

# ZyWALL USG FLEX 100H/200H/500H/700H

## USG FLEX H Firewall

USG FLEX H series, named for its groundbreaking high performance, gives ultra firewall/UTM/VPN throughput with powerful multi-gig and PoE+ interfaces to get you ready for the multi-gig era. Empowered by Zyxel AI cloud, USG FLEX H series unleashes best-in-breed multi-layered protection to blank your corporate premises with seamless safety against mounting cyber threats. To make the great even greater, USG FLEX H, with enhanced SecuExtender, makes it easier to extend the same security to all your remote networks, proving that small or mid-sized business users can also enjoy enterprise-grade security at lightning speed.

### Benefits

#### Ultra high performance

With next-generation multi-core hardware and Fastpath technology, USG FLEX H series is designed with dedicated system resources to minimize packet processing time, reduce latency, and accelerate traffic flows. It is also fabricated for optimal utilization of processors to boost performance, all together to deliver superior performance catering to your needs for high speed networks.



Firewall/VPN/UTM ultra high performance



Multi-gig user-definable WAN/LAN Ethernet ports with up to 10 Gbps speed



Optional 802.3at PoE+ enables eco-friendly deployments without AC adapters



New powerful uOS accelerates system response time with user friendly design



SecuExtender VPN utility supports both IKEv2 & SSL VPN



High assurance multi-layered protection against cyber threats



Comprehensive Reputation Filter includes IP/URL/DNS inspection

### Port flexibility, Multi-G and PoE+

With 2.5 Gbps and 10 Gbps Port Speed options, the USG FLEX H also features software-defined ports, allowing you true flexibility in tailoring each USG FLEX H port as required (WAN or LAN). It offers 2 PoE+ integrated ports with total 30W power budget to simplify installations and reduce install costs by allowing you power devices directly from the USG FLEX H itself.



### AI-powered cloud cybersecurity

Block malicious threats and restrict inappropriate user behaviors. The USG FLEX H series leverages AI-powered cloud intelligence to operate multi-layered protection such as sandboxing, anti-malware, DNS/IP/URL filtering, IPS, and application patrol over your premises.



### Our new Fast and Powerful uOS

The USG FLEX H series introduces our latest powerful uOS. It is designed to increase security, minimize system response time, apply configuration changes instantly and optimize configuration and security policy management with its new intuitive UX design.

### Hassle free network management with Nebula

Utilizing Nebula, Zyxel's centralized cloud management platform you can configure and deploy network and security devices centrally. You can manage multiple devices and bring the information from them together, combining it to create a more effective defensive ring around the network.



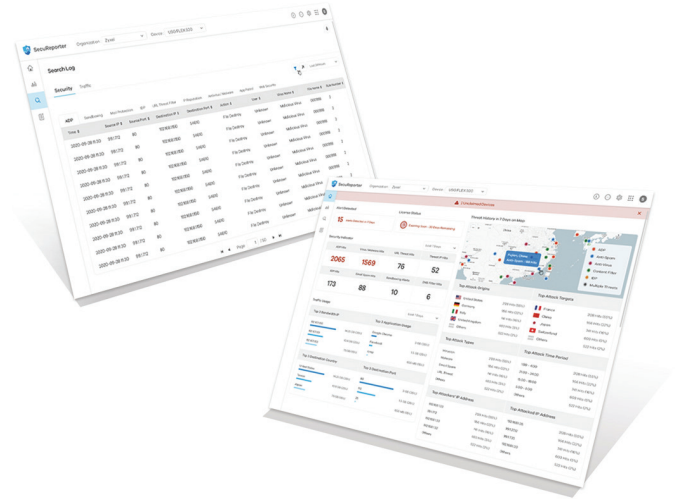
## Preemptive Defense by Reputation Filter

Stop 70% of common cyberattacks with Reputation Filter service without sacrificing your network performance thanks to its low computing requirement. Reputation Filter consist of IP Reputation, DNS Filter, and URL threat filter. Analyzes IP, domain, URL addresses with up-to-date cloud reputation databases and determines if addresses are safe or not. Automatically blocks access to compromised sources, providing granular protection.



## Deep insights of devices

Device insight gives a centralized dashboard of your network activities and information from all connected devices. Tune your access policies based on attributes such as OS version or device categories to achieve network segmentation for limited attack surface and prevent threat from spreading. Easily trace issues and prevent future threat incidents with SecuReporter, provides comprehensive threat analysis and correlations between events.



