ZYXEL

Your Networking Ally

Security

Quick Sales Guide

Preparing for the next wave of cyberattacks

How Safe is Your Network?

Today, network attacks have become more sophisticated and targeted. Social networking applications have also opened up more channels for data breach than ever before. With the rise of BYOD (Bring Your Own Device), threats to business networks come from both outside and inside. It is now increasingly challenging for businesses to keep up with the changing threat landscape; and this is especially true for small-and medium-sized businesses, which do not have the staff and resources of larger corporations. Small-and medium-sized businesses need a solution that is efficient, inexpensive and provides an array of techniques to combat sophisticated network attacks.

Network Security that Works

Businesses deploy network security appliances for two main purposes: to protect company resources against a multitude of threats and to enable secured communications between multiple locations via Virtual Private Network (VPN). For many years, Zyxel's highly-acclaimed Unified Security Gateway (USG) Series has helped businesses satisfy all these demands. Fortifying businesses against a new generation of threats, Zyxel is offering a new line of ZyWALL ATP Firewall Series and Nebula SD-WAN solution that deliver unmatched capacity, performance and protection for businesses of all sizes.

Zyxel Security Portfolio

Business Scale	Small Businesses	Small and Medium-sized Businesses	Medium-sized Businesses
Model Series			
ATP	ATP200	ATP500	ATP800
USG	USG60 (W) USG40 (W)	USG310 USG210 USG110	USG1900 USG1100
VPN	VPN2S	ZyWALL 310 ZyWALL 110	ZyWALL 1100
	USG20W-VPN USG20-VPN VPN50	VPN300 VPN100	
NSG	NSG50	NSG200 NSG100	NSG300
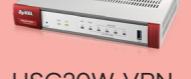
ZyWALL ATP Next Generation Firewall

Timely Defense for Ultimate Protection

Zyxel security solutions

ATP Firewalls

The ZyWALL ATP Firewall Series is empowered with smart cloud intelligence giving seamless protection against all those Advanced Persistent Threats, achieving ultimate in-depth defense of future unknown attacks.

VPN Firewalls

The ZyWALL VPN Firewall Series complies with GDPR regulations and features a robust VPN gateway with the ability to access enterprise information across the corporate sites and connect business partners, cloud providers as well as telecommuters.

UTM Firewalls

Zyxel's UTM Firewall Series offers businesses with robust, user-aware security all in one package. It offers multithreat protection and effective policy enforcement through a wide range of mechanisms. The all-in-one design helps businesses to minimize management efforts and total cost of ownership (TCO) while maximizing network security.

Nebula SD-WAN

Combining the flexibility of cloud-based technology and its high-speed deployment benefit, the Nebula SD-WAN solution helps IT administrators to simplify branch network deployment. With the variety of optimization design for Internet connectivity and applications, the Nebula SD-WAN also enables the ZyWALL VPN Series to support online application growth, efficiency WAN bandwidth usage and increase network agility.

Nebula Cloud Managed Security Gateway

Built with remote management and ironclad security for organizations with increasing distributed sites, the Zyxel Nebula Cloud Managed Security Gateway Series provides extensive protection every small- to mid-size business would need.

Security Services and Licenses

Flexible licensing options for your security devices. Choose the perfect one that best suit your business needs. Our security licenses include, but not limited to: security, connectivity, management & reporting and vertical solution licenses.

More Security

With SD-WAN, businesses receive end-to-end encryption with endpoint authentication for all network-wide. The more in-depth traffic data also empowers administrators are to identify and thwart cyberattacks more rapidly.

Less Work

SD-WAN's unified infrastructure allows policies and quality of service standards to be centrally managed, eliminating the need for tedious, time-consuming manual configuration.

Less Expenditure

It might seem too good to be true, but SD-WAN can also reduce CAPEX by optimizing the use of less expensive resources such as cable, fiber, and mobile connections. It's especially affordable when contrasted with the MPLS alternative.

SD-WAN

Security Services and Licenses

Services	Key Features
Security Service	
Anti-Virus/Malware	Scan files for viruses, trojans, worms, malwares before they reach your network. • Stream-based scan technology without file size limitation • Daily data feed of top-ranked threats
Anti-Spam/Email Security	Fast detect with cloud-based database/mail fingerprints to block spam/phising mail with malicious contents • IP reputation filter provides low latency reacrion • Support black/white listing for custom policies • Cloud-based database provide real-time protection
Content Filtering	Cloud-based real-time access control for inappropriate, unproductive, illegal and malicious websites • Categorized website access management for increased efficiency • Granular policies controlled by IP addres, user, group, or schedule
Intrusion Detection and Prevention (IDP)	Deep-packet inspection across all ports and protocols at gateway to against known attacks from network • Shields vulnerabilities before they can be exploited and eliminates the operational pains of emergency patching • Customized signature support to create your own rules • Constant signature auto-updates
Application Patrol	Automatically categorize and manage the network applications usage • Graunlar policies control by IP addres, user, group, or schedule • Profile based policy to ensure network quality and easy manage bussiness rule
Geo Enforcer	Manage network traffic by mapping IP address to geographical regions to prevent fraud or cyber attacks • Geographical visability for traffic statictics and logs • IPv6 address support • Automatic IP/geography database update
Sandboxing	Cloud-based sandbox technology against unkown threats • Comprehensive inspection for a wide range file types • Cloud-based sandbox provide instant protection without needing a dedicated hardware or software upgrade
Botnet Filter	Block botnet infection and prevent drive-by download from infected websites • IP/URL feeds to detect/block botnet commands and control activities • Cloud-based URL feeds to block access to anomalous websites

