ZYXEL





ZyWALL USG1100/1900

Unified Security Gateway

As a business grows, so does the scope of its network. New users and devices connect at an ever-increasing rate. Add to this an array of applications, like cloud-based services, and one begins to understand the challenge facing today's enterprises. It's a continuous cycle — demand for high network availability increases alongside the need for more Internet access, not to mention additional user controls and improved security measures.

The ZyWALL USG Series is a line of UTM firewalls designed to meet this challenge head-on with high availability, anti-malware protection, access management, and consolidated policy enforcement for medium- to largesized businesses and campuses. The Zyxel USG Series provides WAN and VPN load balancing, failover to ensure nonstop business communications, and our Hotspot Management solution for secure network connectivity with easy access.



UTM Firewall for medium and large-sized businesses and campuses



Anti-malware protection with Anti-Virus, Anti-Spam, Content Filtering 2.0, IDP, Application Patrol and SSL inspection



Robust SSL, IPSec and L2TP over IPSec VPN connectivity and VPN High Availability (HA)



Unified security policy



Device HA Pro ensures smart handover



Hotspot management is supported



Facebook WiFi, Intelligence social media authentication









Benefits

Powerful, Robust and Always-Online

ZyWALL USG Series delivers high-access quality to help businesses satisfy the demand for always-online communications. For internal deployments, the USG Series provides active-passive High-Availability (HA) service to support device or connection failover. With Device HA Pro service, the ZyWALL USG Series also supports instant failover, so connections are always maintained when a failover event occurs.

For external deployments, the ZyWALL USG Series features multi-WAN load balancing/failover and a comprehensive mobile broadband USB modem support list for WAN backup operations. The ZyWALL USG Series also supports IPSec load balancing and failover, providing additional resilience for mission-critical VPN failover with VTI Interface deployments.

Impregnable Protection and Optimization

ZyWALL USG Series thoroughly protects networks with industry-leading firewall, Anti-Malware/Virus, Anti-Spam, Content Filtering, IDP, and Application Patrol functionality. Regulate unauthorized use of Web applications over your network, such as Facebook, Google apps, and Netflix, among others. Zyxel security measures are enhanced with SSL Inspection, blocking threats hidden in SSL-encrypted connections while facilitating deeper policy enforcement. Furthermore, newly improved Content Filtering 2.0 enhances HTTPS Domain Filter, Browser SafeSearch, and Geo IP Blocking for an array of security enhancements to ensure clean Web connections.

Best TCO for Access Expansion

People expect network access regardless of time or location. As a result, hotspots are in demand in an ever-expanding assortment of locations. The ZyWALL USG1100/1900 integrated with Zyxel AP Controller technology enables users to manage APs from a centralized user interface. In addition, Zyxel Hotspot Management delivers a unified solution for business networks with user-friendly tools like Billing System, Walled Garden, Multiple Authentication, 3rd Party Social Login and User Agreement. With ZyWALL USG Series, businesses can now deploy or expand a managed WiFi network with minimal effort.

Swift and Secure Firmware Upgrades

Locating firmware updates — not to mention identifying correct versions for your device and managing their installation — can be a complex and confusing ordeal. The ZyWALL USG Series solves this with its new Cloud Helper service. Cloud Helper provides a simple step to look for upto-date firmware information. New firmware is immediately made available upon release from our official database to ensure its authenticity and reliability.

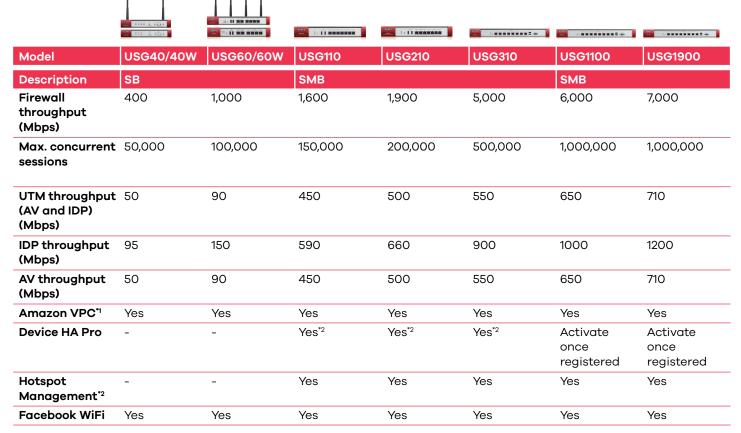
Zyxel One Network experience

Aiming for relieving our customers from repetitive operations of deploying and managing a network, Zyxel One Network is designed to simplify the configuration, management, and troubleshooting, allowing our customers to focus on the business priorities. Zyxel One Network presents an easy-to-use tool, Zyxel One Network Utility (ZON Utility), to realize speed network setup. Zyxel Smart Connect allows Zyxel networking equipment to be aware and recognize each other and further facilitating the network maintenance via one-click remote functions such as factory reset or power cycling. Zyxel One Network redefines the network integration across multiple networking products from switch to WiFi AP and to Gateway.