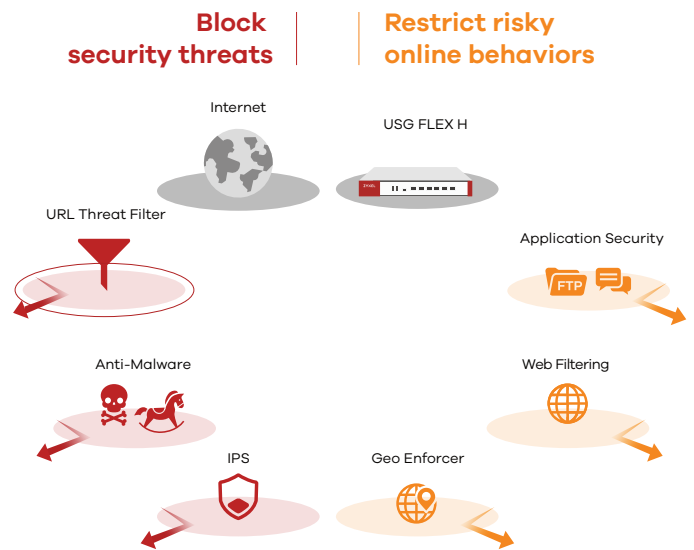
## Friendly for OS-native VPN Clients

IKEv2 is a de-facto VPN protocol known for its security, reliability, and efficiency, a safer and more enhanced protocol than L2TP. It's widely adopted so it comes with outstanding interoperability with various types of VPN clients, OS, and VPN gateways. Easy wizard ensures in-a-few-clicks compatibility with free-of-charge OS-native IKEv2 VPN clients such as Windows, macOS, iOS, and Android (via StrongSwan app).



## High assurance multi-layered protection

Designed with multi-layer protection that blocks both outside malicious threats as well as internal inappropriate user behaviors. Restrict high-risk applications or web access from inside your network. Industry-leading DNS filter with TLS 1.3 eliminates all blind spots in all encrypted traffic without the need to deploy SSL inspection.



## License Service

### Gold Security Pack

Sandboxing

Reputation Filter\*

Web Filtering

Anti-Malware

IPS

Application Patrol

Device Insight

SecuReporter

Secure WiFi\*1

Nebula Pro Pack

\*: USG FLEX H enhances Reputation Filter service with IP reputation included



\*1: Available in Q2 2024

### Other Licenses

Nebula Pro Pack

Nebula Plus Pack

## Specifications

Model	USG FLEX 100H/HP	USG FLEX 200H/HP
Product photo		
<b>Hardware Specifications</b>		
WiFi Standard	-	-
Interface ports	8 x 1GbE Ethernet 100HP: 1 x PoE+ Ethernet (802.3at, 30W max.)	2 x 2.5GbE Ethernet 6 x 1GbE Ethernet 200HP: 1 x PoE+ Ethernet (802.3at, 30W max.)
USB 3.0 ports	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)
Rack-mountable	-	Yes
Fanless	Yes	Yes
<b>System Capacity &amp; Performance*<sup>1</sup></b>		
SPI firewall throughput (Mbps)* <sup>2</sup>	3,000	5,000
VPN throughput (Mbps)* <sup>3</sup>	750	1,200
IPS throughput (Mbps)* <sup>4</sup>	1,500	2,000
Anti-Malware throughput (Mbps)* <sup>4</sup>	750	1,500
UTM throughput (Anti-Malware and IPS)* <sup>4</sup>	750	1,500
Max. TCP concurrent sessions* <sup>5</sup>	300,000	600,000
Max. concurrent IPsec VPN tunnels* <sup>6</sup>	50	100
Recommended gateway-to-gateway IPsec VPN tunnels	20	50
Concurrent SSL VPN users	25	50
VLAN interface	16	32
Max. concurrent devices logins* <sup>7</sup>	64	200
<b>Security Service*<sup>8</sup></b>		
Anti-Malware	Yes	Yes
IPS	Yes	Yes
Application Patrol	Yes	Yes
Web Filtering	Yes	Yes
Reputation Filter	Yes	Yes
SecuReporter	Yes	Yes
Sandboxing	Yes	Yes
Device Insight	Yes	Yes
Secure WiFi* <sup>9</sup>	Yes	Yes
<b>Key Features</b>		
VPN	IKEv2, IPsec, SSL	IKEv2, IPsec, SSL
SSL (HTTPS) Inspection	Yes	Yes
Two-Factor Authentication	Yes	Yes
Nebula Centralized Management	Yes	Yes