Services	Key Features
Vertical Solutions	
Hotspot Management	• Authentication with Wall Garden • Advertisement and SMS billing & free time service accounting for guest • Support SP350E printer manager support purple WiFi and third-party social log in • Billing replenishment
AP Controller	• Integrated AP controller as central management to provide flexible deployment options • AP auto discovery and provisioning • AP forwarding compatibility
Device High Availability Pro	• Device failure detection and notification • Configuration auto-sync and link monitoring • Smart handover through dedicated Heartbeat Link • NAT/Firewall/VPN Sessions synchronization
VPN Client Software	
SecuExtender Software	• Providing solutions of both SSL VPN and IPSec VPN remote access • Enhanced layered security incorporating Zyxel security appliances • Easy and intelligent installation
Single Sign-On Service	
SSO Agent	• Simplified single sign in to multiple resources • Improved user experience without repetitive logging in between various web browsers • Secure communication via shared key encryption for data transmission protection • Login mechanism works with any protocol, not just HTTP
Management & Analytics	
Cloud CNM SecuManager	• Perform management and backup configuration from a centralized center • Apply manual or scheduled firmware upgrades to all managed gateways • VPN provisioning with different scenarios • Centralized display and management of event/alarm notifications • Manage a wide set of system restore/backup and monitoring
Cloud CNM SecuReporter	• Cloud-based real-time monitoring and alerts • Effective event correlation and user behavior analytics • Intuitive dashboard and customizable report
Nebula SD-WAN	
Nebula SD-WAN	• Advanced WAN technology boosts throughput performance • Improve network quality without extra bandwidth investment • Quick installation, remote control, and centralized monitoring

Security Feature Matrix

Compatible Security Appliances	Security Feature							
	Anti-Virus/Malware	Anti-Spam/ Email Security	Content Filtering	Intrusion Detection and Prevention (IDP)	Application Patrol	Geo Enforcer	Sandboxing	Botnet Filter
	Scan files at the gateway for viruses and other threats	Fast detection to block spam/phising mail with malicious contents	Improve security by blocking access to malicious or risky web sites	Deep-packet inspection against known attacks from network	Automatically categorize and manage the network application usage	Manage network traffic by mapping IP address to geographical regions	Cloud-based sandbox technology against unkown threats	Block botnet infection and prevent drive-by download from infected websites
ATP200	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ATP500	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ATP800	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
USG40/40W/60/60W	Yes	Yes	Yes	Yes	Yes	-	-	-
USG110/210/310	Yes	Yes	Yes	Yes	Yes	-	-	-
USG1100/1900	Yes	Yes	Yes	Yes	Yes	-	-	-
VPN2S	-	-	Yes	-	-	-	-	-
VPN50	-	-	Yes	-	-	Yes	-	-
VPN100	-	-	Yes	-	-	Yes	-	-
VPN300	-	-	Yes	-	-	Yes	-	-
ZyWALL110/310/1100	Yes	Yes	Yes	Yes	Yes	-	-	-
USG20 (W)-VPN	-	Yes	Yes	-	-	-	-	-
NSG50/100/200/300	Yes	-	Yes	Yes	Yes	-	-	-

Compatible Security Appliances	Vertical Solutions			VPN Client Software	Single Sign-On Service	Management & Analytics		Nebula SD-WAN
	Hotspot Management	AP Controller	Device High Availability Pro	SecuExtender Software	SSO Agent	Cloud CNM SecuManager	Cloud CNM SecuReporter	Nebula SD-WAN
	Various Network Access Control	AP auto discovery and provisioning	Device failure detection and failover	SSL VPN and IPSec VPN remote access tool	Simplified single sign in to multiple resources	Central and scalable management system	Cloud-based intelligent analytics and report service	Simplify the delivery of WAN services across the organization
ATP200	-	Yes	-	Yes	Yes	Yes	Yes	-
ATP500	-	Yes	Yes	Yes	Yes	Yes	Yes	-
ATP800	-	Yes	Yes	Yes	Yes	Yes	Yes	-
USG40/40W/60/60W	-	Yes	-	Yes	Yes	Yes	Yes	-
USG110/210/310	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
USG1100/1900	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
VPN2S	-	-	-	Yes (SecuExtender IPSecVPN_Windows)	-	-	-	-
VPN50	-	Yes	-	Yes	Yes	Yes	Yes	Yes*
VPN100	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes*
VPN300	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes*
ZyWALL110/310/1100	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
USG20 (W)-VPN	-	-	-	Yes	Yes	Yes	Yes	-
NSG50/100/200/300	-	-	-	Yes	-	-	-	-

