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ZyWALL USG FLEX 100/100AX/100W/200/500/700

USG FLEX Firewall

The latest USG FLEX series provides one single management platform on the cloud while expanding and strengthening the protection from firewalls to access points with automatic responses. The newly designed USG FLEX Series is capable of minimizing computing power usage and maximizing firewall performance, delivering up to 5x UTM performance with cloud flexibility and collaborative protection to help connect and secure small or mid-sized business users.

Benefits

Nebula together

USG FLEX firewalls, the new addition to the Nebula cloud management family, strongly empowers the full-blown Zyxel security matrix in Nebula, further optimizing Nebula with holistic security and protection for SMB business networks. Zyxel provides a centralized provisioning security policy to the remote workforce from Nebula and traffic shaping eliminating the network bottleneck to fuel the best business productivity.



Flexibility to adapt to on-premises or Nebula cloud management



Optional Gold Security Pack unlocks Sandboxing and Reputation Filter



High assurance multi-layered protection



DNS and URL content filter ensures the web security



Device Insight provides better visibility and control



Automatically contains threats at the network edge



Secure WiFi guarantees remote work security






Add two-factor authentication for an extra layer of protection






WiFi 6 (802.11ax) dual-radio speeds up to 1800 Mbps

Specifications

Model	USG FLEX 100*11	USG FLEX 100AX	USG FLEX 100W	
Product photo				
Hardware Specifications				
WiFi standard	N/A	802.11 ax/ac/n/g/b/a	802.11 a/b/g/n/ac	
10/100/1000 Mbps RJ-45 ports	4 x LAN/DMZ, 1 x WAN	4 x LAN/DMZ, 1 x WAN	4 x LAN/DMZ, 1 x WAN, 1 x SFP	
USB 3.0 ports	1	1	1	
Console port	Yes (RJ-45)	Yes (RJ-45)	Yes (RJ-45)	
Rack-mountable	N/A	N/A	N/A	
Fanless	Yes	Yes	Yes	
System Capacity & Performance*1				
SPI firewall throughput (Mbps)*2	900	900	900	
VPN throughput (Mbps)*3	270	270	270	
VPN IMIX throughput (Mbps)*3	100	100	100	
IPS throughput (Mbps)*4	540	540	540	
Anti-Malware throughput (Mbps)*4	360	360	360	
UTM throughput (Anti-Malware and IPS)(Mbps)*4	360	360	360	
Max. TCP concurrent sessions*5	300,000	300,000	300,000	
Recommended gateway-to-gateway IPsec VPN tunnels	20	20	20	
Max. concurrent IPsec VPN tunnels*6	50	50	50	
Concurrent SSL VPN users	30	30	30	
VLAN interface	8	8	8	
Speedtest Performance				
SPI firewall throughput (Mbps)*10	848	848	848	
Key Features				
Security Service	Sandboxing*7	Yes	Yes	Yes
	Web Filtering*7	Yes	Yes	Yes
	Application Patrol*7	Yes	Yes	Yes
	Anti-Malware*7	Yes	Yes	Yes
	IPS*7	Yes	Yes	Yes
	Reputation Filter*7	Yes	Yes	Yes
	Geo Enforcer*7	Yes	Yes	Yes
	SecuReporter*7	Yes	Yes	Yes
	Collaborative Detection & Response*7	Yes	Yes	Yes
	Device Insight	Yes	Yes	Yes
	Security Profile Sync*7	Yes	Yes	Yes
	SSL (HTTPS) inspection	Yes	Yes	Yes
	2-Factor Authentication	Yes	Yes	Yes
	Email Security	Yes	Yes	Yes
VPN Features	VPN	IKEv2, IPsec, SSL, L2TP/IPsec	IKEv2, IPsec, SSL, L2TP/IPsec	IKEv2, IPsec, SSL, L2TP/IPsec
	Microsoft Azure	Yes	Yes	Yes
	Amazon VPC	Yes	Yes	Yes

		USG FLEX 100	USG FLEX 100AX	USG FLEX 100W
Key Features				
WLAN Management	Default number of managed AP	8	8	8
	Recommend max. AP in 1 AP Group	10	10	10
	Secure WiFi Service*7	Yes	Yes	Yes
	Maximum Number of Tunnel-Mode AP	6	6	6
	Maximum Number of Managed AP	24	24	24
Management & Connectivity	Nebula Cloud Mode	Yes	Yes	Yes
	Nebula Cloud Monitoring Mode	Yes	Yes	Yes
	Device HA Pro	N/A	N/A	N/A
	Link Aggregation (LAG)	N/A	N/A	N/A
	Hotspot Management*7	N/A	N/A	N/A
	Ticket printer support*9/ Support Q'ty (max.)	N/A	N/A	N/A
	Concurrent devices logins (default/max.)*7*8	64	64	64
Power Requirements				
Power input	12 V DC, 2 A max.	12 V DC, 2.5 A max.	12 V DC, 2 A max.	
Max. power consumption (Watt Max.)	12.5	24.3	12.5	
Heat dissipation (BTU/hr)	42.65	55.37	42.65	
Physical Specifications				
Item	Dimensions (WxDxH)(mm/in.)	216 x 147.3 x 33/ 8.50 x 5.80 x 1.30	216 x 149.28 x 33/ 8.50 x 5.88 x 1.30	216 x 147.3 x 33/ 8.50 x 5.80 x 1.30
	Weight (Kg/lb.)	0.85/1.87	1.00/2.20	0.85/1.87
Packing	Dimensions (WxDxH)(mm/in.)	284 x 190 x 100/ 11.18 x 7.48 x 3.94	284 x 190 x 100/ 11.18 x 7.48 x 3.94	284 x 190 x 100/ 11.18 x 7.48 x 3.94
	Weight (kg/lb.)	1.40/3.09	1.53/3.37	1.40/3.09
Included accessories	<ul style="list-style-type: none"> Power adapter RJ-45 - RS-232 cable for console connection 	<ul style="list-style-type: none"> Power adapter with plug RJ-45 - RS-232 cable for console connection Antenna 	<ul style="list-style-type: none"> Power adapter RJ-45 - RS-232 cable for console connection 	
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
	Humidity	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
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)		989,810	766,228	989,810
Certifications				
EMC		FCC Part 15 (Class B), CE EMC (Class B), BSMI	FCC Part 15 (Class B), IC EMC (Class B), CE EMC (Class B), RCM (Class B), BSMI	FCC Part 15 (Class B), CE EMC (Class B), BSMI
Safety		LVD (EN60950-1), BSMI	LVD (EN62368-1), BSMI	LVD (EN60950-1), BSMI

Model		USG FLEX 200	USG FLEX 500	USG FLEX 700
Product photo				
Hardware Specifications				
10/100/1000 Mbps RJ-45 ports		4 x LAN/DMZ, 2 x WAN, 1 x SFP	7 (configurable), 1 x SFP (configurable)	12 (configurable), 2 x SFP (configurable)
USB 3.0 ports		2	2	2
Console port		Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable		Yes	Yes	Yes
Fanless		Yes	N/A	N/A
System Capacity & Performance*1				
SPI firewall throughput (Mbps)*2		1,800	2,300	5,400
VPN throughput (Mbps)*3		450	810	1,100
VPN IMIX throughput (Mbps)*3		160	240	550
IPS throughput (Mbps)*4		1,100	1,500	2,000
Anti-Malware throughput (Mbps)*4		570	800	1,450
UTM throughput (Anti-Malware and IPS)(Mbps)*4		550	800	1,350
Max. TCP concurrent sessions*5		600,000	1,000,000	1,600,000
Recommended gateway-to-gateway IPsec VPN tunnels		50	150	250
Max. concurrent IPsec VPN tunnels*6		100	300	500
Concurrent SSL VPN users		60	150	150
VLAN interface		16	64	128
Speedtest Performance				
SPI firewall throughput (Mbps)*10		931	935	934
Key Features				
Security Service	Sandboxing*7	Yes	Yes	Yes
	Web Filtering*7	Yes	Yes	Yes
	Application Patrol*7	Yes	Yes	Yes
	Anti-Malware*7	Yes	Yes	Yes
	IPS*7	Yes	Yes	Yes
	Reputation Filter*7	Yes	Yes	Yes
	Geo Enforcer	Yes	Yes	Yes
	SecuReporter*7	Yes	Yes	Yes
	Collaborative Detection & Response*7	Yes	Yes	Yes
	Device Insight	Yes	Yes	Yes
	Security Profile Sync*7	Yes	Yes	Yes
	SSL (HTTPS) Inspection	Yes	Yes	Yes
	2-Factor Authentication	Yes	Yes	Yes
Email Security	Yes	Yes	Yes	
VPN Features	VPN	IKEv2, IPsec, SSL, L2TP/IPsec	IKEv2, IPsec, SSL, L2TP/IPsec	IKEv2, IPsec, SSL, L2TP/IPsec
	Microsoft Azure	Yes	N/A	N/A
	Amazon VPC	Yes	Yes	Yes
WLAN Management	Default number of managed AP	8	8	8
	Recommend max. AP in 1 AP Group	20	60	200
	Secure WiFi Service*7	Yes	Yes	Yes
	Maximum Number of Tunnel-Mode AP	10	18	130
	Maximum Number of Managed AP	40	72	520

