

# ZyXEL



## Security on a New Level -The Future Is Ahead. Stay Ahead with ZyXEL USGs.

- Robust security without sacrificing performance
- Comprehensive support to IPv6
- Robust hybrid VPN (IPSec/SSL/2TP)
  - Zero-configuration remote access with EASY VPN
  - Support L2TP VPN on mobile device (iPhone and Android phone)
- ICSA Firewall, IPSec certification
- Content filter stops malware and Web threats
- Powerful Email security
- Non-stop Internet access with multiple WAN and 3G backups

As broadband quickly becomes a necessity in the business world facing network security threats, the breaches evolve into highly sophisticated attacks to paralyze networks and to steal sensitive information. In response to such attacks, small businesses have to meet the great challenge protecting their networks.

The ZyXEL USG 20/20W/50/100/100-PLUS/200 Series is designed for small business to provide real-time inspection and multi-layer network protection to prevent the network from threats. The USG Series embodies Stateful Packet Inspection (SPI) Firewall, Anti-Virus (AV), Intrusion Detection and Prevention (IDP), Content Filtering, Anti-Spam and VPN (IPSec/SSL/L2TP) features in one box. In addition, the USG Series not only offers complete security license to fulfill your demand but also guarantees the continuous firmware upgrades to save your cost. Incorporating comprehensive security features in the connected devices, the USG Series safeguards your organization's customer and company records, intellectual properties as well as critical resources from both external and internal threats.

### Benefits

#### Robust security without sacrificing performance

The ZyXEL USG 20/20W/50/100/100-PLUS/200 Series is built with a powerful Integrated High-Performance Security architecture that provides real-time inspection to prevent networks from threats without sacrificing performance. Corporate networks are not only flawlessly secured but also get significant performance enhancements on productivity and efficiency since file loading, emailing and information searching applications are processed at higher speeds.



#### Comprehensive IPv6 support smoothly connects future-ready networks

The ZyXEL USG Series is IPv6-ready today and is certified with "IPv6 Ready" gold logo. With IPv6 feature enabled, the USG Series ensures businesses with a smooth migration path from the IPv4-based networks to the full IPv6 infrastructure. It assigns IPv6 addresses to clients and passes the IPv6 traffics through the IPv4 environment. The USG Series supports dual-stack and IPv4 tunneling (6rd and 6to4 transition tunnel) implementations for Internet connectivity to access IPv6 applications.

**USG 20/20W/50/  
100/100-PLUS/200**  
Unified Security Gateway



### EASY VPN reduces operation cost and time

Establishing a VPN tunnel is a good way to build secure connections among remote offices, branch offices and partners; however it is difficult for non-technical employees, such as sales people, to use because of complicated configuration. The ZyXEL USG Series is equipped with the "EASY VPN" solution to push configuration files to the VPN clients automatically; this eliminates the configuration efforts while securing the access at the same time. In addition, the USG Series supports L2TP VPN technology on iPhones, Android phones and many other mobile devices as L2TP VPN enables employees in remote places to connect to the headquarters with easy and free access.

### Content filter for safer Web surfing

The World Wide Web has become the main target for network threats, since the Internet itself is a very effective malware delivery mechanism. With threats hidden directly in contents such as cookies, add-ons and rootkits, it makes malware exceptionally difficult to detect.

The ZyXEL USG Series content filter solution provided by Blue Coat and Commtouch, the leading providers, reduces costs and extends protection by combining a comprehensive, integrated database featuring millions of URLs, IP addresses and domains. With the solution, the USG Series not only enables real-time protection that deters emerging Web threats including malware and phishing, but also blocks or monitors certain sites to maintain employee productivity.

### Powerful Email security

The ZyXEL USG Series delivers industry-leading protection, powered by Commtouch, against spam, phishing and virus-laden emails. The extremely high performance of Commtouch technology comes from the unique recurrent pattern detection (RPD) mechanism that possesses its superior capability through analyzing millions of new patterns each day (24x7x365) to block all the associated messages real-time. In addition, the ZyXEL USG applies sender-based IP reputation to remove over 80% of unwanted mails and to take advantage of the zero-hour virus outbreak protection feature, which is capable of blocking or delaying suspicious messages hours before commercial anti-virus signatures are available.

