ZyXEL

Reliable Remote Access Solution for Small Businesses & Branch Offices

- **Comprehensive supports to IPv6**

- **Robust hybrid VPN (IPSec/SSL/L2TP)**

- **802.11 ac with single-radio dual-band (2.4G/5G) Wi-Fi support**

- **High-performance SPI Firewall**

- **Bandwidth management**

- **High Availability (HA) with multi-WAN failover and load-balancing**

Networking brings convenience and efficiency to business environments; however it introduces significant security and safety concerns at the same time. Today, small businesses or branch offices really need a complete yet affordable solution that not only bridges communications between two or more remote sites, but also connects multiple VPNs and ensures data security to prevent the network from threats.

Benefits

Safer, more reliable VPN connections

Faster processors today have vastly boosted the capabilities of attackers to decrypt VPN tunnels. Legacy VPN encryption algorithms like Message Digest 5 (MD5) and Secure Hash Algorithm 1 (SHA-1) are no longer sufficient to guarantee secure outbound communications. With supports to the more advanced Secure Hash Algorithm 2 (SHA-2), the VPN Firewall provides the safest VPN connections in its class to ensure maximum security for business communications.

Unlimited business mobility

To support dynamic, mobile business operations in today's BYOD (bring your own device) business environments, the VPN Firewalls offer unlimited business mobility with Layer-2 Tunneling Protocol (L2TP) VPN for mobile devices. The VPN Firewall supports L2TP VPN on a wide variety of mobile Internet devices running the iOS, Android and Windows mobile platforms.

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

ZyXELonenetwork
Redefining network integration

USG20-VPN / USG20W-VPN
VPN Firewall

| Firewall | IPv6 | Ultra-Fast Speed | VPN | VPN High Availability (HA) | Multiple WANs |

ICSAlabs CERTIFIED IPSEC-BASIC

OneSecurity.com

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 Wi-Fi AP and to Gateway.
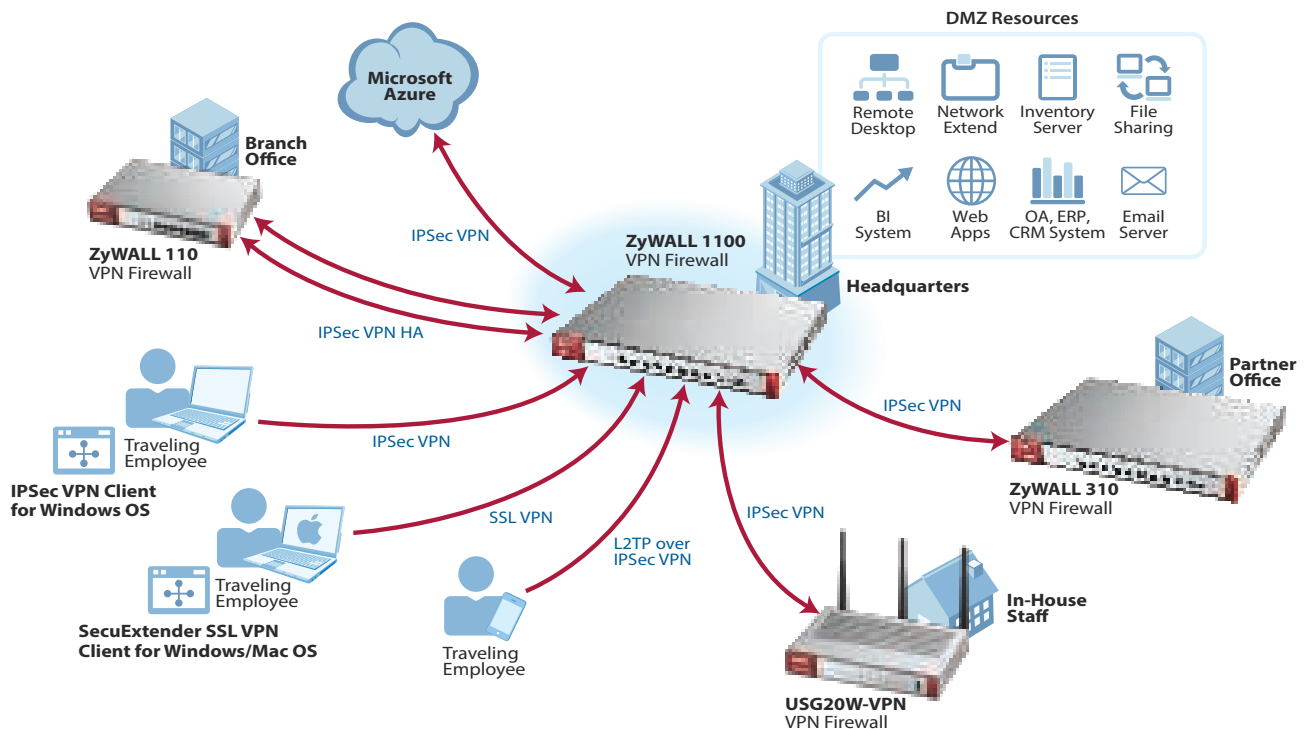
OneSecurity.com Service

ZyXEL provides regular updates in response to the latest security threats and advisories, and a service portal that offers free, informative network security resource and know-how to help businesses and IT departments to protect their networks and operations from security risks of the digital age. The ZyXEL USG and ZyWALL Series of products are integrated with OneSecurity.com service in the product GUI, so the IT staff can quickly and easily catch up with any new threats, and therefore proceed with walkthrough and troubleshooting actions with assistance from FAQs to better secure networks and easily manager UTM products.