Model		USG FLEX 200	USG FLEX 500	USG FLEX 700
Key Features				
Management & Connectivity	Nebula Cloud Mode	Yes	Yes	Yes
	Nebula Cloud Monitoring Mode	Yes	Yes	Yes
	Device HA Pro	N/A	Yes	Yes
	Link Aggregation (LAG)	N/A	Yes	Yes
	Hotspot Management*7	Yes	Yes	Yes
	Ticket printer support*9/ Support Q'ty (max.)	Yes (SP350E)/10	Yes (SP350E)/10	Yes (SP350E)/10
	Concurrent devices logins (default/max.)*7*8	200	200/300	500/2000
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 Max.)	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/ 16.93 x 7.4 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73
	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
	Weight (kg/lb.)	2.23 (W/O bracket) 2.42 (W/ bracket)	2.83/6.24	4.8/10.58
	Included accessories	<ul style="list-style-type: none"> • Power adapter • Rack mounting kit 	<ul style="list-style-type: none"> • Power adapter • Power cord • Rack mounting kit 	<ul style="list-style-type: none"> • 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
	Humidity	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
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
	MTBF (hr)	529,688	529,688	947,736
	Acoustic Noise	N/A	24.5 dBA on < 25°C Operating temperature, 41.5 dBA on full FAN speed	24.5 dBA on < 25°C Operating temperature, 41.5 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

*: This matrix with firmware ZLD5.37 or later.

*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 measurement are 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: AV (with Express Mode) 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: With Hotspot Management license support.

*10: The Speedtest result is conducted with 1 Gbps WAN link in real world and it is subject to fluctuate due to quality of the ISP link.

*11: USG FLEX 100 rev1 is adopting a new hardware design equipped with 4 x LAN/DMZ, 1 x WAN.

Wireless Specifications

Model		USG FLEX 100AX	USG FLEX 100W
Standard compliance		802.11 ax/ac/n/g/b/a	802.11 a/b/g/n/ac
Wireless frequency		2.4/5 GHz	2.4/5 GHz
Radio		2	2
SSID number		4	4
Maximum transmit power (Max. total channel)	US (FCC) 2.4 GHz	29.8 dBm, 2 antennas	25 dBm, 3 antennas
	US (FCC) 5 GHz	32.6 dBm, 2 antennas	25 dBm, 3 antennas
	EU (ETSI) 2.4 GHz	19.93 dBm (EIRP), 2 antennas	20 dBm (EIRP), 3 antennas
	EU (ETSI) 5 GHz	22.99 dBm (EIRP), 2 antennas	20 dBm (EIRP), 3 antennas
No. of antenna		2 detachable antennas	3 detachable antennas
Antenna gain		3 dBi @ 2.4 GHz/5 GHz	2 dBi @ 2.4 GHz 3 dBi @ 5 GHz
Data rate		<ul style="list-style-type: none"> 2.4 GHz: up to 600 Mbps 5 GHz: up to 1200 Mbps 	<ul style="list-style-type: none"> 2.4 GHz: up to 300 Mbps 5 GHz: up to 866 Mbps
Frequency band	2.4 GHz (IEEE 802.11 b/g/n)	<ul style="list-style-type: none"> USA (FCC): 2.412 to 2.462 GHz Europe (ETSI): 2.412 to 2.472 GHz TWN (NCC): 2.412 to 2.462 GHz 	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> USA (FCC): 5.150 to 5.250 GHz; 5.725 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; 5.725 to 5.850 GHz 	<ul style="list-style-type: none"> USA (FCC): 5.150 to 5.250 GHz; 5.250 to 5.350 GHz; 5.470 to 5.725 GHz; 5.725 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; 5.25 to 5.35 GHz; 5.470 to 5.725 GHz; 5.725 to 5.850 GHz
Receive sensitivity	2.4 GHz	<ul style="list-style-type: none"> 11 Mbps ≤ -99 dBm 54 Mbps ≤ -95 dBm HT20, MCS7 ≤ -90 dBm HT40, MCS7 ≤ -86 dBm 	<ul style="list-style-type: none"> 11 Mbps ≤ -87 dBm 54 Mbps ≤ -74 dBm HT20 ≤ -71 dBm HT40 ≤ -68 dBm
	5 GHz	<ul style="list-style-type: none"> 54 Mbps ≤ -90 dBm HT20, MCS7 ≤ -85 dBm HT40, MCS7 ≤ -81 dBm VHT20, MCS8 ≤ -90 dBm +/-2 dBm VHT40, MCS9 ≤ -85 dBm +/-2 dBm VHT80, MCS9 ≤ -68 dBm +/-2 dBm HE20, MCS11 ≤ -61 dBm +/-2 dBm HE40, MCS11 ≤ -58 dBm +/-2 dBm HE80, MCS11 ≤ -55 dBm +/-2 dBm 	<ul style="list-style-type: none"> 54 Mbps ≤ -74 dBm HT20, MCS23 ≤ -71 dBm HT40, MCS23 ≤ -68 dBm VHT20, MCS8 ≤ -66 dBm VHT40, MCS9 ≤ -62 dBm VHT80, MCS9 ≤ -59 dBm

*: Maximum transmit power is limited by local regulatory settings.

License Service

● Applicable on cloud mode ● Applicable on premises mode

Device Purchase

Bundled with UTM*	Device Only
Gold Security Pack	
UTM Security Pack*1	● ●
Hospitality Pack	No License Included*3
Nebula Pro Pack*2	
Nebula Plus Pack	
Secure WiFi	

License Purchase

License Pack	Single License
Gold Security Pack*	● ●
UTM Security Pack*	● ●
Hospitality Pack*1	● ●
Nebula Pro Pack	● ●
Nebula Plus Pack	● ●
Secure WiFi	● ●

● Web Security
● Anti Malware
● SecuReporter

*: Default bundle with UTM Security Pack is only applicable on USG FLEX 100/100AX/100W/200/500/700.

*1: UTM Security Pack gives additional 30-day trial of service on top of its formal 1-year license duration.

*2: 1-year Nebula Pro Pack is given free to USG FLEXs that are default bundled with UTM Security Pack.

*3: Without UTM bundle you can also purchase licenses later. However the bundle option is highly advisable with lower total costs and seamless protection. Pay less and secure more!

*: Only applicable on USG FLEX 100/100AX/100W/200/500/700.

*1: Only applicable on USG FLEX 200/500/700.

License Pack

Service	Gold Security Pack	UTM Security Pack	Hospitality Pack
Sandboxing	● ●		
Reputation Filter	● ●		
Web Filtering	● ●	● ●	
Anti-Malware	● ●	● ●	
IPS	● ●	● ●	
Application Patrol	● ●	● ●	
SecuReporter	● ●	● ●	
Collaborative Detection & Response	● ●	● ●	
Network Premium	●	●	
Email Security	●	●	
Security Profile Sync	●	●	
Hotspot Management service*			●
Concurrent Device Upgrade*1			●
Nebula Pro Pack Services	●		
Secure WiFi	● ●		

*: Hotspot Management is only applicable on USG FLEX 200/500/700.

*1: Only applicable on USG FLEX 500/700 to allow additional connected clients.

Licenses available for the USG Flex 50

Licensed Pack

The USG FLEX 50/50AX provides an indispensable feature set to perfectly fit small business requirements as well as to gain essential security services needed to protect against cyberattacks. Nebula Control Center (NCC) offers multiple

subscription options to meet customers' needs. The Nebula Plus/Professional Pack gives you some peace of mind at more control over your network updates and visibility, or even the most advanced management of cloud networking.



● On Premises Feature Included

● Nebula Feature Included

	Service / Component	On Premises	On Cloud
Content Filter Pack	Web Filtering	●	●
	SecuReporter	●	●
	Security Profile Sync		●
	Network Premium	●	
Nebula Professional Pack	Nebula Professional Pack Service		●
Nebula Plus Pack	Nebula Plus Pack Service		●

*: Please contact your local customer service if you can't use your content filter license with Nebula.