* After upgrading firmware to SD-OS v10.01 or after

Specifications

ZyWALL ATP Firewalls

Model	ATP200	ATP500	ATP800
Hardware Specifications			
10/100/1000 Mbps RJ-45 ports	4 x LAN/DMZ, 2 x WAN, 1 x SFP	7 (Configurable), 1 x SFP	12 (Configurable), 2 x SFP (Configurable)
USB3.0 ports	2	2	2
Console port	Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable	Yes	Yes	Yes
Fanless	Yes	-	-
System Capacity & Performance[*1]			
SPI firewall throughput (Mbps)[*2]	2,000	2,600	8,000
VPN throughput (Mbps)[*3]	500	900	1,500
IDP throughput (Mbps)[*4]	1,200	1,700	2,700
AV throughput (Mbps)[*4]	450	700	1,200
UTM throughput (AV and IDP)[*4]	450	700	1,200
Max. TCP concurrent sessions[*5]	600,000	1,000,000	2,000,000
Max. concurrent IPSec VPN tunnels[*5]	40	200	1,000
Concurrent SSL VPN users	10	50	100
VLAN interface	16	64	128
WLAN Management			
Managed AP number (1 Year bundled)[*6]	18	34	130
Security Service			
Anti-Malware	Yes	Yes	Yes
Intrusion Detection and Prevention (IDP) & Application Patrol	Yes	Yes	Yes
Email Security	Yes	Yes	Yes
Application Security	Yes	Yes	Yes
Sandboxing	Yes	Yes	Yes
Web Security	Yes	Yes	Yes
Key Features			
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
SSL (HTTPS) Inspection	Yes	Yes	Yes
2-Factor Authentication	Yes	Yes	Yes
Amazon VPC	Yes	Yes	Yes
Device HA Pro	-	Yes	Yes
Cloud CNM SecuReporter	Yes	Yes	Yes
Power Requirements			
Power input	12 V DC, 2.5 A max.	12 V DC, 4.17 A	100-240 V AC, 50/60 Hz, 2.5 A max.
Max. power consumption (watt)	13.3	24.1	46
Heat dissipation (BTU/hr)	45.38	82.23	120.1
Physical Specifications			
Item — Dimensions (WxDxH)(mm/in.)	272 x 187 x 36/10.7 x 7.36 x 1.42	300 x 188 x 44/11.81 x 7.4 x 1.73	430 x 250 x 44/16.93 x 9.84 x 1.73
Item — Weight (kg/lb.)	1.4/3.09	1.65/3.64	3.3/7.28
Packing — Dimensions (WxDxH)(mm/in.)	427 x 247 x 73/16.81 x 9.72 x 2.87	351 x 152 x 245/13.82 x 5.98 x 9.65	519 x 392 x 163/20.43 x 15.43 x 6.42
Packing — Weight (kg/lb.)	2.23 (W/O bracket) 2.42 (W/ bracket)	2.83/6.24	4.8/10.58
Included accessories	• Power adapter • Rack mounting kit (optional, by regions)	• Power adapter • Power cord • Rack mounting kit	• Power cord • Rack mounting kit
Environmental Specifications			
Operating environment — Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
Operating environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
Storage environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	529,688.2	529,688.2	947,736
Acoustic noise	-	24.5 dBA on < 25°C operating temperature, 41.5 dBA on full FAN speed.	25.3 dBA on < 25°C operating temperature, 46.2 dBA on full FAN speed.
Certifications			
EMC	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:
*: This matrix with firmware ZLD4.32 or later.
*1: Actual performance may vary depending on 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: AV and IDP 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: After Gold Pack has expired, it will support only 2 APs.

ZyWALL UTM Firewalls

Model	USG40	USG40W	USG60	USG60W
Hardware Specifications				
Interfaces	3 x LAN/DMZ, 1 x WAN, 1 x OPT	3 x LAN/DMZ, 1 x WAN, 1 x OPT	4 x LAN/DMZ, 2 x WAN	4 x LAN/DMZ, 2 x WAN
USB ports	1	1	2	2
Console port	Yes (RJ-45)	Yes (RJ-45)	Yes (DB9)	Yes (DB9)
Rack-mountable	-	-	Yes	Yes
Fanless	Yes	Yes	Yes	Yes
System Capacity & Performance[*1]				
SPI firewall throughput (Mbps)[*2]	400	400	1000	1000
VPN throughput (Mbps)[*3]	100	100	180	180
IDP throughput (Mbps)[*4]	95	95	150	150
AV throughput (Mbps)[*4]	50	50	90	90
UTM throughput (AV and IDP)[*4]	50	50	90	90
Max. TCP concurrent sessions[*5]	50,000	50,000	100,000	100,000
Max. concurrent IPSec VPN tunnels[*6]	20	20	40	40
Concurrent SSL VPN users (default/max.)[*7]	5/15	5/15	5/20	5/20
VLAN interface	8	8	16	16
Concurrent devices logins (default/max.)[*7][*8]	64	64	128	128
WLAN Management				
Managed AP number (default/max.)[*7]	2/18	2/18	2/18	2/18
Security Service				
Anti-virus (AV)[*7]	Yes	Yes	Yes	Yes
Intrusion detection and prevention (IDP) & Application Patrol[*7]	Yes	Yes	Yes	Yes
Anti-spam[*7]	Yes	Yes	Yes	Yes
Content filtering (CF 2.0)[*7][*9]	Yes	Yes	Yes	Yes
Key Features				
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
SSL (HTTPS) inspection	-	-	-	-
EZ Mode	Yes	Yes	Yes	Yes
Hotspot Management[*7]	-	-	-	-
Ticket printer support[*10]/ Support Q'ty (max.)	-	-	-	-
Amazon VPC	Yes	Yes	Yes	Yes
Facebook WiFi	Yes	Yes	Yes	Yes
Device HA Pro	-	-	-	-
Link Aggregation (LAG)	-	-	-	-
2-Factor Authentication	Yes	Yes	Yes	Yes
Cloud CNM SecuReporter	Yes	Yes	Yes	Yes
Power Requirements				
Power input	12 V DC, 2.0 A max.	12 V DC, 2.0 A max.	12 V DC, 2.5 A max.	12 V DC, 2.5 A max.
Max. power consumption (watt)	14	17	19	28
Heat dissipation (BTU/hr)	47.77	58.01	64.83	95.54
Physical Specifications				
Item — Dimensions (WxDxH)(mm/in.)	216 x 143 x 33/ 8.50 x 5.63 x 1.30	216 x 143 x 33/ 8.50 x 5.63 x 1.30	242 x 175 x 36/ 9.53 x 6.89 x 1.42	272 x 187 x 36/ 10.7 x 7.36 x 1.42
Item — Weight (kg/lb.)	0.89/1.96	0.91/2	1.25/2.76	1.46/3.23
Packing — Dimensions (WxDxH)(mm/in.)	381 x 261 x 79/ 15.00 x 8.50 x 3.11	381 x 261 x 79/ 15.00 x 8.50 x 3.11	394 x 240 x 101/ 15.51 x 9.45 x 3.98	427 x 247x 73/ 16.81 x9.72 x 2.87
Packing — Weight (kg/lb.)	1.57/3.46	1.63/3.59	2.25/4.96	2.23 (W/O bracket) 2.42 (W/ bracket)
Included accessories	• Power adapter • DB9- RJ-45 for console connection	• Power adapter • DB9 - RJ-45 cable for console connection • Antenna	• Power adapter • Rack mounting kit	• Power adapter • Rack mounting kit (optional, by regions) • Antenna
Environmental Specifications				
Operating environment — Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
Operating environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
Storage environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	414329.4	386931.7	815463.9	497644
Certifications				
EMC	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:
*: This matrix with firmware ZLD4.32 or later.
*1: Actual performance may vary depending on 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: AV and IDP 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: This is the recommend maximum number of concurrent logged-in devices.
*9: SafeSearch function in CF2.0 need to enable SSL inspection firstly and not for small business models.
*10: With Hotspot Management license support.