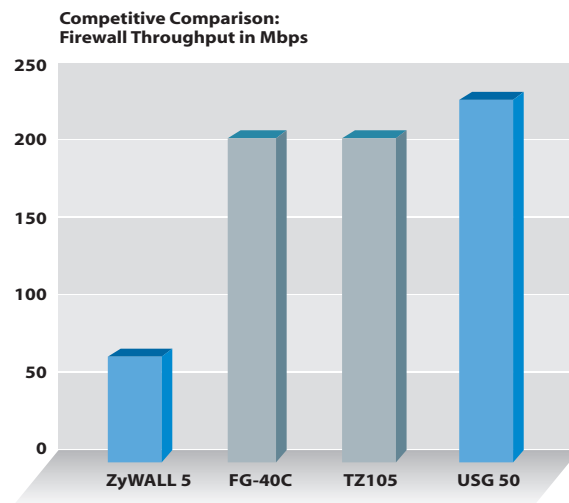
### More 3G card support

The ZyXEL USG Series not only supports multiple WAN ports but also 3G networks through USB or PC cards. With 3G connections, the USG Series enables load sharing or failover to deliver highly reliable network connectivity; it also supports more 3G cards with generic driver to ensure excellent interoperability. Since the customers don't have to purchase specific 3G cards to save cost.

## Key Applications

### High performance

The ZyXEL USG Series is built with a powerful Integrated High Performance Security architecture. It provides real-time inspection to prevent networks from threats without sacrificing performance. Take the USG 50 as an example: its excellent performance delivers sufficient speed boost to meet all small business needs.



\* Source: Performance figures from ZyXEL, SonicWALL and Fortinet Websites.

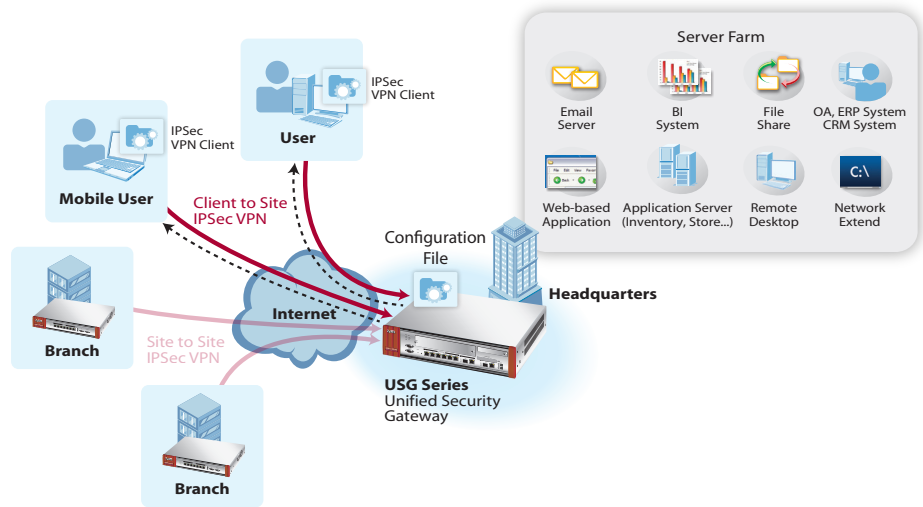
### EASY VPN — zero configuration remote access

When establishing VPN tunnels, it could be quite difficult for non-technical employees to use due to the complicated configuration.

The ZyXEL USG Series is equipped with the "EASY VPN" solution to push configuration files to the VPN clients automatically; this eliminates the configuration efforts while securing the access at the same time.

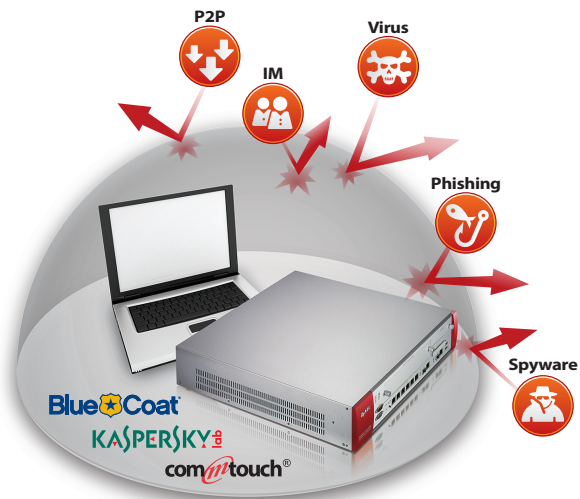
### Easy provisioning for IPSec VPN client

- USG automatically provides configuration file to the client.



