



# Unlock Networking Possibilities with Cloud

January 2025

**Nebula Cloud Networking**  
Solution Guide



hello  
nebula.



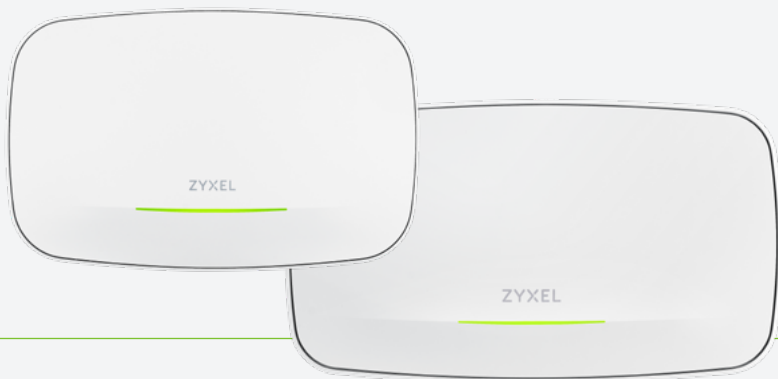


# Overview

The Nebula cloud networking and management solution provides centralized control and visibility over all Nebula wired, wireless, security and mobile router hardware – all without the cost and complexity of on-site control equipment or overlay management systems. With a comprehensive product portfolio that can be centrally-managed from the cloud, Nebula offers simple, intuitive and scalable management for all networks.

# Highlights

- Intuitive, automated network management interface with continuous feature updates that eliminate training and labor for network implementation, maintenance and support
- Zero-touch provisioning, built-in-multi-tenant, multi-site network management tools accelerate deployment of large networks
- Centralized, unified and on-demand control as well as visibility that reduces additional hardware and software expense
- Free cloud management for the life of the product without the need for ongoing costs
- Access points and switches with NebulaFlex Pro, cybersecurity (UTM) devices and Nebula 5G/LTE routers are sold bundled with a Pro Pack license so you can experience advanced cloud management features
- A comprehensive networking product portfolio from a single vendor ensures better product compatibility
- Per-device licensing model with flexible subscriptions provides rich diversity and high flexibility for customers of all sizes





# Introduction to Nebula cloud-managed networks

Nebula's networking and security products, including access points, switches, security firewalls and 5G/LTE routers are purpose-built for cloud management. They break tradition and come up with easy management, centralized control, auto-configuration, real-time web-based diagnostics, remote monitoring and more.

Through Nebula cloud services, firmware and security signature updates are delivered seamlessly, while secure VPN tunnels can be established automatically between different branches over the web with just a few clicks. Based on a secure infrastructure, Nebula is designed with fault-tolerant properties that enable local networks to keep operating during WAN downtimes.



**Nebula cloud-managed networking introduces an affordable, effortless approach for network deployments with high security and scalability to provide complete control over Nebula devices and users.**



# Nebula cloud-managed networking architecture

Nebula provides a networking paradigm for building and managing networks over the internet in the Software as a Service (SaaS) model. SaaS is defined as a way of delivering software for users to access via the internet rather than local installation. In the Nebula architecture, network functions and management services are pushed to the cloud and delivered as a service that provides instant control to the entire network without wireless controllers and overlay network management appliances.

All Nebula devices are built from the ground up for cloud management with the capability to communicate

with Nebula's cloud control center through the internet. This TLS-secured connectivity between hardware and the cloud provides network-wide visibility and control for network management using the minimal bandwidth.

Over the cloud, thousands of Nebula devices around the world can be configured, controlled, monitored and managed under a single pane of glass. With multi-site network management tools, businesses are allowed to deploy new branches of any size, while administrators are able to make policy changes any time from a central control platform.

# Harnessing the power of AI

AI is transforming product and service development, playing a crucial role in enhancing capabilities and efficiency. In the Nebula ecosystem, AI strengthens its ability to support the growth of its administrators.

Zyxel Networks has long integrated AI into its solutions, collecting and analyzing data from Nebula-managed devices worldwide to automate network performance and security optimization. This process has created a dynamic knowledge base that powers Zyxel Networks' WiFi access points, switches and security appliances. These devices are designed to adapt seamlessly to changing network conditions and workplace environments, ensuring maximum reliability, throughput and protection.

By delivering precise insights and advanced recommendations, AI swiftly identifies potential issues and facilitates the fine-tuning of configurations, reducing complexity and ensuring consistent network performance, saving administrators valuable time.

Incorporating AI into the Nebula framework reinforces its position as a comprehensive, cloud-based solution for efficient and scalable network management.

# AI with Intent

Intent is an innovative AI-driven tool designed to enhance the way users interact with Nebula. Integrated into the Nebula platform, Intent enables natural language queries, allowing administrators to ask straightforward questions such as "How's my network today?" or "How do I set up a new wireless network?" and receive detailed responses.

Intent leverages Nebula's robust architecture to deliver immediate and intuitive assistance, reducing the need for extensive technical expertise. As part of an evolving knowledge base, Intent continuously refines its capabilities, offering increasingly accurate guidance on network configuration, device management and overall system performance.

With its dynamic, cloud-driven approach, Intent represents a powerful step forward in simplifying network management and empowering Nebula administrators to achieve seamless operational efficiency.





# Nebula Control Center

Our Nebula Control Center (NCC) offers a powerful insight into distributed networks. Its intuitive and web-based interface automatically and continuously illustrates an instant view and analysis of network performance, connectivity and status. Integrated with organization-wide and site-wide management tools, Nebula provides quick and remote access for administrators to ensure the network is up and performing efficiently.

The NCC is also engineered with a number of security tools that provide optimal protection to networks, devices and users. They also deliver the needed information to enforce security and enhance control over the entire Nebula network.



## Highlights

- Responsive web design and intuitive user interface with light and dark modes
- Multi-tenant and multi-site view and management
- First-time setup wizard
- Role-based administration privileges
- Real-time and historical monitoring/reporting
- Granular device-based information and troubleshooting tools
- Rich site-wide management tools
- Site-based auto and smart configuration tools
- Powerful organization-wide management tools
- Configuration changing alerts
- Misconfiguration protection against disconnecting the NCC
- Login and configuration auditing
- Flexible firmware management
- Multi-lingual management interface

Some features are not included within the free NebulaFlex Pack. Please refer to the license tables.

# Features

## First-time setup wizard

Nebula's first-time setup wizard helps you create your organization/site and set up an integrated network with only a few simple clicks, getting your devices up and running in minutes.

## Role-based administration

Supervisors can assign different privileges to multiple administrators to manage the network and guest access. Management authority can be specified in the network access control function, to maximize security and avoid accidental misconfiguration.

## Organization-wide management tools

Powerful organization-wide features such as organizational overview, configuration backup and restore, configuration template and configuration clone are supported to enable MSP and IT admins to manage their organizations/sites much easier.

## Site-wide management tools

Integrated with the feature-rich dashboards, maps, floor plans, automatic visual and actionable network topology & site-based auto & smart configuring tools, the NCC delivers instant network analysis and automatically performs access point authentication, configuration parity checks, switch ports link aggregation and site-to-site VPN.



### **Misconfiguration protection**

To prevent any connectivity interruption caused by incorrect or inappropriate configuration, Nebula devices can intelligently identify if the order or setting from the NCC is correct to ensure the connection is always up with the Nebula cloud.

### **Configuration changing alerts**

Configuration changing alerts help administrators to manage thousands of networked devices more efficiently, especially in larger or distributed sites. These real-time alerts are automatically sent from the Nebula cloud system when configuration changes are made to ensure policies are kept up-to-date across the entire IT organization.

### **Login & configure auditing**

The NCC automatically records the time and IP address of all logged-in administrators. The configure audit log lets administrators track web-based login actions on their Nebula networks to see what configuration changes were made and by whom.

### **Real-time & historical monitoring**

The NCC provides 24/7 monitoring over the entire network, giving administrators real-time and historical activity views with unlimited status records that can be backdated to the installation time.

# Nebula mobile app

The Nebula mobile app offers a fast approach to network management, providing an easy method for device registration and an instant view of real-time network status, which is particularly suitable for small business owners with little to no IT skills. With it, you can perform WiFi network configuration, break down usage by device and client, troubleshoot with live tools, check the status of connected Nebula devices and clients at a glance, and scan device QR codes to register large numbers of devices to the NCC all at once.