Model	USG110	USG210	USG310	USG1100	USG1900
Hardware Specifications					
Interfaces	4 x LAN/DMZ, 2 x WAN, 1 x OPT	4 x LAN/DMZ, 2 x WAN, 1 x OPT	8x GbE (configurable)	8x GbE (configurable)	8x GbE (configurable)
USB ports	2	2	2	2	2
Console port	Yes (DB9)	Yes (DB9)	Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable	Yes	Yes	Yes	Yes	Yes
Fanless	-	-	-	-	-
System Capacity & Performance*1					
SPI firewall throughput (Mbps)*2	1600	1900	5000	6000	7000
VPN throughput (Mbps)*3	400	500	650	800	900
IDP throughput (Mbps)*4	590	660	900	1000	1200
AV throughput (Mbps)*4	450	500	550	650	710
UTM throughput (AV and IDP)*4	450	500	550	650	710
Max. TCP concurrent sessions*5	150,000	200,000	500,000	1,000,000	1,000,000
Max. concurrent IPSec VPN tunnels*6	100	200	300	1000	2000
Concurrent SSL VPN users (default/max.)*7	25/150	35/150	50/150	250/500	250/750
VLAN interface	16	32	64	128	128
Concurrent devices logins (default/max.)*7*8	200/300	200/300	500/800	800/1,500	1,500/2,000
WLAN Management					
Managed AP number (default/max.)*7	2/34	2/34	2/34	2/130	2/130
Security Service					
Anti-virus (AV)*7	Yes	Yes	Yes	Yes	Yes
Intrusion detection and prevention (IDP) & Application Patrol*7	Yes	Yes	Yes	Yes	Yes
Anti-spam*7	Yes	Yes	Yes	Yes	Yes
Content filtering (CF 2.0)*7*9	Yes	Yes	Yes	Yes	Yes
Key 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
SSL (HTTPS) inspection	Yes	Yes	Yes	Yes	Yes
EZ Mode	-	-	-	-	-
Hotspot Management*7	Yes	Yes	Yes	Yes	Yes
Ticket printer support*10/ Support Q'ty (max.)	Yes (SP350E) /10	Yes (SP350E) /10	Yes (SP350E) /10	Yes (SP350E) /10	Yes (SP350E) /10
Amazon VPC	Yes	Yes	Yes	Yes	Yes
Facebook WiFi	Yes	Yes	Yes	Yes	Yes
Device HA Pro	Yes	Yes	Yes	Yes	Yes
Link Aggregation (LAG)	-	-	Yes	Yes	Yes
2-Factor Authentication	Yes	Yes	Yes	Yes	Yes
Cloud CNM SecuReporter	Yes	Yes	Yes	Yes	Yes
Power Requirements					
Power input	12 V DC, 3.33 A max.	12 V DC, 3.33 A max.	100 - 240 V AC, 50/60 Hz, 1.3 A max.	100 - 240 V AC, 50/60 Hz, 1.3 A max.	100 - 240 V AC, 50/60 Hz, 1.3 A max.
Max. power consumption (watt)	37	37	58.5	58.5	58.5
Heat dissipation (BTU/hr)	126.25	126.25	199.61	199.61	199.61
Physical Specifications					
Item — Dimensions (WxDxH)(mm/in.)	300 x 188 x 44/ 11.81 x 7.4 x 1.73	300 x 188 x 44/ 11.81 x 7.4 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73
Item — Weight (kg/lb.)	2/4.4	2/4.4	3.3/7.28	3.3/7.28	3.3/7.28
Packing — Dimensions (WxDxH)(mm/in.)	351 x 149 x 243/ 13.82 x 5.98 x 9.65	351 x 152 x 245/ 13.82 x 5.98 x 9.65	519 x 392 x 163/ 20.43 x 15.43 x 6.42	519 x 392 x 163/ 20.43 x 15.43 x 6.42	519 x 392 x 163/ 20.43 x 15.43 x 6.42
Packing — Weight (kg/lb.)	3.264/7.20	3.264/7.20	4.8/10.58	4.8/10.58	4.8/10.58
Included accessories	• Power adapter • Power cord • Rack mounting kit	• Power adapter • Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit
Environmental Specifications					
Operating environment — Temperature	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F
Operating environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F
Storage environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	787109.3	787109.3	560811.5	560811.5	560811.5
Certifications					
EMC	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1),BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:
*: This matrix with firmware ZLD4.32 or later.
*1: Actual performance may vary depending on 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: AV and IDP 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: This is the recommend maximum number of concurrent logged-in devices.
*9: SafeSearch function in CF2.0 need to enable SSL inspection firstly and not for small business models.
*10: With Hotspot Management license support.

