ZYXEL
NETWORKS

Unlock Networking Possibilities with Cloud

Nebula Secure Cloud Networking Solution
Solution Guide
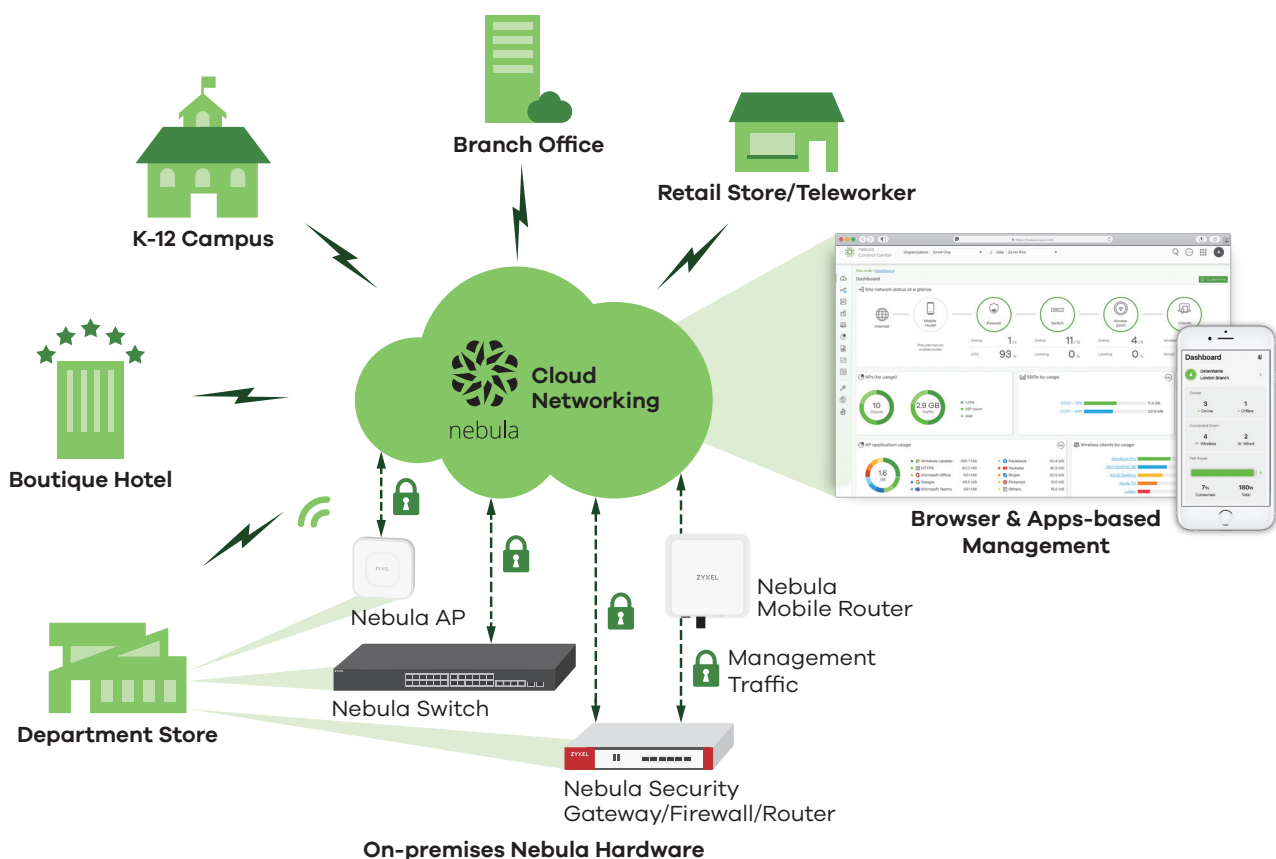
nebula

We help you make everything easier

Overview

Nebula secure cloud networking solution provides cloud-based, centralized control and visibility over all Nebula wired, wireless, security firewall, security router, and mobile router hardware — all without the cost and complexity of on-site control equipment or overlay management systems. With 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 as well as continuous feature updates that eliminate training and labor for network implementation, maintenance and support**

- **Zero-touch provisioning, built-in multi-tenant, multisite network management tools accelerate deployment of large networks**

- **Centralized, unified and on-demand control as well as visibility that reduce capital expense for hardware and software**

- **Free cloud management for the life of the product without the need for ongoing costs**

- **Access points and switches with NebulaFlex Pro, USG FLEX firewalls (0102 bundled SKUs), ATP firewalls, SCR security router (w/Elite Pack), and Nebula 5G/4G routers are sold with bundled Professional Pack license for you to experience advanced cloud management features**

- **A comprehensive networking and security 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**
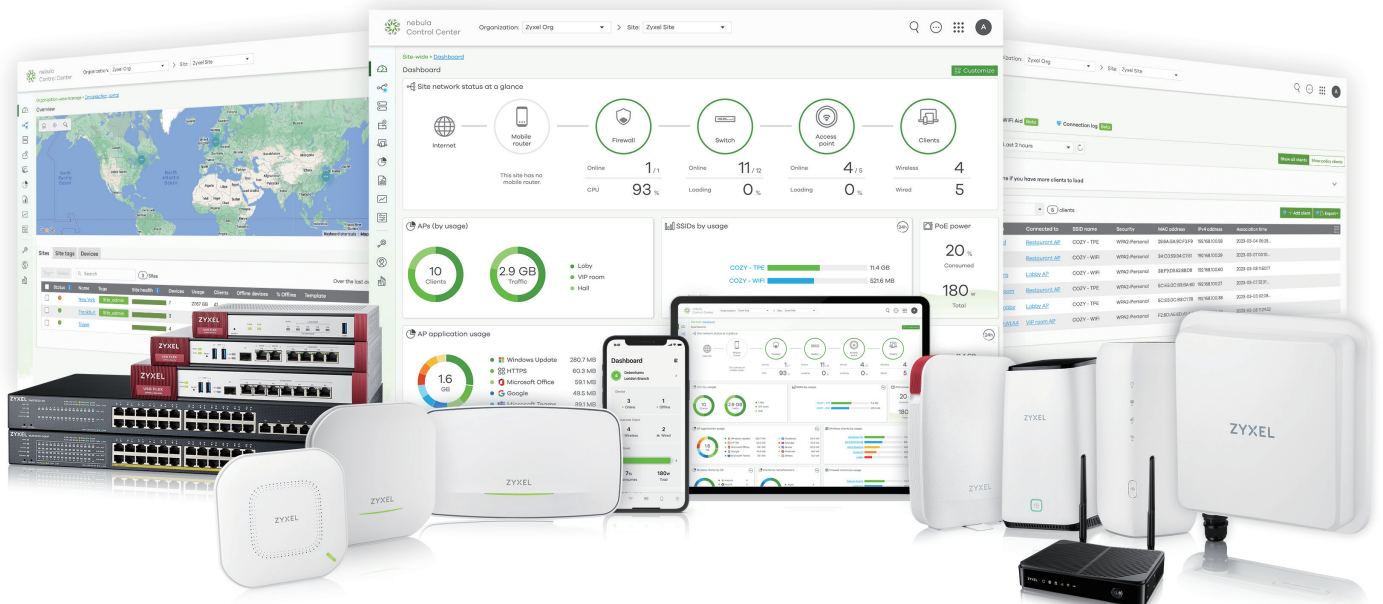
Introduction to Nebula secure cloud networking solution

Nebula's networking and security products, including access points, switches, security firewalls, security router and 5G/4G routers, are purpose-built for cloud management. They break the traditions and come up with easy management, centralized control, auto-configuration, real-time Web-based diagnostics, remote monitoring and more.

The Nebula cloud managed networking introduces an affordable, effortless approach for network deployments with high security and scalability to provide completely control over Nebula devices and users. When an organization grows from small sites to massive, distributed networks, the Nebula hardware with cloud-based self-provisioning enables easy, quick and plug-n-play deployment to multiple locations without IT professionals.

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 properly in WAN downtimes.

Nebula secure cloud networking solution architecture

The Nebula Cloud provides a networking paradigm for building and managing networks over the Internet in the Software as a Service model. Software as a Service (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.
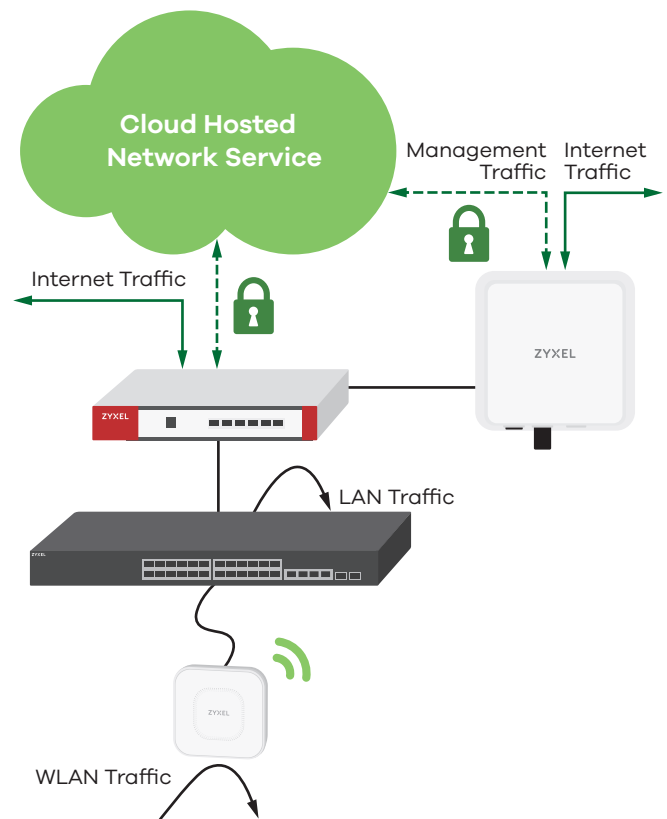
All Nebula devices are built from the ground up for cloud management with the capability to communicate with Nebula's cloud control center through the Internet. This TLS-secured connectivity between hardware and the cloud provides network-wide visibility and control for network management using the minimal 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.