# Highlights

- Installation walk-through wizard for creating organization & site, adding devices (QR code or manually), setting up WiFi networks
- Hardware install guide and LED guide
- Centralized 3-in-1 device status
- Per-device and site-wide usage graph
- Per-device and site-wide PoE consumption
- WiFi login info sharing via mobile phone or QR code
- Switch and gateway ports information
- Check map and photo of device location
- Firmware upgrade schedule
- Enable/disable SSID
- Site-wide client monitoring with action support
- Site-wide application usage analysis with action support
- License overview and inventory
- Create firmware upgrade schedule
- Live troubleshooting tools: reboot, locator LED, switch port power cycle, cable diagnostics, connection test
- Tech support and MSP contact info
- Push notifications – device down/up & license-related issues
- Notification center with up to 8 days' alert history



Some features are not included within the free NebulaFlex Pack.  
Please refer to the license tables.

# Partner Program

Designed to empower growth and reward achievements, Zyxel Networks' Partner Program provides the tools and support you need to transition seamlessly into cloud networking companies while adapting to the evolving demands of today's competitive market.

Members gain exclusive access to a range of resources and benefits, including:

- **Comprehensive resources:** marketing materials, sales guides, product sheets and datasheets to support sales and marketing efforts
- **Pre-sales support:** if help is required with network design, WiFi setup or product configurations, details can be submitted and tracked through the portal for a seamless experience
- **Free training vouchers:** expertise can be enhanced with complimentary training opportunities
- **Priority support:** priority technical phone support is available for all partners, and Prime and Elite members can benefit from next-business-day RMA shipment service
- **Exclusive tools:** features like Circle access (automated license renewals), pay-as-you-go options and the MSP Pack for streamlined Nebula management are available
- **Discounted demo products:** select Zyxel Networks products can be purchased by MSPs at special prices to showcase to their customers
- **Deal registration:** deals can be registered through the portal to request additional discounts and receive case-specific support
- **Tier-based pricing conditions:** tailored pricing based on the program tier – Ally, Prime or Elite – can be achieved through usual distributors

The program also rewards success as a Zyxel Networks Nebula cloud partner. As more Nebula devices are managed, greater benefits are unlocked, making the partnership more rewarding.





# How does the Partner Program work?

The Zyxel Networks Partner Program is structured around four partnership levels: **Registered**, **Ally**, **Prime** and **Elite**.

To get started, resellers can complete a short registration form at [partner.zyxel.cloud](https://partner.zyxel.cloud). As sales of Zyxel Networks devices grow, so will the opportunity to advance through the tiers, unlocking greater benefits and rewards at each level.



|   | Registered   | Ally              | Prime              | Elite               |
|---|--------------|-------------------|--------------------|---------------------|
| Requirements  | Registration | 10 Nebula devices | 250 Nebula devices | 650+ Nebula devices |
| Partner Portal access                                 | Yes          | Yes               | Yes                | Yes                 |
| Circle Portal access/auto-renewal licensing           | Yes          | Yes               | Yes                | Yes                 |
| Zyxel Networks training vouchers                      | 2            | 4                 | 8                  | 8                   |
| NFR discounts available                               | Yes          | Yes               | Yes                | Yes                 |
| Additional to standard discount automatic (hardware)  |              | 3%                | 8%                 | 11%                 |
| Additional to standard discount automatic (licensing) |              | 11%               | 15%                | 18%                 |
| Nebula PAYG   |              |                   | Yes                | Yes                 |
| Priority tech phone support                           |              |                   | Yes                | Yes                 |
| MSP Pack included                                     |              |                   | 1                  | 3                   |
| RMA next business day shipment                        |              |                   | Yes                | Yes                 |



# Product families

---

## Wireless



We provide fast, secure and reliable wireless connectivity for simple to complex environments.

Our products offer stability and efficiency, making them the ideal choice for mobile deployment.

Boost growth with our scalable and feature-rich wireless LAN solutions.

## Switch



With exceptional speed and reliability, our switches offer a hassle-free setup for small, medium and vertical businesses.

Upgrade now and see the difference with Zyxel Networks.

## Security



Our security products protect your network from malware and unauthorized use, while providing uninterrupted operations, robust connectivity and data security.

Our flexible licensing options offer enhanced performance and protection.

## LTE & 5G



Our product portfolio of 5G NR, 4G LTE and 3G devices – outdoor, indoor and mobile – is suitable for a wide range of scenarios as well as a variety of network infrastructures.

Our devices also free up users from cabled installation and help businesses easily expand their networks.



# Wireless

---



## Access points with NebulaFlex/NebulaFlex Pro

---

Zyxel Networks' NebulaFlex solution allows access points to be used in two modes; it's easy to switch between standalone mode and license-free Nebula cloud management at any time with just a few simple clicks. NebulaFlex provides the flexibility to adapt access points to different needs in an ever-changing environment.

When used with Nebula, you can centrally manage, access real-time network information and gain effortless control over your devices, all under a single intuitive platform without the need to install any software or add additional equipment like a controller.

NebulaFlex Pro also supports triple-mode functionality (standalone, hardware controller and Nebula) to give business clients true flexibility, whatever their project may need.


### Highlights

- Enjoy cloud features like zero-touch provisioning and real-time configurations with Nebula
- Easy setup on SSID/SSID schedule/VLAN/rate limiting
- DPPSK (Dynamic Personal Pre-Shared Key) and standard-based WPA personal support
- Enterprise wireless security and radio frequency (RF) optimization
- Secure WiFi solution provides remote workers with the same access to the corporate network and resources while being protected with enterprise-grade security
- Connect & Protect (CNP) service provides small business environments with a trusted and application-visible WiFi hotspot network to enhance wireless user protection and experience
- DCS, smart load balancing and client roaming/steering
- Rich captive portal supports Nebula cloud authentication server accounts, Facebook social account login, Facebook WiFi and Voucher
- Supports smart mesh and wireless bridge
- Wireless health monitoring and reporting

Some features are not included within the free NebulaFlex Pack. Please refer to the license tables.



## Access points with NebulaFlex product options

|                            | Model: NWA50AX   | Model: NWA50AXPRO  | Model: NWA55AXE  | Model: NWA90AXPRO  | Model: WAX300H   |
|----------------------------|--|--|--|--|--|
|                            |   |   |   |   |   |
| <b>Product name</b>        | 802.11ax (WiFi 6) dual-radio PoE access point  | 802.11ax (WiFi 6) dual-radio PoE access point  | 802.11ax (WiFi 6) dual-radio PoE access point  | 802.11ax (WiFi 6) dual-radio PoE access point  | 802.11ax (WiFi 6) dual-radio access point  |
| <b>Typical deployment</b>  | Small business, entry-level deployments  | Small business   | Outdoor, entry-level deployments   | Small business, enhanced feature set   | Pro wall-plate access point  |
| <b>Radio specification</b> | <ul style="list-style-type: none"> <li>1x 802.11 b/g/n ax radio</li> <li>1x 802.11 a/n/ac ax radio</li> <li>AX1800</li> <li>2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>1x 802.11 b/g/n ax radio</li> <li>1x 802.11 a/n/ac ax radio</li> <li>AX3000</li> <li>2x2 + 3x3 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>1x 802.11 b/g/n ax radio</li> <li>1x 802.11 a/n/ac ax radio</li> <li>AX1800</li> <li>2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>1x 802.11 b/g/n ax radio</li> <li>1x 802.11 a/n/ac ax radio</li> <li>AX3000</li> <li>2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>1x 802.11 b/g/n ax radio</li> <li>1x 802.11 a/n/ac ax radio</li> <li>AX3000</li> <li>2x2 + 2x2 MU-MIMO</li> </ul> |
| <b>Ethernet ports</b>      | 1x 100/1000Mbps LAN  | 1x 1/2.5Gbps LAN   | 1x 100/1000Mbps LAN  | 1x 1/2.5Gbps LAN   | 1x 100/1000M uplink<br>3x 100/1000Mbps LAN (including 1x PoE PSE)  |
| <b>PoE</b>                 | 802.3at: power draw 16W  | 802.3at: power draw 20.5W  | 802.3at: power draw 16W  | 802.3at: power draw 20.5W  | 802.3at: power draw 19W  |
| <b>Alt power</b>           | DC input: 12VDC 1.5A   | DC input: 12VDC 2A   | PoE only   | DC input: 12VDC 2A   | PoE only   |
| <b>Antenna</b>             | Internal antenna   | Internal antenna   | External antenna   | Internal antenna   | Internal antenna   |
| <b>Datasheet</b>           |   |   |   |   |   |

