



ZyWALL VPN1000

VPN Firewall

Benefits

Your secure connection to the world

The ZyWALL VPN1000 integrated innovations connects your cross-group network while providing you the world's best central management and security features.

Secure your cross-group network

The ZyWALL VPN1000 is equipped with comprehensive VPN connection types including SSL & IPsec VPN, offering businesses secured remote connections. IPsec VPN hardware engine for high efficiency VPN tunnel and VPN load balance/failover with SHA-2 algorithm and IKEv2 that ensures strong VPN reliability and security for business.

Reliance on cloud platforms for mission-critical services are growing, VPN1000 is validated by Microsoft Azure and AWS for SMB convenience by using a combination of on-site and cloud-based infrastructure with hybrid networks.



Diverse VPN solution (IPSec/SSL/L2TP over IPSec) for better security



Nebula SD-WAN cloud management makes it easy to manage multiple firewalls



Content Filtering and Geo Enforcer protect your network from web threats



AP Controller technology allows you to manage up to 1,032 APs



Device HA Pro dedicated heartbeat port ensures smart handover



nebula

Centralized cloud management and monitoring

SD-WAN provides a platform for cloud management, get the benefit of a centralized management for site to site connectivity while having the ability to control and monitor remotely. VPN1000 also provides a standalone gateway mode, if you request more robust VPN functionalities.



Protect your business efficiently

The ZyWALL VPN1000 provides all the latest advanced technologies including Content Filtering and Geo Enforcer to better protect your network from web threats.

• Content Filtering

Strengthen security by blocking access to malicious or risky websites. Prevents malware downloads from compromised or hacked websites.

• Geo Enforcer

Monitors traffic and analyzes log data of IP address locations while denying access from unnecessary or potentially dangerous traffic.



Comprehensive connectivity

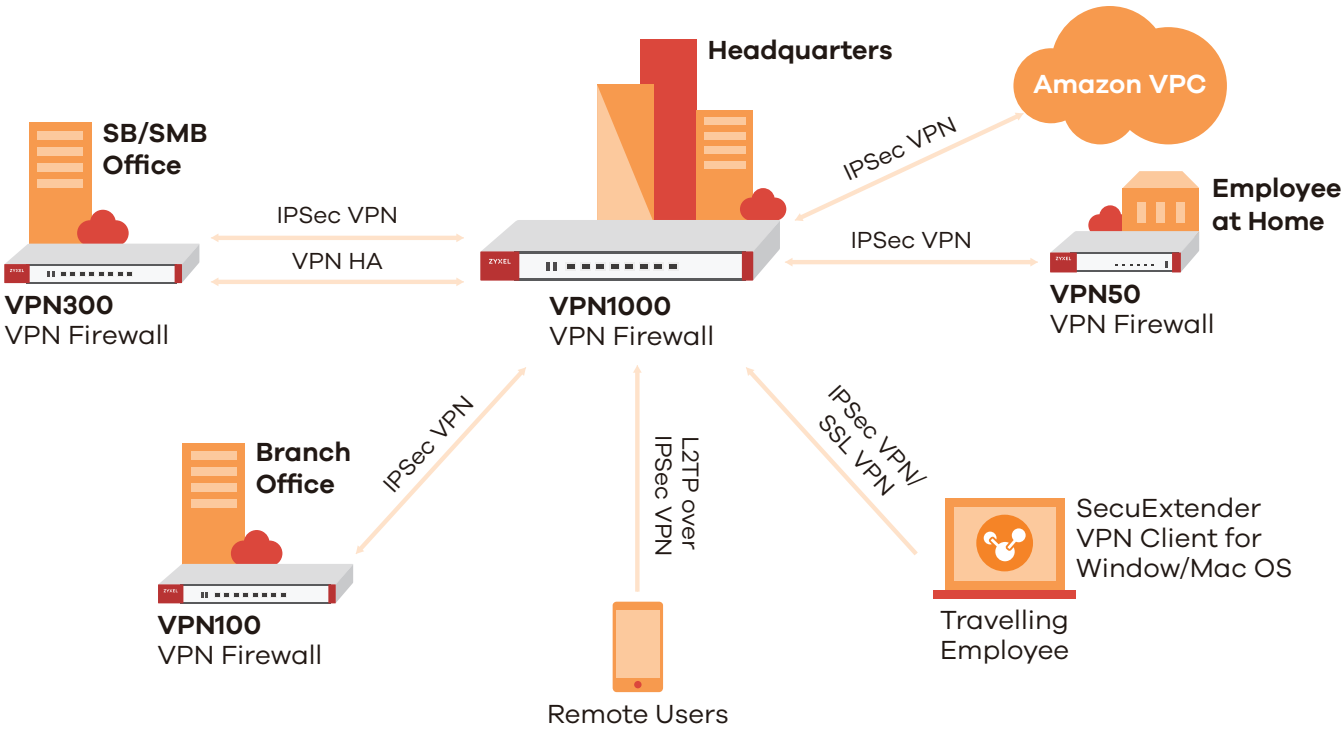
The ZyWALL VPN1000 combines AP Controller technology enabling users to manage up to 1032 APs from a centralized user interface. Businesses can deploy or expand a managed Wi-Fi network with minimal effort.