Data Privacy and Out-of-band Control Plane

The Nebula service uses the infrastructure and services built upon the Amazon Web Service (AWS), so all Nebula security details can be referred to AWS Cloud Security. Nebula is committed to data protection, privacy and security as well as compliance with applicable regulatory frameworks in the world. Nebula's technical architecture along with its internal administrative and procedural safeguards can assist customers with design and deployment of cloud-based networking solutions that comply with EU data privacy regulations.

In Nebula's out-of-band control plane, network and management traffics are split into two different data paths. Management data (e.g. configuration, statistics, monitoring, etc.) turn towards Nebula's cloud from devices through an encrypted Internet connection of the NETCONF protocol, while user data (e.g. Web browsing and internal applications, etc.) flows directly to the destination on the LAN or across the WAN without passing through the cloud.

Cloud Hosted Network Service

Management Traffic   Internet Traffic

Internet Traffic

ZYXEL

LAN Traffic

ZYXEL

ZYXEL

WLAN Traffic

Features of the Nebula Architecture:

- End user data does not traverse through the cloud.
- Unlimited throughput, no centralized controller bottlenecks when new devices are added.
- Network functions even if connection to cloud is interrupted.
- Nebula's cloud management is backed by a 99.99% uptime SLA.

NETCONF Standard

Nebula is an industry-first solution that implements NETCONF protocol for safety of configuration changes in cloud management as all NETCONF messages are protected by TLS and exchanged using secure transports. Prior to NETCONF, CLI scripting and SNMP were two common approaches; but they have several limitations such as lacking of transaction management or useful standard security and commit mechanisms. The NETCONF protocol has been designed to address the shortcomings of the existing practices and protocols.

With the support of TCP and Callhome to overcome the NAT barrier, NETCONF is considered more reliable and elegant. It is also thinner than CWMP (TR-069) SOAP, which saves Internet bandwidth. With these features, the NETCONF protocol is regarded as more suitable for cloud networking.

Nebula Control Center (NCC)

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

Nebula Control Center is also engineered with a number of security tools that provide optimal protection to networks, devices and users; and 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 & dark modes**
- **Multi-lingual management interface (English, Traditional Chinese, Japanese, German, French, Russian and more to come)**
- **Multi-tenant, multi-site manageability**
- **Role-based administration privileges**
- **First time setup wizard**
- **Powerful organization-wide management tools**

- **Rich site-wide management tools**
- **Site-based auto and smart configuration tools**
- **Misconfigured protection against disconnecting NCC**
- **Configuration changing alerts**
- **Login & Configure auditing**
- **Real-time and historical monitoring/reporting**
- **Granular device based information and trouble shooting tools**
- **Flexible firmware management**

First Time Setup Wizard

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

Role-based Administration

Supervisors are allowed to appoint different privileges for multiple administrators to manage network and guess access. Specify management authority in the network access control function to maximize security and to avoid accidental misconfiguration.
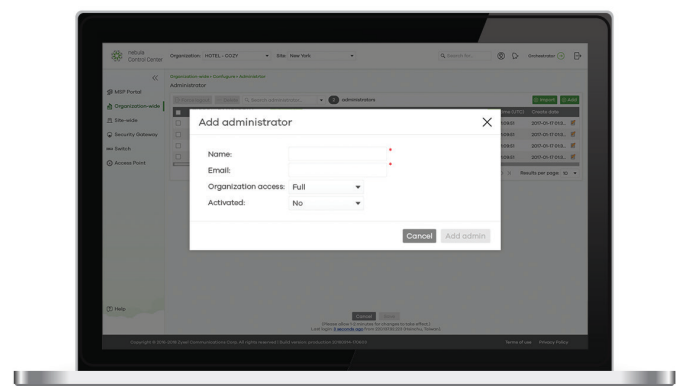
Role-based Administration

Organization-wide Management Tools

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

Site-wide Management Tools

Integrated with the feature-rich dashboards, maps, floor plans, automatic visual and actionable network topology and site-based auto and smart configuring tools, the Nebula Control Center delivers instant network analysis and automatically performs AP authentication, configuration parity check, switch ports link aggregation and site-to-site VPN.

Misconfiguration Protection

To prevent any connectivity interruption caused by incorrect or inappropriate configuration, the Nebula devices can intelligently identify if the order or setting from 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 networking 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 keep new policies always up-to-date in the entire IT organization.

Login & Configure Auditing

The Nebula cloud control center automatically records the time and IP address of every 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 who made the changes.

Real-time & Historical Monitoring

Nebula Control center provides 24x7 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.
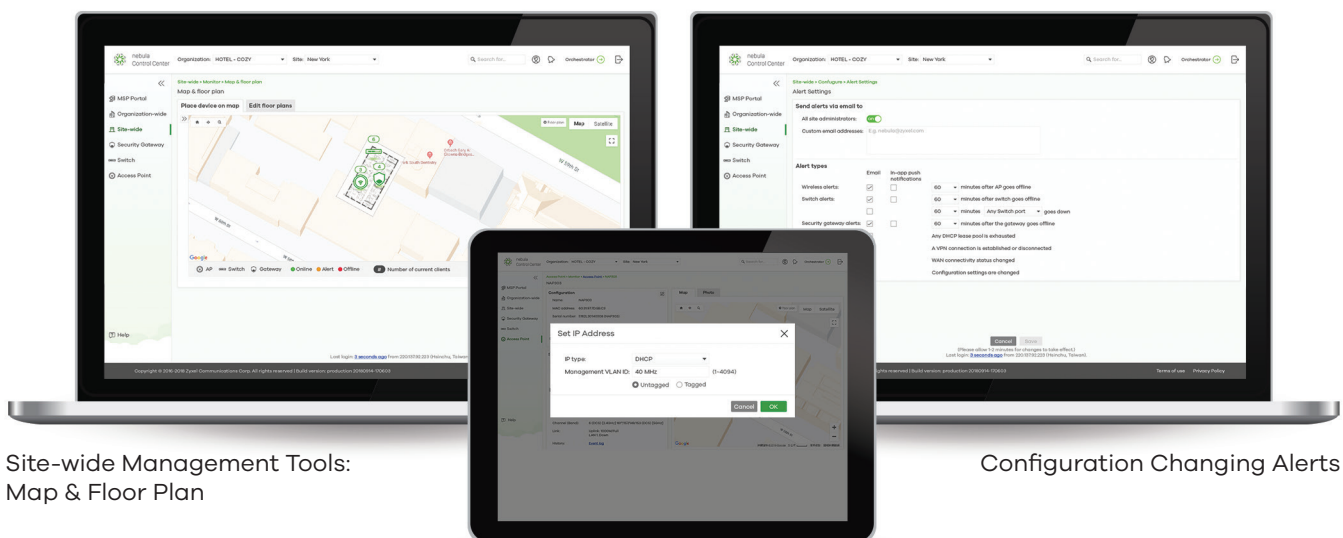
Site-wide Management Tools:
Map & Floor Plan

Misconfiguration Protection:
Set IP Address

Configuration Changing Alerts

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 Nebula Control Center all at once. The app's features and functions include:

Highlights

- Sign up Nebula account
- Installation walk through wizard for creating org & site, adding devices (QR code or manually), setting up WiFi networks
- Hardware install guide and LED guide
- Enable/disable WiFi & sharing it via mobile messaging applications or QR code
- Switch and gateway ports info
- Mobile router WAN status
- Site-wide client monitoring with action support
- Site-wide application usage analysis with action support
- Centralize 3-in-1 device status

- Site-wide and per-device usage graph
- Site-wide and per-device PoE consumption
- Check map and photo of device location
- Live trouble shooting tools: reboot, Locator LED, switch port power reset, cable diagnostics, connection test
- Firmware upgrade schedule
- License overview and inventory
- Push notifications - Device down/up & license issue related
- Notification center up to 7 days alert history
- Nebula support request (Pro Pack license is required)
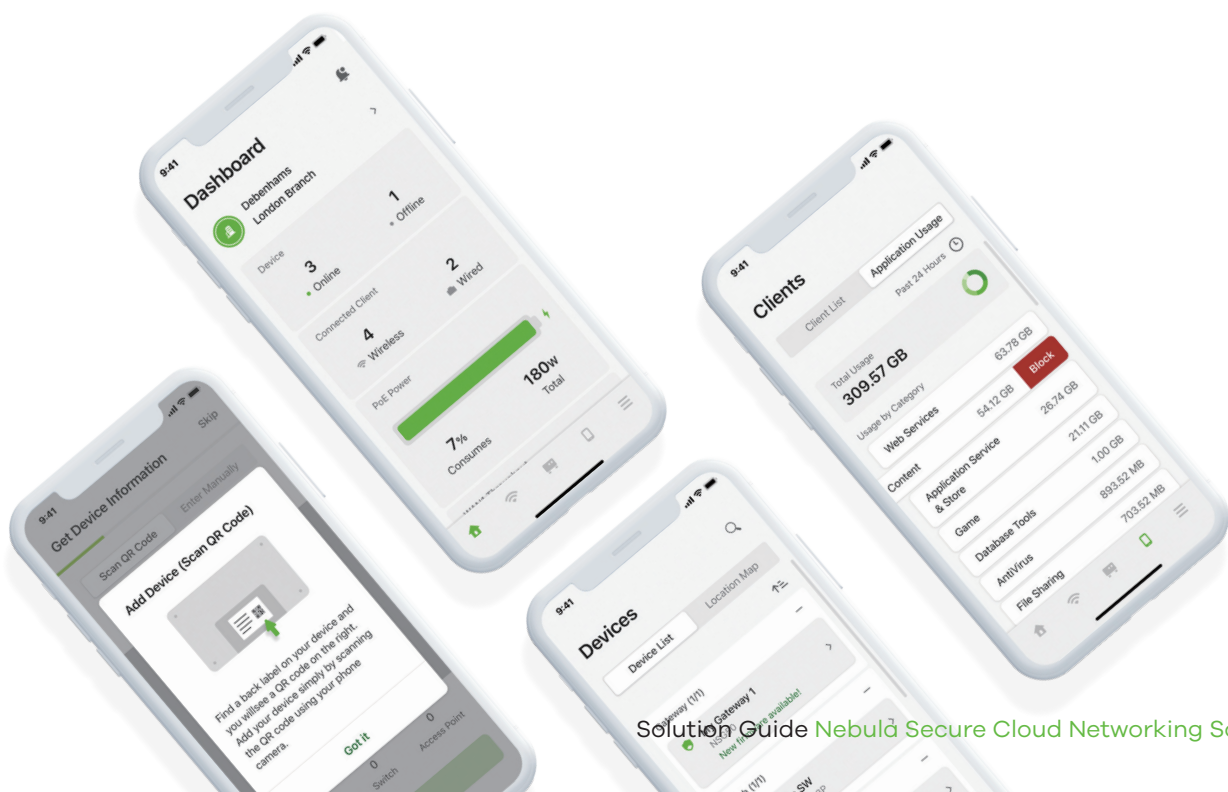
Product families