|                            | Model: NWA110AX  | Model: WAX510D   | Model: WAX630S   | Model: WAX650S   | Model: WAX655E   |
|----------------------------|--|--|--|--|--|
|                            |   |   |   |   |   |
| <b>Product name</b>        | 802.11ax (WiFi 6) dual-radio PoE access point  | 802.11ax (WiFi 6) dual-radio unified access point  | 802.11ax (WiFi 6) dual-radio unified access point  | 802.11ax (WiFi 6) dual-radio unified access point  | 802.11ax (WiFi 6) dual-radio outdoor access point  |
| <b>Typical deployment</b>  | Small business, entry-level deployments  | Medium level wireless deployments  | High density and interference-laden indoor environments  | High-density and interference-laden indoor environments  | High-density and interference-laden outdoor environments   |
| <b>Radio specification</b> | <ul style="list-style-type: none"> <li>■ 1x 802.11 b/g/n ax radio</li> <li>■ 1x 802.11 a/n/ac ax radio</li> <li>■ AX1800</li> <li>■ 2x2 + 2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>■ 1x 802.11 b/g/n ax radio</li> <li>■ 1x 802.11 a/n/ac ax radio</li> <li>■ AX1800</li> <li>■ 2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>■ 1x 802.11 b/g/n ax radio</li> <li>■ 1x 802.11 a/n/ac ax radio</li> <li>■ AX3000</li> <li>■ 4x4 + 2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>■ 1x 802.11 b/g/n ax radio</li> <li>■ 1x 802.11 a/n/ac ax radio</li> <li>■ AX3600</li> <li>■ 4x4 + 4x4 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>■ 1x 802.11 b/g/n ax radio</li> <li>■ 1x 802.11 a/n/ac ax radio</li> <li>■ AX5400</li> <li>■ 4x4 + 2x2 MU-MIMO</li> </ul> |
| <b>Ethernet ports</b>      | 1x 100/1000Mbps LAN  | 1x 100/1000Mbps LAN  | 1x 1/2.5Gbps & 1x 1Gbps LAN  | 1x 1/2.5/5Gbps & 1x 1Gbps LAN  | 1x 1/2.5Gbps LAN   |
| <b>PoE</b>                 | 802.3at: power draw 17W  | 802.3at: power draw 17W  | 802.3at: power draw 19.5W  | 802.3bt: power draw 31W  | 802.3at: power draw 25.5W  |
| <b>Alt power</b>           | DC input: 12VDC 1.5A   | DC input: 12VDC 1.5A   | DC input: 12VDC 2A   | DC input: 12VDC 2.5A   | PoE only   |
| <b>Antenna</b>             | Internal antenna   | Dual optimised antenna (internal)  | Adaptive/smart antenna (internal)  | Adaptive/smart antenna (internal)  | 6x N-Type connectors   |
| <b>Datasheet</b>           |   |   |   |   |   |



Model: NWA220AX-6E

Model: WAX640S-6E



**Product name**

802.11ax (WiFi 6E) dual-radio access point

802.11ax (WiFi 6E) triple-radio access point

**Typical deployment**

Small business, entry-level deployments

High-density and interference-laden indoor environments

**Radio specification**

- 1x 802.11 b/g/n radio
- 1x 802.11 a/n/ac ax-6e radio
- AXE5400
- 4x4 + 2x2 MU-MIMO

- 2.4GHz 3dBi 2x2:2SS
- 5GHz 6dBi 2x2:2SS
- 6GHz 6dBi 4x4:4SS
- AXE7800
- 4x4 + 2x2 + 2x2 MU-MIMO

**Ethernet ports**

1x 1/2.5Gbps & 1x 1Gbps LAN

1x 1/2.5Gbps & 1x 1Gbps LAN

**PoE**

802.3at: power draw 21W

802.3bt: power draw 28W

**Alt power**

DC input: 12VDC 2A

DC input: 12VDC 2.5A









**Antenna**

Internal antenna

Adaptive/smart antenna (internal)

**Datasheet**



|                            | Model: NWA110BE  | Model: NWA210BE   | Model: WBE510D   | Model: WBE630S  |
|----------------------------|--|---|--|---|
|                            |   |   |   |    |
| <b>Product name</b>        | 802.11be (WiFi 7) dual-radio NebulaFlex access point   | 802.11be (WiFi 7) dual-radio NebulaFlex access point  | 802.11be (WiFi 7) dual-radio unified access point  | 802.11be (WiFi 7) dual-radio unified access point   |
| <b>Typical deployment</b>  | Small business, entry-level deployments  | Small business, entry-level deployments   | Medium level wireless deployments  | High-density and interference-laden indoor environments   |
| <b>Radio specification</b> | <ul style="list-style-type: none"> <li>■ 2.4GHz: 3dBi, 2x2:2SS</li> <li>■ 5GHz / 6GHz: 4dBi, 2x2:2SS</li> <li>■ BE6500</li> <li>■ 2x2 + 2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>■ 2.4GHz: 3dBi, 2x2:2SS</li> <li>■ 5GHz / 6GHz: 4dBi, 4x4:4SS</li> <li>■ BE12300</li> <li>■ 2x2 + 4x4 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>■ 2.4GHz: 3dBi, 2x2:2SS</li> <li>■ 5GHz / 6GHz: 4dBi, 2x2:2SS</li> <li>■ BE6500</li> <li>■ 2x2 + 2x2 MU-MIMO</li> </ul> | <ul style="list-style-type: none"> <li>■ 2.4GHz: 3dBi, 2x2:2SS</li> <li>■ 5GHz / 6GHz: 4dBi, 4x4:4SS</li> <li>■ BE12300</li> <li>■ 2x2 + 4x4 MU-MIMO</li> </ul> |
| <b>Ethernet ports</b>      | 1x 1/2.5Gbps LAN   | 2x 1/2.5Gbps LAN  | 1x 1/2.5Gbps LAN   | 2x 1/2.5Gbps LAN  |
| <b>PoE</b>                 | 802.3at: power draw 21.5W  | 802.3at: power draw 21.5W   | 802.3at: power draw 21.5W  | 802.3at: power draw 21.5W   |
| <b>Alt power</b>           | DC input: 12 VDC 2A  | DC input: 12 VDC 2A   | DC input: 12 VDC 2A  | DC input: 12 VDC 2A   |
| <b>Antenna</b>             | Internal antenna   | Internal antenna  | Dual optimised antenna (internal)  | Adaptive/smart antenna (internal)   |
| <b>Datasheet</b>           |   |    |   |    |



### Model: NWA130BE

### Model: WBE530

### Model: WBE660S



#### Product name

802.11be (WiFi 7) triple-radio  
NebulaFlex access point

802.11be (WiFi 7) triple-radio  
unified access point

802.11be (WiFi 7) triple-radio  
unified pro access point

#### Typical deployment

The modern workplace

Medium level wireless  
deployments

High-density locations e.g.  
schools, transportation hubs,  
home, office & industrial networks

#### Radio specification

- 2.4GHz: 3dBi, 2x2:2SS
- 5GHz: 4dBi, 2x2:2SS
- 6GHz: 4dBi, 2x2:2SS
- BE11000
- 2x2 + 2x2 + 2x2 MU-MIMO

- 2.4GHz: 3dBi, 2x2:2SS
- 5GHz: 4dBi, 2x2:2SS
- 6GHz: 4dBi, 2x2:2SS
- BE11000
- 2x2 + 2x2 + 2x2 MU-MIMO

- 2.4GHz: 3dBi, 4x4:4SS
- 5GHz: 5dBi, 4x4:4SS
- 6GHz: 5dBi, 4x4:4SS
- BE22000
- 4x4 + 4x4 + 4x4 MU-MIMO

#### Ethernet ports

2x 1/2.5Gbps LAN

2x 1/2.5Gbps LAN

1x 1/2.5/5/10Gbps &  
1x 1Gbps LAN

#### PoE

802.3at: power draw 24W

802.3at: power draw 24W

802.3bt: power draw 41W

#### Alt power

DC input: 12 VDC 2A

DC input: 12 VDC 2A

DC input: 15VDC 3A (USB Type C)