Non-stop service

VPN features multi-WAN load balancing and failover safety with USB 3G/4G support as a backup WAN. ZyWALL VPN1000 and higher provides active/passive device High-Availability (HA) service for non-stop internet connection service even when one device is broken.



Application Diagram



Specifications

Model	ZyWALL VPN50	ZyWALL VPN100	ZyWALL VPN300	ZyWALL VPN1000
Business scale	SBs	SMBs	SMBs	MBs
Operation Mode	Standalone	Standalone	Standalone	Standalone
   				
Interfaces	4 x LAN/DMZ (GbE), 1 x WAN (GbE), 1 x SFP	4 x LAN/DMZ (GbE), 2 x WAN (GbE), 1 x SFP	7 x GbE (Configurable), 1 x SFP	12 x GbE (Configurable), 2 x SFP
Hardware Specifications				
USB3.0 ports	1	2	2	2
Console port	Yes (RJ-45)	Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable	-	Yes	Yes	Yes
System Capacity & Performance*1				
SPI firewall throughput (Mbps)*2	800	2,000	2,600	8,000
VPN throughput (Mbps)*3	150	500	1,000	1,500
Max. TCP concurrent sessions*4	400,000	800,000	2,000,000	3,000,000
Max. concurrent IPSec VPN tunnels*5	50	100	300	1,000
Concurrent SSL VPN users (default/max.)*6	10/50	30/200	50/300	250/500
VLAN interface	8	16	64	128
Concurrent device logins (default/max.)*6	64	200/300	500/800	800/4000
WLAN Management				
Managed AP number (default/max.)*6	4/36	4/68	4/132	8/1032
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
Content Filtering*6	Yes, (bundle 1 year License)	Yes, (bundle 1 year License)	Yes, (bundle 1 year License)	Yes, (bundle 1 year License)
Geo Enforcer*6	Yes, (bundle 1 year License)	Yes, (bundle 1 year License)	Yes, (bundle 1 year License)	Yes, (bundle 1 year License)
EZ Mode	Yes	-	-	-
Hotspot Management*6*7	Yes	Yes	Yes	Yes
Ticket printer support*7/ Support Q'ty (max.)	Yes (SP350E)/10	Yes (SP350E)/10	Yes (SP350E)/10	Yes (SP350E)/10
Amazon/Azure VPC	Yes	Yes	Yes	Yes
Facebook WiFi	Yes	Yes	Yes	Yes
Device HA Pro*8	-	Yes	Yes	Yes
Power Requirements				
Power input	12 V DC, 2.0 A max.	12 V DC, 2.5 A max.	12 V DC, 4.17 A max.	100-240 V AC, 50/60 Hz, 2.5 A max.
Max. power consumption (watt)	12	13.3	24.1	46.0
Heat dissipation (BTU/hr)	40.92	45.38	82.23	120.10

Model		ZyWALL VPN50	ZyWALL VPN100	ZyWALL VPN300	ZyWALL VPN1000
Physical Specifications					
Item	Dimensions (WxDxH) (mm/in.)	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	430 x 250 x 44/ 16.93 x 9.84 x 1.73
	Weight (kg/lb.)	0.88/1.94	1.4/3.09	1.65/3.64	3.3/7.28
Packing	Dimensions (WxDxH) (mm/in.)	276 x 185 x 98/ 10.87 x 7.28 x 3.86	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.)	1.41/3.11	2.23/4.91	2.83/6.24	4.8/10.58
Included accessories		• 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	• 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)		655,130	529,688	529,688	444,930
Certifications					
EMC		FCC Part 15 (Class B), IC, CE EMC (Class B), RCM, BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety		BSMI, UL	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:

*: This matrix with the latest firmware version.

*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: With Hotspot Management license support.

*8: ZyWALL VPN100 or above supports Device HA Pro once registered.