Access Points with NebulaFlex/ NebulaFlex Pro

Zyxel NebulaFlex solution allows the access points to be used in two modes; it's easy to switch between standalone mode and License Free Nebula Cloud management, anytime, with a few simple clicks. NebulaFlex provides true flexibility to adapt the access point to different needs in an ever-changing environment.

When used with Nebula you are able to 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 further supports triple mode functionality (standalone, hardware controller and Nebula) to give business clients true flexibility whatever their project may need.

Access Points with NebulaFlex Product Options

Model	NWA210BE	NWA130BE	NWA110BE	NWA220AX-6E
Product name	BE12300 WiFi 7 Dual-Radio NebulaFlex Access Point	BE11000 WiFi 7 Triple-Radio NebulaFlex Access Point	BE6500 WiFi 7 Dual-Radio NebulaFlex Access Point	AXE5400 WiFi 6E Dual-Radio NebulaFlex Access Point
Typical deployment	Medium to high density deployments	Entry-level wireless establishments	Entry-level wireless establishments	Medium to high density deployments
Radio specification	• 1 x 802.11 b/g/n/ax/be radio • 1 x 802.11 a/n/ac/ax/be radio • 12.3 Gbps max rate • Spatial Stream: 2+4	• 1 x 802.11 b/g/n/ax/be radio • 1 x 802.11 a/n/ac/ax/be radio • 11 Gbps max rate • Spatial Stream: 2+2+2	• 1 x 802.11 b/g/n/ax/be radio • 1 x 802.11 a/n/ac/ax/be radio • 11 Gbps max rate • Spatial Stream: 2+2+2	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 5.375 Gbps max rate • Spatial Stream: 2+4
Power	• DC input: USB PD 15 VDC 2 A (Type C) • PoE (802.3at): power draw 21.5 W	• DC input : 12 VDC 2 A • PoE (802.3at): power draw 24 W	• DC input: USB PD 15 VDC 2 A (Type C) • PoE (802.3at): power draw 21.5 W	• DC input: 12 VDC 2 A • PoE (802.3at): power draw 21 W
Antenna	Internal antenna	Internal antenna	Internal antenna	Internal antenna

* Bundled licenses are not applicable to NebulaFlex AP.

Highlights

- Enjoy cloud features like zero-touch deployment, 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 RF optimization
- Secure WiFi solution provides remote workers the same access to the corporate network and resources while being protected with the enterprise-grade security.

- Connect and 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 support Nebula Cloud Authentication Server accounts, social login with Facebook accounts, and Voucher
- Support smart mesh and wireless bridge
- Wireless health monitoring and report
- WiFi Aid gives insights into the client's connection issues to optimize connectivity and troubleshoot

Access Points with NebulaFlex Product Options

Model	NWA210AX	NWA110AX	NWA90AX Pro	NWA50AX Pro
Product name	AX3000 WiFi 6 Dual-Radio NebulaFlex Access Point	AX1800 WiFi 6 Dual-Radio NebulaFlex Access Point	AX3000 WiFi 6 Dual-Radio NebulaFlex Access Point	AX3000 WiFi 6 Dual-Radio NebulaFlex Access Point
Typical deployment	Medium to high density deployments	Entry-level wireless establishments	Small business, Entry-level establishments	Small business, Entry-level establishments
Radio specification	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 2.975 Gbps max rate • Spatial Stream: 2+4	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 1.775 Gbps max rate • Spatial Stream: 2+2	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 2.975 Gbps max rate • Spatial Stream: 2+3	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 2.975 Gbps max rate • Spatial Stream: 2+3
Power	• DC input: 12 VDC 2 A • PoE (802.3at): power draw 19 W	• DC input: 12 VDC 1.5 A • PoE (802.3at): power draw 17 W	• DC input: 12 VDC 2 A • PoE (802.3at): power draw 20.5 W	• DC input: 12 VDC 2 A • PoE (802.3at): power draw 20.5 W
Antenna	Internal antenna	Internal antenna	Internal antenna	Internal antenna

* Bundled licenses are not applicable to NebulaFlex AP.

Access Points with NebulaFlex Product Options

Model	NWA90AX	NWA50AX	NWA55AXE
Product name	AX1800 WiFi 6 Dual-Radio NebulaFlex Access Point	AX1800 WiFi 6 Dual-Radio NebulaFlex Access Point	AX1800 WiFi 6 Dual-Radio NebulaFlex Outdoor Access Point
Typical deployment	Small business, Entry-level establishments	Small business, Entry-level establishments	Outdoor, Entry-level establishments
Radio specification	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 1.775 Gbps max rate • Spatial Stream: 2+2	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 1.775 Gbps max rate • Spatial Stream: 2+2	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 1.775 Gbps max rate • Spatial Stream: 2+2
Power	• DC input: 12 VDC 1.5 A • PoE (802.3at): power draw 16 W	• DC input: 12 VDC 1.5 A • PoE (802.3at): power draw 16 W	• DC input: 12 VDC 1.5 A • PoE (802.3at): power draw 16 W
Antenna	Internal antenna	Internal antenna	External antenna

* Bundled licenses are not applicable to NebulaFlex AP.

Access Points with NebulaFlex Pro Product Options

Model	WBE660S	WBE530	WAX640S-6E
Product name	BE22000 WiFi 7 Triple-Radio NebulaFlex Pro Access Point	BE11000 WiFi 7 Triple-Radio NebulaFlex Pro Access Point	AXE7800 WiFi 6E Triple-Radio NebulaFlex Pro Access Point
Typical deployment	High density and interference-laden indoor environments	Medium to high density deployments	High density and interference-laden indoor environments
Radio specification	• 1 x 802.11 b/g/n/ax/be radio • 1 x 802.11 a/n/ac/ax/be radio • 22 Gbps max rate • Spatial Stream: 4+4+4	• 1 x 802.11 b/g/n/ax/be radio • 1 x 802.11 a/n/ac/ax/be radio • 11 Gbps max rate • Spatial Stream: 2+2+2	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 7.775 Gbps max rate • Spatial Stream: 2+2+4
Power	• DC input: USB PD 15 VDC 3 A (Type C) • PoE (802.3bt): power draw 41 W	• DC input : 12 VDC 2 A • PoE (802.3bt): power draw 24 W	• DC input : 12 VDC 2.5 A • PoE (802.3bt): power draw 28 W
Antenna	Internal smart antenna	Internal antenna	Internal smart antenna

* 1-year Professional pack license is bundled in NebulaFlex Pro AP.

Access Points with NebulaFlex Pro Product Options

Model	WAX620D-6E	WAX650S	WAX630S
Product name	AX5400 WiFi 6E Dual-Radio NebulaFlex Pro Access Point	AX3600 WiFi 6 Dual-Radio NebulaFlex Pro Access Point	AX3000 WiFi 6 Dual-Radio NebulaFlex Pro Access Point
Typical deployment	High density and interference-laden indoor environments	High density and interference-laden indoor environments	High density and interference-laden indoor environments
Radio specification	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 5.375 Gbps max rate • Spatial Stream: 2+4	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 1 x monitoring radio • 3.55 Gbps max rate • Spatial Stream: 4+4	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 2.975 Gbps max rate • Spatial Stream: 2+4
Power	• DC input : 12 VDC 2 A • PoE (802.3at): power draw 21 W	• DC input: 12 VDC 2.5 A • PoE (802.3bt): power draw 31 W	• DC input: 12 VDC 2 A • PoE (802.3at): power draw 19 W
Antenna	Dual-optimized internal antenna	Internal smart antenna	Internal smart antenna

* 1-year Professional pack license is bundled in NebulaFlex Pro AP.