Stay Secure and Up-to-Date with OneSecurity

Zyxel provides frequent and timely updates in response to the latest security threats and advisories through OneSecurity — our free online service portal. OneSecurity offers informative network security resources and the know-how to assist businesses and IT administrators in keeping their network operations safe in the digital age. Information and resources can be found with one click via the GUI of ZyWALL USG Series and VPN Series products. IT staff can quickly and easily catch up on the latest threats, and then proceed to walkthroughs and troubleshooting protocols with the help of easy-to-follow FAQs — all provided to help users secure their networks and simplify management of our UTM products.

ZyWALL USG Series Quick Finder



^{*1:} ZyWALL/USG still be able to support by CLIs

Subscription Services

The ZyWALL USG1100/1900 provides a complete feature set to perfectly fit different business requirements as well as to enable the maximum performance and security with an all-in-one appliance. Comprehensive network modularity also empowers IT professionals to customize the system to meet their individual needs.



Anti-Spam



& Prevention









Management

Datasheet ZyWALL USG1100/1900

^{*2:} With Zyxel service license to enable or extend the feature capacity

Feature Highlights

Multi-WAN & Mobile Broadband

The ZyWALL USG Series provides non-stop Internet uptime with multi-WAN and mobile broadband support. Multi-WAN works with two or more Ethernet WAN connections for active-active WAN load balancing or active-passive failover. Comprehensive mobile broadband USB modems are also supported for WAN backup.

Unified Security Policy

Unified security policy offers object-based management and a unified configuration interface for firewall and all security-related policies. Users can easily apply all policy criteria to every UTM feature, reduce configuration time, and get more streamlined policy management.

Cloud Helper

The Cloud Helper provides friendly firmware upgrades so users don't need to worry about how and where to receive the latest firmware information and files. With just a few steps to download and update the firmware directly, it's very convenient and time-efficient.

Zyxel One Network Utility

The ZON utility features smart functions to assist network management for administrators to perform batch firmware upgrade for devices, remote reboot of devices such as ceiling APs or redirect to device GUI for further configuration with just a click. These troublesome but necessary management tasks can now be easily done through just one platform for WiFi APs, switches and gateways.

SSL Inspection

SSL inspection enables the ZyWALL USG Series to provide not only comprehensive security, but also deeper policy enforcement. It enables the USG's Application Patrol , IDP, Content Filtering 2.0 and Anti-Virus to inspect traffic in SSL encrypted connections and block threats that usually go unseen.

Robust VPN

Zyxel USGs support high-throughput IPSec, L2TP over IPSec and SSL VPN for a wide range of site-to-client and site-to-site VPN deployments. Reinforced with the advanced SHA-2 cryptographic, the Zyxel USGs provide the most secure Policy-based and route-based VPN for business communications

Integrated WLAN Controller

The integrated WLAN controller supports CAPWAP, and enables centralized authentication and access management of multiple APs in the network. The ZyWALL USG1100/1900 can manage 2 APs by default, and up to 130 APs with license upgrade.

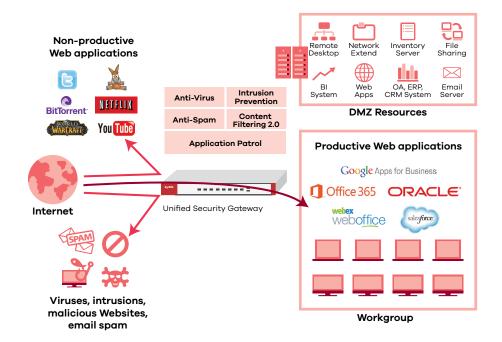
PCI-DSS Compliance

The ZyWALL USG Series conforms to the Payment Card Industry Data Security Standard (PCI DSS), which is a global cardholder data security standard influential to a very broad group of businesses. The PCI DSS Compliance applies to all entities such as merchants, card issuers, processors, and service providers involve in payment card processing tasks like validation, transmission and storage of cardholder data.

