctly and providing internet access.
 - If using the AC adapter, ensure it is properly connected and the power outlet is active.
 - **Access Point Not Visible:**
 - Check if the device is powered on and the LED indicator is active.
 - Confirm that your mobile device or computer is within range of the access point.
 - If using the Nebula app, ensure the device is registered and online in your Nebula site.
 - **Resetting the Device:** If issues persist, you may need to reset the device to factory default settings. Refer to the full product manual for instructions on performing a factory reset.

7. SPECIFICATIONS

Zyxel NWA90AX Technical Specifications

Feature	Detail
Brand	ZYXEL
Model Name	802.11ax (WiFi 6) Dual-Radio PoE Access Point
Item model number	NWA90AX
Wireless Type	2.4 GHz Radio Frequency, 5 GHz Radio Frequency
Frequency Band Class	Dual-Band
Wireless Communication Standard	2.4 GHz Radio Frequency, 5 GHz Radio Frequency
Connectivity Technology	Ethernet
Operating System	ZyNOS
Special Feature	WPS
Compatible Devices	Smartphone, Tablet, computers, network gear
Recommended Uses For Product	small to medium-sized business (SMB) environments, home offices, and public spaces
Item Weight	1.3 pounds
Product Dimensions	6.2 x 9.2 x 2.4 inches
Item Dimensions LxWxH	6.2 x 9.2 x 2.4 inches
Color	White

Feature	Detail
Voltage	12 Volts
Manufacturer	ZyXEL
Date First Available	March 4, 2022

8. WARRANTY AND SUPPORT

The Zyxel NWA90AX comes with a **2-year warranty**. For technical assistance or support, please contact the US-based support team. Additional resources and documentation may be available on the official Zyxel website.

9. ADDITIONAL RESOURCES

For more information on Zyxel WiFi 6 Access Points and their deployment in various environments, you may find the following case study helpful:

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Video 3: This video presents a case study on deploying Zyxel WiFi 6 Access Points in a challenging environment, such as the Battleship Iowa, highlighting benefits like increased range, reduced channel overlap, and improved reliability through cloud management.