Specifications

Model	USG FLEX 50	USG FLEX 50AX	
Product photo			
Hardware Specifications			
WiFi standard	N/A	802.11 ax/ac/n/g/b/a	
10/100/1000 Mbps RJ-45 ports	4 x LAN/DMZ, 1 x WAN	4 x LAN/DMZ, 1 x WAN	
USB 3.0 ports	1	1	
Console port	Yes (RJ-45)	Yes (RJ-45)	
Rack-mountable	N/A	N/A	
Fanless	Yes	Yes	
System Capacity & Performance*1			
SPI firewall throughput*2 (Mbps)	350	350	
VPN throughput (Mbps)	90	90	
VPN IMIX throughput (Mbps)*3	40	40	
Max. TCP concurrent sessions*4	20,000	20,000	
Max. concurrent IPsec VPN tunnels*5	20	20	
Recommended gateway-to-gateway IPsec VPN tunnels	5	5	
Concurrent SSL VPN users (default/max.)	15	15	
VLAN interface	8	8	
Speed Test Performance			
SPI firewall throughput*6 (Mbps)	320	320	
Key Features			
Security Service	Web Filtering*7	Yes	Yes
	SecuReporter*7	Yes	Yes
	2-Factor Authentication	Yes	Yes
	Device Insight	Yes	Yes
	Security Profile Synchronize*7	Yes	Yes

Model		USG FLEX 50	USG FLEX 50AX
Key Features			
VPN Features	VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
	Microsoft Azure	Yes	Yes
	Amazon VPC	Yes	Yes
	Concurrent devices logins*⁸	64	64
Management & Connectivity	Nebula Cloud Mode	Yes	Yes
	Nebula Cloud Monitoring Mode	Yes	Yes
	Easy Mode	Yes	-
	Concurrent devices logins*⁸	64	64
Power Requirements			
Power input		12 V DC, 2.0 A max.	12 V DC, 2.5 A max.
Max. power consumption (Watt Max.)		12	24.3
Heat dissipation (BTU/hr)		40.92	55.37
Physical Specifications			
Item	Dimensions (WxDxH)(mm/in.)	216 x 143 x 33/ 8.50 x 5.63 x 1.30	216 x 149.28 x 33/ 8.50 x 5.88 x 1.30
	Weight (kg/lb.)	0.88/1.94	1.00/2.20
	Packing		
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
	Weight (kg/lb.)	1.41/3.11	1.53/3.37
	Included accessories	<ul style="list-style-type: none"> • Power adapter • RJ-45 - RS-232 cable for console connection 	<ul style="list-style-type: none"> • Power adapter with plug • 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
	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
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)		655,130	766,228
Certifications			
EMC		FCC Part 15 (Class B), IC, CE EMC (Class B), RCM, BSMI	FCC Part 15 (Class B), IC EMC (Class B), CE EMC (Class B), RCM (Class B), BSMI
Safety		BSMI	LVD (EN62368-1), BSMI

*: This matrix with firmware ZLD5.38 or later.

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

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

*6: The Speedtest result is conducted with 1 Gbps WAN link in real world and it is subject to fluctuate due to quality of the ISP link.

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

*8: This is the recommend maximum number of concurrent logged-in devices.

Wireless Specifications

Model		USG FLEX 50AX
Standard compliance		802.11 ax/ac/n/g/b/a
Wireless frequency		2.4/5 GHz
Radio		2
SSID number		4
Maximum transmit power (Max. total channel)	US (FCC) 2.4 GHz	29.8 dBm, 2 antennas
	US (FCC) 5 GHz	32.6 dBm, 2 antennas
	EU (ETSI) 2.4 GHz	19.93 dBm (EIRP), 2 antennas
	EU (ETSI) 5 GHz	22.99 dBm (EIRP), 2 antennas
No. of antenna		2 detachable antennas
Antenna gain		3 dbi @2.4 GHz/5 GHz
Data rate		<ul style="list-style-type: none"> • 2.4 GHz: up to 600 Mbps • 5 GHz: up to 1200 Mbps
Frequency band	2.4 GHz (IEEE 802.11 b/g/n)	<ul style="list-style-type: none"> • 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/ax)	<ul style="list-style-type: none"> • USA (FCC): 5.150 to 5.250 GHz; 5.725 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; 5.725 to 5.850 GHz
Receive sensitivity	2.4 GHz	<ul style="list-style-type: none"> • 11 Mbps ≤ -99 dBm • 54 Mbps ≤ -95 dBm • HT20, MCS7 ≤ -90 dBm • HT40, MCS7 ≤ -86 dBm
	5 GHz	<ul style="list-style-type: none"> • 54 Mbps ≤ -90 dBm • HT20, MCS7 ≤ -85 dBm • HT40, MCS7 ≤ -81 dBm • VHT20, MCS8 ≤ -90 dBm +/-2 dBm • VHT40, MCS9 ≤ -85 dBm +/-2 dBm • VHT80, MCS9 ≤ -68 dBm +/-2 dBm • HE20, MCS11 ≤ -61 dBm +/-2 dBm • HE40, MCS11 ≤ -58 dBm +/-2 dBm • HE80, MCS11 ≤ -55 dBm +/-2 dBm

*: Maximum transmit power is limited by local regulatory settings.

Software Features

Security Service

Firewall

- Routing and transparent (bridge) modes
- Stateful packet inspection
- SIP NAT traversal
- H.323 NAT traversal*1
- ALG support for customized ports
- Protocol anomaly detection and protection
- Traffic anomaly detection and protection
- Flooding detection and protection
- DoS/DDoS protection

Web Filtering

- HTTPs domain filtering
- SafeSearch support: Google,

YouTube, and Microsoft Bing*1

- Allow List websites enforcement
- URL Block and Allow List with keyword blocking
- Customizable warning messages and redirect URL
- Customizable Content Filtering block page
- URL categories increased to 111
- CTIRU (Counter-Terrorism Internet Referral Unit) support
- Support DNS base filtering (domain filtering)

Geo Enforcer

- Geo IP blocking
- Geographical visibility on traffics statistics and logs
- IPv6 address support*2

Device Insight

- Agentless Scanning for discovery and classification of devices
- View all devices on the network, including wired, wireless, BYOD, IoT, and SecuExtender (remote endpoint) on SecuReporter
- Visibility of network devices (switches, wireless access points, firewalls) from Zyxel or 3rd party vendors

VPN

IPSec VPN

- Encryption: DES, 3DES, AES (256-bit)
- Authentication: MD5, SHA1, SHA2 (512-bit)

Zero trust security made easy for SMBs

USG FLEX series is your network security ally that leverages AI security cloud to operate multi-layered protection such as anti-malware, DNS/IP/URL filtering, IPS, and application patrol. Our multiple OS supported SecuExtender easily extends the same security outside network premise to remote employees that are on the go. USG FLEX series makes zero trust security easy for small to mid-sized business users.



Best threat intelligence alliance

To ensure your network on getting the best protection, USG FLEX integrates threat intelligence from leading companies and organizations in the cybersecurity field for scaled information about file and real-time threat data. By leveraging a wider malware coverage with multiple-sourced database, this increases the accuracy in threat detection. Web Filtering is also included to safeguard all internet access, especially with CTIRU (Counter-Terrorism Internet Referral Unit) to restrict access to terrorist materials online.

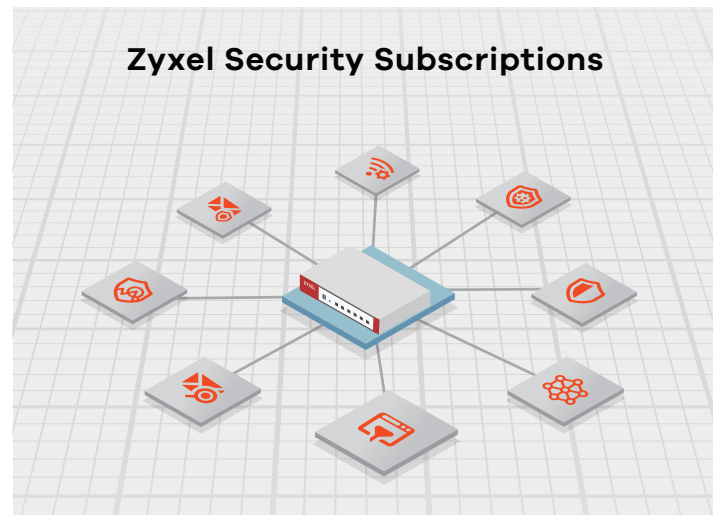
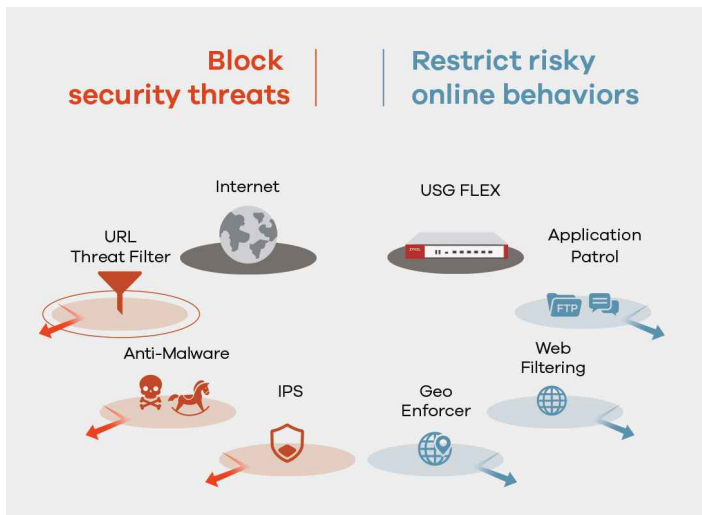


High assurance multi-layered protection

USG FLEX is designed with multi-layer protection against multiple types of threats from in and out. Multiple security services empower you to restrict users' inappropriate application usage or web access. Zykel offers leading-industry DNS content filter, eliminating blind spots in all encrypted traffic with TLS 1.3 without the need to deploy SSL inspection. All together safeguarding your network without any unattended gaps.