Model	VPN2S	VPN50	VPN100	VPN300
Hardware Specifications				
VPN Firewall interfaces	3 x LAN, 1 x OPT, 1 x WAN	4 x LAN/DMZ, 1 x WAN, 1 x SFP	4 x LAN/DMZ, 2 x WAN, 1 x SFP	7 x GbE (Configurable), 1 x SFP
Nebula SD-WAN interfaces	-	4 x LAN/DMZ (1 Configurable), 1 x WAN, 1 x SFP	4 x LAN/DMZ (1 Configurable), 2 x WAN, 1 x SFP	7 x GbE (Configurable), 1 x SFP
USB3.0 ports	2 x USB 2.0	1	2	2
Console port	-	Yes (RJ-45)	Yes (DB9)	Yes (DB9)
Rack-mountable	-	-	Yes	Yes
System Capacity & Performance*1				
SPI firewall throughput (Mbps)*2	1,500	800	2,000	2,600
VPN throughput (Mbps)*3	35	150	500	1,000
Max. TCP concurrent sessions*4	50,000	400,000	800,000	2,000,000
Max. concurrent IPSec VPN tunnels *5	20	50	100	300
Concurrent SSL VPN users (default/max.)*6	-	10/50	30/200	50/300
VLAN interface	16	8	16	64
Concurrent devices logins (default/max.)*6*7	-	64	200/300	500/800
WLAN Management				
Managed AP number (default/max.)*6	-	4/36	4/68	4/132
Security Service				
Content filtering*6*8	1 Year Free	1 Year Free	1 Year Free	1 Year Free
Geo Enforcer*6	-	1 Year Free	1 Year Free	1 Year Free
Key Features				
DPI Firewall	Yes			Yes
VPN	IKEv2, IPSec, L2TP/IPSec	IKEv2, IPSec, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
SSL (HTTPS) inspection	-	-	Yes	Yes
EZ Mode	-	Yes	-	-
Hotspot Management*6	-	Yes*12	Yes*12	Yes*12
Ticket printer support*9/ Support Q'ty (max.)	-	-	Yes (SP350E) /10	Yes (SP350E) /10
Amazon VPC	-	Yes	Yes	Yes
Facebook WiFi	-	Yes	Yes	Yes
Device HA Pro*10	-	-	Yes	Yes
2-Factor Authentication	-	Yes	Yes	Yes
SD-WAN Feature*11				
Dynamic Path Selection	-	Yes	Yes	Yes
WAN Optimization	-	Yes	Yes	Yes
Zero Touch Provision (ZTP)	-	Yes	Yes	Yes
Auto VPN — Site-to-Site	-	Yes	Yes	Yes
Auto VPN — Client-to-Site	-	Yes	Yes	Yes
App Patrol	-	Yes	Yes	Yes
Content Filter	-	Yes	Yes	Yes
Geo Enforcer (GeoIP)	-	Yes	Yes	Yes
Management	-	Yes	Yes	Yes
Monitor/Log Storage	-	Yes	Yes	Yes
Power Requirements				
Power input	110 to 240 V AC, 50/60 Hz, 1.5 A max.	12 V DC, 2.0 A max.	12 V DC, 2.5 A max.	12 V DC, 4.17 A max.
Max. power consumption (watt)	13.1	12	13.3	24.1
Heat dissipation (BTU/hr)	44.7	40.92	45.38	82.23
Physical Specifications				
Item — Dimensions (WxDxH)(mm/in.)	210 x 115 x 33/ 8.27 x 6.06 x 1.57	216 x 143 x 33/ 8.50 x 5.63 x 1.30	272 x 187 x 36/ 10.7 x 7.36 x 1.42	300 x188 x 44/ 16.93 x 7.4 x 1.73
Item — Weight (kg/lb.)	0.495/1.09	0.88/1.94	1.4/3.09	1.65/3.64
Packing — Dimensions (WxDxH)(mm/in.)	288 x 189 x 83/ 11.34 x 7.44 x 3.27	276 x 185 x 98/ 10.87 x 7.28 x 3.86	427 x 247x 73/ 16.81 x9.72 x 2.87	351 x 152 x 245/ 13.82 x 5.98 x 9.65
Packing — Weight (kg/lb.)	1.13/2.49	1.41/3.11	2.23 (W/O bracket) / 2.42 (W/ bracket)	2.83/6.24
Included accessories	Power adapter	• Power adapter • RJ-45 - RS-232 cable for console connection	• Power adapter • Rack mounting kit (optional, by regions)	• Power adapter • Power cord • Rack mounting kit
Environmental Specifications				
Operating environment — Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
Operating environment — Humidity	20% to 95% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 60°C/-22°F to 140°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
Storage environment — Humidity	20% to 95% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	44,000	44,000	529688.2	529688.2
Certifications				
EMC	FCC Part 15B (Class B), FCC Part 68, CE EMC (Class B)	FCC Part 15 (Class B), IC, CE EMC (Class B), RCMc BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety	CE LVD	BSMI, UL	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:
*: The matrix with firmware ZLD 4.31 and OPAL BE 1.12 or later
*1: Actual performance may vary depending on 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: 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: This is the recommend maximum number of concurrent logged-in devices.
*8: SafeSearch function in Content Filtering need to enable SSL inspection firstly and not for small business.
*9: With Hotspot Management license support.
*10: ZyWALL VPN100 or above supports Device HA Pro once registered.
*11: After device upgrading firmware to SD-OS v10.01 and was transformed to SD-WAN mode.
*12: After upgrading firmware to SD-OS v10.02 or after.