#### Antenna

Internal antenna

Internal antenna

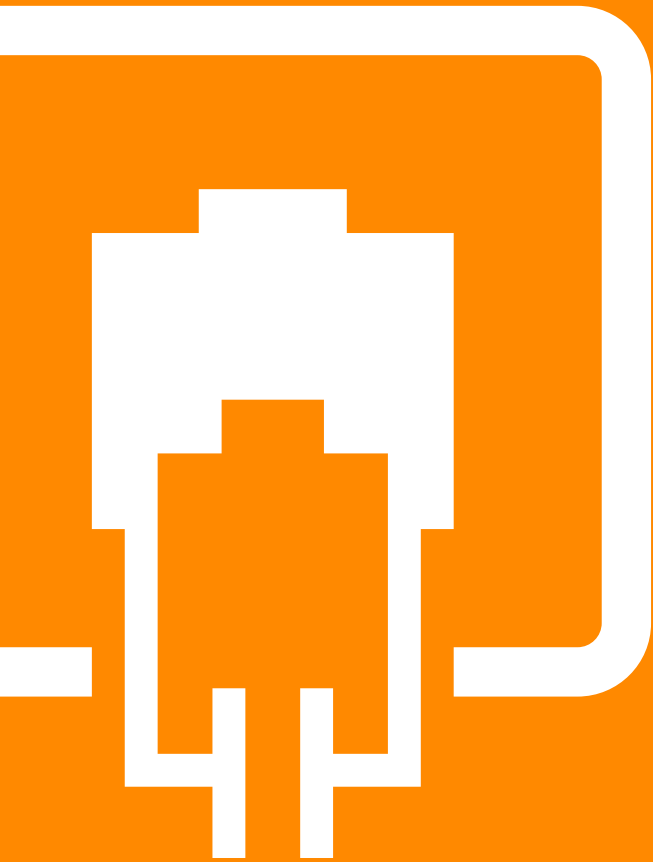
Adaptive/smart antenna (internal)

#### Datasheet



# Switches

---



## Switches with NebulaFlex/ NebulaFlex Pro

---

Zyxel Networks' switches with NebulaFlex allow you to easily swap between standalone and our license-free Nebula cloud management platform at any time with just a few simple clicks.

NebulaFlex Pro switches, which include CX4800, XS3800-28, the 2000 and GS1350 series, come with a one-year NebulaFlex Pro bundle and give you access to advanced features including IGMP technology, IPTV reports providing insights into channel usage, network analytics alerts to optimize network performance and access to any new features being deployed on the NCC.

Meanwhile, the GS1350 series also focuses on surveillance applications, giving you the flexibility to monitor and manage your surveillance network via the cloud.

Both NebulaFlex/NebulaFlex Pro switches protect your investment in wired technology by offering the flexibility to transition to the cloud in your own time, without worrying about additional ongoing licensing costs.









Features may vary per model.  
Some features are not included within the free NebulaFlex Pack. Please refer to the license tables.







### Highlights

- Smart fan and fanless designs offer silent operations in the office
- Check real-time status intuitively by cloud and PoE LED indicators
- Enjoy cloud features like zero-touch provisioning and real-time configurations with Nebula
- Efficient network provisioning with simultaneous multiple port configuration
- User-friendly ACL and PoE schedule configuration
- Intelligent PoE technology and network topology
- RADIUS, static MAC forwarding and 802.1X authentication
- Advanced switch control (port bandwidth control, vendor-based VLAN, IP interfacing & static routing)
- Advanced IGMP multicast functionality and IPTV report
- Auto powered device recovery feature to automatically detect and recover failed powered devices
- GS1350 series surveillance switches are designed with specialized PoE features for IP cameras and surveillance reports to monitor and manage the surveillance networks via the cloud











## Switches with NebulaFlex product options

|                                       | Model: GS1915-8   | Model: GS1915-8EP   | Model: GS1915-24E   | Model: GS1915-24EP  |
|---------------------------------------|---|---|---|---|
|                                       |   |    |    |    |
| <b>Product name</b>                   | 8-port GbE smart managed switch   | 8-port GbE smart managed PoE switch   | 24-port GbE smart managed switch  | 8-port GbE smart managed PoE switch   |
| <b>Switch class</b>                   | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  |
| <b>Total port count</b>               | 8   | 8   | 24  | 24  |
| <b>Port speed</b>                     | 8x 1G   | 8x 1G   | 24x 1G  | 24x 1G  |
| <b>PoE+/PoE++</b>                     | -   | 8x PoE+   | -   | 12x PoE+  |
| <b>Total PoE power budget (watts)</b> | -   | 60W   | -   | 130W  |
| <b>SFP/SFP+</b>                       | -   | -   | -   | -   |
| <b>Gigabit combo (SFP/RJ-45)</b>      | -   | -   | -   | -   |
| <b>Switching capacity (Gbps)</b>      | 16  | 16  | 48  | 48  |
| <b>Datasheet</b>                      |  |  |  |  |











|                                       | Model: XMG1915-10E  | Model: XMG1915-10EP   | Model: XMG1915-18EP   |
|---------------------------------------|---|---|---|
|                                       |    |    |    |
| <b>Product name</b>                   | 8-port 2.5GbE smart managed switch with 2x SFP+ uplink                              | 8-port 2.5GbE smart managed switch with 2x SFP+ uplink                              | 16-port 2.5GbE smart managed PoE switch with 2x SFP+ uplink                           |
| <b>Switch class</b>                   | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  |
| <b>Total port count</b>               | 10  | 10  | 18  |
| <b>Port speed</b>                     | 8x 1G/2.5G  | 8x 1G/2.5G  | 16x 1G/2.5G   |
| <b>PoE+/PoE++</b>                     | -   | 8x PoE++  | 8x PoE++  |
| <b>Total PoE power budget (watts)</b> | -   | 130W  | 180W  |
| <b>SFP/SFP+</b>                       | 2x SFP+   | 2x SFP+   | 2x SFP+   |
| <b>Gigabit combo (SFP/RJ-45)</b>      | -   | -   | -   |
| <b>Switching capacity (Gbps)</b>      | 80  | 80  | 120   |
| <b>Datasheet</b>                      |  |  |  |























|                                | Model: GS1350-6HP   | Model: GS1350-12HP  | Model: GS1350-18HP  | Model: GS1350-26HP  |
|--------------------------------|---|---|---|---|
|                                |    |    |    |    |
| Product name                   | 5-port GbE smart managed PoE switch with GbE uplink                                 | 8-port GbE smart managed PoE switch with GbE uplink                                   | 16-port GbE smart managed PoE switch with GbE uplink                                  | 24-port GbE smart managed PoE switch with GbE uplink                                  |
| Switch class                   | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  |
| Total port count               | 6   | 12  | 18  | 26  |
| Port speed                     | 5x 1G   | 10x 1G  | 16x 1G  | 24x 1G  |
| PoE+/PoE++                     | 2x PoE++<br>3x PoE+   | 8x PoE+   | 16x PoE+  | 24x PoE+  |
| Total PoE power budget (watts) | 60W   | 130W  | 250W  | 375W  |
| SFP/SFP+                       | 1x SFP  | 2x SFP  | -   | -   |
| Gigabit combo (SFP/RJ-45)      | -   | -   | 2   | 2   |
| Switching capacity (Gbps)      | 12  | 24  | 36  | 52  |
| Datasheet                      |  |  |  |  |








|                                       | Model: GS1920-8HPv2   | Model: GS1920-24v2  | Model: GS1920-24HPv2  | Model: GS1920-48v2  | Model: GS1920-48HPv2  |
|---------------------------------------|---|---|---|---|---|
|                                       |    |   |    |    |    |
| <b>Product name</b>                   | 8-port GbE smart managed PoE switch   | 24-port GbE smart managed switch  | 24-port GbE smart managed switch  | 48-port GbE smart managed switch  | 48-port GbE smart managed switch  |
| <b>Switch class</b>                   | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  |
| <b>Total port count</b>               | 10  | 28  | 28  | 50  | 50  |
| <b>Port speed</b>                     | 8x 1G   | 24x 1G  | 24x 1G  | 44x 1G  | 44x 1G  |
| <b>PoE+/PoE++</b>                     | 8x PoE+   | -   | 24x PoE+  | -   | 48x PoE+  |
| <b>Total PoE power budget (watts)</b> | 130W  | -   | 375W  | -   | 375W  |
| <b>SFP/SFP+</b>                       | -   | -   | -   | 2x SFP  | 2x SFP  |
| <b>Gigabit combo (SFP/RJ-45)</b>      | 2   | 4   | 4   | 4   | 4   |
| <b>Switching capacity (Gbps)</b>      | 20  | 56  | 56  | 100   | 100   |
| <b>Datasheet</b>                      |  |  |  |  |  |



