ZYXEL

ZyWALL VPN50
VPN Firewall

Advanced VPN Firewall with an option to run SD-WAN

ZyWALL VPN50 supports the new Nebula SD-WAN, a cost effective solution to optimize WAN's service quality. Under NebulaFlex, ZyWALL VPN50 can run in Nebula SD-WAN mode or standalone gateway mode. Nebula SD-WAN features easy deployment, centralized monitoring, great agility, and higher throughput with lowered cost.

ZyWALL VPN50 complies with GDPR regulations and features a robust VPN gateway with the ability to access enterprise information across the corporate sites and connect business partners, cloud providers as well as telecommuters.

Nebula SD-WAN Benefits

Higher throughput. Lower cost. Great agility.

Nebula SD-WAN features advanced WAN technology that boost throughput performance. Get better service quality without investing towards extra bandwidth. It's quick to install, includes remote management, and can be centralized with monitoring for better operation flexibility.

Learn more about Nebula SD-WAN at http://zyxel.com/SD-WAN

- Nebula SD-WAN for optimal WAN service
- Easy setup tunnel to Amazon Virtual Private Cloud (VPC)
- Facebook WiFi, Intelligence social media authentication
- Robust hybrid VPN (IPSec/SSL/L2TP over IPSec)
- One-year free Content Filtering and Geo Enforcer services

ICSAlabs CERTIFIED FIREWALL - CORPORATE   myZyxel   OneSecurity

Datasheet ZyWALL VPN50

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VPN Firewall Benefits

High secure VPN applications

The Zyxel ZyWALL VPN50 provides comprehensive types of VPN connection for your business and supports Amazon Virtual Private Cloud (AWS VPC) for nowadays VPN environment. Moreover, the business grade ZyWALL VPN family equipped with IPSec VPN Hardware engine for high efficiency VPN tunnel and VPN load balance/failover with stronger VPN algorithm (IKEv2 & SHA-2) that ensure the VPN reliability and security for business communications.

One-year free security services

The ZyWALL VPN50 with Content Filtering prevents users from accessing malicious or malware sites or inappropriate content such as violent or porn related. With the Geo Enforcer, IP addresses can be mapped to geographical locations to block hacker probing from specific countries or to prevent users from visiting certain data sources. These could help small and medium business to stay away from web threats or social networking sites that could potentially decrease productivity.

Multi-WAN load balancing/failover

The ZyWALL VPN50 features multi-WAN load balancing/failover and a comprehensive mobile broadband USB modem support list for WAN backup operations. The ZyWALL VPN50 also supports IPSec load balancing and failover, providing additional resilience for mission-critical VPN failover with VTI Interface deployments.

Comprehensive connectivity

Today's business requires a solution that provides secure connectivity and easy access management, and it also requires uninterrupted connection to the business needs of the device.

AP controller

The ZyWALL VPN50 combining AP Controller technology enables users to manage APs from a centralized user interface. Businesses can deploy or expand a managed WiFi network with minimal effort.

Facebook WiFi

The ZyWALL VPN50 integrates with Facebook WiFi to help small shops, stores and restaurants not only provide customers with easy Internet connectivity, but also increase the popularity of your business on Facebook.

ZyWALL VPN Firewall Quick Finder

Model	ZyWALL VPN50	ZyWALL VPN100	ZyWALL VPN300
Description	SB	SMB	SMB
Firewall Throughput (Mbps)	800	2,000	2,600
Max. Concurrent Sessions	400,000	800,000	2,000,000
VPN throughput (Mbps)	150	500	1,000
Max. Concurrent IPSec VPN Tunnels	50	100	300
Content Filtering	1 year free	1 year free	1 year free
Gen Enforcer Service	1 year free	1 year free	1 year free
Amazon VPC	Yes	Yes	Yes
L2TP over IPSec VPN Client	Yes	Yes	Yes
Device HA Pro	-	Yes	Yes
Hotspot Management	-	Yes	Yes
Facebook WiFi	Yes	Yes	Yes

Subscription Services

The ZyWALL VPN50 provides a complete feature set to perfectly fit different business requirements as well as to enable the maximum performance for security, and connectivity. Comprehensive network modularity also empowers IT professionals to customize the system to meet their individual needs.