Model		USG FLEX 100H/HP	USG FLEX 200H/HP
<b>Power Requirements</b>			
<b>Power input</b>		100H: 12 V DC, 2 A max. 100HP: 19 V DC, 3.42 A	200H: 12 V DC, 2 A max. 200HP: 19 V DC, 3.42 A
<b>Max. power consumption (Watt max.)</b>		100H: 17 Watt max. 100HP: 51.2 Watt Max	200H: 22 Watt max. 200HP: 62 Watt max.
<b>Heat dissipation (BTU/hr)</b>		100H: 40.365 (BTU/hr) 100HP: 194.5 (BTU/Hr)	200H: 58.75 (BTU/hr) 200HP: 191.9 (BTU/hr)
<b>Physical Specifications</b>			
<b>Item</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	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
	<b>Weight (kg/lb.)</b>	100H: 1.04/2.29 100HP: 1.05/2.31	200H: 1.52/3.34 200HP: 1.52/3.35
<b>Packing</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	278 x 189 x 99/ 10.94 x 7.44 x 3.89	427 x 247 x 73/ 16.81 x 9.72 x 2.87
	<b>Weight (kg/lb.)</b>	100H: 1.62/3.57 100HP: 1.91/4.21	200H: 2.43/5.36 200HP: 2.68/5.92
<b>Included accessories</b>		<ul style="list-style-type: none"> <li>• Power adapter</li> <li>• Power cord (100HP)</li> <li>• RJ-45 - RS-232 cable for console connection</li> </ul>	<ul style="list-style-type: none"> <li>• Power adapter</li> <li>• Power cord (200HP)</li> <li>• RJ-45 - RS-232 cable for console connection</li> <li>• Rack mounting kit (optional, by regions)</li> </ul>
<b>Environmental Specifications</b>			
<b>Operating</b>	<b>Temperature</b>	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
	<b>Humidity</b>	10% to 90% (non-condensing)	10% to 90% (non-condensing)
<b>Storage</b>	<b>Temperature</b>	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
	<b>Humidity</b>	10% to 90% (non-condensing)	10% to 90% (non-condensing)
<b>MTBF (hr)</b>		100H:	200H:
		40°C/289845.2327 hr	40°C/306768.409 hr
		25°C/518347.4294 hr	25°C/528037.0106 hr
		100HP:	200HP:
		40°C/291183.7887 hr	40°C/227747.9662 hr
		25°C/550382.5753 hr	25°C/392638.3847 hr
<b>Acoustic noise</b>		-	-
<b>Certifications</b>			
<b>EMC</b>		FCC Part 15 (Class B), CE EMC (Class B), RCM (Class B), BSMI	FCC Part 15 (Class B), CE EMC (Class B), RCM (Class B), BSMI
<b>Safety</b>		LVD (EN62368-1), BSMI	LVD (EN62368-1), BSMI

\*: This matrix with firmware uOS1.10 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: Anti-Malware (with Express Mode) and IPS throughput is measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.



\*5: Maximum sessions are measured using the industry standard IXIA IxLoad testing tool.

\*6: Including Gateway-to-Gateway and Client-to-Gateway.

\*7: This is the recommend maximum number of concurrent logged-in devices.

\*8: With Zyxel service license to enable or extend the feature capacity.

\*9: Available in Q2, 2024.