|                                       | Model: XGS1935-28   | Model: XGS1935-28HP   | Model: XGS1935-52   | Model: XGS1935-52HP   |
|---------------------------------------|---|---|---|---|
|                                       |    |     |    |    |
| <b>Product name</b>                   | 24-port GbE Lite L3 switch with 4x SFP+ uplink                                      | 24-port GbE Lite L3 PoE switch with 4x SFP+ uplink                                    | 48-port GbE Lite L3 switch with 4x SFP+ uplink  | 48-port GbE Lite L3 PoE switch with 4x SFP+ uplink                                    |
| <b>Switch class</b>                   | NebulaFlex / Lite L3  | NebulaFlex / Lite L3  | NebulaFlex / Lite L3  | NebulaFlex / Lite L3  |
| <b>Total port count</b>               | 28  | 28  | 52  | 52  |
| <b>Port speed</b>                     | 24x 1G  | 24x 1G  | 48x 1G  | 48x 1G  |
| <b>PoE+/PoE++</b>                     | -   | 24x PoE+  | -   | 48x PoE+  |
| <b>Total PoE power budget (watts)</b> | -   | 375W  | -   | 375W  |
| <b>SFP/SFP+</b>                       | 4x 10Gb SFP+  | 4x 10Gb SFP+  | 4x 10Gb SFP+  | 4x 10Gb SFP+  |
| <b>Gigabit combo (SFP/RJ-45)</b>      | -   | -   | -   | -   |
| <b>Switching capacity (Gbps)</b>      | 128   | 128   | 176   | 176   |
| <b>Datasheet</b>                      |  |  |  |  |

|                                       | Model: XS1930-10  | Model: XS1930-12F   | Model: XS1930-12HP  | Model: XMG1930-30   | Model: XMG1930-30HP   |
|---------------------------------------|---|---|---|---|---|
|                                       |    |   |    |      |          |
| <b>Product name</b>                   | 8-port multi-gigabit smart managed switch with 2x SFP+ uplink                       | 10-port 10G smart managed fiber switch with 2x multi-gigabit ports                  | 8-port multi-gigabit smart managed PoE switch with 2x 10Gbe and 2x SFP+ uplink        | 24-port 2.5G smart managed L2 switch with 4x 10G multi-gigabit ports and 2x SFP+ uplink | 24-port 2.5G smart managed L2 PoE switch with 4x 10G multi-gigabit ports and 2x SFP+ uplink |
| <b>Switch class</b>                   | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  | Smart managed NebulaFlex  |
| <b>Total port count</b>               | 10  | 12  | 12  | 30  | 30  |
| <b>Port speed</b>                     | 8x 1G/2.5G/5G/10G   | 2x 1G/2.5G/5G/10G   | 2x 1G/2.5G/5G/10G   | 24x 1G/2.5G + 4x 1G/2.5G/10G  | 24x 1G/2.5G + 4x 1G/2.5G/10G  |
| <b>PoE+/PoE++</b>                     | -   | -   | 8x PoE++  | -   | 20x PoE+ (max 2.5G)<br>4x PoE++ (max 2.5G)<br>4x PoE++ (max 10G)                            |
| <b>Total PoE power budget (watts)</b> | -   | -   | 375W  | -   | 700W  |
| <b>SFP/SFP+</b>                       | 2x 10Gb SFP+  | 10x 10Gb SFP+   | 2x 10Gb SFP+  | 2x 1Gb SFP/10G SFP+   | 2x 1Gb SFP/10G SFP+   |
| <b>Gigabit combo (SFP/RJ-45)</b>      | -   | -   | -   | -   | -   |
| <b>Switching capacity (Gbps)</b>      | 200   | 240   | 240   | 240   | 240   |
| <b>Datasheet</b>                      |  |  |  |    |        |














|                                | Model: GS2220-10  | Model: GS2220-10HP  | Model: GS2220-28  |
|--------------------------------|---|---|---|
|                                |    |    |    |
| Product name                   | 8-port GbE L2 switch with GbE uplink  | 8-port GbE L2 PoE switch with GbE uplink  | 24-port GbE L2 switch with GbE uplink   |
| Switch class                   | Layer 2 NebulaFlex Pro  | Layer 2 NebulaFlex Pro  | Layer 2 NebulaFlex Pro  |
| Total port count               | 10  | 10  | 28  |
| Port speed                     | 8x 1G   | 8x 1G   | 24x 1G  |
| PoE+/PoE++                     | -   | 8x PoE+   | -   |
| Total PoE power budget (watts) | -   | 180W  | -   |
| SFP/SFP+                       | -   | -   | -   |
| Gigabit combo (SFP/RJ-45)      | 2   | 2   | 4   |
| Switching capacity (Gbps)      | 20  | 20  | 56  |
| Datasheet                      |  |  |  |

|                                       | Model: GS2220-28HP  | Model: GS2220-50  | Model: GS2220-50HP  |
|---------------------------------------|---|---|---|
|                                       |    |    |    |
| <b>Product name</b>                   | 24-port GbE L2 PoE switch with GbE uplink   | 48-port GbE L2 switch with GbE uplink   | 48-port GbE L2 PoE switch with GbE uplink   |
| <b>Switch class</b>                   | Layer 2 NebulaFlex Pro  | Layer 2 NebulaFlex Pro  | Layer 2 NebulaFlex Pro  |
| <b>Total port count</b>               | 28  | 50  | 50  |
| <b>Port speed</b>                     | 24x 1G  | 44x 1G  | 44x 1G  |
| <b>PoE+/PoE++</b>                     | 24x PoE+  | -   | 48x PoE+  |
| <b>Total PoE power budget (watts)</b> | 375W  | -   | 375W  |
| <b>SFP/SFP+</b>                       | -   | 2x SFP  | 2x SFP  |
| <b>Gigabit combo (SFP/RJ-45)</b>      | 4   | 4   | 4   |
| <b>Switching capacity (Gbps)</b>      | 56  | 100   | 100   |
| <b>Datasheet</b>                      |  |  |  |



|                                | Model: XGS2220-30  | Model: XGS2220-30HP   | Model: XGS2220-30F  |
|--------------------------------|--|---|---|
|                                |    |    |    |
| Product name                   | 24-port GbE L3 access switch with 6x 10G uplink                                      | 24-port GbE L3 access PoE+ switch with 6x 10G uplink (400W)                           | 24-port SFP L3 access switch with 6x 10G uplink                                       |
| Switch class                   | Layer 2 NebulaFlex Pro   | Layer 2 NebulaFlex Pro  | Layer 2 NebulaFlex Pro  |
| Total port count               | 30   | 30  | 30  |
| Port speed                     | 24x 1G<br>2x 1G/2.5G/5G/10G  | 24x 1G<br>2x 1G/2.5G/5G/10G   | 2x 1G/2.5G/5G/10G   |
| PoE+/PoE++                     | -  | 16x PoE+<br>8x PoE++ (max 1G)<br>2x PoE++ (max 10G)                                   | -   |
| Total PoE power budget (watts) | -  | 400W  | -   |
| SFP/SFP+                       | 4x 10G SFP+  | 4x 10G SFP+   | 24x 1G SFP<br>4x 10G SFP+   |
| Gigabit combo (SFP/RJ-45)      | -  | -   | -   |
| Switching capacity (Gbps)      | 168  | 168   | 168   |
| Datasheet                      |  |  |  |

|                                       | Model: XGS2220-54  | Model: XGS2220-54HP   | Model: XGS2220-54FP   |
|---------------------------------------|--|---|---|
|                                       |    |    |    |
| <b>Product name</b>                   | 48-port GbE L3 access switch with 6x 10G uplink                                      | 48-port GbE L3 access PoE+ switch with 6x 10G uplink (600W)                           | 48-port GbE L3 access PoE+ switch with 6x 10G uplink (960W)                           |
| <b>Switch class</b>                   | Layer 2 NebulaFlex Pro   | Layer 2 NebulaFlex Pro  | Layer 2 NebulaFlex Pro  |
| <b>Total port count</b>               | 54   | 54  | 54  |
| <b>Port speed</b>                     | 48x 1G<br>2x 1G/2.5G/5G/10G  | 48x 1G<br>2x 1G/2.5G/5G/10G   | 48x 1G<br>2x 1G/2.5G/5G/10G   |
| <b>PoE+/PoE++</b>                     | -  | 40x PoE+<br>8x PoE++ (max 1G)<br>2x PoE++ (max 10G)                                   | 40x PoE+<br>8x PoE++ (max 1G)<br>2x PoE++ (max 10G)                                   |
| <b>Total PoE power budget (watts)</b> | -  | 600W  | 960W  |
| <b>SFP/SFP+</b>                       | 4x 10G SFP+  | 4x 10G SFP+   | 4x 10G SFP+   |
| <b>Gigabit combo (SFP/RJ-45)</b>      | -  | -   | -   |
| <b>Switching capacity (Gbps)</b>      | 216  | 216   | 216   |
| <b>Datasheet</b>                      |  |  |  |