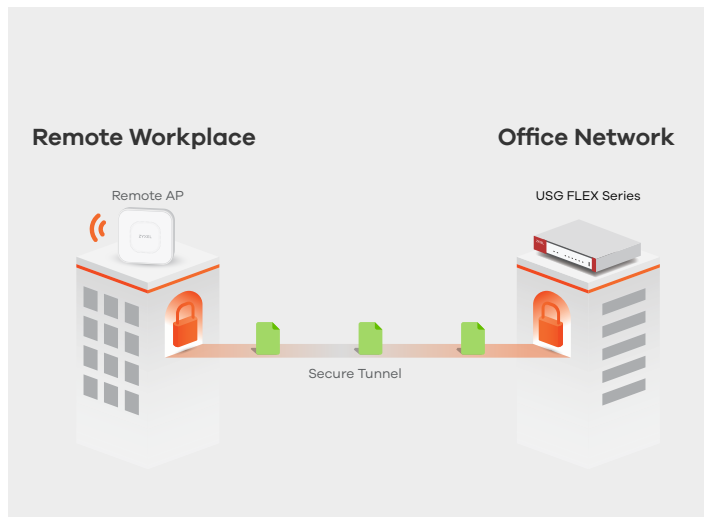
Simplified and unified licensing experience

We know the experience from license purchase and renewals are equally important to our partners. We've optimized the licensing management platform and brought a consistent migration path between on-premise and our cloud platform. We make sure our partners can quickly adapt to a secure environment without the hassle but retaining the flexibility for those who need to practice the same security across networks scenarios.



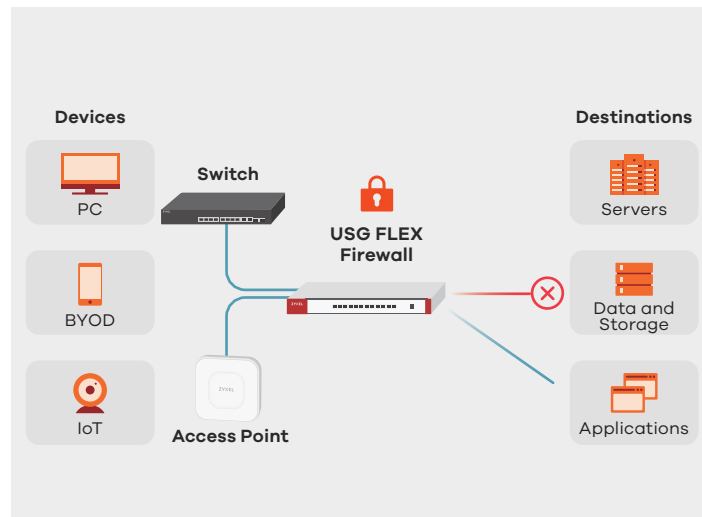
Safeguarding remote connectivity to your corporate network

Businesses striking a balance on productivity and security protection becomes a priority with growing number of devices. Whether it is a wired, wireless, or a IoT device, the Secure WiFi service is used to build a secure L2 tunnel for Work-From-Home user to extend the working experience easily and securely, as if you were in the office with the safety of both two-factor authentication and secure tunnel, which boosts up productivity and eases IT support. The Secure WiFi service also unlocks the number of managed APs to maximum for the USG FLEX firewall.



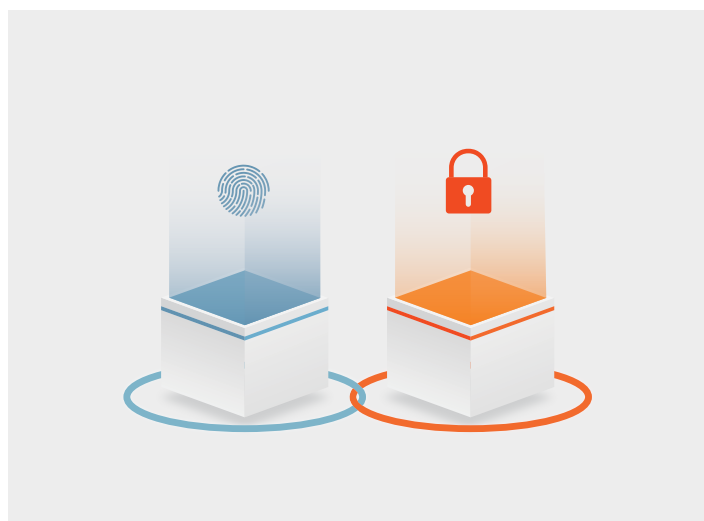
Deep Insights into all your devices

Device insight gives you more visibility of your networks including wired, wireless, BYOD, and IoT devices. You can create access policy with device contextual such as OS version or device category to enforce network segmentation. This reduces the attack surface and prevents threats from spreading. It also helps SMB(s) reduce time spent on investigation. Continuing with our goal of providing our customers with increased visibility, Zyxel SecuReporter gives your organization comprehensive endpoint inventory dashboard.



Level up security with 2FA network access

Password is not enough to secure your network access. You need a second form of authentication to ensure unauthorized users can't access your company's databases, email accounts and more. Zyxel Two-Factor Authentication allows your organizations to authenticate the identities of users accessing your networks through remote desktops and personal mobile devices.



Stay ahead of threats with CDR

Collaborative Detection & Response (CDR) is used to identify threats and risks posed in the more complex organization workforce, workload, and workplace. USG FLEX firewalls to Nebula provides network admins with a rule-based security policy. The firewalls detect a threat on any of the connected clients and will sync with the Nebula control center, then automatically respond to cyber threats and contain the device(s) at the edge (Wireless Access Point) of your network. It is a perfect fit for IT to address the requirements of a decentralized network infrastructure and provide automatic protection.



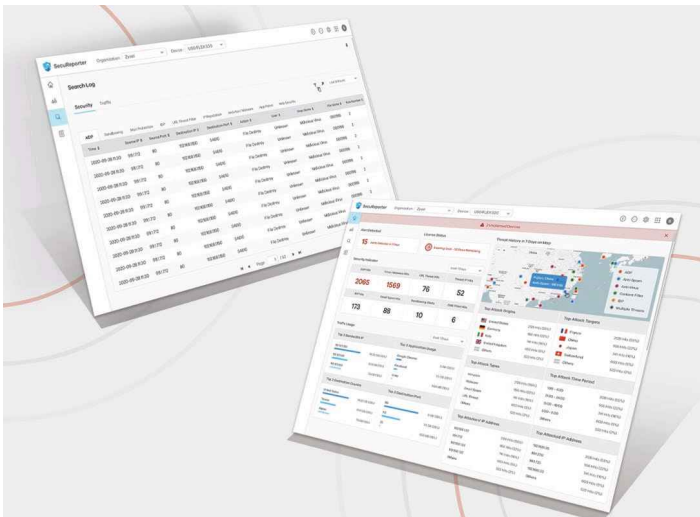
Comprehensive web filtering service

USG FLEX Firewall delivers enhanced web filtering functionality and security through its powerful combination of both reputation and category-based filtering. The dynamic content categorization analyzes the content of a previously unknown website and domain and determines if it belongs to an undesirable category including gambling, pornography, games, and many others. A newly added DNS content filter offers a better approach to inspect web access, particularly when the website is deploying ESNI (Encrypted Server Name Indication) where the traditional URL filtering failed to identify the destination domain.