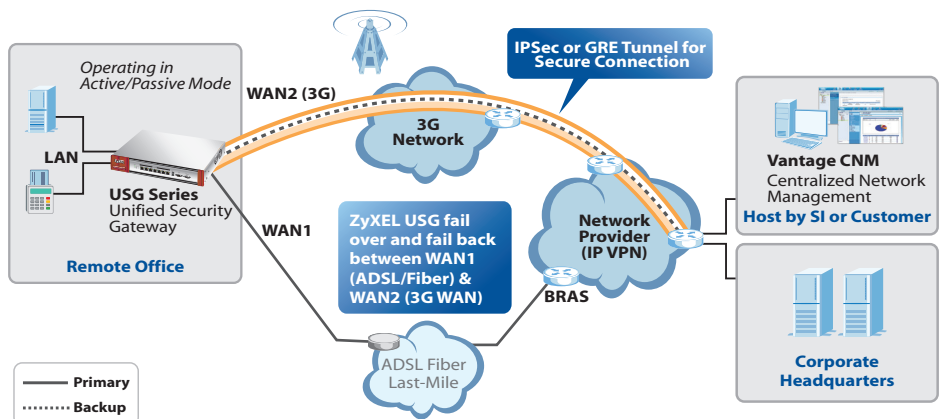
### Content Filter stops malware and Web threats

The ZyXEL USG Content Filter enables businesses to protect their users and networks from malware and abuse such as spyware, phishing attacks and inappropriate P2P or IM usage. It keeps office computers from getting infected by dangerous malware and comprehensively protects business network environments.









### Non-stop Internet access with multiple WAN and 3G backups

The ZyXEL USG supports not only WAN traffic load balancing to increase the overall network throughput but also flexible 3G backup as a WAN alternative to enhance network reliability.