Model: XS3800-28

Model: CX4800-56F



|                                       |   |   |
|---------------------------------------|---|---|
| <b>Product name</b>                   | 28-port 10GbE L2+ managed switch  | 48-port 10G L3 aggregation fiber switch   |
| <b>Switch class</b>                   | Layer 2 Plus NebulaFlex Pro   | Layer 3 managed NebulaFlex Pro  |
| <b>Total port count</b>               | 28  | 48  |
| <b>Port speed</b>                     | 4x 1G/2.5G/5G/10G RJ45  | 48x 10G/25G SFP28   |
| <b>PoE+/PoE++</b>                     | -   | -   |
| <b>Total PoE power budget (watts)</b> | -   | -   |
| <b>SFP/SFP+/QSFP28</b>                | 16x 10G SFP+  | 8x 100G QSFP28  |
| <b>Gigabit combo (SFP/RJ-45)</b>      | 8x 1G/2.5G/5G/10G RJ45/SFP+   | -   |
| <b>Switching capacity (Gbps)</b>      | 560   | 4.0 Tbps  |
| <b>Datasheet</b>                      |  |  |

# Security

---



## Cybersecurity (UTM) devices

Zyxel Networks' cybersecurity (UTM) devices are Nebula cloud managed and further optimize Nebula with holistic security and protection for SMB networks. Our cybersecurity devices are capable of authenticating individuals and devices for all scenarios, especially for remote applications. This enables them to extend and secure your distributed network anywhere, anyhow, easily and affordably. Our cybersecurity devices deliver high performance, ensure comprehensive protection as a self-evolving solution and synchronize your security to fit into all kinds of networks.







Our integrated cloud threat intelligence will automatically stop threats at the network edge by blocking or quarantining, preventing damage to the network. We also provide up-to-the-minute protection with detailed reporting on investigations, threat preventions, active monitoring and high visibility of network activities in today's ever-changing, ever-more-complex network environments.

### Highlights

- Higher precision of detection and assurance of multi-layered protection uncover threats
- Collaborating policy enforcement devices and eliminating repetitive logins with Collaborative Detection & Response (CDR)
- Best practices for remote access with secure WiFi and VPN management consolidate and ensure the same network control and security across multiple sites
- Level up security with two-factor authentication (2FA) network access, letting you quickly and easily verify users' identities with users accessing their networks through edge devices
- High assurance multi-layered protection includes IP/URL/DNS reputation filter, app patrol, web filtering, anti-malware and IPS
- Flexibility to switch between on-premise and Nebula cloud management without additional costs
- Enjoy cloud features like zero-touch provisioning and real-time configurations with Nebula

Some features are not included within the free NebulaFlex Pack.  
Please refer to the license tables.



|   | Model: USG LITE 60AX  | Model: USG FLEX 50H/HP  | Model: USG FLEX 100H/HP   |
|---|---|---|---|
|   |    |    |    |
| <b>SPI firewall throughput (Mbps)<sup>*1</sup></b>  | 2,000   | 2,000   | 4,000   |
| <b>VPN protocol – VPN throughput (Mbps)<sup>*2</sup></b>  | IKEv2, IPSec - 300  | IKEv2, IPSec, SSL - 500   | IKEv2, IPSec, SSL - 900   |
| <b>IPS/UTM (Anti-malware &amp; IDP) throughput (Mbps)<sup>*3</sup></b>  |   | 1,000 / 600   | 1,500 / 1,000   |
| <b>Max. concurrent Ipsec/SSL VPN tunnels<sup>*5</sup></b>   | 5/-   | 20/15   | 50/25   |
| <b>Recommended site-to-site IPSec VPN tunnels</b>   | 3   | 5   | 20  |
| <b>Sandboxing, Anti-malware, IPS, Application patrol, Web filtering, SecuReporter Premium, SPS, SSL Inspection, 2-factor authentication, Geo Enforcer, Collaborative D&amp;R, Device insight<sup>*6</sup></b> | Malware prevention<br>Intrusion Blocker<br>Dark Web Blocker (TOR)                     | Yes   | Yes   |
| <b>Reputation filter</b>  |   | Yes   | Yes   |
| <b>Secure WiFi<sup>*7</sup></b>   |   | Yes   | Yes   |
| <b>Interface/Ports</b>  | 2x 2.5mGig ethernet Mbps (WAN+LAN)<br>4x 1GbE ethernet<br>WiFi AP 802.11 ax           | 5x 1GbE ethernet  | 8x 1GbE ethernet  |
| <b>PoE+ support (802.3at)<sup>*8</sup></b>  | -   | Max 30W   | Max 30W   |
| <b>Datasheet</b>  |  |  |  |

This matrix with firmware uOS1.31 or later. Actual performance may vary depending on system configuration, network conditions and activated applications.

\*1: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).

\*2: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets).

\*3: Anti-malware (with Express mode) and IPS throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.







\*4: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.

\*5: Including Gateway-to-Gateway and Client-to-Gateway.

\*6: With Zyxel service license to enable or extend the feature capacity.

\*7: Available in Q2, 2025.

\*8: On USG Flex 50/100/200 PoE is available only with the related HP model.

|   | Model: USG FLEX 200H/HP   | Model: USG FLEX 500H  | Model: USG FLEX 700H  |
|---|---|---|---|
|   |     |    |    |
| <b>SPI firewall throughput (Mbps)<sup>*1</sup></b>  | 6,500   | 10,000  | 15,000  |
| <b>VPN protocol – VPN throughput (Mbps)<sup>*2</sup></b>  | IKEv2, IPSec, SSL - 1,200   | IKEv2, IPSec, SSL - 2,000   | IKEv2, IPSec, SSL - 3,000   |
| <b>IPS/UTM (Anti-malware &amp; IDP) throughput (Mbps)<sup>*3</sup></b>  | 2,500 / 1,800   | 4,500 / 3,000   | 7,000 / 4,000   |
| <b>Max. concurrent Ipsec/SSL VPN tunnels<sup>*5</sup></b>   | 100/50  | 300/150   | 1,000/500   |
| <b>Recommended site-to-site IPSec VPN tunnels</b>   | 50  | 150   | 300   |
| <b>Sandboxing, Anti-malware, IPS, Application patrol, Web filtering, SecuReporter Premium, SPS, SSL Inspection, 2-factor authentication, Geo Enforcer, Collaborative D&amp;R, Device insight<sup>*6</sup></b> | Yes   | Yes   | Yes   |
| <b>Reputation filter</b>  | Yes   | Yes   | Yes   |
| <b>Secure WiFi<sup>*7</sup></b>   | Yes   | Yes   | Yes   |
| <b>Interface/Ports</b>  | 2x 2.5mGig ethernet<br>6x 1GbE ethernet   | 2x 2.5mGig ethernet<br>2x 2.5mGig/PoE+ ethernet<br>8x 1GbE ethernet                   | 2x 2.5mGig ethernet<br>2x 10mGig /PoE+ ethernet<br>8x 1GbE ethernet<br>2x 10G SFP+    |
| <b>PoE+ support (802.3at)<sup>*8</sup></b>  | Max 30W   | Max 30W   | Max 30W   |
| <b>Datasheet</b>  |  |  |  |

This matrix with firmware uOS1.31 or later. Actual performance may vary depending on system configuration, network conditions and activated applications.

\*1: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).

\*2: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets).

\*3: Anti-malware (with Express mode) and IPS throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.

\*4: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.

\*5: Including Gateway-to-Gateway and Client-to-Gateway.

\*6: With Zyxel service license to enable or extend the feature capacity.

\*7: Available in Q2, 2025.

\*8: On USG Flex 50/100/200 PoE is available only with the related HP model.

# 5G & LTE

---



## 5G/LTE router series

---

Zyxel Networks' 5G/LTE routers further optimize Nebula with more comprehensive and unified solutions for SMB networks.

We offer a range of 5G Fixed Wireless Access (FWA) and LTE devices in our product portfolio. From indoor to outdoor use, our products are suitable for a wide range of deployment scenarios and a variety of network infrastructures, freeing yourself from cabled installation.

Outdoor routers offer internet connectivity that utilize state-of-the-art wireless network technology and thanks to their outdoor-friendly design, it's now possible to work in harsh environments. Indoor routers can provide a primary or back-up connection for your business through 5G/LTE. Enjoy a superior mobile network experience in any environment and easily expand your business with our wireless broadband solutions.











