ZyWALL SBG5500 Series
Multi-WAN Gigabit VPN Router

The ZyWALL SBG5500 Series has been designed for small business and start-up company networks. It provides Internet connections of high reliability, performance and security for remote offices and telecommuters; it also meets performance and security need of your employees for the business to maintain high efficiency and productivity.

Benefits

Flexible, optimized and uninterrupted Internet connectivity

The ZyWALL SBG5500 Series offers high speed and four simultaneous WAN operations from one VDSL2/ADSL2+ port, two Gigabit Ethernet/SFP ports and a 3G/4G (USB Dongle) for flexible Internet access. The four WAN interfaces are capable of advanced Multi-WAN load balancing with failover algorithms that allow network operations of high performance and non-stop Internet connection.

Secure, reliable connection for your networks

Zyxel's ZyWALL SBG5500 Series offers high-capacity virtual private network (VPN) capabilities that allow multiple offices and tens of employees to access the information they need anywhere as secure as if they were in the headquarters; and it offers secure connections for a number of remote workers depending on your needs.

The ZyWALL SBG5500 Series supports L2TP/IPSec VPN on a wide variety of mobile Internet devices running iOS or Android. In addition, the ZyWALL SBG5500 Series can also act as an L2TP VPN client for home workers to connect the office network without complex configuration.

Multi-WAN advanced load balancing and failover

High-throughput and hardware VPN encryption engine
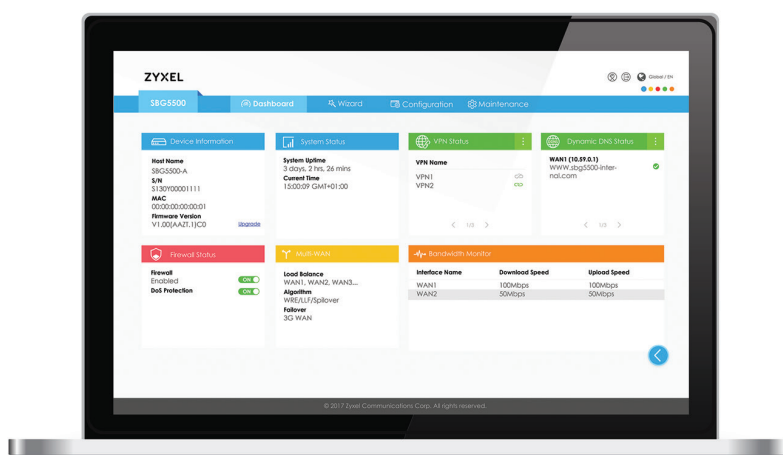
Business SPI firewall

VLAN for multiple subnets

Remote Management (HTTP/HTTPS, SSH, Telnet, SNMP and TR-069)

Datasheet ZyWALL SBG5500 Series

Powerful, robust network security

Network security is always the most important issue to avoid Internet treats. The ZyWALL SBG5500 Series offers SPI Firewall functions that work against attacks including DoS (Denial of Service), IP-based attacks, unauthorized remote system access, anomaly traffics and illegal packets for highly secure, managed network environments.