ZyWALL VPN Firewalls

Model	ZyWALL 110	ZyWALL 310	ZyWALL 1100
Hardware Specifications			
Interfaces	4 x LAN/DMZ, 2 x WAN, 1 x OPT	8 (Configurable)	8 (Configurable)
USB3.0 ports	2	2	2
Console port	Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable	Yes	Yes	Yes
System Capacity & Performance*¹			
SPI firewall throughput (Mbps)*²	1600	5000	6000
VPN throughput (Mbps)*³	400	650	800
Max. TCP concurrent sessions*⁴	150,000	500,000	1,000,000
Max. concurrent IPSec VPN tunnels *⁵	100	300	1000
Concurrent SSL VPN users (default/max.)*⁶	25/150	50/150	250/500
VLAN interface	16	64	128
Concurrent devices logins (default/max.)*⁶*⁷	200/300	500/800	800/1,500
WLAN Management			
Managed AP number (default/max.)*⁶	2/34	2/34	2/130
Security Service			
Anti-virus (AV)*⁶	Yes	Yes	Yes
Intrusion detection and prevention (IDP) & Application Patrol*⁶	Yes	Yes	Yes
Anti-spam*⁶	Yes	Yes	Yes
Content filtering (CF 2.0)*⁶*⁸	Yes	Yes	Yes
Key Features			
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
SSL (HTTPS) inspection	Yes	Yes	Yes
EZ Mode	–	–	–
Hotspot Management*⁶	Yes	Yes	Yes
Ticket printer support*⁹/ Support Q'ty (max.)	Yes (SP350E) /10	Yes (SP350E) /10	Yes (SP350E) /10
Amazon VPC	Yes	Yes	Yes
Facebook WiFi	Yes	Yes	Yes
Device HA Pro	Yes	Yes	Yes
Link Aggregation (LAG)	–	Yes	Yes
2-Factor Authentication	Yes	Yes	Yes
Cloud CNM SecuReporter	Yes	Yes	Yes
Power Requirements			
Power input	12 V DC, 3.33 A max.	110-240 V AC, 50/60 Hz, 1.3 A max.	110-240 V AC, 50/60 Hz, 1.3 A max.
Max. power consumption (watt)	37	58.5	58.5
Heat dissipation (BTU/hr)	126.25	199.61	199.61
Physical Specifications			
Item — Dimensions (WxDxH)(mm/in.)	300 x 188 x 44/ 11.81 x 7.4 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73
Item — Weight (kg/lb.)	2/4.41	3.3/7.28	3.3/7.28
Packing — Dimensions (WxDxH)(mm/in.)	351 x 152 x 245/ 13.82 x 5.98 x 9.65	519 x 392 x 163/ 20.43 x 15.43 x 6.42	519 x 392 x 163/ 20.43 x 15.43 x 6.42
Packing — Weight (kg/lb.)	2.83/6.24	4.74/10.45	4.74/10.45
Included accessories	• Power adapter • Power cord • Rack mounting	• Power adapter • Rack mounting kit	• Power cord • Rack mounting kit
Environmental Specifications			
Operating environment — Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
Operating environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
Storage environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	787109.3	560811.5	560811.5
Certifications			
EMC	FCC Part 15 (Class A), CE EMC (Class A),C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:
*: This matrix with firmware ZLD4.32 or later.
*1: Actual performance may vary depending on 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: 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: This is the recommend maximum number of concurrent logged-in devices.
*8: SafeSearch function in Content Filtering need to enable SSL inspection firstly and not for small business.
*9: With Hotspot Management license support.

ZyWALL VPN Firewalls

Model	USG20-VPN	USG20W-VPN
Hardware Specifications		
Interfaces	4 x LAN/DMZ, 1 x WAN, 1 x SFP	4 x LAN/DMZ, 1 x WAN, 1 x SFP
USB3.0 ports	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)
Rack-mountable	–	–
System Capacity & Performance*¹		
SPI firewall throughput (Mbps)*²	350	350
VPN throughput (Mbps)*³	90	90
Max. TCP concurrent sessions*⁴	20,000	20,000
Max. concurrent IPSec VPN tunnels *⁵	10	10
Concurrent SSL VPN users (default/max.)*⁶	5/15	5/15
VLAN interface	8	8
Concurrent devices logins (default/max.)*⁶*⁷	64	64
WLAN Management		
Managed AP number (default/max.)*⁶	–	–
Security Service		
Anti-virus (AV)*⁶	–	–
Intrusion detection and prevention (IDP) & Application Patrol*⁶	–	–
Anti-spam*⁶	Yes	Yes
Content filtering (CF 2.0)*⁶*⁸	Yes	Yes
Key Features		
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
SSL (HTTPS) inspection	–	–
EZ Mode	Yes	Yes
Hotspot Management*⁶	–	–
Ticket printer support*⁹/ Support Q'ty (max.)	–	–
Amazon VPC	Yes	Yes
Facebook WiFi	Yes	Yes
Device HA Pro*¹⁰	–	–
Link Aggregation (LAG)	–	–
2-Factor Authentication	Yes	Yes
Cloud CNM SecuReporter	Yes	Yes
Power Requirements		
Power input	12 V DC, 2.0 A max.	12 V DC, 2.0 A max.
Max. power consumption (watt)	12	18
Heat dissipation (BTU/hr)	40.92	61.38
Physical Specifications		
Item — Dimensions (WxDxH)(mm/in.)	216 x 143 x 33/ 8.50 x 5.63 x 1.30	216 x 143 x 33/ 8.50 x 5.63 x 1.30
Item — Weight (kg/lb.)	0.88/1.94	0.94/2.06 (Antenna included)
Packing — Dimensions (WxDxH)(mm/in.)	276 x 185 x 98/ 10.87 x 7.28 x 3.86	276 x 185 x 98/ 10.87 x 7.28 x 3.86
Packing — Weight (kg/lb.)	1.41/3.11	1.50/3.31
Included accessories	• Power adapter • RJ-45 - RS-232 cable for console connection	• Power adapter • RJ-45 - RS-232 cable for console connection • Antenna
Environmental Specifications		
Operating environment — Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
Operating environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
Storage environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	44000	44000
Certifications		
EMC	FCC Part 15 (Class B), IC, CE EMC (Class B), RCM, BSMI	FCC Part 15 (Class B), IC, CE EMC (Class B), RCM,BSMI
Safety	BSMI, UL	BSMI, UL

Note:
*: This matrix with firmware ZLD4.31 or later.
*1: Actual performance may vary depending on 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: 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: This is the recommend maximum number of concurrent logged-in devices.
*8: SafeSearch function in Content Filtering need to enable SSL inspection firstly and not for small business.
*9: With Hotspot Management license support.