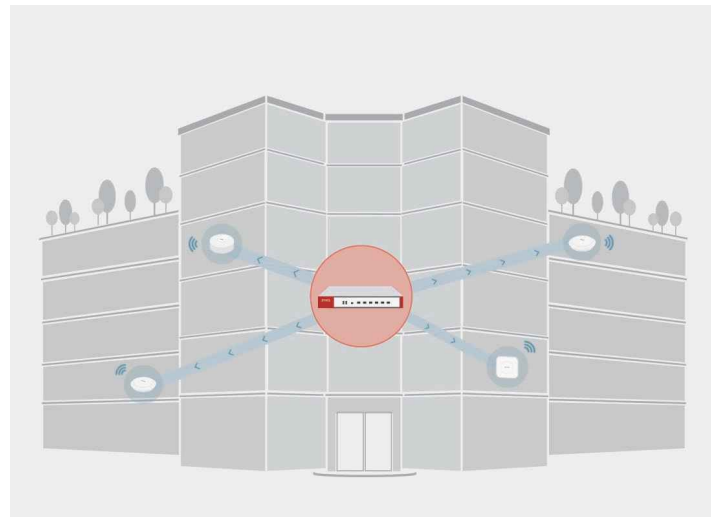
Analytics report and enhanced insights

USG FLEX series dashboard gives user-friendly traffic summary and threat statistic visuals. Utilize SecuReporter for further threat analysis with correlation feature design, making it easy to proactively trackback network status to prevent the next threat event. Centralized visibility of network activities for you to easily manage multiple clients.



Comprehensive connectivity

We also provide Wireless Health Monitor giving you visibility into the connection state of client and access point issues, allowing network administrators to easily troubleshoot issues.



Software Features

Security Service

Firewall

- Routing and transparent (bridge) modes
- Stateful packet inspection
- SIP NAT traversal
- H.323 NAT traversal*²
- ALG support for customized ports
- Protocol anomaly detection and protection
- Traffic anomaly detection and protection
- Flooding detection and protection
- DoS/DDoS protection

Unified Security Policy

- Unified policy management interface
- Support Content Filtering, Application Patrol, firewall (ACL)
- Firewall: SSL inspection*²
- Policy criteria: source and destination IP address, user group, time
- Policy criteria: zone, user*²

Intrusion Prevention System (IPS)

- Support both intrusion detection and prevention
- Support allowlist (whitelist) to deal with false positives involving known benign activity*²
- Support rate-based IPS signatures to protect networks against application-based DoS and brute force attacks*²
- Signature-based and behavior-based scanning
- Support exploit-based and vulnerability-based protection
- Support Web attacks like XSS and SQL injection
- Streamed-based engine
- Support SSL inspection*²
- Inspection on various protocols: HTTP, FTP, SMTP, POP3, and IMAP
- Inspection on various protocols: HTTPs, FTPs, SMTPs, POP3s, and IMAPs*²
- Customizable signature & protection profile*²
- Automatic new signature update mechanism support

Application Patrol

- Smart single-pass scanning engine
- Identifies and control thousands of applications and their behaviors
- Support up to 25 application categories

- Granular control over the most popular applications
- Prioritize and throttle application
- Real-time application statistics and reports
- Identify and control the use of DoH (DNS over HTTPS)

Anti-Malware

- High performance query-based scan engine (Express Mode)
- Works with over 30 billion of known malicious file identifiers and still growing
- Multiple file types supported
- Stream-based scan engine (Stream Mode)
- No file size limitation
- HTTP, FTP, SMTP, and POP3 protocol supported
- SSL inspection support*²
- Automatic signature update

Email Security*²

- Transparent mail interception via SMTP and POP3 protocols
- Spam and Phishing mail detection
- Block and Allow List support
- Supports DNSBL checking

URL Threat Filter

- Botnet C&C websites blocking
- Malicious URL blocking
- Supports External URL blacklist

Web Filtering

- HTTPs domain filtering
- SafeSearch support: Google, YouTube, and Microsoft Bing*²
- Allow List websites enforcement
- URL Block and Allow List with keyword blocking
- Customizable warning messages and redirect URL
- Customizable Content Filtering block page
- URL categories increased to 111
- CTIRU (Counter-Terrorism Internet Referral Unit) support
- Support DNS base filtering (domain filtering)

Geo Enforcer

- Geo IP blocking
- Geographical visibility on traffics statistics and logs
- IPv6 address support*²

IP Exception

- Provides granular control for target source and destination IP

- Supports security service scan bypass for IPS, Anti-Malware and URL Threat Filter

Device Insight

- Agentless scanning for discovery and classification of devices
- View all devices on the network, including wired, wireless, BYOD, IoT, and SecuExtender (remote endpoint) on SecuReporter
- Visibility of network devices (switches, wireless access points, firewalls) from Zyxel or 3rd party vendors

Collaborative Detection & Response (CDR)

- Support Alert/Block/Quarantine containment actions
- Prevent malicious wireless clients network access with blocking feature
- Customizable warning messages and redirect URL
- Bypass by IP or MAC address with exempt list

VPN

IPSec VPN

- Key management: IKEv1 (x-auth, mode-config), IKEv2 (EAP, configuration payload)
- Encryption: DES, 3DES, AES (256-bit)
- Authentication: MD5, SHA1, SHA2 (512-bit)
- Perfect forward secrecy (DH groups) support 1, 2, 5, 14, 15-18, 20-21
- PSK and PKI (X.509) certificate support
- IPSec NAT traversal (NAT-T)
- Dead Peer Detection (DPD) and relay detection
- VPN concentrator
- Route-based VPN Tunnel Interface (VTI)
- VPN high availability (Failover, LB)
- GRE over IPSec*²
- NAT over IPSec
- L2TP over IPSec
- SecuExtender Zero Trust VPN Client
- Support native Windows, iOS/macOS and Android (StrongSwan) client provision*²
- Support 2FA Email/SMS*²
- Support 2FA Google Authenticator

SSL VPN*²

- Supports Windows and Mac OS X
- Supports full tunnel mode
- Supports 2-Factor authentication

Networking

Secure WiFi

- Secure Tunnel for Remote AP
- L2 access between home office and HQ (Secured Tunnel)
- GRE Tunnel for Campus AP
- Enforcing 2FA with Google Authenticator
- WPA2 Enterprise (802.1x) supported
- Wireless Storm Control
- Applicable regardless of the On premise/Nebula-managed mode of the USG FLEX

WLAN Management*2

- Supports AP Controller (APC) version 4.00
- 802.11ax WiFi 6 AP and WPA3 support
- 802.11k/v/r support
- Supports auto AP FW update
- Scheduled WiFi service
- Dynamic Channel Selection (DCS)
- Client steering for 5 GHz priority and sticky client prevention
- Auto healing
- Customizable captive portal page
- WiFi Multimedia (WMM) wireless QoS
- CAPWAP discovery protocol
- Multiple SSID with VLAN
- Supports ZyMesh
- Support AP forward compatibility
- Rogue AP Detection

Multi-WAN

- Multi-WAN support on USG FLEX 200 and above
- Dual-WAN support on USG FLEX 100/100W/100AX (with OPT port)

Mobile Broadband*2

- WAN connection failover via 3G and 4G* USB modems
- Auto fallback when primary WAN recovers

IPv6 Support*2

- Dual stack
- IPv4 tunneling (6rd and 6to4 transition tunnel)
- SLAAC, static IP address
- DNS, DHCPv6 server/client
- Static/Policy route
- IPSec (IKEv2 6in6, 4in6, 6in4)

Connection

- Routing mode
- Bridge mode and hybrid mode*2
- Ethernet and PPPoE
- NAT and PAT
- NAT Virtual Server Load Balancing
- VLAN tagging (802.1Q)
- Virtual interface (alias interface)
- Policy-based routing (user-aware)*2
- Policy-based NAT (SNAT)
- GRE*2
- Dynamic routing (RIPv1/v2 and OSPF, BGP)*2
- DHCP client/server/relay
- Dynamic DNS support
- WAN trunk for more than 2 ports
- Per host session limit
- Guaranteed bandwidth
- Maximum bandwidth
- Priority-bandwidth utilization
- Bandwidth limit per user*2
- Bandwidth limit per IP
- Bandwidth management by application
- Link Aggregation support*1*2

Management

Nebula Cloud Mode

- 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
- Central Device and Client Monitoring (Log and Statistics Information) and Reporting
- Security Profile Sync

Nebula Cloud Monitoring Mode

- Monitor device on/off status
- Firmware upgrade operation
- Manage firewall licenses
- Access remote GUI (requires Nebula Pro Pack)
- Backup and restore firewall configurations (requires Nebula Pro Pack)

Authentication

- Local user database

- External user database: Microsoft Windows Active Directory, RADIUS, LDAP
- Cloud user database*3
- IEEE 802.1x authentication
- Captive portal Web authentication
- XAUTH, IKEv2 with EAP VPN authentication
- IP-MAC address binding
- SSO (Single Sign-On) support*2
- Supports 2-factor authentication (Google Authenticator, SMS*2/Email*2)

System Management

- Role-based administration
- Multi-lingual Web GUI (HTTPS and HTTP)
- Command line interface (console, web console, SSH and telnet)*2
- SNMP v1, v2c, v3
- System configuration rollback*2
- Configuration auto backup*2
- Firmware upgrade via FTP, FTP-TLS*2
- Firmware upgrade via Web GUI*2
- New firmware notify and auto upgrade
- Dual firmware images