Access Points with NebulaFlex Pro Product Options

Model	WAX610D	WAX510D	WAX655E
Product name	AX3000 WiFi 6 Dual-Radio NebulaFlex Pro Access Point	AX1800 WiFi 6 Dual-Radio NebulaFlex Pro Access Point	AX5400 WiFi 6 Dual-Radio NebulaFlex Pro Outdoor Access Point
Typical deployment	Medium to high density deployments	Medium to high density deployments	Outdoor
Radio specification	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 2.975 Gbps max rate • Spatial Stream: 2+4	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 1.775 Gbps max rate • Spatial Stream: 2+2	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 5.4 Gbps max rate • Spatial Stream: 2+4
Power	• DC input: 12 VDC 2 A • PoE (802.3at): power draw 19 W	• DC input: 12 VDC 1.5 A • PoE (802.3at): power draw 17 W	• 802.3at PoE only
Antenna	Dual-optimized internal antenna	Dual-optimized internal antenna	External antenna

* 1-year Professional pack license is bundled in NebulaFlex Pro AP.

Access Points with NebulaFlex Pro Product Options

Model	WAX300H	WAC500H
Product name	AX3000 WiFi 6 Dual-Radio NebulaFlex Pro Wall-Plate Access Point	AC1200 WiFi 5 Wave 2 Dual-Radio NebulaFlex Pro Wall-Plate Access Point
Typical deployment	Per-room deployments	Per-room deployments
Radio specification	• 1 x 802.11 b/g/n/ax radio • 1 x 802.11 a/n/ac/ax radio • 2.975 Gbps max rate • Spatial Stream: 2+2	• 1 x 802.11 b/g/n radio • 1 x 802.11 a/n/ac radio • 1.2 Gbps max rate • Spatial Stream: 2+2
Power	• PoE (802.3at): power draw 25.5 W (include 4 W for PoE PSE)	• DC input: 12 VDC, 1 A • PoE (802.3at/af): power draw 18 W
Antenna	Internal antenna	Internal antenna

* 1-year Professional pack license is bundled in NebulaFlex Pro AP.

Switches with NebulaFlex/ NebulaFlex Pro

Zyxel switches with **NebulaFlex** allow you to easily switch between standalone and our license-free Nebula cloud management platform anytime with just a few simple clicks. **NebulaFlex Pro** switches are further bundled with a 1-year Professional Pack license. XS3800-28, XGS2220 and GS2220 Series switches come with NebulaFlex Pro which provides advanced IGMP technology, network analytics alerts and more, that allow resellers, MSPs, and network admins to experience the simplicity, scalability, and flexibility of Zyxel's Nebula networking solution.

Meanwhile, GS1350 Series further focus 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 on wired technology by offering the flexibility to transition to the cloud in your own time, without worrying about additional ongoing licensing costs.

Switches with NebulaFlex Product Options

Model	XMG1915-10E	XMG1915-10EP	XMG1915-18EP
Product name	8-port 2.5GbE Smart Managed Switch with 2 SFP+ Uplink	8-port 2.5GbE Smart Managed PoE Switch with 2 SFP+ Uplink	16-port 2.5GbE Smart Managed PoE Switch with 2 SFP+ Uplink
Switch class	Smart Managed	Smart Managed	Smart Managed
Total port count	10	10	18
100M/1G/2.5G (RJ-45)	8	8	16
100M/1G/2.5G (RJ-45, PoE++)	-	8	8
1G/10G SFP+	2	2	2
Switching capacity (Gbps)	80	80	120
Total PoE power budget (watts)	-	130	180

* Bundled licenses are not applicable to NebulaFlex switches.

Highlights

- Comprehensive Switch product portfolio includes wide-range port selection, multiple speed options (1G, 2.5G, 10G), PoE or non-PoE, and all fiber models.

- Smart fan and fanless designs offer silent operations in the office

- Check real-time status intuitively by cloud and PoE LED indicators

- The Multi-Gigabit switches that can step up the network bandwidth via the cloud

- GS1350 Series Surveillance switches are designed with specialized PoE features for IP cameras and surveillance report that can be monitor and manage the surveillance networks via the Cloud

- Flexible to switch between standalone and Nebula Cloud management without additional costs

- Enjoy cloud features like zero-touch deployment, real-time configurations with Nebula

- Efficient network provisioning with multiple ports configuration all at once

- User-friendly ACL and PoE schedule configuration

- Intelligent PoE technology and network topology

- RADIUS, static MAC forwarding and 802.1X authentication

- Advanced Switch Control (Vendor Based VLAN, IP Interfacing & Static Routing, Remote CLI access)

- Advanced IGMP multicast functionality and IPTV report

- Auto PD Recovery to detect and recover failed powered devices automatically

Switches with NebulaFlex Product Options

Model	GS1915-8	GS1915-8EP	GS1915-24E	GS1915-24EP
Product name	8-port GbE Smart Managed Switch	8-port GbE Smart Managed PoE Switch	24-port GbE Smart Managed Switch	24-port GbE Smart Managed PoE Switch
Switch class	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Total port count	8	8	24	24
100M/1G (RJ-45)	8	8	24	24
100M/1G (RJ-45, PoE+)	-	8	-	12
Switching capacity (Gbps)	16	16	48	48
Total PoE power budget (watts)	-	60	-	130

* Bundled licenses are not applicable to NebulaFlex switches.

Switches with NebulaFlex Product Options

Model	GS1920-8HPv2	GS1920-24v2	GS1920-24HPv2	GS1920-48v2	GS1920-48HPv2
Product name	8-port GbE Smart Managed PoE Switch	24-port GbE Smart Managed Switch	24-port GbE Smart Managed PoE Switch	48-port GbE Smart Managed Switch	48-port GbE Smart Managed PoE Switch
Switch class	Smart Managed	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Total port count	10	28	28	50	50
100M/1G (RJ-45)	8	24	24	44	44
100M/1G (RJ-45, PoE+)	8	-	24	-	48
1G SFP	-	-	-	2	2
1G combo (SFP/RJ-45)	2	4	4	4	4
Switching capacity (Gbps)	20	56	56	100	100
Total PoE power budget (watts)	130	-	375	-	375

* Bundled licenses are not applicable to NebulaFlex switches.

Switches with NebulaFlex Product Options

Model	XS1930-10	XS1930-12HP	XS1930-12F	XMG1930-30	XMG1930-30HP
Product name	8-port 10G Multi-Gig Lite-L3 Smart Managed Switch with 2 SFP+	8-port 10G Multi-Gig PoE Lite-L3 Smart Managed Switch with 2 10G Multi-Gig Ports & 2 SFP+	10-port 10G Lite-L3 Smart Managed Fiber Switch with 2 10G Multi-Gig Ports	24-port 2.5G Multi-Gig Lite-L3 Smart Managed Switch with 6 10G Uplink	24-port 2.5G Multi-Gig Lite-L3 Smart Managed PoE++/PoE+ Switch with 6 10G Uplink
Switch class	Smart Managed	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Total port count	10	12	12	30	30
100M/1G/2.5G (RJ-45)	-	-	-	24	24
100M/1G/2.5G (RJ-45, PoE+)	-	-	-	-	20
100M/1G/2.5G (RJ-45, PoE++)	-	-	-	-	4
1G/2.5G/5G/10G (RJ-45)	8	10	2	4	4
1G/2.5G/5G/10G (RJ-45, PoE++)	-	8	-	-	4
1G/10G SFP+	2	2	10	2	2
Switching capacity (Gbps)	200	240	240	240	240
Total PoE power budget (watts)	-	375	-	-	700

* Bundled licenses are not applicable to NebulaFlex switches.

Switches with NebulaFlex Product Options

Model	XGS1930-28	XGS1930-28HP	XGS1930-52	XGS1930-52HP
Product name	24-port GbE Lite-L3 Smart Managed Switch with 4 10G Uplink	24-port GbE Lite-L3 Smart Managed PoE+ Switch with 4 10G Uplink	48-port GbE Lite-L3 Smart Managed Switch with 4 10G Uplink	48-port GbE Lite-L3 Smart Managed PoE+ Switch with 4 10G Uplink
Switch class	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Total port count	28	28	52	52
100M/1G (RJ-45)	24	24	48	48
100M/1G (RJ-45, PoE+)	-	24	-	48
1G/10G SFP+	4	4	4	4
Switching capacity (Gbps)	128	128	176	176
Total PoE power budget (watts)	-	375	-	375

* Bundled licenses are not applicable to NebulaFlex switches.

Switches with NebulaFlex Product Options

Model	XGS1935-28	XGS1935-28HP	XGS1935-52	XGS1935-52HP
Product name	24-port GbE Lite-L3 Smart Managed Switch with 4 10G Uplink	24-port GbE PoE Lite-L3 Smart Managed Switch with 4 10G Uplink	48-port GbE Lite-L3 Smart Managed Switch with 4 10G Uplink	48-port GbE PoE Lite-L3 Smart Managed Switch with 4 10G uplink
Switch class	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Total port count	28	28	52	52
100M/1G (RJ-45)	24	24	48	48
100M/1G (RJ-45, PoE+)	-	24	-	48
1G/10G SFP+	4	4	4	4
Switching capacity (Gbps)	128	128	176	176
Total PoE power budget (watts)	-	375	-	375

* Bundled licenses are not applicable to NebulaFlex switches.

Switches with NebulaFlex Pro Product Options

Model	GS1350-6HP	GS1350-12HP	GS1350-18HP	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	Smart Managed	Smart Managed	Smart Managed
Total port count	6	12	18	26
100M/1G (RJ-45)	5	10	16	24
100M/1G (RJ-45, PoE+)	5 (port 1-2 PoE++)	8	16	24
1G SFP	1	2	-	-
1G combo (SFP/RJ-45)	-	-	2	2
Switching capacity (Gbps)	12	24	36	52
Total PoE power budget (watts)	60	130	250	375

* 1-year Professional pack license is bundled in NebulaFlex Pro switch.