Wireless Specifications

Model	VPN Firewall	Unified Security Gateway	
	USG20W-VPN	USG40W	USG60W
Standard compliance	802.11 a/b/g/n/ac	802.11 b/g/n	802.11 a/b/g/n
Wireless frequency	2.4/5 GHz	2.4 GHz	Concurrent 2.4 & 5 GHz
Radio	1	1	2
SSID number	8	8	16
Maximum transmit power (Max. total channel)	• US (FCC) 2.4 GHz: 25 dBm, 3 antennas • US (FCC) 5 GHz: 25 dBm, 3 antennas • EU (ETSI) 2.4 GHz: 20 dBm (EIRP), 3 antennas • EU (ETSI) 5 GHz: 20 dBm (EIRP), 3 antennas	• US (FCC) 2.4 GHz: 24.3 dBm, 2 antennas • EU (ETSI) 2.4 GHz: 19.6 dBm (EIRP), 2 antennas	• US (FCC) 2.4 GHz: 24.3 dBm, 2 antennas • US (FCC) 5 GHz: 25.8 dBm, 2 antennas • EU (ETSI) 2.4 GHz: 18.6 dBm (EIRP), 2 antennas • EU (ETSI) 5 GHz: 28.4 dBm (EIRP), 2 antennas
No. of antenna	3 detachable antennas	2.4 GHz: 2T2R MIMO (Detachable, SMA-R)	2.4 GHz: 2T2R MIMO 5 GHz: 2T2R MIMO (Detachable, SMA-R)
Antenna gain	2 dBi @2.4 GHz 3 dBi @5 GHz	3 dBi	3 dBi
Data rate	• 802.11n up to 450 Mbps • 820.11ac up to 1300 Mbps	• 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps • 802.11n: up to 300 Mbps in MCS15 (40 MHz; GI = 400 ns)	• 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps • 802.11n: up to 300 Mbps in MCS15 (40 MHz; GI = 400 ns)
Frequency band	2.4 GHz (IEEE 802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz • TWN (NCC): 2.412 to 2.462 GHz 5 GHz (IEEE 802.11 a/n/ac) • USA (FCC): 5.15 to 5.25 GHz; 5.250 to 5.350 GHz; 5.470 to 5.725 GHz; 5.7250 to 5.850 GHz • Europe (ETSI): 5.15 to 5.35 GHz; 5.470 to 5.725 GHz • TWN (NCC): 5.15 to 5.25 GHz; 5.250 to 5.350 GHz; 5.470 to 5.725 GHz; 5.7250 to 5.850 GHz	2.4 GHz (IEEE 802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz • TWN (NCC): 2.412 to 2.462 GHz	2.4 GHz (IEEE 802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz • TWN (NCC): 2.412 to 2.462 GHz 5 GHz (IEEE 802.11 a/n) • USA: 5.150 to 5.250 GHz; 5.725 to 5.850 GHz • European (ETSI): 5.15 to 5.35 GHz; 5.470 to 5.725 GHz • Taiwan (TW): 5.25 to 5.35 GHz; 5.725 to 5.850 GHz
Receive sensitivity	2.4 GHz: • 11 Mbps ≤ -87 dBm • HT20, MCS15 ≤ -71 dBm • 54 Mbps ≤ -74 dBm • HT40, MCS15 ≤ -67 dBm 5 GHz: • 54 Mbps ≤ -74 dBm • HT40, MCS23 ≤ -68 dBm • VHT40, MCS9 ≤ -62 dBm • HT20, MCS23 ≤ -71 dBm • VHT20, MCS8 ≤ -66 dBm • VHT80, MCS9 ≤ -59 dBm	2.4 GHz: • 11 Mbps ≤ -87 dBm • 54 Mbps ≤ -74 dBm • HT20, MCS15 ≤ -71 dBm • HT40, MCS15 ≤ -68 dBm	2.4 GHz: • 11 Mbps ≤ -87 dBm • 54 Mbps ≤ -74 dBm • HT20 ≤ -71 dBm • HT40 ≤ -68 dBm 5 GHz: • 54 Mbps ≤ -75 dBm • HT20, MCS15 ≤ -71 dBm • HT40, MCS15 ≤ -69 dBm

Nebula Cloud Managed Security Gateways

Model	NSG50	NSG100	NSG200	NSG300
Hardware Specifications				
10/100/1000 Mbps RJ-45 ports	4 x LAN (GbE), 2 x WAN (1 x SFP, 1 x GbE)	4 x LAN (GbE), 2 x WAN (GbE)	5 x LAN (GbE), 2 x WAN (GbE)	6 x Individual LAN (GbE), 2 x WAN (GbE)
USB ports	1	2	2	2
Console port	Yes (RJ-45)	Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable	-	Yes	Yes	Yes
Wall-mountable	Yes	-	-	-
Fanless	Yes	Yes	No	No
System Capacity & Performance[1]				
SPI firewall throughput (Mbps)[2]	300	450	1,250	4,000
VPN throughput (Mbps)[3]	100	150	500	750
IDP throughput (Mbps)[4]	110	160	500	950
AV throughput (Mbps)[4]	50	90	300	450
SP throughput (Mbps, AV and IDP)[4]	50	90	300	450
Unlimited user	Yes	Yes	Yes	Yes
Max. TCP concurrent sessions[5]	20,000	40,000	80,000	500,000
Max. TCP session rate	2,000	2,000	8,000	10,000
Max. concurrent IPsec VPN tunnels[6]	10	40	200	300
VLAN interface	8	16	16	16
Key Software Features				
Firewall	Yes	Yes	Yes	Yes
Virtual Private Network (VPN)	Yes (IPSec, L2TP over IPSec)	Yes (IPSec, L2TP over IPSec)	Yes (IPSec, L2TP over IPSec)	Yes (IPSec, L2TP over IPSec)
Application Patrol	Yes	Yes	Yes	Yes
Intrusion Detection and Prevention (IDP)	Yes	Yes	Yes	Yes
Bandwidth management	Yes	Yes	Yes	Yes
Logging and Monitoring	Yes	Yes	Yes	Yes
Content Filtering	Yes	Yes	Yes	Yes
Anti-Virus	Yes	Yes	Yes	Yes
WAN Failover	Yes	Yes	Yes	Yes
Power Requirements				
Power input	12 V DC, 2.0 A max.	12 V DC, 3.0 A max.	12 V DC, 3.33 A max.	100 - 240 V AC, 50/60 Hz, 1.3 A max.
Max. power consumption (watt)	12.0	19.0	37.0	58.5
Heat dissipation (BTU/hr)	40.95	64.83	199.61	199.61
Physical Specifications				
Item — Dimensions (WxDxH)(mm/in.)	216 x 143 x 33/ 8.50 x 5.63 x 1.30	242 x 175 x 36/ 9.53 x 6.89 x 1.42	300 x 178 x 44/ 11.81 x 7.0 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73
Item — Weight (kg/lb.)	1.04/2.29	1.25/2.76	2.0/4.4	3.3/7.28
Packing — Dimensions (WxDxH)(mm/in.)	276 x 185 x 98/ 10.87 x 7.28 x 3.86	394 x 240 x 101/ 15.51 x 9.45 x 3.98	351 x 243 x 149/ 13.82 x 9.57 x 5.87	519 x 392 x 163/ 20.43 x 15.43 x 6.42
Packing — Weight (kg/lb.)	1.41/3.11	2.25/4.96	3.264/7.20	4.8/10.58
Included accessories	• Power adapter (with plug) • RJ45-RS232 console cable	• Power adapter • Rack mounting kit	• Power cord • Power adapter • Rack mounting kit	• Power cord • Rack mounting kit
Environmental Specifications				
Operating — Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
Operating — Humidify	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage — Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
Storage — Humidify	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	44,000.0	815,463.90	787,109.3	560,811.50
Certifications				
EMC	FCC Part 15 (Class B), IC, CE EMC (Class B), RCM, BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety	BSMI, UL	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:
*1: Actual performance may vary depending on network conditions and activated applications.
*2: Maximum throughput based on RFC 2544 (1,518-byte UDP packets), and without enabling Intrustion Detection and Prevention.
*3: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets), and without enabling Intrusion Detection and Prevention.
*4: AV and IDP throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing were done with multiple sessions.
*5: Maximum sessions measured using the industry-standard IXIA IxLoad testing tool.
*6: Including Gateway-to-Gateway and Client-to-Gateway