Logging and Monitoring

- Comprehensive local logging
- Syslog (to up to 4 servers)
- Email alerts (to up to 2 servers)
- Real-time traffic monitoring
- Built-in daily report
- Cloud CNM SecuReporter

*: For specific models supporting the 3G and 4G dongles on the list, please refer to the Zyxel product page at 3G dongle document

*1: Supported models USG FLEX 500/700

*2: Only supported in On Premises Mode

*3: Only supported in Nebula Cloud Mode

Access Point Compatibility List

Secure Tunnel for Remote AP


Functions	Remote AP	Number of Tunnel Mode AP	Supported Remote AP
ATP	ATP100(W)	6	• WAX655E
	ATP200	10	• WAX650S
	ATP500	18	• WAX640S-6E
	ATP700	66	• WAX630S
	ATP800	130	• WAX620D-6E
USG FLEX	USG FLEX 100(AX/W)	6	• WAX610D
	USG FLEX 200	10	• WAX510D
	USG FLEX 500	18	• WAC500
	USG FLEX 700	130	• WAC500H
VPN	VPN50	10	
	VPN100	18	
	VPN300	130	
	VPN1000	258	

Managed AP Service

Product	Unified AP	Unified Pro AP	
Models	<ul style="list-style-type: none"> • NWA5301-NJ • NWA5121-NI • NWA5123-NI • NWA5123-AC • NWA5123-AC HD* 	<ul style="list-style-type: none"> • WAC5302D-S • WAC5302D-Sv2 • WAC500* • WAC500H* • WAX510D* 	<ul style="list-style-type: none"> • WAC6103D-I • WAC6303D-S • WAC6502D-S • WAC6503D-S • WAC6552D-S • WAC6502D-E • WAC6553D-E
		<ul style="list-style-type: none"> • WAX610D • WAX630S • WAX640S-6E • WAX620D-6E • WAX650S • WAX655E 	
Functions			
Central management	Yes	Yes	
Auto provisioning	Yes	Yes	
Data forwarding	Local bridge	Local bridge/Data tunnel	
ZyMesh	Yes	Yes	

*: Support both local bridge and data tunnel for data forwarding

Service Gateway Printer

Model	Feature	Supported Model
SP350E 	<ul style="list-style-type: none"> Buttons: 3 Paper roll width: 58 (+0/-1) mm Interface: 10/100 Mbps RJ-45 port Power input: 12 V DC, 5 A max. Item dimensions (WxDxH): 176 x 111 x 114 mm (6.93" x 4.37" x 4.49") Item weight: 0.8 kg (1.76 lb.) 	<ul style="list-style-type: none"> USG FLEX 200 USG FLEX 500 USG FLEX 700 VPN50 VPN100 VPN300 VPN1000 USG60(W) USG110 USG210 USG310 USG1100 USG1900 USG2200 Series ZyWALL 110 ZyWALL 310 ZyWALL 1100

*: Hotspot management licenses required

Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	Optical Fiber Type	DDMI
SFP10G-SR*	10-Gigabit SFP+	Duplex LC	850 nm	300 m/328 yd	Multi Mode	Yes
SFP10G-LR*	10-Gigabit SFP+	Duplex LC	1310 nm	10 km/10936 yd	Single Mode	Yes
SFP-1000T	Gigabit	RJ-45	-	100 m/109 yd	Multi Mode	-
SFP-LX-10-D	Gigabit	Single LC	1310 nm	10 km/10936 yd	Single Mode	Yes
SFP-SX-D	Gigabit	Single LC	850 nm	550 m/601 yd	Multi Mode	Yes
SFP-BX1310-10-D*1	Gigabit	Single LC	1310 nm (TX) 1490 nm (RX)	10 km/10936 yd	Single Mode	Yes
SFP-BX1490-10-D*1	Gigabit	Single LC	1490 nm (TX) 1310 nm (RX)	10 km/10936 yd	Single Mode	Yes

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

*1: SFP-BX1310-10-D and SFP-BX1490-10-D are must used in pairs.

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

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All specifications are subject to change without notice.



14/09/23

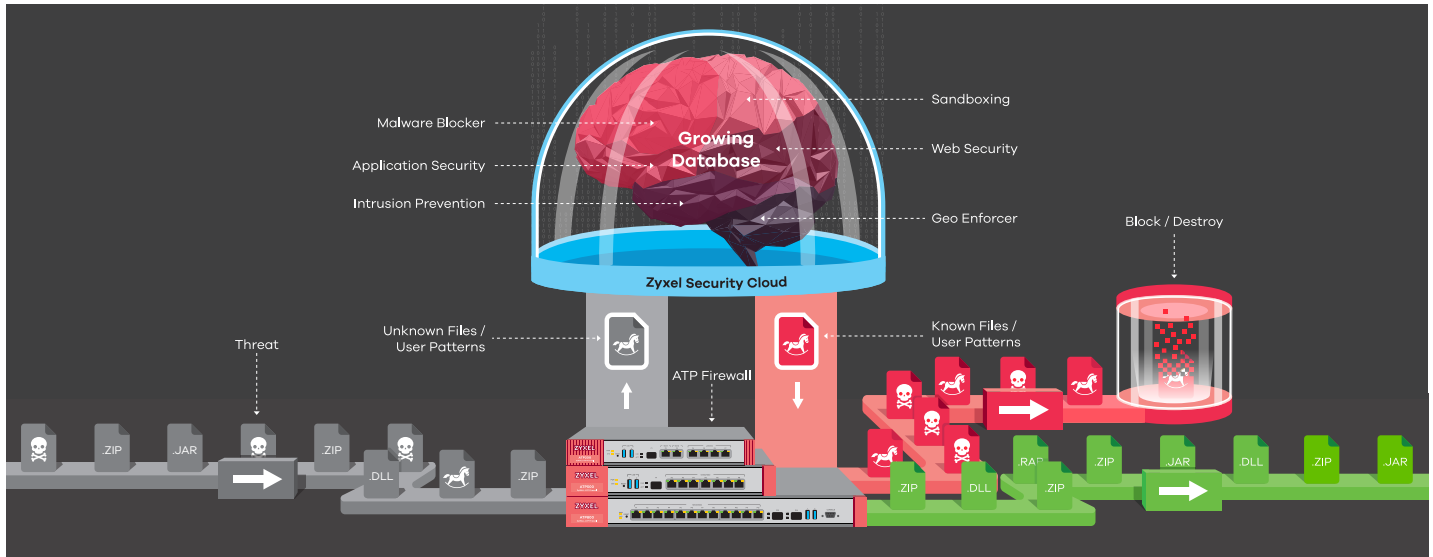
ATP router solutions with zero day detection

Self-evolving cloud intelligence

Cloud intelligence receives all unknown files or user patterns from Zyxel ATP firewall's enquiry then identifies and archives inspection results by Threat Intelligence Machine Learning. It then pushes the most top-ranked threat signature into all ATP firewalls so that all ATP devices are all within the seamless defense shield against new unknown threats. With the real-time cloud-device synchronization, the cloud intelligence becomes a continuously-growing and self-evolving security defense ecosystem, adaptive to external attacks and also more importantly keeping all ATP firewalls in sync at all times.

Sandboxing emulates unknown to known

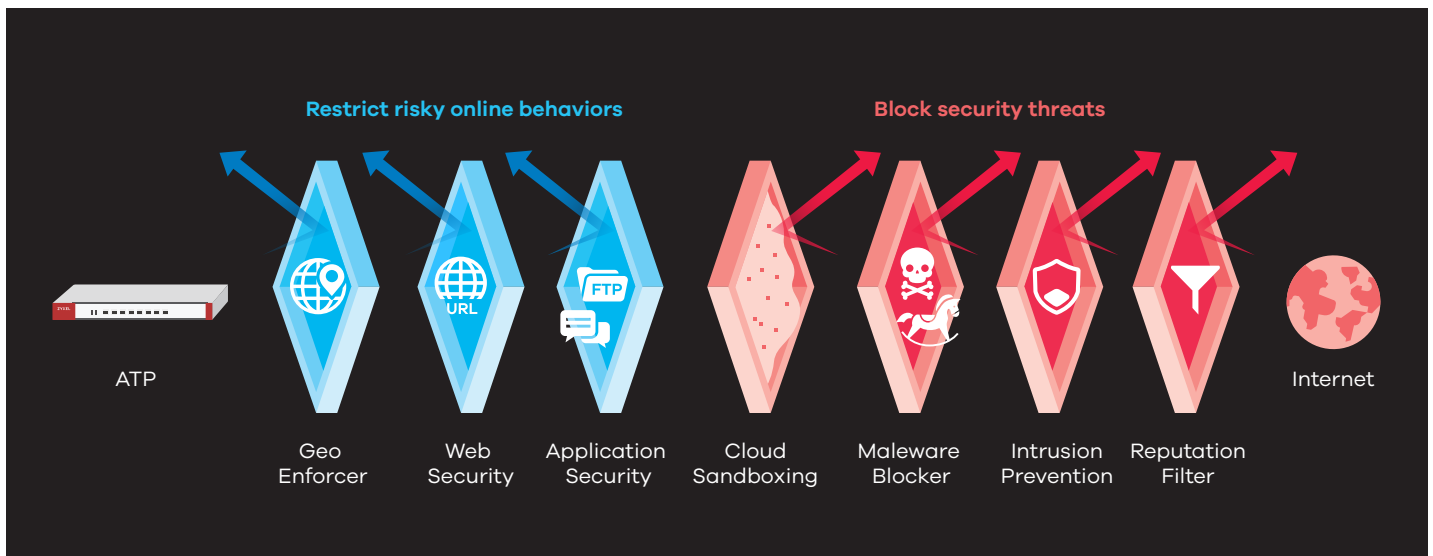
Sandboxing is an isolated cloud environment to contain unknown files that cannot be identified by existing security service on device and to emulate those unknown files to identify whether they are malicious or not. Key values from sandboxing is to inspect packet behavior in isolation so the potential threat does not enter the network at all, and also to identify new malware types which the conventional static security mechanism may not detect. Cloud sandboxing with Zyxel ATP Firewall Series is preventive measure for zero-day attacks of all sorts.