Content Filtering   **Geo Enforcer**   **Managed APs**
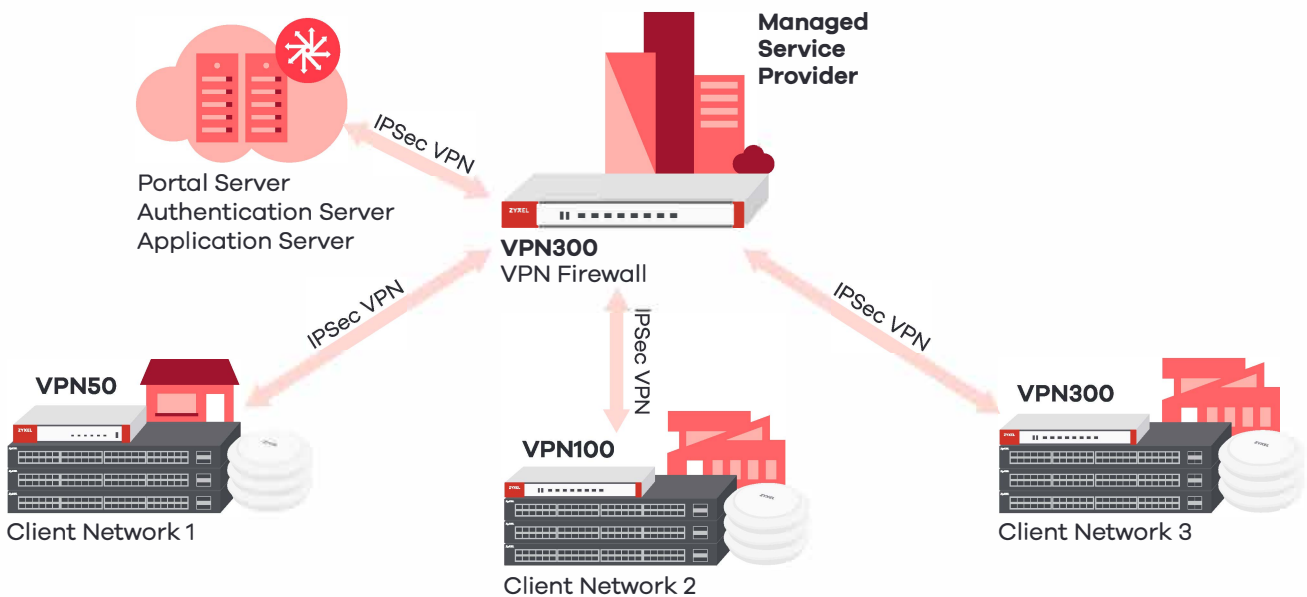
Key Applications

VPN application

- High-speed, high-security communications between local servers, remote devices and cloud-hosted applications with deployments of the ZyWALL VPN50.
- Secure, reliable VPN connectivity with IPSec VPN load balancing and failover features delivers high-availability services for exceptional uptime.

- Easy-to-use, secure remote access via SSL, IPSec and L2TP over IPSec VPN.
- The headquarter ZyWALL Series can also establish an IPSec VPN connection with Amazon VPC for secured access to leverage the benefits of cloud-base and to expend on premise networks that extend into the cloud center.
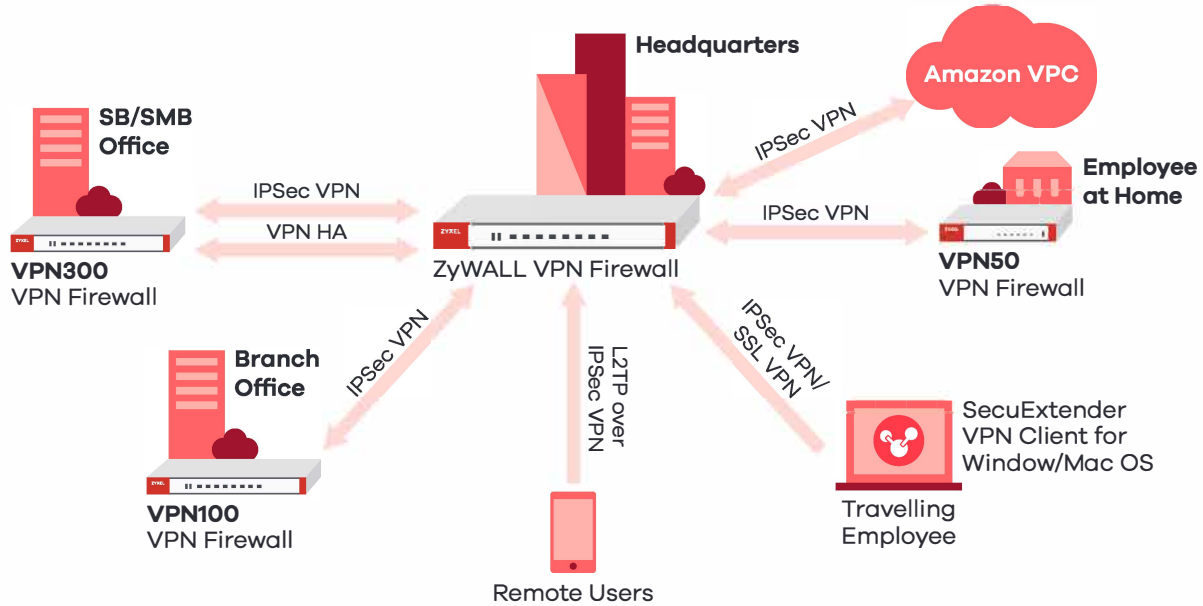
Managed application services