Model	USG FLEX 500H	USG FLEX 700H
Product photo		
<b>Hardware Specifications</b>		
Interface ports	2 x 2.5GbE Ethernet 2 x 2.5GbE/PoE+ Ethernet (802.3at, total 30W) 8 x 1GbE Ethernet	2 x 2.5GbE Ethernet 2 x 10GbE/PoE+ Ethernet (802.3at, total 30W) 8 x 1GbE Ethernet 2 x 10GbE SFP+
USB 3.0 ports	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)
Rack-mountable	Yes	Yes
Fanless	-	-
<b>System Capacity &amp; Performance*1</b>		
SPI firewall throughput (Mbps)*2	10,000	15,000
VPN throughput (Mbps)*3	2,000	3,000
IPS throughput (Mbps)*4	3,500	6,300
Anti-Malware throughput (Mbps)*4	2,500	4,000
UTM throughput (Anti-Malware and IPS)*4	2,500	4,000
Max. TCP concurrent sessions*5	1,000,000	2,000,000
Max. concurrent IPsec VPN tunnels*6	300	1,000
Recommended gateway-to-gateway IPsec VPN tunnels	150	300
Concurrent SSL VPN users	150	500
VLAN interface	64	128
Max. concurrent devices logins*7	300	4,000
<b>Security Service*8</b>		
Anti-Malware	Yes	Yes
IPS	Yes	Yes
Application Patrol	Yes	Yes
Web filtering	Yes	Yes
Reputation Filter	Yes	Yes
SecuReporter	Yes	Yes
Sandboxing	Yes	Yes
Device Insight	Yes	Yes
Secure WiFi*9	Yes	Yes
<b>Key Features</b>		
VPN	IKEv2, IPsec, SSL	IKEv2, IPsec, SSL
SSL (HTTPS) Inspection	Yes	Yes
Two-Factor Authentication	Yes	Yes
Nebula Centralized Management	Yes	Yes

Model		USG FLEX 500H	USG FLEX 700H
<b>Power Requirements</b>			
<b>Power input</b>		19 V DC, 4.736 A	100 - 240 V AC, 50/60 Hz, 2 A max.
<b>Max. power consumption (Watt max.)</b>		68 Watt max.	86.7 Watt max.
<b>Heat dissipation (BTU/hr)</b>		211.3 (BTU/hr)	235 (BTU/hr)
<b>PoE power budget (Watt max.)</b>		30	30
<b>Physical Specifications</b>			
<b>Item</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	300 x 182 x 43.5/11.81 x 717 x 1.71	430 x 250 x 43.5/16.93 x 9.84 x 1.71
	<b>Weight (Kg/lb.)</b>	1.64/3.62	3.14/6.93
<b>Packing</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	350 x 149 x 244/13.78 x 5.87 x 9.61	512 x 395 x 162/20.16 x 15.55 x 6.38
	<b>Weight (kg/lb.)</b>	2.93/6.46	4.90/10.81
<b>Included accessories</b>		<ul style="list-style-type: none"> <li>• Power adapter &amp; Power cord</li> <li>• RJ-45 - RS-232 cable for console connection</li> <li>• Rack mounting kit</li> </ul>	<ul style="list-style-type: none"> <li>• Power cord</li> <li>• RJ-45 - RS-232 cable for console connection</li> <li>• Rack mounting kit</li> </ul>
<b>Environmental Specifications</b>			
<b>Operating</b>	<b>Temperature</b>	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
	<b>Humidity</b>	10% to 90% (non-condensing)	10% to 90% (non-condensing)
<b>Storage</b>	<b>Temperature</b>	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
	<b>Humidity</b>	10% to 90% (non-condensing)	10% to 90% (non-condensing)
<b>MTBF (hr)</b>		40°C/346653.298 hr 25°C/491775.8384 hr	40°C/431877.9743 hr 25°C/669031.2966 hr
<b>Acoustic Noise</b>		16.86 dBA on < 25°C operating temperature, 43.76 dBA on full FAN speed	16.85 dBA on < 25°C operating temperature, 47.84 dBA on full FAN speed
<b>Certifications</b>			
<b>EMC</b>		FCC Part 15 (Class A), CE EMC (Class A), RCM (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), RCM (Class A), BSMI
<b>Safety</b>		LVD (EN62368-1), BSMI	LVD (EN62368-1), BSMI

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\*5: Maximum sessions are measured using the industry standard IXIA IxLoad testing tool.

\*6: Including Gateway-to-Gateway and Client-to-Gateway.

\*7: This is the recommend maximum number of concurrent logged-in devices.

\*8: With Zyxel service license to enable or extend the feature capacity.

\*9: Available in Q2, 2024.