Switches with NebulaFlex Pro Product Options

Model	GS2220-10	GS2220-10HP	GS2220-28	GS2220-28HP
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	24-port GbE L2 PoE Switch with GbE Uplink
Switch class	Layer 2 Plus	Layer 2 Plus	Layer 2 Plus	Layer 2 Plus
Total port count	10	10	28	28
100M/1G (RJ-45)	8	8	-	24
100M/1G (RJ-45, PoE+)	-	8	-	24
1G SFP	-	-	-	-
1G combo (SFP/RJ-45)	2	2	4	4
Switching capacity (Gbps)	20	20	56	56
Total PoE power budget (watts)	-	180	-	375

* 1-year Professional pack license is bundled in NebulaFlex Pro switch.

Switches with NebulaFlex Pro Product Options

Model	GS2220-50	GS2220-50HP
Product name	48-port GbE L2 Switch with GbE Uplink	48-port GbE L2 PoE Switch with GbE Uplink
Switch class	Layer 2 Plus	Layer 2 Plus
Total port count	50	50
100M/1G (RJ-45)	44	44
100M/1G (RJ-45, PoE+)	–	48
1G SFP	2	2
1G combo (SFP/RJ-45)	4	4
Switching capacity (Gbps)	100	100
Total PoE power budget (watts)	–	375

* 1-year Professional pack license is bundled in NebulaFlex Pro switch.

Switches with NebulaFlex Pro Product Options

Model	XGS2220-30	XGS2220-30HP	XGS2220-30F
Product name	24-port GbE L3 Access Switch with 6 10G Uplink	24-port GbE L3 Access PoE+ Switch with 6 10G Uplink (400 W)	24-port SFP L3 Access Switch with 6 10G Uplink
Switch class	Layer 3 Access	Layer 3 Access	Layer 3 Access
Total port count	30	30	30
100M/1G (RJ-45)	24	24	–
100M/1G (RJ-45, PoE+)	–	16	–
100M/1G (RJ-45, PoE++)	–	8	–
1G/2.5G/5G/10G (RJ-45)	2	2	2
1G/2.5G/5G/10G (RJ-45, PoE++)	–	2	–
1G SFP	–	–	24
1G/10G SFP+	4	4	4
Switching capacity (Gbps)	168	168	168
Total PoE power budget (watts)	–	400	–
Physical stacking	4	4	4

* 1-year Professional pack license is bundled in NebulaFlex Pro switch.

Switches with NebulaFlex Pro Product Options

Model	XGS2220-54	XGS2220-54HP	XGS2220-54FP
Product name	48-port GbE L3 Access Switch with 6 10G Uplink	48-port GbE L3 Access PoE+ Switch with 6 10G Uplink (600 W)	48-port GbE L3 Access PoE+ Switch with 6 10G Uplink (960 W)
Switch class	Layer 3 Access	Layer 3 Access	Layer 3 Access
Total port count	54	54	54
100M/1G (RJ-45)	48	48	48
100M/1G (RJ-45, PoE+)	-	40	40
100M/1G (RJ-45, PoE++)	-	8	8
100M/1G/2.5G/5G/10G (RJ-45)	2	2	2
100M/1G/2.5G/5G/10G (RJ-45, PoE++)	-	2	2
1G SFP	-	-	-
1G/10G SFP+	4	4	4
Switching capacity (Gbps)	261	261	261
Total PoE power budget (watts)	-	600	960
Physical stacking	4	4	4

* 1-year Professional pack license is bundled in NebulaFlex Pro switch.

Switches with NebulaFlex Pro Product Options

Model	XS3800-28
Product name	28-port 10GbE L3 Aggregation Switch
Switch class	Layer 3 Aggregation
Total port count	28
1G/2.5G/ 5G/10G (RJ-45)	4
10G Multi-Gig combo (1G/2.5G/5G/10G RJ-45/10G SFP+)	8
1G/10G SFP+	16
Switching capacity (Gbps)	560
Physical stacking	4

* 1-year Professional pack license is bundled in NebulaFlex Pro switch.

Switch Accessory with Nebula Monitor Functions

Model	PoE12-3PD
Product name	Cloud Outdoor/Indoor PoE Extender
Total port count	4
PoE in port	1 x 10/100/1000BASE-T Ethernet with IEEE 802.3bt PoE++
PoE out port	3 x 10/100/1000BASE-T Ethernet with IEEE 802.3at PoE+
Max. PoE power budget	45 W
Enclosure	IP55, plastic
Installation	Pole and Wall
Power input	802.3bt (60 W) PoE input only
Operating temperature	-20°C to 50°C/-4°F to 122°F
Ethernet port surge protection	6 KV
Ethernet port ESD protection (air/contact)	8 KV/6 KV

Firewall Series

Zyxel's firewalls are the newest addition to the Nebula cloud management family, and it further optimizes Nebula with holistic security and protection for SMB business networks. Zyxel's firewalls are capable of authenticating individuals and devices for all scenarios, especially for remote applications. This enables it to extend and secure your distributed network anywhere easily and affordably. Zyxel's firewalls 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.

The Nebula centralized management for USG FLEX H series now includes monitor device on/off status, firmware upgrades operation, access remote GUI (requires Nebula Pro Pack), and backup/restore of firewall configurations.

Highlights

- High assurance multi-layered protection includes IP/URL/DNS reputation filter, App Patrol, Web Filtering, Anti-malware and IPS
- Collaborating policy enforcement devices and eliminating repetitive logins with Collaborative Detection & Response
- Best practices for remote access with Secure WiFi and VPN management consolidates and ensures the same network control and security across multiple sites

- Level up security with two-factor authentication (2FA) network access let you quickly and easily verify users' identities with users accessing their networks through the edge devices
- Cloud sandboxing technology prevents zero-day attacks of all sorts
- Comprehensive summary reports for security events and network traffic through SecuReporter service
- Flexible to switch between on-premise and Nebula Cloud management without additional costs

Product Options

Model	ATP100	ATP200	ATP500	ATP700	ATP800
Product name	ATP Firewall	ATP Firewall	ATP Firewall	ATP Firewall	ATP Firewall
System Capacity & Performance[1]					
SPI firewall throughput[2] (Mbps)	1,000	2,000	2,600	6,000	8,000
VPN throughput[3] (Mbps)	300	500	900	1,200	1,500
IPS throughput[4] (Mbps)	600	1,200	1,700	2,200	2,700
Anti-Malware throughput[4] (Mbps)	380	630	900	1,600	2,000
UTM throughput[4] (Anti-Malware and IPS, Mbps)	380	600	890	1,500	1900
Max. TCP concurrent sessions[5]	300,000	600,000	1,000,000	1,600,000	2,000,000
Max. concurrent IPSec VPN tunnels[6]	40	100	300	500	1,000
Recommended gateway-to-gateway IPSec VPN tunnels	20	50	150	300	300
Concurrent SSL VPN users	30	60	150	150	500
VLAN interface	8	16	64	128	128
Security Service					
Sandboxing[7]	Yes	Yes	Yes	Yes	Yes
Web Filtering[7]	Yes	Yes	Yes	Yes	Yes
Application Patrol[7]	Yes	Yes	Yes	Yes	Yes
Anti-Malware[7]	Yes	Yes	Yes	Yes	Yes
IPS[7]	Yes	Yes	Yes	Yes	Yes
Reputation Filter[7]	Yes	Yes	Yes	Yes	Yes
SecuReporter[7]	Yes	Yes	Yes	Yes	Yes
Collaborative Detection & Response[7]	Yes	Yes	Yes	Yes	Yes
Device Insight	Yes	Yes	Yes	Yes	Yes
Security Profile Synchronize (SPS)[7]	Yes	Yes	Yes	Yes	Yes
Geo Enforcer	Yes	Yes	Yes	Yes	Yes
SSL (HTTPS) Inspection	Yes	Yes	Yes	Yes	Yes
2-Factor Authentication	Yes	Yes	Yes	Yes	Yes
VPN Features					
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
Microsoft Azure	Yes	Yes	Yes	Yes	Yes
Amazon VPC	Yes	Yes	Yes	Yes	Yes
Secure WiFi Service[7]					
Maximum Number of Tunnel-Mode AP	6	10	18	66	130
Maximum Number of Managed AP	24	40	72	264	520
Recommend max. AP in 1 AP Group	10	20	60	200	300

*1: Actual performance may vary depending on system configuration, network conditions, and activated applications.
*2: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).
*3: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets).
*4: 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.

*5: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.
*6: Including Gateway-to-Gateway and Client-to-Gateway.
*7: Enable or extend feature capacity with Zyxel service license.