### Highlights

- 5G FWA downlink up to 5Gbps
- Supports SA/NSA mode and network slicing function
- Easy installation via free mobile app for finding the best installation signal spot
- Free from wired connection
- Fallover function

The maximum data rate is a theoretical value.  
The actual data rate depends on the operator and network environment.  
Some features are not included within the free NebulaFlex Pack. Please refer to the license tables.





|                            |                 | Model: Nebula NR2301  | Model: Nebula LTE-3301PLUS  | Model: Nebula FWA505  | Model: Nebula FWA510  | Model: Nebula FWA710  |
|----------------------------|-----------------|---|---|---|---|---|
|                            |                 |    |   |    |    |    |
| <b>Product name</b>        |                 | 5G NR portable router   | Nebula 4G LTE indoor router   | Nebula 5G FWA indoor router   | Nebula 5G FWA indoor router   | Nebula 5G FWA outdoor router  |
| <b>Download data rates</b> |                 | 3.4Gbps   | 300Mbps   | 4.67Gbps  | 4.67Gbps  | 4.67Gbps  |
| <b>WiFi AP</b>             | 802.11n 2x2     | Yes   | Yes   | Yes   | Yes   | Yes*  |
|                            | 802.11ac 2x2    | Yes   | Yes   | Yes   | Yes   | No  |
|                            | 802.11ax 2x2    | Yes   | No  | Yes (AX1800)  | Yes (AX3600)  | No  |
|                            | Number of users | up to 32  | up to 32  | 64  | 64  | No  |
| <b>Ethernet</b>            | GbE LAN         | No  | 4 (LAN 1 can be configured for WAN)   | 2 (LAN 2 can be configured for WAN)   | 2 (LAN 2 can be configured for WAN)   | 1 x 2.5Gbps   |
|                            | GbE WAN         | No  | -   | -   | -   | -   |
| <b>SIM slot</b>            |                 | Yes   | Micro SIM   | Micro SIM   | Micro SIM   | Micro SIM   |
| <b>Power</b>               |                 | Battery/USB-C   | 18W   | 24W   | 48W   | PoE < 15W (est.)  |
| <b>Ingress protection</b>  |                 | -   | -   | -   | -   | IP68  |
| <b>Datasheet</b>           |                 |  |  |  |  |  |

The maximum data rate is a theoretical value. The actual data rate depends on the operator.

\* WiFi AP is used for management purpose only.



# License information

## Per-device license model

---

Nebula's per-device licensing allows IT teams to maintain various expiry dates across devices, sites or organizations. Each organization can have a single shared expiry date, which will be manageable through our Circle license management platform for channel partners through the subscription alignment feature.

## Flexible management license subscription

---

The NCC offers multiple subscription options to meet customers' needs. Whether you're looking for a complimentary option giving you some peace of mind at no extra cost, more control over and visibility of your network updates, or even the most advanced management of cloud networking, Nebula is here to help you.

However, the devices must maintain the same NCC management license pack type across the organization.

The Nebula MSP Pack also provides cross-organization management functionality, helping MSPs streamline multi-tenant, multi-site, multi-level network deployment & management and deliver superior service to their customers.



### **MSP Pack**

Per-admin account license that includes cross-organization management features and can be used in conjunction with existing packs (Base/Plus/Pro).



### **Base Pack**

License-free feature set/service with a rich set of management features.



### **Plus Pack**

A new feature set/service that includes the most frequently requested advanced features.



### **Pro Pack**

A full feature set/service with all advanced functionality and management features.

## Flexible security license subscription

---



### Gold Security Pack

The Gold Security Pack offers comprehensive security that's tailored to the needs of SMBs operating in hybrid environments, protecting against external threats while maintaining control over internal network usage. Our multi-layered approach ensures no vulnerabilities are left exposed.



### Entry Defense Pack

The Entry Defense Pack offers basic safeguards that are easy to implement and manage, preparing you for more advanced protection in the future. Its security features form a solid base for your network's defense, without overwhelming your IT resources.



### Connect & Protect (CNP)

Cloud-mode access point license to provide IP reputation filter and app visibility with throttling to ensure a secure and smooth wireless network.



### Secure WiFi

USG FLEX license to manage remote access points (RAP) with the support of a secure tunnel to extend the corporate network to the remote workplace.





## **Nebula trial license**

---

To provide users with the experience of using the full range of advanced features and services in both the Nebula Pro Pack and NSS Security Pack, Nebula provides a 30-day trial license to users when they create a new organization in the NCC\*. Registered device-bundled licenses and separately purchased license keys will only be activated and consumed after the trial license period expires.

\*All USG FLEX models will have a 30-day free trial license of the Gold Security Pack. If a customer adds a USG FLEX bundled SKU (0102F) with a Gold bundled license to an organization, the NCC will automatically grant & activate a Pro Pack license aligning to that device's Gold license terms as part of the bundled license service.

---

| M | R | C | S | W | Feature name   | Base Pack      | Plus Pack    | Pro Pack      |
|---|---|---|---|---|--|----------------|--------------|---------------|
| • | ✓ | ✓ | ✓ | ✓ | Unlimited registration & central management (configuration, monitoring, dashboard, location map & floor plan visual) of Nebula devices | •              | •            | •             |
| • | ✓ | ✓ | ✓ | ✓ | Zero touch auto-deployment of hardware/configuration from cloud  | •              | •            | •             |
| • | ✓ | ✓ | ✓ | ✓ | Over-the-air firmware management   | •              | •            | •             |
| • | ✓ | ✓ | ✓ | ✓ | IOS and android app (deployment, management and push notifications)  | •              | •            | •             |
| • |   | ✓ | ✓ | ✓ | Central device and client monitoring (log and stat information) and reporting  | 24HR (rolling) | 7D (rolling) | 1YR (rolling) |
| • | ✓ | ✓ | ✓ | ✓ | Admin accounts per organization (full access for administration rights)  | 5              | 8            | NO LIMIT      |
| • |   | ✓ |   | ✓ | User authentication entries (via built-in Nebula cloud authentication server)  | 50             | 100          | NO LIMIT      |
|   |   | ✓ | ✓ | ✓ | Network function scheduling (SSI/PoE/firewall rules)   | •              | •            | •             |
|   |   |   | ✓ | ✓ | Mac-based and 802.1x authentication  | •              | •            | •             |
|   |   | ✓ |   | ✓ | Captive portal authentication  | •              | •            | •             |
| • |   | ✓ | ✓ | ✓ | Cloud saving mode  | •              |              |               |
| • | ✓ | ✓ | ✓ | ✓ | Advanced firmware scheduling (organization/site/device)  |                | •            | •             |
| • |   | ✓ | ✓ | ✓ | Advanced reporting features (including export/email reports/scheduled reports – custom logo)   |                | •            | •             |
| • | ✓ | ✓ | ✓ | ✓ | Automatic network topology (visual and actionable)   |                | •            | •             |
| • | ✓ | ✓ | ✓ | ✓ | Email users and alert notifications  |                | •            | •             |
| • |   |   |   | ✓ | WiFi vouchers (auto-gen vouchers for access/authentication with user-defined time limits)  |                | •            | •             |

**M** = Management feature (NCC)  
**R** = LTE/5G mobile router feature  
**C** = Cybersecurity feature

**S** = Switch feature  
**W** = Wireless feature

| M | R | C | S | W | Feature name   | Base Pack | Plus Pack | Pro Pack |
|---|---|---|---|---|--|-----------|-----------|----------|
| • | ✓ | ✓ | ✓ | ✓ | Organizational user audit/change logs  |           |           | •        |
| • |   | ✓ | ✓ | ✓ | Organizational-wide configuration sync, clone and template   |           |           | •        |
| • | ✓ | ✓ | ✓ | ✓ | Configuration backup/restore   |           |           | •        |
| • | ✓ | ✓ | ✓ | ✓ | Priority Nebula support request (direct NCC including web chat)  |           |           | •        |
| • |   | ✓ | ✓ | ✓ | Open API for ecosystem partner application integration   |           |           | •        |
| • |   | ✓ |   | ✓ | Client diagnostics — connection journey based event log  |           |           | •        |
|   |   |   |   | ✓ | Advanced WiFi AAA security (dynamic personal PSK, Facebook WiFi, dynamic VLAN assignment via NCAS, 3rd party AAA integration)  |           |           | •        |
|   |   |   |   | ✓ | Advanced WiFi control & management (RSSI threshold setting per AP, export NAT AP traffic log, programmable SSID & PSK)         |           |           | •        |
|   |   |   |   | ✓ | WiFi health monitoring and report (AI for wireless)  |           |           | •        |
|   |   |   | ✓ |   | Advanced switch control (port bandwidth control, vendor based VLAN, IP interfacing & static routing)                           |           |           | •        |
|   |   |   | ✓ |   | Switch IPTV feature set (advanced IGMP, IPTV report w. AI alert)   |           |           | •        |
|   |   |   | ✓ |   | Switch surveillance feature set (monitoring, extended range, auto PD recovery)   |           |           | •        |
| • |   | ✓ |   |   | Zyxel CNM SecuReporter   |           |           | •        |
|   |   | ✓ |   |   | Cybersecurity advanced VPN feature set (VPN topology, VPN traffic usage, smart VPN, L2TP/IPsec VPN client script provisioning) |           |           | •        |
|   |   | ✓ |   | ✓ | Collaborative detection & response (CDR) with automatically respond action (USG FLEX & ATP series only)                        |           |           | •        |

**M** = Management feature (NCC)

**R** = LTE/5G mobile router feature

**C** = Cybersecurity feature

**S** = Switch feature

**W** = Wireless feature



# Service-related information

## Nebula forum

The Nebula forum is a great place where users can come together to share tips and ideas, get problems solved and learn from fellow users around the world. Join the conversations to know more about what Nebula products can do. Visit the Nebula forum via our [Community website](#) to explore more.