Application Diagram

Anti-malware protection and application optimization

- Enabling Anti-Virus, Anti-Spam and Intrusion Prevention, business networks gain deep, extensive protection against all types of malware threats
- Content Filtering 2.0 enables businesses to deny access to Websites that are malicious or not business-related
- Application Patrol technology not only enable businesses to block or throttle nonproductive Web applications, but also optimize Web applications that increase productivity

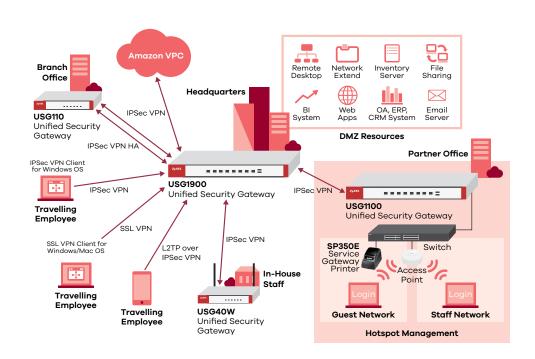


VPN application

- Branch offices, partners and home users can deploy ZyWALL USG Series for site-tosite IPSec VPN connections
- Branch offices can additional deploy IPSec VPN HA (load balancing and failover) for always online VPN connectivity
- Remote users can securely access company resources with their computers or smartphones via SSL, IPSec and L2TP over IPSec VPN
- The headquarter ZyWALL USG Series can also establish an IPSec VPN connection with Amazon VPC for secured access to a variety of cloudbased applications

Hotspot Management

- High speed internet access
- Tier of service
- Log record for regulatory compliance
- Premium security control
- Various Network access control (free or paid access, social login)



Specifications

Model	USG1100	USG1900
Product photo		
	Systematical Street Market Mar	2× 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	1. 東東東東東東東東	
Hardware Specifications		
Interfaces	8 x GbE(configurable)	8 x GbE(configurable)
USB ports	2	2
Console port	Yes (DB9)	Yes (DB9)
Rack-mountable	Yes	Yes
Fanless	-	-
System Capacity & Performance ¹¹		
SPI firewall throughput (Mbps)*2	6000	7000
VPN throughput (Mbps)*3	800	900
IDP throughput (Mbps)*4	1000	1200
AV throughput (Mbps)*4	650	710
UTM throughput (AV and IDP)*4	650	710
Max. TCP concurrent sessions'5	1,000,000	1,000,000
Max. concurrent IPSec VPN tunnels*6	1000	2000
Concurrent SSL VPN users (default/	250/500	250/750
max.)* ⁷		
VLAN interface	128	128
Concurrent devices logins (default/ max.) ⁷⁷⁸	800/1,500	1,500/2,000
WLAN Management		
Managed AP number (default/max.)*7	2/130	2/130
Security Service	2/100	2/100
Anti-Virus (AV)*7	Yes	Yes
Intrusion Detection and Prevention (IDP)	Yes	Yes
& Application Patrol*7	103	103
Anti-Spam ¹⁷	Yes	Yes
Content Filtering (CF 2.0)*7*9	Yes	Yes
Key Software Features		
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
SSL (HTTPS) inspection	Yes	Yes
EZ Mode	-	-
Hotspot Management ^{*7}	Yes	Yes
Ticket printer support ¹⁰ / Support Q'ty	Yes (SP350E) / 10	Yes (SP350E) / 10
(max.)		
- VIII GARIA		
Amazon VPC	Yes	Yes
	Yes Yes	Yes Yes
Amazon VPC	Yes Yes	Yes Yes
Amazon VPC Facebook WiFi Device HA Pro	Yes Yes Activate once registered	Yes Yes Activate once registered
Amazon VPC Facebook WiFi Device HA Pro Link Aggregation (LAG)	Yes Yes	Yes Yes
Amazon VPC Facebook WiFi Device HA Pro Link Aggregation (LAG) Power Requirements	Yes Yes Activate once registered Yes	Yes Yes Activate once registered Yes
Amazon VPC Facebook WiFi Device HA Pro Link Aggregation (LAG) Power Requirements Power input	Yes Yes Activate once registered Yes 100 - 240V AC, 50/60 Hz, 1.3 A max.	Yes Yes Activate once registered Yes 100 - 240V AC, 50/60 Hz, 1.3 A max.
Amazon VPC Facebook WiFi Device HA Pro Link Aggregation (LAG) Power Requirements	Yes Yes Activate once registered Yes	Yes Yes Activate once registered Yes

Model		USG1100	USG1900
Physical Specificat	ions		
Item	Dimensions (WxDxH)(mm/in.)	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.)	3.3/7.28	3.3/7.28
Packing	Dimensions (WxDxH)(mm/in.)	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.)	4.8/10.58	4.8/10.58
Included accessories		Power cord	Power cord
		 Rack mounting kit 	 Rack mounting kit
Environmental Spe	cifications		
Operating	Temperature	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
	Humidify	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)
	Humidify	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)		560,811.5	560,811.5
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
Safety		LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Noto

- *: 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: 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.