High assurance multi-layered protection

Traditionally a one-to-one solution is designed to stop a specific attack. Malware has evolved and is capable of approaching your networks in every stages of attack. This traditional protection inevitably fails. The ZyWALL ATP Firewall Series is designed with multi-layered protection to guard against threats with multiple vectors from in and out.

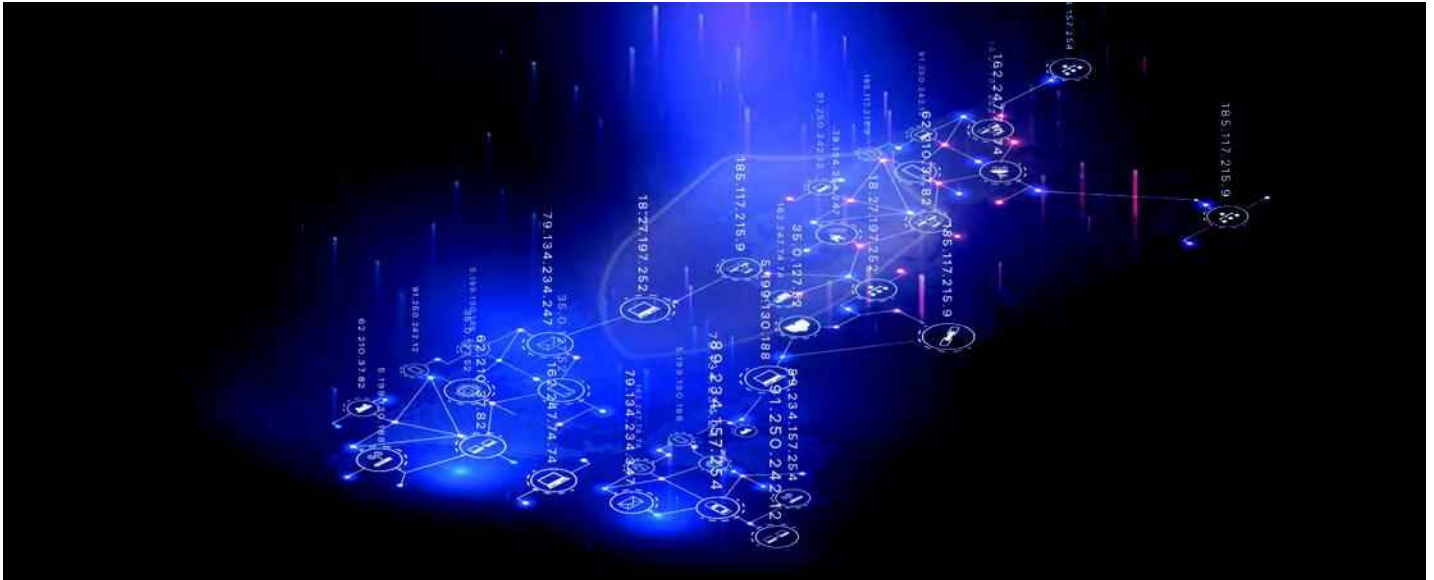
It contains comprehensive security features like botnet filter, sandboxing, app patrol, content filtering, reputation filter, anti-malware, and IDP. As soon as your devices begin to get up and running, ATP firewalls are a sure way to start safeguarding your network without any unattended openings for attack.



Reputation Filter preemptive IP threat defense

Reputation Filter matches up IP addresses with a real-time cloud database that tracks malicious cyber activities and determines if its address is reputable or not. This improves blocking efficiency, reduces hardware utilization, giving

administrators additional network resources to quickly and easily address any issues. Reputation Filter also increases threat visibility in SecuReporter (included in bundle pack) which assists in tracing cyber threat sources.

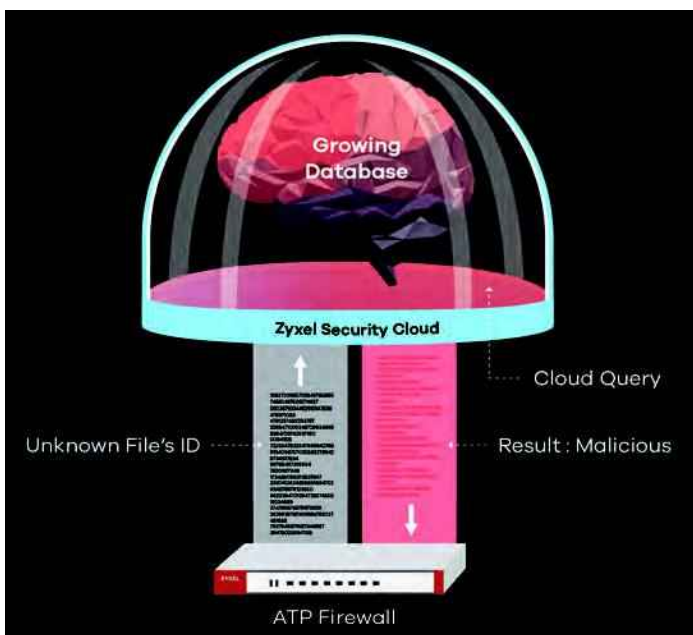


Cloud Query levels up ATP malware defense





When an unknown file appears, within seconds, Cloud Query quickly checks the file ID in Zyxel Security Cloud's database to check if it's malicious. This maximizes your network traffic by consuming minimal network resources while maintaining a strong malware coverage with multiple-sourced databases which has billions of malware data and still growing every minute via Threat Intelligence Machine Learning. Cloud Query also accelerates the collection of new malware that circulates throughout Zyxel Security Cloud, which strengthens every ATP's malware protection capability.

Visualize unknown threat analytics and reports

ATP Firewall dashboard gives user-friendly traffic summary and threat statistic visuals. Utilize SecuReporter for a suite of analysis and reporting tools, including network security threats identification/analysis, security services, security events, application usage, website usage, and traffic usage. Analyze sandboxing scanning activity detail and will send an alert mail to administrator if mail is detected as high risk. Botnet filter analytics/report show top N botnet threat web sites and their type, list which internal hosts are controlled by botnet web sites. IP Reputation analytics offer IP attack detail and its risk. ATP series with SecuReporter offer comprehensive protection and analytics.



Specifications

Model	ZyWALL ATP100	ZyWALL ATP200	ZyWALL ATP500	ZyWALL ATP800
Product photo				
Hardware Specifications				
10/100/1000 Mbps RJ-45 ports	4 x LAN/DMZ, 1 x WAN, 1 x SFP	4 x LAN/DMZ, 2 x WAN, 1 x SFP	7 (Configurable), 1 x SFP	12 (Configurable), 2 x SFP (Configurable)
USB 3.0 ports	1	2	2	2
Console port	Yes (RJ-45)	Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable	-	Yes	Yes	Yes
Fanless	Yes	Yes	-	-
System Capacity & Performance¹				
SPI firewall throughput (Mbps) ²	1,000	2,000	2,600	8,000
VPN throughput (Mbps) ³	300	500	900	1,500
IDP throughput (Mbps) ⁴	600	1,200	1,700	2,700
AV throughput (Mbps) ⁴	250	450	700	1,200
UTM throughput (AV and IDP) ⁴	250	450	700	1,200
Max. TCP concurrent sessions ⁵	300,000	600,000	1,000,000	2,000,000
Max. concurrent IPsec VPN tunnels ⁵	40	40	200	1,000
Concurrent SSL VPN users	10	10	50	100
VLAN interface	8	16	64	128
Speedtest Performance				
SPI firewall throughput (Mbps) ⁶	850	900	900	930
WLAN Management				
Managed AP number (1 Year bundled) ⁷	10	18	34	130
Security Services⁸				
Sandboxing	Yes	Yes	Yes	Yes
Web Security	Yes	Yes	Yes	Yes
Application Security	Yes	Yes	Yes	Yes
Malware Blocker	Yes	Yes	Yes	Yes
Intrusion Prevention (IDP)	Yes	Yes	Yes	Yes
Reputation Filter	Yes	Yes	Yes	Yes
Geo Enforcer	Yes	Yes	Yes	Yes
SecuReporter	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	Yes	Yes	Yes	Yes
2-Factor Authentication	Yes	Yes	Yes	Yes
Microsoft Azure	Yes	Yes	Yes	Yes
Amazon VPC	Yes	Yes	Yes	Yes
Device HA Pro	-	-	Yes	Yes