Product Options

Model	USG FLEX 50	USG FLEX 50AX	USG FLEX 100	USG FLEX 100AX	USG FLEX 200	USG FLEX 500	USG FLEX 700
Product name	ZyWALL USG FLEX 50 Firewall	ZyWALL USG FLEX 50AX Firewall	ZyWALL USG FLEX 100 Firewall	ZyWALL USG FLEX 100AX Firewall	ZyWALL USG FLEX 200 Firewall	ZyWALL USG FLEX 500 Firewall	ZyWALL USG FLEX 700 Firewall
System Capacity & Performance*1							
SPI firewall throughput*2 (Mbps)	350	350	900	900	1,800	2,300	5,400
VPN throughput*3 (Mbps)	90	90	270	270	450	810	1,100
IPS throughput*4 (Mbps)	-	-	540	540	1,100	1,500	2,000
Anti-Malware throughput*4 (Mbps)	-	-	360	360	570	800	1,450
UTM throughput*4 (Anti-Malware & IPS, Mbps)	-	-	360	360	550	800	1,350
Max. TCP concurrent sessions*5	20,000	20,000	300,000	300,000	600,000	1,000,000	1,600,000
Max. concurrent IPSec VPN tunnels*6	20	20	50	50	100	300	500
Recommended gateway-to-gateway IPSec VPN tunnels	5	5	20	20	50	150	250
Concurrent SSL VPN users	15	15	30	30	60	150	150
VLAN interface	8	8	8	8	16	64	128
Wireless Specifications							
Standard compliance	-	802.11 ax/ac/n/g/b/a	-	802.11 ax/ac/n/g/b/a	-	-	-
Wireless frequency	-	2.4/5 GHz	-	2.4/5 GHz	-	-	-
Radio	-	2	-	2	-	-	-
SSID number	-	4	-	4	-	-	-
No. of antenna	-	2 detachable antennas	-	2 detachable antennas	-	-	-
Antenna gain	-	3 dbi @2.4 GHz/5 GHz	-	3 dbi @2.4 GHz/5 GHz	-	-	-
Data rate	-	2.4 GHz: up to 600 Mbps 5 GHz: up to 1200 Mbps	-	2.4 GHz: up to 600 Mbps 5 GHz: up to 1200 Mbps	-	-	-
Security Service							
Sandboxing*7	-	-	Yes	Yes	Yes	Yes	Yes
Web Filtering*7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Application Patrol*7	-	-	Yes	Yes	Yes	Yes	Yes
Anti-Malware*7	-	-	Yes	Yes	Yes	Yes	Yes
IPS*7	-	-	Yes	Yes	Yes	Yes	Yes
SecuReporter*7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Collaborative Detection & Response*7	-	-	Yes	Yes	Yes	Yes	Yes
Device Insight	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security Profile Synchronize (SPS)*7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geo Enforcer	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SSL (HTTPS) inspection	-	-	Yes	Yes	Yes	Yes	Yes
2-Factor Authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VPN Features							
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
Microsoft Azure	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Amazon VPC	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Secure WiFi Service*7							
Maximum Number of Tunnel-Mode AP	-	-	6	6	10	18	130
Maximum Number of Managed AP	-	-	24	24	40	72	520
Recommend max. AP in 1 AP Group	-	-	10	10	20	60	200

*1: Actual performance may vary depending on system configuration, network conditions, and activated applications.
*2: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).
*3: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets); IMIX: UDP throughput based on a combination of 64 byte, 512 byte and 1424 byte packet sizes.
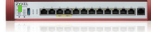
*4: Anti-malware (with Express Mode) and IPS throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.
*5: Maximum sessions measured using the industry standard IXIA IxLoad testing tool
*6: Including Gateway-to-Gateway and Client-to-Gateway.
*7: With Zyxel service license to enable or extend the feature capacity.

Product Options

Model	USG FLEX 100H/HP	USG FLEX 200H/HP	USG FLEX 500H	USG FLEX 700H
Product name	USG FLEX 100H/HP Firewall	USG FLEX 200H/HP Firewall	USG FLEX 500H Firewall	USG FLEX 700H Firewall
Hardware Specifications				
Interface/Ports	• 100H: 8 x 1GbE • 100HP: 7 x 1GbE 1 x 1GbE/PoE+ (802.3at, 30 W max.)	• 200H: 2 x 2.5mGig 6 x 1GbE • 200HP: 1 x 2.5mGig 1 x 2.5mGig/PoE+ (802.3at, 30 W max.) 6 x 1GbE	2 x 2.5mGig 2 x 2.5mGig/PoE+ (802.3at, total 30 W) 8 x 1GbE	2 x 2.5mGig 2 x 10mGig/PoE+ (802.3at, total 30 W) 8 x 1GbE 2 x 10G SFP+
USB 3.0 ports	1	1	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)	Yes (RJ-45)	Yes (RJ-45)
Rack-mountable	-	Yes	Yes	Yes
Fanless	Yes	Yes	-	-
System Capacity & Performance[1]				
SPI firewall throughput[2] (Mbps)	4,000	6,500	10,000	15,000
VPN throughput[3] (Mbps)	900	1,200	2,000	3,000
IPS throughput[4] (Mbps)	1,500	2,500	4,500	7,000
Anti-Malware throughput[4] (Mbps)	1,000	1,800	3,000	4,000
UTM throughput[4] (Anti-Malware & IPS, Mbps)	1,000	1,800	3,000	4,000
Max. TCP concurrent sessions[5]	300,000	600,000	1,000,000	2,000,000
Max. concurrent IPSec VPN tunnels[6]	50	100	300	1,000
Recommended gateway-to-gateway IPSec VPN tunnels	20	50	150	300
Concurrent SSL VPN users	25	50	150	500
VLAN interface	16	32	64	128
Security Service				
Sandboxing[7]	Yes	Yes	Yes	Yes
Web Filtering[7]	Yes	Yes	Yes	Yes
Application Patrol[7]	Yes	Yes	Yes	Yes
Anti-Malware[7]	Yes	Yes	Yes	Yes
IPS[7]	Yes	Yes	Yes	Yes
SecuReporter[7]	Yes	Yes	Yes	Yes
Collaborative Detection & Response[7]	Yes[8]	Yes[8]	Yes[8]	Yes[8]
Device Insight	Yes	Yes	Yes	Yes
Security Profile Synchronize (SPS)[7]	Yes	Yes	Yes	Yes
Geo Enforcer	Yes	Yes	Yes	Yes
SSL (HTTPS) Inspection	Yes	Yes	Yes	Yes
2-Factor Authentication	Yes[8]	Yes[8]	Yes[8]	Yes[8]
VPN Features				
VPN	IKEv2, IPSec, SSL	IKEv2, IPSec, SSL	IKEv2, IPSec, SSL	IKEv2, IPSec, SSL
Microsoft Azure	-	-	-	-
Amazon VPC	-	-	-	-
Secure WiFi Service[7]				
Maximum Number of Tunnel-Mode AP	Yes[8]	Yes[8]	Yes[8]	Yes[8]
Maximum Number of Managed AP	Yes[8]	Yes[8]	Yes[8]	Yes[8]
Recommend max. AP in 1 AP Group	Yes[8]	Yes[8]	Yes[8]	Yes[8]

*1: Actual performance may vary depending on system configuration, network conditions, and activated applications.
*2: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).
*3: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets).
*4: 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.

*5: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.
*6: Including Gateway-to-Gateway and Client-to-Gateway.
*7: With Zyxel service license to enable or extend the feature capacity.
*8: Features will be available later and are subject to changes.

Security Router Series

The USG LITE and SCR series are secure, cloud-managed routers that provide business-class firewall protection, VPN gateway capabilities, high-speed WiFi, and built-in security to safeguard against ransomware and other threats. These routers are ideal for teleworkers or small businesses/offices seeking easy-to-manage, subscription-free network security.

Powered by Zyxel Security Cloud, the USG LITE and SCR series feature best-in-class threat management capabilities. They detect malicious network activities, prevent ransomware and malware, block intrusions and exploits, and protect against threats from the dark web, ads, VPN proxies, mail fraud, and phishing. This offers small business owners comprehensive security without any subscription fees.

Highlights

- Subscription-free Security built-in as standard (inc. Ransomware/Malware Protection)
- The latest WiFi technology provides the fastest wireless connection speed possible.
- Self-configuring, plug-and-play deployment by Nebula Mobile app
- Central management via Zyxel Nebula Platform
- Auto VPN for easy deployment for site-to-site VPN Connectivity

- Up to 8 SSIDs with intergrade enterprise security and personal/guest access
- 2.5GbE ports provide premium wired connections
- Access security status and analytics through an informative dashboard
- Optional Elite Pack Licensing to increase functionality and security

Product Options

Model	USG LITE 60AX	SCR 50AXE
Product name	AX6000 WiFi 6 Security Router	AXE5400 WiFi 6E Security Router
Hardware		
Wireless standard	IEEE 802.11 ax/ac/n/a 5 GHz IEEE 802.11 ax/n/b/g 2.4 GHz	IEEE 802.11 ax 6 GHz IEEE 802.11 ax/ac/n/a 5 GHz IEEE 802.11 ax/n/b/g 2.4 GHz
CPU	Quad-core, 2.00 GHz	Dual-core, 1.00 GHz, Cortex A53
RAM/FLASH	1 GB/512 MB	1 GB/256 MB
Interface	1 x WAN: 2.5 GbE RJ-45 port 1 x LAN: 2.5 GbE RJ-45 port 4 x LAN: 1 GbE RJ-45 ports	1 x WAN: 1 GbE RJ-45 port 4 x LAN: 1 GbE RJ-45 ports
System Capacity & Performance[1]		
SPI firewall throughput LAN to WAN (Mbps)[2]	2,000	900
Throughput with threat intelligence on (Mbps)	2,000	900
VPN throughput[3]	300	55
Security Service		
Ransomware/Malware Protection	Yes	Yes
Intrusion Blocker	Yes	Yes
Dark Web Blocker	Yes	Yes
Stop Mail Fraud & Phishing	Yes	Yes
Block Ads	Yes	Yes
Block VPN Proxy	Yes	Yes
Web Filtering	Yes	Yes
Firewall	Yes	Yes
Country Restriction (GeoIP)	Yes	Yes
Allowlist/Blocklist	Yes	Yes
Identify Traffic (Applications & Clients)	Yes	Yes
Block Applications or Clients	Yes	Yes
Throttle Application Usage (BWM)	Yes	-
Security Event Analytics	Nebula Threat Report	Nebula Threat Report
VPN Features		
Site2site VPN	IPSec	IPSec
Remote VPN	Yes	-
Wireless Features		
Site-wide SSID provisioning from Nebula cloud	Yes	Yes
See wireless client info from the Nebula dashboard	Yes	Yes
WiFi encryption	WPA2-PSK, WPA3-PSK	WPA2-PSK, WPA3-PSK
SSID number	8	4
Auto/Fixed channel selection	Yes	Yes
MU-MIMO/Explicit beamforming	Yes	Yes
Networking		
WAN type	DHCP/Static IP/PPPoE	DHCP/Static IP/PPPoE
Networking features	Reserve IP (static DHCP) Block clients NAT - Virtual server DHCP server and DHCP relay Dynamic DNS (DDNS) Static route Guest Network VLAN Segmentation	Port forwarding Guest VLAN DHCP IP/MAC binding MAC filter
IPTV/MOD support	Yes	-
Management		
Site-wide SSID management	Yes	Yes
Multi-site management	Yes	Yes
Topology	Yes	Yes
Diagnostics	Yes	Yes
Remote support	Yes	Yes

*1: Actual performance may vary depending on system configuration, network conditions, and activated applications.
*2: Maximum throughput is measured using FTP with a 2 GB file and 1,460-byte packets across multiple sessions.
*3: VPN throughput is measured based on RFC 2544 using 1,424-byte UDP packets

5G/4G Router Series

Zyxel provides a broad portfolio of 5G NR and 4G LTE products, catering to diverse deployment scenarios and network infrastructures, freeing users from the constraints of wired installations. Our outdoor routers leverage cutting-edge wireless technology, enabling seamless internet connectivity even in harsh environments. Whether as a backup or primary connection, our indoor routers offer reliable 5G/4G connectivity for businesses. Experience superior mobile networking in any situation and effortlessly expand your business with our wireless broadband solutions.