### Specifications

Model	USG 20	USG 20W	USG 50	USG 100	USG 100-PLUS	USG 200	
<b>Product photo</b>							
<b>Hardware Specifications</b>							
<b>10/100/1000 interfaces (Copper)</b>	4 x LAN/DMZ, 1 x WAN	4 x LAN/DMZ, 1 x WAN	4 x LAN/DMZ, 2 x WAN	5 x LAN/DMZ, 2 x WAN	4 x LAN/DMZ, 2 x WAN	5 x LAN/DMZ, 2 x WAN, 1 x OPT	
<b>USB ports</b>	1	1	2	2	2	2	
<b>Card slot</b>	-	-	-	1	-	1	
<b>System Capacity &amp; Performance</b>							
<b>SPI firewall throughput*<sup>1</sup> (Mbps)</b>	175	175	225	225	600	250	
<b>VPN throughput (AES)*<sup>2</sup> (Mbps)</b>	75	75	90	90	150	90	
<b>UTM throughput (AV+IDP)*<sup>3</sup> (Mbps)</b>	-	-	30	30	30	40	
<b>Unlimited user licenses</b>	Yes	Yes	Yes	Yes	Yes	Yes	
<b>Max. sessions*<sup>4</sup></b>	10,000	10,000	10,000	20,000	40,000	40,000	
<b>New session rate</b>	1,000	1,000	1,200	1,200	1,200	1,200	
<b>Max. concurrent IPSec VPN tunnels</b>	5	5	10	50	50	100	
<b>Max. concurrent SSL VPN users</b>	1	1	5	25	25	25	
<b>Included SSL VPN users</b>	1	1	2	2	2	2	
<b>Customizable zone</b>	Yes	Yes	Yes	Yes	Yes	Yes	
<b>IPv6 support</b>	Yes	Yes	Yes	Yes	Yes	Yes	
<b>Built-in Wireless LAN</b>							
<b>Standards</b>	-	802.11 b/g/n	-	-	-	-	
<b>Antennas</b>	-	2 detachable	-	-	-	-	
<b>Wi-Fi throughput*<sup>4</sup> (Mbps)</b>	-	80	-	-	-	-	
<b>Maximum output power</b>	-	802.11b: 18.5 dBm @ 11 Mbps 802.11g: 15.5 dBm @ 54 Mbps 802.11n: 15.5 dBm @ 20 Mbps	-	-	-	-	
<b>Radio sensitivity</b>	-	802.11b: ≤ -83 dBm @ 11 Mbps 802.11g: ≤ -70 dBm @ 54 Mbps 802.11n: ≤ -64 dBm @ 20 Mbps	-	-	-	-	
<b>Power Requirement</b>							
<b>Input voltage</b>	100 - 240 V AC, 50/60 Hz, 1.2 A	100 - 240 V AC, 50/60 Hz, 1.2 A	100 - 240 V AC, 50/60 Hz, 1.2 A	100 - 240 V AC, 50/60 Hz, 1.2 A	100 - 240 V AC, 50/60 Hz, 1.2 A	100 - 240 V AC, 50/60 Hz, 1.2 A	
<b>Power rating</b>	15 W Max.	16 W Max.	17 W Max.	20 W Max.	17 W Max.	20 W Max.	
<b>Power consumption (watt)</b>	15	16	17	20	17	20	
<b>Physical Specifications</b>							
<b>Item</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	216 x 140 x 33/ 8.50 x 5.51 x 1.30	216 x 140 x 33/ 8.50 x 5.51 x 1.30	242 x 167 x 35.5/ 9.53 x 6.57 x 1.40	242 x 175 x 35.5/ 9.53 x 6.89 x 1.40	242 x 167 x 35.5/ 9.53 x 6.57 x 1.40	242 x 175 x 35.5/ 9.53 x 6.89 x 1.40
	<b>Weight (kg/lb.)</b>	0.38/0.84	0.42/0.93	1.2/2.65	1.2/2.65	1.2/2.65	1.2/2.65
<b>Packing</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	305 x 205 x 106/ 12.01 x 8.07 x 4.17	305 x 205 x 106/ 12.01 x 8.07 x 4.17	375 x 238 x 108/ 14.76 x 9.37 x 4.25	296 x 158 x 241/ 11.65 x 6.22 x 9.49	375 x 238 x 108/ 14.76 x 9.37 x 4.25	296 x 158 x 241/ 11.65 x 6.22 x 9.49
	<b>Weight (kg/lb.)</b>	1/2.20	1.1/2.43	2.4/5.29	2.7/5.95	2.4/5.29	3/6.61
<b>Environmental Specifications</b>							
<b>Operating temperature</b>	0°C to 40°C/32°F to 104°F						
<b>Storage temperature</b>	-30°C to 60°C/-22°F to 140°F						
<b>Operating humidity</b>	5% to 90% (non-condensing)						
<b>MTBF (hr)</b>	323,269	301,502	871,265	323,823	871,265	323,823	

**Note:**

\*1: Testing Methodologies: Maximum performance based on RFC 2544 (UDP packets, 1,518 bytes).

\*2: VPN (AES) throughput measured using UDP traffic with 1,424 bytes packet size, based on RFC 2544.

\*3: UTM (AV+IDP) throughput measured using industry standard Ixia IxLoad test tool against HTTP protocol with 1,460 bytes packet size. Testing done with multiple flows.

\*1, \*2 and \*3: Maximum throughput based on RFC 2544, actual throughput may vary depending on configuration, network condition and activated services.

\*4: 11n (20 MHz), security type: WPA2-PSK. Max sessions measured using industry standard Ixia IxLoad test tool.

### Features

#### Firewall

- ICSA-certified firewall
- Routing and transparent (bridge) mode
- Zone-based access control list
- Stateful packet inspection
- User-aware policy enforcement
- SIP/H.323 NAT traversal
- ALG supports custom ports

#### IPv6 Support

- IPv6 Ready gold logo certified
- Dual stack
- IPv4 tunneling (6rd and 6to4 transition tunnel)
- Host/Router/Firewall

#### Virtual Private Network (VPN)

- ICSA-certified IPsec VPN
- Algorithm: AES/3DES/DES
- Authentication: SHA-1, SHA-2/MD5
- Key management: Manual key/IKE
- Perfect forward secrecy (DH groups) support 1, 2, 5
- IPsec NAT traversal
- Dead peer detection/relay detection
- PKI (X.509) certificate support
- Centralize VPN support
- Simple wizard support
- Auto reconnect VPN
- VPN HA (redundant remote VPN gateways)

#### SSL VPN

- Clientless secure remote access
- Support reverse proxy mode and full tunnel mode
- Unified policy enforcement
- Supports two-factor authentication
- Customizable user portal