Features Set

Software Features

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
- RPS-enabled for desirable performance in chaotic environments

IPv6 Support

- Dual stack
- IPv4 tunneling (6rd and 6to4 transition tunnel)
- IPv6 addressing
- DNS
- DHCPv6
- Bridge
- VLAN
- PPPoE
- Static routing
- Policy routing
- Session control
- Firewall and ADP
- IPSec VPN
- Intrusion Detection and Prevention (IDP)
- Application Patrol

- Content Filtering 2.0
- Anti-Virus, Anti-Malware
- Anti-Spam

IPSec VPN

- Authentication: SHA-2 (512-bit), SHA-1 and MD5
- Encryption: AES (256-bit), 3DES and DES
- Support route-based VPN Tunnel Interface (VTI)
- Key management: manual key, IKEv1 and IKEv2 with EAP
- Perfect forward secrecy (DH groups) support 1, 2, 5, 14
- IPSec NAT traversal
- Dead peer detection and relay detection
- PKI (X.509) certificate support

- VPN concentrator
- Simple wizard support
- VPN auto-reconnection
- VPN High Availability (HA): loadbalancing and failover
- L2TP over IPSec
- GRE and GRE over IPSec
- NAT over IPSec
- Zyxel VPN client provisioning
- Support iOS L2TP/IKE/IKEv2 VPN Client provision

SSL VPN

- HTTP, FTP, SMTP, POP3 and IMAP4 protocol support
- Automatic signature updates
- No file size limitation
- Supports Windows and Mac OS X
- Supports full tunnel mode
- Supports 2-step authentication
- Customizable user portal

Intrusion Detection and Prevention (IDP)

- Routing and transparent (bridge) mode
- Signature-based and behaviorbased scanning
- Automatic signature updates
- Customizable protection profile
- Customized signatures supported

Application Patrol

- Granular control over the most important applications
- Identifies and controls application behavior
- Supports over 15 application categories
- Application bandwidth management
- Supports user authentication
- Real-time statistics and reports
- IDP/ADP support on social networks such as likes and posts on Facebook

Anti-Virus

- Supports Anti-Virus signatures
- Identifies and blocks over 650,000 viruses
- Stream-based Anti-Virus engine
- HTTP, FTP, SMTP, POP3 and IMAP4 protocol support
- Automatic signature updates
- No file size limitation

Anti-Spam

- Transparent mail interception via SMTP and POP3 protocols
- Configurable POP3 and SMTP ports
- Sender-based IP reputation filter
- Recurrent Pattern Detection (RPD) technology

- Zero-hour virus outbreak protection
- X-Header support
- Blacklist and whitelist support
- Supports DNSBL checking
- Spam tag support
- Statistics report

Content Filtering 2.0

- · Social media filtering
- Malicious Website filtering
- URL blocking and keyword blocking
- Blacklist and whitelist support
- Blocks java applets, cookies and ActiveX
- Dynamic, cloud-based URL filtering database
- Unlimited user license support
- Customizable warning messages and redirection URL
- HTTPs Domain filtering
- GeoIP Blocking
- Monitors traffics based on country policy
- URL blocking and keyword blocking
- Supports to SafeSearch (SSL inspection must be enabled for this function)

SSL Inspection

- Certificate Trust Chain validation
- Support both inbound and outbound inspection
- Support Anti-Virus / Content
 Filtering 2.0 / Application Patrol / IDP inspection
- Support TLS 1.0/1.1/1.2
- Visible bypass list

Unified Security Policy

- Unified policy management interface
- Supported UTM features: Anti-Virus, Anti-Spam, IDP, Content Filtering 2.0, Application Patrol, firewall (ACL)
- 3-tier configuration: object-based, profile-based, policy-based
- Policy criteria: zone, source and destination IP address, user, time
- Pre-defined UTM profiles for different user groups

WLAN Management

- Support AP controller version 3.00
- Supports auto AP FW update
- Wireless L2 isolation
- Scheduled WiFi service
- Dynamic Channel Selection (DCS)
- Client steering for 5GHz priority and sticky client prevention
- Auto healing provides a stable and reliable coverage

- IEEE 802.1x authentication
- Captive portal Web authentication
- Customizable captive portal page
- RADIUS authentication
- WiFi Multimedia (WMM) wireless QoS
- CAPWAP discovery protocol
- Multiple SSID with VLAN
- Supports ZyMesh
- Support AP Forward Compatibility

Hotspot Management

- Integrated account generator, Webbased authentication portal and billing system
- Supports external RADIUS servers
- Per account bandwidth management
- User agreement login
- SP350E Service Gateway Printer enables one-click account and billing generation
- Built-in billing system
- Time-to-finish accounting mode
- Accumulation accounting mode
- Supports PayPal online payment
- Marketing tool
- Advertisement link
- Walled garden
- Portal page
- Billing Replenish

Mobile Broadband

- WAN connection failover via 3G and 4G* USB modems
- Auto fallback when primary WAN recovers
- * For specific models supporting the 3G and 4G dongles on the list, please refer to the Zyxel product page at 3G dongle document.