Highlights

- 5G NR downlink up to 5 Gbps* (FWA710, FWA510, FWA505, NR5101)
- IP68-rated weather protection (FWA710, LTE7461-M602)
- Deploys WiFi 6 AX3600 (FWA510), AX1800 (FWA505, NR5101)
- Supports SA/NSA mode and network slicing function (FWA710, FWA510, FWA505, NR5101)

- Easily provision and manage networks in real-time from anywhere at any time, all centrally and seamlessly
- Free from wired connection
- Failover function (FWA510, FWA505, NR5101, LTE3301-PLUS)

* The maximum data rate is a theoretical value. The actual data rate depends on the operator and network environment

Product Options

Model				Nebula FWA710	Nebula FWA510	Nebula FWA505
Product Name				Nebula 5G NR Outdoor Router	Nebula 5G NR Indoor Router	Nebula 5G NR Indoor Router
Download Data Rates				5 Gbps*	5 Gbps*	5 Gbps*
	Band	**Freq (MHz)**	**Duplex**			
5G	1	2100	FDD	Yes	Yes	Yes
	3	1800	FDD	Yes	Yes	Yes
	5	850	FDD	Yes	Yes	Yes
	7	2600	FDD	Yes	Yes	Yes
	8	900	FDD	Yes	Yes	Yes
	20	800	FDD	Yes	Yes	Yes
	28	700	FDD	Yes	Yes	Yes
	38	2600	TDD	Yes	Yes	Yes
	40	2300	TDD	Yes	Yes	Yes
	41	2500	TDD	Yes	Yes	Yes
	77	3700	TDD	Yes	Yes	Yes
	78	3500	TDD	Yes	Yes	Yes
	DL 4x4 MIMO			Yes (n5/8/20/28 supports 2x2 only)	Yes (n5/8/20/28 supports 2x2 only)	Yes (n1/n3/n7/n38/n40/n41/n77/n78)
	DL 2x2 MIMO			-	-	(n5/n8/n20/n28)
LTE	1	2100	FDD	Yes	Yes	Yes
	2	1900	FDD	-	-	-
	3	1800	FDD	Yes	Yes	Yes
	4	1700	FDD	-	-	-
	5	850	FDD	Yes	Yes	Yes
	7	2600	FDD	Yes	Yes	Yes
	8	900	FDD	Yes	Yes	Yes
	12	700a	FDD	-	-	-
	13	700c	FDD	-	-	-
	20	800	FDD	Yes	Yes	Yes
	25	1900+	FDD	-	-	-
	26	850+	FDD	-	-	-
	28	700	FDD	Yes	Yes	Yes
	29	700d	FDD	-	-	-
	38	2600	FDD	Yes	Yes	Yes
	40	2300	TDD	Yes	Yes	Yes
	41	2500	TDD	Yes	Yes	Yes
	42	3500	TDD	Yes	Yes	Yes
	43	3700	TDD	Yes	Yes	Yes
	66	1700	FDD	-	-	Yes
	DL CA			Yes	Yes	Yes
	UL CA			Yes	Yes	Yes
	DL 4x4 MIMO			B1/B3/B7/B32/B38/B40/B41/B42	B1/B3/B7/B32/B38/B40/B41/B42	B1/B3/B7/B32/B38/B40/B41/B42
	DL 2x2 MIMO			Yes	Yes	Yes
	DL 256-QAM			Yes	Yes	256-QAM/256-QAM
	DL 64-QAM			Yes	Yes	Yes
	UL 64-QAM			Yes (supports 256QAM)	Yes (supports 256QAM)	Yes (supports 256QAM)
	UL 16-QAM			Yes	Yes	Yes
	MIMO (UL/DL)			2x2/4x4	2x2/4x4	2x2/4x4
3G	1	2100	FDD	Yes	Yes	Yes
	3	1800	FDD	Yes	Yes	Yes
	5	2100	FDD	Yes	Yes	Yes
	8	900	FDD	Yes	Yes	Yes
WiFi	**802.11n 2x2**			Yes**	Yes	Yes
	802.11ac 2x2			-	Yes	Yes
	802.11ax 2x2			-	Yes	Yes
	802.11ax 4x4			-	Yes	-
	Number of users			-	Up to 64	Up to 64
Ethernet	**GbE LAN**			2.5GbE x1 (PoE)	2.5GbE x2	1GbE x2
	WAN			-	2.5GbE x1 (reuse LAN 1)	x1 (reuse LAN 1)
SIM slot	**Micro/Nano SIM slot**			Micro SIM	Micro SIM	Micro SIM
Power	**DC input**			PoE 48 V	DC 12 V	DC 12 V
Ingress protection	**Network processor**			IP68	-	-

* The maximum data rate is a theoretical value. The actual data rate depends on the operator.
** WiFi is used for management purpose only.

Model			Nebula NR5101	Nebula LTE7461	Nebula LTE3301-PLUS
Product Name			Nebula 5G NR Indoor Router	Nebula 4G LTE-A Outdoor Router	Nebula 4G LTE-A Indoor Router
Download Data Rates			5 Gbps*	300 Mbps*	300 Mbps*
	Band	**Freq (MHz)**	**Duplex**		
5G	1	2100	FDD	Yes	-	-
	3	1800	FDD	Yes	-	-
	5	850	FDD	Yes	-	-
	7	2600	FDD	Yes	-	-
	8	900	FDD	Yes	-	-
	20	800	FDD	Yes	-	-
	28	700	FDD	Yes	-	-
	38	2600	TDD	Yes	-	-
	40	2300	TDD	Yes	-	-
	41	2500	TDD	Yes	-	-
	77	3700	TDD	Yes	-	-
	78	3500	TDD	Yes	-	-
	DL 4x4 MIMO			Yes (n5/8/20/28 supports 2x2 only)	-	-
	DL 2x2 MIMO			-	Yes	Yes
LTE	1	2100	FDD	Yes	-	Yes
	2	1900	FDD	-	Yes	-
	3	1800	FDD	Yes	-	Yes
	4	1700	FDD	-	Yes	-
	5	850	FDD	Yes	Yes	Yes
	7	2600	FDD	Yes	Yes	Yes
	8	900	FDD	Yes	-	Yes
	12	700a	FDD	-	Yes	-
	13	700c	FDD	-	Yes	-
	20	800	FDD	Yes	-	Yes
	25	1900+	FDD	-	Yes	-
	26	850+	FDD	-	Yes	-
	28	700	FDD	Yes	-	Yes
	29	700d	FDD	-	Yes	-
	38	2600	FDD	Yes	-	-
	40	2300	TDD	Yes	-	Yes
	41	2500	TDD	Yes	-	Yes
	42	3500	TDD	Yes	-	-
	43	3700	TDD	-	-	-
	66	1700	FDD	-	Yes	-
	DL CA			Yes	B2+B2/B5/B12/B13/B26/B29; B4+B4/B5/B12/B13/B26/B29; B7+B5/B7/B12/B13/B26/B29; B25+B5/B12/B13/B25/B26/B29; B66+B5/B12/B13/B26/B29/B66 (B29 is only for secondary component carrier)	B1+B1/B5/B8/B20/B28 B3+B3/B5/B7/B8/B20/B28 B7+B5/B7/B8/B20/B28 B38+B38; B40+B40; B41+B41
	UL CA			Yes	-	-
	DL 4x4 MIMO			B1/B3/B7/B32/B38/B40/B41/B42	-	-
	DL 2x2 MIMO			Yes	Yes	Yes
	DL 256-QAM			Yes	-	-
	DL 64-QAM			Yes	Yes	Yes
	UL 64-QAM			Yes (supports 256QAM)	-	-
	UL 16-QAM			Yes	Yes	-
	MIMO (UL/DL)			2x2/4x4	-	2x2
3G	1	2100	FDD	Yes	-	Yes
	3	1800	FDD	Yes	-	-
	5	2100	FDD	Yes	-	Yes
	8	900	FDD	Yes	-	Yes
WiFi	802.11n 2x2			Yes	Yes**	Yes
	802.11ac 2x2			Yes	-	Yes
	802.11ax 2x2			Yes	-	-
	802.11ax 4x4			-	-	-
	Number of users			Up to 64	-	Up to 32
Ethernet	LAN			1GbE x2	1GbE x1 (PoE)	1GbE x4
	WAN			1GbE x1 (reuse LAN 1)	-	1GbE x1 (reuse LAN 1)
SIM slot	Micro/Nano SIM slot			Micro SIM	Micro SIM	Micro SIM
Power	DC input			DC 12 V	PoE 48 V	DC 12 V
Ingress protection				-	IP68	-

* The maximum data rate is a theoretical value. The actual data rate depends on the operator.
** WiFi is used for management purpose only.