Model		ZyWALL ATP100	ZyWALL ATP200	ZyWALL ATP500	ZyWALL ATP800
Power Requirements					
Power input		12 V DC, 2 A max.	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)		12.5	13.3	24.1	46
Heat dissipation (BTU/hr)		42.65	45.38	82.23	120.1
Physical Specifications					
Item	Dimensions (WxDxH) (mm/in.)	216 x 143 x 33/ 8.50 x 5.80 x 1.30	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
	Weight (kg/lb.)	0.85/1.87	1.4/3.09	1.65/3.64	3.3/7.28
Packing	Dimensions (WxDxH) (mm/in.)	284 x 190 x 100/ 11.18 x 7.48 x 3.94	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
	Weight (kg/lb.)	1.4/3.09	2.23 (W/O bracket) 2.42 (W/ bracket)	2.83/6.24	4.8/10.58
Included accessories		<ul style="list-style-type: none"> • Power adapter • RJ-45 cable • RS-232 cable 	<ul style="list-style-type: none"> • Power adapter • Rack mounting kit 	<ul style="list-style-type: none"> • Power adapter • Power cord • Rack mounting kit 	<ul style="list-style-type: none"> • 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
	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
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)		989,810.8	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 (Class B), RCM (Class B), BSMI	FCC Part 15 (Class B), CE (Class B), RCM (Class B), BSMI	FCC Part 15 (Class A), CE (Class A), RCM (Class A), BSMI	FCC Part 15 (Class A), CE (Class A), RCM (Class A), BSMI
Safety		LVD, BSMI	LVD, BSMI	LVD, BSMI	LVD, BSMI

*: This matrix with firmware ZLD4.35 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: The Speedtest result is conducted with 1Gbps WAN link in real world and it is subject to fluctuate due to quality of the ISP link.

*7: Once Gold Pack has expired, 2 APs will only be supported.

*8: Enable or extend feature capacity with Zyxel service license.

Access Point Compatibility List

Product	Unified AP	Unified Pro AP	
Models	<ul style="list-style-type: none"> NWA5121-N NWA5121-NI NWA5123-AC NWA5123-AC HD NWA5123-NI 	<ul style="list-style-type: none"> NWA5301-NJ WAC5302D-S Forward Compatible APs* 	<ul style="list-style-type: none"> WAC6103D-I WAC6303D-S WAC6502D-E WAC6502D-S WAC6503D-S
Functions			
Central management	Yes	Yes	
Auto provisioning	Yes	Yes	
Data forwarding	Local bridge	Local bridge/Data tunnel	
ZyMesh	Yes	Yes	

*: From APC3.0, commercial gateways supporting APC technology are able to recognize APs with FW release higher than APC3.0 as Forward Compatible APs. Resellers can introduce newly-available Zyxel APs with basic features supported without upgrading any new controller firmware.

Software Features

Security Service

Firewall

- ICSA-certified corporate firewall
- Routing and transparent (bridge) modes
- Stateful packet inspection
- User-aware policy enforcement
- SIP/H.323 NAT traversal
- ALG support for customized ports
- Protocol anomaly detection and protection
- Traffic anomaly detection and protection
- Flooding detection and protection
- DoS/DDoS protection

Unified Security Policy

- Unified policy management interface
- Support Content Filtering, Application Patrol, firewall (ACL/SSL)
- Policy criteria: zone, source and destination IP address, user, time

Intrusion Detection and Prevention (IDP)

- Routing and transparent (bridge) mode
- Signature-based and behavior based scanning
- Customized signatures supported
- Automatic signature updates

Application Patrol

- Granular control over the most important applications
- Identifies and controls application behavior
- Supports 30+ application categories
- Supports user authentication
- Real-time statistics and reports

Sandboxing

- Cloud-based multi-engine inspection
- Support HTTP/SMTP/POP3/FTP
- Wild range file type examination
- Real-time threat synchronization

Anti-Malware

- Stream-based scan engine
- No file size limitation
- HTTP, FTP, SMTP, POP3 protocol support
- Automatic signature updates

Cloud Query

- Cloud-based malware scan engine
- Works with over 30 billion signature database and still growing
- Supports FTP/HTTP/HTTPS-based protocol
- Multiple file types supported

E-mail Security

- Transparent mail interception via SMTP and POP3 protocols
- Sender-based IP reputation filter

- Spam, Phishing, Zero-hour virus mail detection
- Blacklist and whitelist support
- Supports DNSBL checking

Reputation Filter

- IP-based reputation filter
- Supports 10 Cyber Threat Categories
- Inbound & Outbound traffic filtering
- Blacklist and whitelist support

Botnet Filter

- Botnet C&C websites blocking
- Malicious URL blocking

Content Filtering

- HTTPs domain filtering
- SafeSearch support
- Whitelist websites enforcement
- URL blacklist and whitelist, keyword blocking support
- Customizable warning messages and redirection URL

Geo Enforcer

- Geo IP blocking
- Geographical visibility on traffics statistics and logs
- IPv6 address support

IP Exception

- Provides granular control for target source and destination IP
- Supports security service scan bypass for IDP and Anti-Malware

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 & Performance¹					
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
	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
	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	<ul style="list-style-type: none"> Power adapter DB9- RJ-45 for console connection 	<ul style="list-style-type: none"> Power adapter DB9 - RJ-45 cable for console connection Antenna 	<ul style="list-style-type: none"> Power adapter Rack mounting kit 	<ul style="list-style-type: none"> 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
	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
	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.

ZyWALL UTM Firewalls

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 ^{*5}	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) ^{*9,9}	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
	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
	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
	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
	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.

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
	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
	Weight (kg/lb.)	1.41/3.11	1.50/3.31
Included accessories	<ul style="list-style-type: none"> Power adapter RJ-45 - RS-232 cable for console connection 	<ul style="list-style-type: none"> 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
	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
	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)	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> US (FCC) 2.4 GHz: 24.3 dBm, 2 antennas EU (ETSI) 2.4 GHz: 19.6 dBm (EIRP), 2 antennas 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 802.11n up to 450 Mbps 802.11ac up to 1300 Mbps 	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 11 Mbps ≤ -87 dBm HT20, MCS15 ≤ -71 dBm 54 Mbps ≤ -74 dBm HT40, MCS15 ≤ -67 dBm 5 GHz: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 11 Mbps ≤ -87 dBm 54 Mbps ≤ -74 dBm HT20, MCS15 ≤ -71 dBm HT40, MCS15 ≤ -68 dBm 	2.4 GHz: <ul style="list-style-type: none"> 11 Mbps ≤ -87 dBm 54 Mbps ≤ -74 dBm HT20 ≤ -71 dBm HT40 ≤ -68 dBm 5 GHz: <ul style="list-style-type: none"> 54 Mbps ≤ -75 dBm HT20, MCS15 ≤ -71 dBm HT40, MCS15 ≤ -69 dBm

Advanced ZyWALL VPN Firewalls

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 & Performance¹					
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	Yes	Yes	
VPN	IKEv2, IPSec, L2TP/IPSec	IKEv2, IPSec, SSL, 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 Feature¹¹					
Dynamic Path Selection	-	Yes	Yes	Yes	
WAN Optimization	-	Yes	Yes	Yes	
Zero Touch Provision (ZTP)	-	Yes	Yes	Yes	
Auto VPN	Site-to-Site - Client-to-Site -	Yes Yes	Yes Yes	Yes Yes	
App Patrol	-	Yes	Yes	Yes	
Content Filter	-	Yes	Yes	Yes	
Geo Enforcer (GeolP)	-	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 x 188 x 44/ 16.93 x 7.4 x 1.73
	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 x 9.72 x 2.87	351 x 152 x 245/ 13.82 x 5.98 x 9.65
	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
	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
	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 112 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 & Performance¹			
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 device 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
	Weight (kg/lb.)	2/4.41	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
	Weight (kg/lb.)	2.83/6.24	4.74/10.45
Included accessories	<ul style="list-style-type: none"> Power adapter Power cord Rack mounting 	<ul style="list-style-type: none"> Power adapter Rack mounting kit 	<ul style="list-style-type: none"> 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
	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
	Humidity	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.