- Branch offices, small and medium business as well as IT administrators can deploy ZyWALL VPN50 to establish VPN connections among managed services providers (MSPs) that improve services levels, minimize end-user service downtime and relieve network maintenance efforts.

- Retailers and chain stores such as healthcare, banking and branch offices can deploy ZyWALL VPN50 over secure connections (IPSec VPN) for business transactions.

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Specifications

Model	ZyWALL VPN50	ZyWALL VPN100	ZyWALL VPN300
Product photo			

Hardware Specifications			
Interfaces	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
USB3.0 ports	1	2	2
Console port	Yes (RJ-45)	Yes (DB9)	Yes (DB9)
Rack-mountable	-	Yes	Yes
System Capacity & Performance[1]			
SPI firewall throughput (Mbps)[2]	800	2,000	2,600
VPN throughput (Mbps)[3]	150	500	1,000
Max. TCP concurrent sessions[4]	400,000	800,000	2,000,000
Max. concurrent IPSec VPN tunnels[5]	50	100	300
Concurrent SSL VPN users (default/max.)[6]	10/50	30/200	50/300
VLAN interface	8	16	64
Concurrent device logins (default/max.)[6][7]	64	200/300	500/800
WLAN Management			
Managed AP number (default/max.)[6]	4/36	4/68	4/132
Key Features			
DPI Firewall	Yes	Yes	Yes
VPN	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec	IKEv2, IPSec, SSL, L2TP/IPSec
SSL (HTTPS) Inspection	-	Yes	Yes
Content Filtering[6][8]	1 year free	1 year free	1 year free
Geo Enforcer[6]	1 year free	1 year free	1 year free
EZ Mode	Yes	-	-
Hotspot Management[6]	-	Yes	Yes
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	-	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.
Max. power consumption (watt)	12	13.3	24.1
Heat dissipation (BTU/hr)	40.92	45.38	82.23

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
	Weight (kg/lb.)	0.88/1.94	1.4/3.09	1.65/3.64
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
	Weight (kg/lb.)	1.41/3.11	2.23 (W/ bracket) 2.42 (W/ bracket)	2.83/6.24
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

Model		ZyWALL VPN50	ZyWALL VPN100	ZyWALL VPN300
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
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment	**Temperature**	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)		44,000	529,688.2	529,688.2
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
Safety		BSMI, UL	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

*: This matrix with firmware ZLD4.30 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 models.
*9: 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

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

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

Subscription Services
- Content Filtering
- Geo Enforcer
- Managed APs

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

Support
- Nebula SD-WAN (http://zyxel.com/SD-WAN)
- ZyWALL VPN50 (http://zyxel.com/vpn50)
- 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

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

VPN Service

Product	SSL VPN Tunnels	SecuExtender SSL VPN Client[*1]	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

*1: Support OS: MAC OS 10.7 or later

Connectivity Solution

Product	Managed APs	Concurrent Device Upgrade
ZyWALL VPN50	Add 2/4/8 APs	-
ZyWALL VPN100	Add 2/4/8/64 APs	Add 100 nodes
ZyWALL VPN300	Add 2/4/8/64 APs	Add 100/300 nodes

Access Point Compatibility List

Product	Unified AP		Unified Pro AP	
Models	• NWA5121-NI • NWA5121-N • NWA5123-NI • NWA5301-NJ	• NWA5123-AC • WAC5302D-S • Forward Compatible APs*	• WAC6502D-E • WAC6502D-S • WAC6503D-S	• WAC6553D-E • WAC6103D-I • 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

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

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

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