License information

Per-device License Model

Nebula's per-device licensing allows IT teams to maintain various expiration dates across devices, sites or organizations. Each Organization can have a single shared expiration, which will be manageable through our new Circle license management platform for channel partners, namely Subscription Alignment.

Flexible Management License Subscription

Nebula Control Center (NCC) offers multiple subscription options to meet customers' needs. Whether you are looking for a complimentary option giving you some peace of mind at no extra cost, more control over your network updates and visibility, 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.

Nebula MSP Pack further provides cross-organization management functionality, helping MSP streamlines multi-tenant, multi-site, multi-level network deployment and management, and deliver superior service to their customers.

MSP Pack

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

- MSP portal
- Admins & teams
- Cross-org synchronization
- Backup & restore

- Alert templates
- Firmware upgrades
- MSP branding

Base Pack

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

Plus Pack

An add-on feature set/service that includes all the features from free Nebula Base Pack as well as the most frequently requested advanced features to enable additional control of network updates and visibility

Pro Pack

A full feature set/service that includes all the features from Nebula Plus Pack as well as additional advanced functionality and management features to enable maximum manageability of NCC for devices, sites, and organizations

NCC Organization Management License Pack Feature Table

M	R	F	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 (SSID/PoE/Firewall Rules)	●	●	●
			✓	✓	MAC-Based and 802.1X Authentication	●	●	●
		✓		✓	Captive Portal Authentication	●	●	●
●	✓	✓	✓	✓	Email Users and Alert Notifications	●	●	●
●	✓	✓	✓	✓	Exempted from Cloud Saving Mode		●	●
●	✓	✓	✓	✓	Advanced Firmware Scheduling (Org/Site/Device)		●	●
●		✓	✓	✓	Advanced Reporting Features (including Export/Email Reports/Scheduled Reports – Custom Logo)		●	●
●	✓	✓	✓	✓	Automatic Network Topology (Visual and Actionable)		●	●
				✓	WiFi Vouchers (Auto-Gen Vouchers for Access/Authentication with User Defined Time Limits)		●	●
			✓		Advanced Switch Control (Vendor Based VLAN, Auto PD Recovery)		●	●
●	✓	✓	✓	✓	Organizational User Audit/Change Logs			●

M = Management Feature (NCC)
R = 5G/4G Mobile Router Feature
F = Firewall Feature
S = Switch Feature
W = Wireless Feature

M	R	F	S	W	Feature Name	Base Pack	Plus Pack	Pro Pack
●			✓	✓	Organizational-wide Configuration Sync, Clone and Template			●
●	✓	✓	✓	✓	Configuration Backup/Restore			●
●	✓	✓	✓	✓	Remote CLI Access/Configurator			●
●	✓	✓	✓	✓	Priority Nebula Support Request (Direct NCC incl. Web Chat)			●
●	✓	✓	✓	✓	Open API for Ecosystem Partner Application Integration			●
●		✓		✓	Advanced Client Connection Monitoring & Trouble Shooting (WiFi Aid, Connection Log)			●
				✓	Advanced WiFi AAA Security (Dynamic Personal PSK, Dynamic VLAN Assignment via NCAS, 3rd Party AAA Integration incl. Captive Portal MAC Auth. Fallback)			●
				✓	Advanced WiFi Control & Management (RSSI Threshold Setting per AP, Export NAT AP Traffic Log, Programmable SSID & PSK)			●
●				✓	Advanced Client Connection Monitoring & Trouble Shooting (WiFi Aid, Connection Log)			●
				✓	WiFi Health Monitoring and Report (AI/Machine Learning for Wireless)			●
			✓		Switch IP Interfacing & Static Routing			●
			✓		Switch Stacking (Physical Stacking)			●
			✓		Switch Surveillance Monitoring			●
			✓		Switch IPTV Feature Set (Advanced IGMP, IPTV Report w. AI/ML Alert)			●
	✓				Zyxel CNM SecuReporter Traffic Log Archiving			●
		✓			Firewall 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)			●
	✓				Client Device Heartbeat (LAN Device Alive Monitoring)			●

M = Management Feature (NCC)
R = 5G/4G Mobile Router Feature
F = Firewall Feature
S = Switch Feature
W = Wireless Feature

Flexible Security License Subscription

With the addition of ATP, USG FLEX and USG FLEX H series firewall to the Nebula cloud management family, Nebula security solution further expands its offerings with holistic security and protection for SMB business networks.

Furthermore, the new cloud-based access point security service — Connect & Protect (CNP) provides a value-added protection to ensure a secure and smooth small business WiFi.

Gold Security Pack

A complete feature set for ATP, USG FLEX and USG FLEX H series to perfectly fit SMBs' requirements as well as to enable the maximum performance and security with an all-in-one appliance. This pack not only supports all Zyxel security services but also Nebula Professional Pack.

Entry Defense Pack

Entry Defense Pack offers fundamental protection for USG FLEX H series. It features Reputation Filter to block cyberthreats, SecuReporter for clear visual insights into your network's security, and Priority Support for expert assistance when you need it most.

UTM Security Pack

All-in-one UTM security service license add-on(s) to USG FLEX Series Firewall, which includes Web Filtering, IPS, Application Patrol, Anti-Malware, SecuReporter, Collaborative Detection & Response, and Security Profile Sync.

Content Filter Pack

Three-in-one security service license add-on(s) to USG FLEX 50, which includes Web Filtering, SecuReporter, and Security Profile Sync.

Elite Pack

Security Router license to provide access to full Web Filtering, categories, allowing for tracking and regulating website access based on content. It also upgrades Ransomware Prevention Premium for real-time threat intelligence and unlocks advanced Nebula Pro features.

Secure WiFi

"An a la carte" USG FLEX license to manage remote access points (RAP) with the support of secured tunnel to extend corporate network to remote workplace.

Connect & Protect (CNP)

Cloud-mode access point license to provide Threat Protection & App Visibility with throttling to ensure a secure and smooth wireless network.

Service related information

30-day Free Trial

Nebula offers the flexibility, on a per organization basis, to users for them to decide which license(s) they want to trial and when they want to trial according to their needs. For both new and existing organizations, users can freely choose the license(s) they want to trial at their preferable time as long as they didn't use the license(s) before.
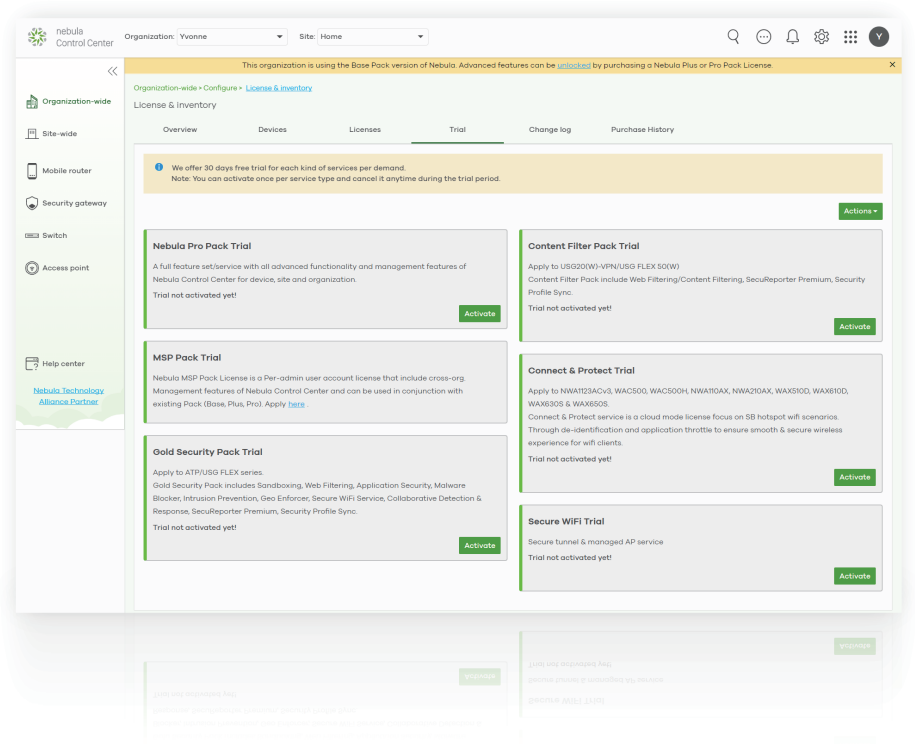
Nebula Community

The Nebula community 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 everything the Nebula products can do. Visit Nebula community to explore more.

URL: https://community.zyxel.com/en/categories/nebula

Support Request

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, and will be reviewed and followed by a dedicated group until the proper resolutions are found.

* Available for Professional Pack users.

ZYXEL
N E T W O R K S

Corporate Headquarters

Zyxel Networks Corp.
Tel: +886-3-578-3942
Fax: +886-3-578-2439
Email: sales@zyxel.com.tw
www.zyxel.com

Europe

Zyxel Belarus
Tel: +375 25 604 3739
Email: info@zyxel.by
www.zyxel.by

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

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

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

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

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 Russia
Tel: +7 499 705 6106
Email: info@zyxel.ru
www.zyxel.ru

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

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

Asia

**Zyxel China (Shanghai)
China Headquarters**
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: apac.sales@zyxel.com.tw

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
North America Headquarters**
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/

For more product information, visit us on the web at www.zyxel.com

5-000-00024008   09/24