Compatibility & Accessories

Access Point

	Model	Central management	Auto provisioning	Data forwarding	ZyMesh
Unified AP	NWA5121-N NWA5121-NI NWA5123-AC NWA5123-AC HD* NWA5123-NI NWA5301-NJ WAC5302D-S	Yes	Yes	Local bridge	Yes
Unified Pro AP	WAC6103D-I WAC6303D-S* WAC6502D-E WAC6502D-S WAC6503D-S WAC6553D-E	Yes	Yes	Local bridge/ Data tunnel	Yes

*: Forward Compatible AP: Starting from APC3.0, commercial gateways supporting APC technology are able to recognize APs with APC3.0 firmware version or higher. Resellers can introduce newly-available Zyxel APs with basic features supported without upgrading any new controller firmware

Service Gateway Printer

Model	Buttons	Paper roll width	Interface	Power input	Item dimensions (WxDxH)	Item weight
SP350E	3	58 (+0/-1) mm	10/100 Mbps RJ-45 port	12 V DC, 3 A max.	176 x 111 x 114 (6.93" x 4.37" x 4.49")	0.8 kg (1.76 lb.)

Note: Hotspot management licenses required

Transceivers (Optional)*

Speed	Model	Connector	Wavelength	Max. Distance	DDMI
10-Gigabit SFP+	SFP10G-SR*	Duplex LC	850 nm	300 m (328 yd)	Yes
	SFP10G-LR*	Duplex LC	1310 nm	10 km (10936 yd)	Yes
Gigabit	SFP-1000T	RJ-45	-	100 m (109 yd)	-
	SFP-LX-10-D	LC	1310 nm	10 km (10936 yd)	-
	SFP-SX-D	LC	850 nm	550 m (601 yd)	-

*: only USG2200-VPN supports 10-Gigabit SFP+

Direct Attach Cables (Optional)*

Model	Connector	Cable Length
DAC10G-1M*	SFP+ to SFP+	1m (39.37 inch)
DAC10G-3M*	SFP+ to SFP+	3m (118.11 inch)

*only USG2200-VPN supports SFP+ interface

Supported Model List

Model	Access Point	Service Gateway Printer	Transceivers	Direct Attach Cables
	Managed AP Service Required	Hotspot Management License Required	Optional	Optional
ATP200	Yes	-	Yes	-
ATP500	Yes	-	Yes	-
ATP800	Yes	-	Yes	-
VPN50	Yes	Yes*	Yes	-
VPN100	Yes	Yes*	Yes	-
VPN300	Yes	Yes*	Yes	-
USG20(W)-VPN	-	-	Yes	-
USG40(W)	Yes	-	-	-
USG60(W)	Yes	-	-	-
USG110	Yes	Yes	-	-
USG210	Yes	Yes	-	-
USG310	Yes	Yes	-	-
USG1100	Yes	Yes	-	-
USG1900	Yes	Yes	-	-
USG2200	Yes	Yes	Yes	Yes
ZyWALL110	Yes	Yes	-	-
ZyWALL310	Yes	Yes	-	-
ZyWALL1100	Yes	Yes	-	-

* After upgrading firmware to SD-OS v10.02 or later

License for VPN Client Service

SecuExtender Software

Item	Description	Supported OS
IPSec VPN Client*	IPSec VPN client software for the ZyWALL and USG Series with Easy VPN for zero configuration remote access	Windows XP (32-bit) Windows Server 2003 (32-bit) Windows Server 2008 (32/64-bit) Windows Vista (32/64-bit) Windows 7 (32/64-bit) Windows 8 (32/64-bit) Windows 10 (32/64-bit)
SSL VPN Client*	Secured VPN connection between PC/MAC and ZyWALL Firewall	Windows XP Windows 7 (32/64-bit) Windows 8/8.1 (32/64-bit) Windows 10 (32/64-bit) MAC OS 10.7 - 10.13

*: A 30-day trial version of IPSec VPN client and SSL VPN client for MAC OS can be downloaded from official Zyxel website. To continue using the application, please contact your regional sales representatives and purchase a commercial license for the application.

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Your Networking Ally

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5-000-00019004   01/19