# Software Features

## Security Service

### Firewall

- Routing and transparent (bridge) modes
- Stateful packet inspection
- FTP NAT traversal
- ALG support for customized ports
- Dos Prevention (Preventing Flood and Sweep Attacks)
- Per host session limit\*<sup>2</sup>

### Security Policy

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

### Intrusion Prevention System (IPS)

- Streamed-based engine
- Signature-based scanning
- Support both intrusion detection and prevention
- Support allow list (whitelist) to deal with false positives involving known benign activity
- Support exploit-based and vulnerability-based protection
- Support Web attacks like XSS and SQL injection
- 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
- 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
- Wild range file type examination
- Support HTTP/SMTP/POP3/FTP scan

### Sandboxing

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

### IP Reputation Filter

- IP-based reputation filter
- Supports 9 Cyber Threat Categories
- Inbound & Outbound traffic filtering
- Block and Allow List support

### DNS Threat Filter

- Block clients to access malicious domain
- Block and Allow List support

### URL Threat Filter

- Botnet C&C websites blocking
- Malicious URL blocking
- Block and Allow List support

### Web Filtering

- HTTPs domain filtering
- DNS domain filtering
- Allow List websites enforcement
- Customizable warning messages and redirect URL
- URL categories increased to 111
- CTIRU (Counter-Terrorism Internet Referral Unit) support
- Block and Allow List support

### SSL Inspection

- Deep packet inspection for TLS
- Support inspect TLS1.3
- Support untrusted certificate blocking
- Works with IPS/Anti-Malware/Sandboxing/Application Patrol/Web Filtering

### 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

### Geo Enforcer

- Geo IP blocking

### IP Exception

- Provides granular control for target source and destination IP
- Supports security service scan bypass for IPS, Anti-Malware and URL Threat Filter

## VPN

### IPSec VPN

- Route-based and Policy-based Site to Site
- Client remote access (IKEv2 MS-CHAPv2)
- IKEv2 (EAP, configuration payload)
- Encryption: DES, 3DES, AES (256-bit)
- Authentication: MD5, SHA1, SHA2 (512-bit)
- Perfect forward secrecy (DH groups) support 2, 5, 14-16, 19-21, 28-30
- PSK and PKI (X.509) certificate authentication
- IPSec NAT traversal (NAT-T)
- Dead Peer Detection (DPD) and relay detection
- SecuExtender VPN Client provision
- Support native Windows, iOS/macOS and Android (StrongSwan) client provision

### SSL VPN

- Client remote access\*<sup>1</sup>
- Full/Split tunnel mode
- SecuExtender VPN client provision

## Networking

### Connection

- Routing mode
- Ethernet and PPPoE
- NAT and PAT
- Static route
- Policy-based routing (user-aware)
- Policy-based NAT (SNAT)
- DHCP client/server/relay
- Dynamic DNS support
- WAN load balancing/failover (Round Robin, LLF\*<sup>2</sup>, Split over\*<sup>2</sup>)
- Bandwidth Management\*<sup>2</sup>

## Management

### Nebula Centralized Management

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

### Authentication

- Local user database
- External user database
- IKEv2 with EAP-MSCHAPv2 VPN authentication
- Supports 2-factor authentication Google Authenticator

### System Management

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

### Logging and Monitoring

- Comprehensive local logging
- Syslog (to up to 4 servers)
- Real-time traffic monitoring
- Built-in daily report
- SecuReporter supported

\*1: Compatible with OpenVPN Connect

\*2: Available in Q2 2024

## Accessories

### IPSec and SSL VPN Client

Item	Description	Supported OS
<b>SecuExtender Zero Trust IPSec and SSL VPN Client*</b>	SecuExtender supports popular VPN protocols including IKEv2/EAP, SSL VPN. Building secure tunnel with industry-leading strong cipher, the SecuExtender guarantees your confidentiality and data integrity.	<ul style="list-style-type: none"><li>• Windows 10 64-bit</li><li>• macOS 10.15 or above</li></ul>

\*: One subscription license to activate IPSec or SSL VPN from selected OS Windows/macOS.

### Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	Optical Fiber Type	DDMI
<b>SFP10G-SR*</b>	10-Gigabit SFP+	Duplex LC	850 nm	300 m/328 yd	Multi mode	Yes
<b>SFP10G-LR*</b>	10-Gigabit SFP+	Duplex LC	1310 nm	10 km/10936 yd	Single mode	Yes
<b>SFP-1000T</b>	Gigabit	RJ-45	-	100 m/109 yd	Multi mode	-
<b>SFP-LX-10-D</b>	Gigabit	LC	1310 nm	10 km/10936 yd	Single mode	Yes
<b>SFP-SX-D</b>	Gigabit	LC	850nm	550 m/601 yd	Multi mode	Yes

\*: Only USG FLEX 700H supports 10-Gigabit SFP+.

For more product information, visit us on the web at [www.zyxel.com](http://www.zyxel.com)

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