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

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
- Content Filtering

IPSec VPN

- Encryption: AES (256-bit), 3DES and DES
- Authentication: SHA-2 (512-bit), SHA-1 and MD5
- 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
- Support iOS L2TP/IKE/IKEv2 VPN Client provision

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
- Smart handover
- NAT/Firewall/VPN Sessions synchronization

SSL VPN

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

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

WLAN Management

- Support AP controller version 3.00
- Wireless L2 isolation
- Supports auto AP FW update
- Scheduled WiFi service

- Dynamic Channel Selection (DCS)
- Client steering for 5 GHz 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

Authentication

- Local user database
- Built-in 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

Logging/Monitoring

- Comprehensive local logging
- Syslog (send to up to 4 servers)
- E-mail alert (send to up to 2 servers)
- Real-Time traffic monitoring
- System status monitoring
- Built-in daily report
- Advanced reporting (Vantage Report)

System Management

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

Zyxel One Network

- ZON Utility:
 - IP configuration
 - Web GUI access
 - Firmware upgrade
 - Password configuration
- Smart Connect:
 - Location and System Name update
 - Discover neighboring devices

- One-click remote management access to the neighboring Zyxel devices

Hotspot Management

- Integrated account generator, Web based authentication portal and billing system
- Supports external RADIUS servers
- Per account bandwidth management
- User agreement login
- SP350E Service Gateway Printer enables oneclick 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

Subscription Services

- Content Filtering
- Geo Enforcer
- HotSpot Management
- Managed APs
- Device HA Pro

USB

- Firmware upgrade
- Log for data retention
- Support 3G/LTE

Support

- Nebula SD-WAN (<http://zyxel.com/SD-WAN>)
- ZyWALL VPN300 (<http://zyxel.com/VPN300>)
- Zyxel Biz Forum (<https://businessforum.zyxel.com/categories/security>)

Licenses

Security

Product	Content Filtering	Geo Enforcer
ZyWALL VPN50	1 year/2 years	1 year
ZyWALL VPN100	1 year/2 years	1 year
ZyWALL VPN300	1 year/2 years	1 year
ZyWALL VPN1000	1 year/2 years	1 year

Note: Support Content Filtering and Geo Enforcer 1 year free license.

VPN Service

Product	SSL VPN Tunnels	SecuExtender SSL VPN Client*	SecuExtender IPSec VPN Client
ZyWALL VPN50	Add 5/10 tunnels	Add 1/5/10 clients	For 1/5/10/50 clients
ZyWALL VPN100	Add 5/10/50 tunnels	Add 1/5/10 clients	For 1/5/10/50 clients
ZyWALL VPN300	Add 5/10/50 tunnels	Add 1/5/10 clients	For 1/5/10/50 clients
ZyWALL VPN1000	Add 5/10/50 tunnels	Add 1/5/10 clients	For 1/5/10/50 clients

*: Support OS: MAC OS 10.7 or later

Connectivity Solution

Product	Managed APs	Concurrent Device Upgrade	Hotspot Management
ZyWALL VPN50	Add 2/4/8 APs	-	-
ZyWALL VPN100	Add 2/4/8/64 APs	Add 100 nodes	1 year/One-Time
ZyWALL VPN300	Add 2/4/8/64 APs	Add 100/300 nodes	1 year/One-Time
ZyWALL VPN1000	Add 2/4/8/64 APs	Add 100/300/1000 nodes	1 year/One-Time

Access Point Compatibility List

Product	Unified AP		Unified Pro AP	
Models	• NWA5121-NI • NWA5121-N • NWA5123-NI • NWA5123-AC	• NWA5123-AC HD • NWA5301-NJ • WAC5302D-S • Forward Compatible APs*	• WAC6103D-I • WAC6303D-S • WAC6502D-E • WAC6502D-S	• WAC6503D-S • WAC6552D-S • WAC6553D-E • Forward 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 and USG Series with Easy VPN for zero-configuration remote access	• Windows XP (32-bit) • Windows Server 2003 (32-bit) • Windows Server 2008 (32/64-bit) • Windows Vista (32/64-bit) • Windows 7 (32/64-bit) • Windows 8 (32/64-bit) • Windows 10 (32/64-bit)
SSL VPN Client*	Secured VPN connection between PC/MAC and ZyWALL Firewall	• Windows 7 (32/64-bit) • Windows 8/8.1 (32/64-bit) • Windows 10 (32/64-bit) • MAC OS 10.7 or later

*: 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.

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.)	• VPN50 • VPN100 • VPN300 • VPN1000	• USG60 • USG60W • USG110 • USG210 • USG310 • USG1100 • USG1900 • USG2200 Series	• ZyWALL110 • ZyWALL310 • ZyWALL1100

Note: Hotspot management licenses required

Transceivers (Optional)

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

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

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