Key Applications

VPN application

- Branch offices, partners and home users can deploy ZyXEL USGs/ZyWALLs for site-to-site IPSec VPN connections
- Branch offices/In-house staff can additionally 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 USG/ZyWALL can also establish an IPSec VPN connection with Microsoft Azure for secured access to a variety of cloud-based applications

Specifications

Model	Remote Offices/Small Businesses (SBs)	
	USG20-VPN	USG20W-VPN
Product photo		
Hardware Specifications		
10/100/1000 Mbps RJ-45 ports	1 x WAN, 1 x SFP, 4 x LAN/DMZ	1 x WAN, 1 x SFP, 4 x LAN/DMZ
USB ports	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)
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	10	10
Max. concurrent SSL VPN users	15	15
Included SSL VPN user no.	5	5
Customizable zones	Yes	Yes
IPv6 support	Yes	Yes
Wireless Specifications		
Standard compliance	-	IEEE 802.11ac/n compliance
Wireless frequency	-	2.4 GHz/5 GHz
Radio	-	1
SSID number	-	8
Maximum transmit power — US (FCC) 2.4 GHz	-	25 dBm, 3 antennas
Maximum transmit power — US (FCC) 5 GHz	-	25 dBm, 3 antennas
Maximum transmit power — EU (ETSI) 2.4 GHz	-	20 dBm (EIRP), 3 antennas
Maximum transmit power — EU (ETSI) 5 GHz	-	20 dBm (EIRP), 3 antennas
No. of antenna	-	3 detachable antennas
Antenna gain	-	2 dBi @2.4 GHz, 3 dBi @5 GHz
Data rate	-	802.11n Up to 450 Mbps 820.11ac Up to 1300 Mbps
Receive sensitivity — 2.4 GHz	-	11 Mbps ≤ -87 dBm 54 Mbps ≤ -74 dBm HT20, MCS15 ≤ -71 dBm HT40, MCS15 ≤ -67 dBm
Receive sensitivity — 5 GHz	-	54 Mbps ≤ -74 dBm HT20, MCS23 ≤ -71 dBm HT40, MCS23 ≤ -68 dBm VHT20, MCS8 ≤ -66 dBm VHT40, MCS9 ≤ -62 dBm VHT80, MCS9 ≤ -59 dBm

Model		Remote Offices/Small Businesses (SBs)	
		USG20-VPN	**USG20W-VPN**
Key Software Features			
Firewall		Yes	Yes
Virtual private network (VPN)		Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)
Anti-spam		Subscription based	Subscription based
Content filtering (CF)		Subscription based	Subscription based
Bandwidth management		Yes	Yes
Logging and monitoring		Yes	Yes
Unified security policy		Yes	Yes
System management		Yes	Yes
Power Requirements			
Power input		12 V DC, 2.0 A max.	12 V DC, 2.0 A max.
Max. power consumption (watt)		12.00	18.0
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.)	1.04/2.29	1.14/2.51 (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		• Power adapter • RJ45 -RS232 cable for console connection	• Power adapter • RJ45 -RS232 cable for console connection • Antenna
Environmental Specifications			
Operating	**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	**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)		44,000.00	44,000.00
Certifications			
EMC		FCC Part 15 (Class B), IC, CE EMC (Class B), RCM, BSMI	
Safety		BSMI, UL	

Note:
*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.

Features Set

Software Features

Firewall
- ICSA-certified firewall (certification pending)
- 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
- Anti-spam

IPSec VPN
- ICSA-certified IPSec VPN
- Encryption: AES (256-bit), 3DES and DES
- Supports generating SHA2 Certificate
- Authentication: SHA-2 (512-bit), SHA-1 and MD5
- 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): load-balancing and failover
- L2TP over IPSec
- GRE and GRE over IPSec
- NAT over IPSec
- ZyXEL VPN client provisioning

SSL VPN
- Supports Windows and Mac OS X
- Supports full tunnel mode
- Supports 2-step authentication
- 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

WLAN Management
- Wireless L2 isolation
- Wi-Fi Multimedia (WMM) wireless QoS
- IEEE 802.1x authentication
- RADIUS authentication
- CAPWAP discovery protocol
- Scheduled Wi-Fi service
- Dynamic Channel Selection (DCS)
- Captive portal Web authentication
- Multiple SSID with VLAN

Authentication
- 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
- 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*

Optional Security Services
- Content filtering
- Anti-Spam

ZyXEL One Network
- ZON Utility
  - IP configuration
  - Web GUI access
  - Firmware upgrade
  - Password configuration
- Smart Connect
  - Discover neighboring devices
  - One-click remote management access to the neighboring ZyXEL devices

Available in Q2, 2016

Licenses

Security

Product	Content Filtering	Anti-Spam
USG20-VPN/ USG20W-VPN	1 year 2 years	1 year 2 years

Notes:
1. Register on myZyXEL.com in order to activate the 30-day trial security licenses.
2. License bundles may vary according to region. Please contact your local sales representative for more information.

VPN, Management and Reporting

Product	SSL VPN Tunnels	SecuExtender SSL VPN Client*1	IPSec VPN Client	Vantage Report
USG20-VPN/ USG20W-VPN	Add 5 tunnels Add 10 tunnels	For 1 client For 5 clients For 10 clients	For 1 client For 5 clients For 10 clients For 50 clients	For 1 device For 5 devices For 25 devices For 100 devices

*1: Support OS: MAC OS 10.7 or later

Accessories

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)
SecuExtender— SSL VPN Client	SSL VPN client software for the ZyWALL and USG Series with autoinstallation in Windows, and lite set up for MAC user	• Windows OS • MAC OS 10.7 or later

Notes:
1. 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.
2. SSL VPN client for Windows OS is pushed from USG/ZyWALL device and launches automatically. It does not require a license key to activate the application.

5-100-00816005   01/16