#### Intrusion Detection and Prevention (IDP)\*<sup>1</sup> (USG 50/100/100-PLUS/200)

- Routing and transparent (bridge) mode
- Zone-based IDP inspection
- Customizable protection profile
- Protect over 2000 attack

- Automatic signature updates
- Custom signatures
- Protocol anomaly detection and protection
- Traffic anomaly detection and protection
- Flooding detection and protection
- DoS/DDoS protection

#### Application Patrol\*<sup>1</sup> (USG 50/100/100-PLUS/200)

- Application, IM/P2P, stream base media, VoIP granular access control
- Detail access control of IM (chat, file transfer, video)
- Application and IM/P2P bandwidth control
- User authentication support
- IM/P2P signature auto update
- Support more than 15 catalogs IM and P2P
- Real-Time statistical reports
- Maximum/guaranteed bandwidth

#### Anti-Virus\*<sup>2</sup> (USG 50/100/100-PLUS/200)

- Support Kaspersky and ZyXEL Anti-Virus
- Stream-based Anti-Virus engine
- Zone base AV protection
- HTTP/FTP/SMTP/POP3/IMAP4 protocol support
- Automatic signature updates
- No file size limitation
- Blacklist/whitelist support

#### Anti-Spam

- Zone to zone protection
- Transparently intercept mail via SMTP/POP3 protocols
- POP3/SMTP port configurable
- Sender-based IP reputation filter
- Commtouch RPD query
- Zero-hour virus outbreak protection
- X-Header support
- Blacklist/whitelist support
- Support DNSBL checking
- Spam tag support
- Statistics report

#### High Availability (USG 100/200)

- Active-Passive mode
- Device failure detection and notification
- Support ICMP and TCP ping check
- Link monitoring
- Auto-Sync configurations

#### Content Filtering (BlueCoat and Commtouch)\*<sup>3</sup>

- Social networking control
- Web security—Security threat category (powered by BlueCoat)
- URL blocking, keyword blocking
- Profile base setting
- Exempt list (blacklist and whitelist)
- Blocks java applet, cookies and active X
- Dynamic URL filtering database (powered by BlueCoat and Commtouch)
- Unlimited user licenses support
- Customize warning messages and redirect URL

#### Networking

- Routing mode/bridge mode/mixed mode
- Layer 2 port grouping
- Ethernet/PPPoE
- NAT/PAT
- Tagged VLAN (802.1Q)
- Virtual interface (alias interface)
- Policy-based routing (user-aware)
- Policy-based NAT (SNAT)
- Dynamic routing (RIP v1/v2, OSPF)
- DHCP client/server/relay
- Dynamic DNS support
- WAN Trunk more than 2 port (USG 50/100/100-PLUS/200)
- Per host session limit
- Guaranteed bandwidth
- Maximum bandwidth
- Priority-bandwidth utilization



### Authentication

- Local user database
- Microsoft Windows active directory integrate
- External LDAP/RADIUS user database
- Xauth over RADIUS for IPSec VPN
- Forced user authentication (transparent authentication)
- IP/MAC address binding

### System Management

- Role-Based administration
- Multiple administrator login
- Multi-Lingual web GUI (HTTPS/HTTP)
- Object-based configuration
- Command line interface (console/web console/SSH/TELNET)
- SNMP v2c (MIB-II)
- System configuration rollback
- Firmware upgrade via FTP/FTP-TLS/web GUI

### 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
- Built-in daily report
- Advanced reporting (Vantage Report)
- Centralized Network Management (Vantage CNM) manageable

### Certification

- Emission (EMC)
  - FCC Part15 (Class B)
  - CE EMC (Class B)

*Note:*

\*1: Available for USG 50/100/100-PLUS/200 models with Intrusion Detection/Prevention (IDP) subscription.

\*2: Available for USG 50/100/100-PLUS/200 models with Anti-Virus subscription.

\*3: Available for all USG models with Content Filtering subscription.

## 3G Card Support

Please visit [http://www.zyxel.com/products\\_services/smb\\_security\\_appliances\\_and\\_services.shtml](http://www.zyxel.com/products_services/smb_security_appliances_and_services.shtml) and find the following path: ZyXEL Unified Security Gateways → USG product pages to see the 3G Card Compatibility List for supported USB devices.

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



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