The Support Request channel allows users to submit request tickets directly on NCC. It is a tool that provides an easy way for users to send and track an inquiry for help on a problem, request or service, to find answers to their questions quickly. The request will go directly to the Nebula support team to be reviewed and followed by a dedicated group until the proper resolutions are found.





# Thinking sustainability

Corporate sustainability is integral to Zyxel Group's mission, earning us accolades since 2009 for sustainable products and corporate responsibility. Our strategy focuses on three dimensions: Green Supply Chain, Green Operations and Green Products. Collaborating with employees, customers and suppliers, we drive environmental initiatives for a sustainable future.

Key initiatives include the Product Carbon Footprint Inventory Plan, which incorporates life cycle thinking into product design to minimize environmental impacts.

Additionally, our advanced carbon calculation platform and assessment tools, launched in 2021, provide data-driven insights to support our net-zero emissions commitment.

To complement these efforts, Zyxel Networks' green marketing strategy combines e-commerce platforms with physical store integration, offering sustainable solutions through Zyxel Marketplace and the European Zyxel Store.





## Corporate Headquarters

**Zyxel Networks Corp.**  
**Global Headquarters (Taiwan)**  
Tel: +886-3-578-3942  
Fax: +886-3-578-2439  
Email: sales@zyxel.com.tw  
www.zyxel.com

### Europe (EMEA)

**Zyxel BeNeLux**  
Tel: +31 23 555 3689  
Fax: +31 23 557 8492  
Email: sales@zyxel.nl  
www.zyxel.nl  
www.zyxel.be

**Zyxel Bulgaria**  
**(Bulgaria, Macedonia,**  
**Albania, Kosovo)**  
Tel: +3592 4443343  
Email: info@cz.zyxel.com  
www.zyxel.bg

**Zyxel Czech Republic**  
Tel: +420 725 567 244  
Tel: +420 606 795 453  
Email: sales@cz.zyxel.com  
Support: https://support.zyxel.eu  
www.zyxel.cz

**Zyxel Denmark A/S**  
Tel: +45 39 55 07 00  
Fax: +45 39 55 07 07  
Email: sales@zyxel.dk  
www.zyxel.dk

**Zyxel Finland**  
Tel: +358 9 4780 8400  
Email: myynti@zyxel.fi  
www.zyxel.fi

**Zyxel France**  
Tel: +33 (0)4 72 52 97 97  
Fax: +33 (0)4 72 52 19 20  
Email: info@zyxel.fr  
www.zyxel.fr

**Zyxel Norway**  
Tel: +47 22 80 61 80  
Fax: +47 22 80 61 81  
Email: salg@zyxel.no  
www.zyxel.no

**Zyxel Poland**  
Tel: +48 223 338 250  
Hotline: +48 226 521 626  
Fax: +48 223 338 251  
Email: info@pl.zyxel.com  
www.zyxel.pl

**Zyxel Romania**  
Tel: +40 770 065 879  
Email: info@zyxel.ro  
www.zyxel.ro

**Zyxel Slovakia**  
Tel: +421 919 066 395  
Email: sales@sk.zyxel.com  
Support: https://support.zyxel.eu  
www.zyxel.sk

**Zyxel Sweden A/S**  
Tel: +46 8 55 77 60 60  
Fax: +46 8 55 77 60 61  
Email: sales@zyxel.se  
www.zyxel.se

**Zyxel Switzerland**  
Tel: +41 (0)44 806 51 00  
Fax: +41 (0)44 806 52 00  
Email: info@zyxel.ch  
www.zyxel.ch

**Zyxel Germany GmbH**  
Tel: +49 (0) 2405-6909 0  
Fax: +49 (0) 2405-6909 99  
Email: sales@zyxel.de  
www.zyxel.de

**Zyxel Turkey A.S.**  
Tel: +90 212 314 18 00  
Fax: +90 212 220 25 26  
Email: bilgi@zyxel.com.tr  
www.zyxel.com.tr

**Zyxel Hungary & SEE**  
Tel: +36 1 848 0690  
Email: info@zyxel.hu  
www.zyxel.hu

**Zyxel UK Ltd.**  
Tel: +44 (0) 118 9121 700  
Fax: +44 (0) 118 9797 277  
Email: sales@zyxel.co.uk  
www.zyxel.co.uk

**Zyxel Iberia**  
Tel: +34 911 792 100  
Email: ventas@zyxel.es  
www.zyxel.es

**Zyxel Ukraine**  
Tel: +380 89 323 9959  
Email: info@zyxel.eu  
www.zyxel.ua

**Zyxel Italy**  
Tel: +39 011 230 8000  
Email: info@zyxel.it  
www.zyxel.it

### Asia

**Zyxel China (Shanghai)**  
Tel: +86-021-61199055  
Fax: +86-021-52069033  
Email: sales@zyxel.cn  
www.zyxel.cn

**Zyxel China (Beijing)**  
Tel: +86-010-62602249  
Email: sales@zyxel.cn  
www.zyxel.cn

**Zyxel China (Tianjin)**  
Tel: +86-022-87890440  
Fax: +86-022-87892304  
Email: sales@zyxel.cn  
www.zyxel.cn

**Zyxel India**  
Tel: +91-11-4760-8800  
Fax: +91-11-4052-3393  
Email: info@zyxel.in  
www.zyxel.in

**Zyxel Kazakhstan**  
Tel: +7 727 350 5683  
Email: info@zyxel.kz  
www.zyxel.kz

**Zyxel Korea Corp.**  
Tel: +82-2-890-5535  
Fax: +82-2-890-5537  
Email: sales@zyxel.kr  
www.zyxel.kr

**Zyxel Malaysia**  
Tel: +603 2282 1111  
Fax: +603 2287 2611  
Email: sales@zyxel.com.my  
www.zyxel.com.my

**Zyxel Middle East FZE**  
Tel: +971 4 372 4483  
Cell: +971 562146416  
Email: sales@zyxel-me.com  
www.zyxel-me.com

**Zyxel Philippine**  
Email: sales@zyxel.com.ph  
www.zyxel.com.ph

**Zyxel Singapore**  
Tel: +65 6339 3218  
Hotline: +65 6339 1663  
Fax: +65 6339 3318  
Email: sales@zyxel.com.sg  
www.zyxel.com.sg

**Zyxel Taiwan (Taipei)**  
Tel: +886-2-2739-9889  
Fax: +886-2-2735-3220  
Email: sales\_tw@zyxel.com.tw  
www.zyxel.com.tw

**Zyxel Thailand**  
Tel: +66-(0)-2831-5315  
Fax: +66-(0)-2831-5395  
Email: info@zyxel.co.th  
www.zyxel.co.th

**Zyxel Vietnam**  
Tel: (+848) 35202910  
Fax: (+848) 35202800  
Email: sales\_vn@zyxel.com.tw  
www.zyxel.com/vn/vi/

### The Americas

**Zyxel USA**  
Tel: +1-714-632-0882  
Fax: +1-714-632-0858  
Email: sales@zyxel.com  
us.zyxel.com

**Zyxel Brazil**  
Tel: +55 (11) 3373-7470  
Fax: +55 (11) 3373-7510  
Email: comercial@zyxel.com.br  
www.zyxel.com/br/pt/

hello  
nebula.



Copyright © 2025 Zyxel and/or its affiliates. All rights reserved. All specifications are subject to change without notice. While care has been taken to ensure that the information contained in this publication is accurate, neither Zyxel, nor its subsidiaries/affiliates, accept responsibility or liability for any errors or inaccuracies.

20/01/2025