Networking

- Routing mode, bridge mode and hybrid mode
- Ethernet and PPPoE
- NAT and PAT
- VLAN tagging (802.1Q)
- Virtual interface (alias interface)
- Policy-based routing (user-aware)
- Policy-based NAT (SNAT)
- Dynamic routing (RIPv1/v2 and OSPF)
- 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
- Bandwidth limit per IP
- GRE
- BGP

Zyxel One Network

- ZON Utility
- IP configuration
- Web GUI access
- Firmware upgrade
- Password configuration
- Location and System Name update
- Smart Connect
- Discover neighboring devices
- One-click remote management access to the neighboring Zyxel devices

Authentication

- Local user database
- Microsoft Windows Active Directory integration
- External LDAP/RADIUS user database
- XAUTH, IKEv2 with EAP VPN authentication

- Web-based authentication
- Forced user authentication (transparent authentication)
- IP-MAC address binding
- SSO (Single Sign-On) support

Device High Availability Pro (HA Pro)

- Device failure detection and notification
- Supports ICMP and TCP ping check
- Link monitoring
- Configuration auto-sync
- Dedicated Heartbeat Link
- Instant handover
- NAT/Firewall/VPN Sessions synchronization

System Management

• Supports generating SHA2 Certificate

- Role-based administration
- Multiple administrator logins
- Multi-lingual Web GUI (HTTPS and HTTP)
- Command line interface (console, Web console, SSH and telnet)
- Cloud CNM SecuManager
- SNMP v1, v2c, v3
- System configuration rollback
- Firmware upgrade via FTP, FTP-TLS and Web GUI
- Dual firmware images
- Supports Cloud Helper

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
- Advanced reporting with Vantage Report

Services

Security

Product	Anti-Virus	Application Patrol & IDF	Content Filtering 2.0	Anti-Spam
USG1100	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years
USG1900	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years

Notes

Connectivity & Industrial Solution

Product	SSL VPN Tunnels	SSL VPN Client ^{*1}	IPSec VPN Client
USG1100	Add 5/10/50 tunnels	For 1/5/10 client(s)	For 1/5/10/50 client(s)
USG1900	Add 5/10/50 tunnels	For 1/5/10 client(s)	For 1/5/10/50 client(s)

^{*1:} Support OS: MAC OS 10.7 or later

Product	Concurrent Device Upgrade ¹¹	Hotspot Management ^{*1}	Managed APs	Vantage Report
USG1100	100/300 nodes	1 year / One-time	Add 2/4/8/64 APs	For 1/5/25/100 device(s)
USG1900	100/300 nodes	1 year / One-time	Add 2/4/8/64 APs	For 1/5/25/100 device(s)

^{*1:} With firmware ZLD 4.20 or later

^{1.} Zyxel USGs can be purchased with bundled 12-month standard license (Anti-Virus, Anti-Spam, Content Filtering 2.0 and IDP) with extra 1-month trial.

^{2.}Licenses can be easily activated, renewed and managed at myZyxel

^{3.}License bundles may vary according to region. Please contact your local sales representative for more information.

Access Point Compatibility List

Product	Unified AP		Unified Pro AP	
Models	NWA5121-NINWA5121-NNWA5123-NINWA5301-NJ	NWA5123-ACWAC5302D-SForward Compatible APs*	WAC6502D-EWAC6502D-SWAC6503D-S	WAC6553D-EWAC6103D-IForward Compatible APs*
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.

Accessories

SecuExtender Software

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

Notes:

Service Gateway Printer

Model	Feature	Supported Model			
SP350E	 Buttons: 3 Paper roll width: 58 (+0/-1) mm Interface: 10/100 Mbps RJ-45 port Power input: 12V DC, 5A 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.) 	• VPN100 • VPN300	• USG110 • USG210 • USG310 • USG1100 • USG1900 • USG2200-VPN	• ZyWALL 110 • ZyWALL 310 • ZyWALL 1100	• UAG2100 • UAG4100

Note: Hotspot management licenses required

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

Note