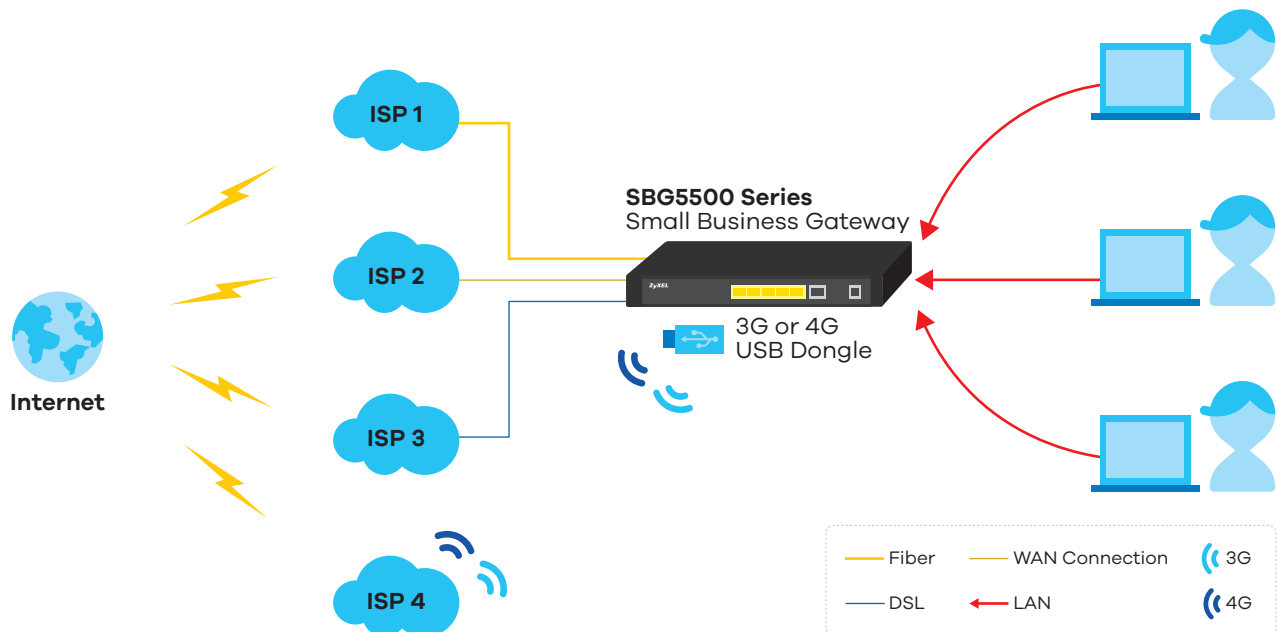## Easy-to-use GUI and swift management

Zyxel's Wizard and GUI will have you connected quickly and they all provide a multi-lingual Web GUI. For efficient managements, the ZyWALL SBG5500 Series offers completely remote management tools that empower administrators to configure and monitor SBG easily.
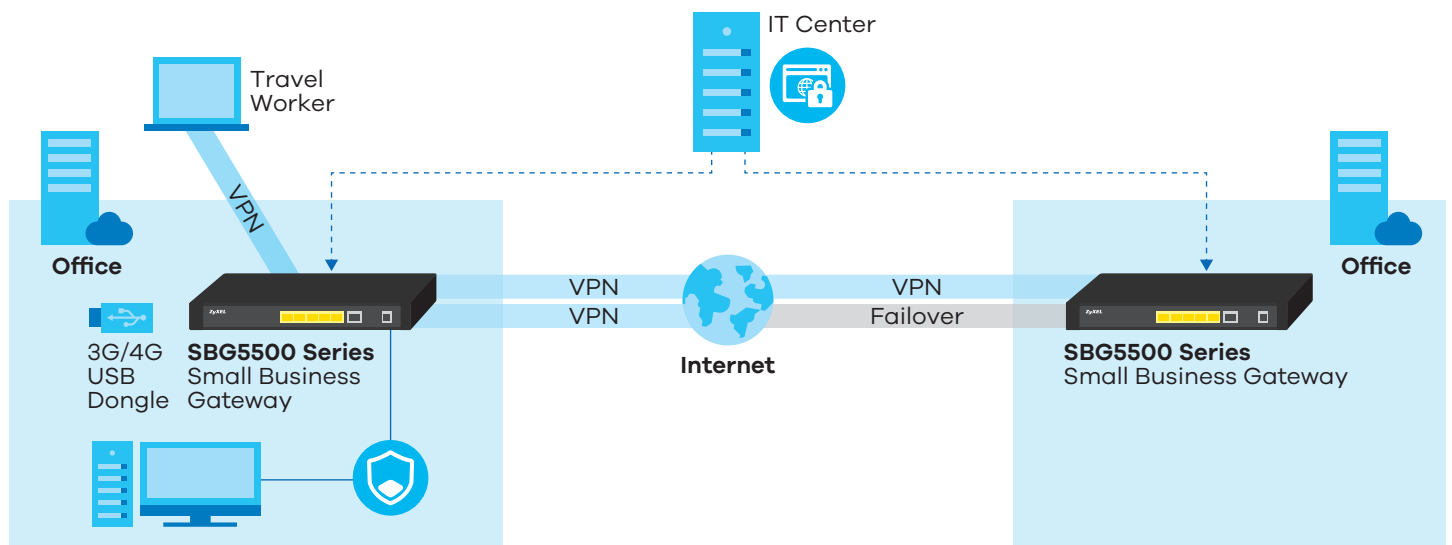
Application Diagram

Multi-WAN applications

- The ZyWALL SBG5500 Series can adapt to a variety of network environments and enable offices or service providers to perform flexible installation for VDSL, Ether/Fiber or mobile WAN access.

- Multi-WAN load balancing ensures seamless Internet connectivity for heavy traffics.
- The offices can optionally deploy non-stop Internet access with Multi-WAN failover.

VPN applications

- Organizations, branch offices, partners and home users can deploy Zyxel ZyWALL SBG5500 Series for Site-to-Site IPSec VPN and L2TP over IPSec VPN clients.
- VPN is a solution to establishing secured network connections and reducing long-distance telephone charges.
- Users can establish wireless VPN connections to protect sensitive information being transmitted.

- Remote users can securely access company resources with their computers or smartphones via Zyxel's SBG VPN.
- The ZyWALL SBG5500 Series can establish a L2TP VPN connections to service providers for secured Internet access.

Specifications

Model	SBG5500-A/B
Hardware Specifications	
10/100/1000 Mbps RJ-45 ports	4 x LAN, 1 x WAN/LAN, 1 x WAN, 1 x SFP
DSL ports	1 x VDSL2/ADSL2+ (RJ-11/RJ-45)[*1]
USB ports	1 x USB 3.0
Console port	Yes (DB9)
Rack-mountable	Yes
Fanless	Yes
System Capacity & Performance[*2]	
SPI firewall throughput (Mbps)[*3]	1,300
VPN throughput (Mbps)[*4]	150
Max. TCP concurrent sessions[*5]	100,000
Max. concurrent IPsec VPN tunnels[*6]	50
Customizable zones	Yes
IPv6 support	Yes
VLANs	16
Key Software Features	
Multi-WAN Load Balance/Failover	Yes
Virtual Private Network (VPN)	Yes (IPSec, L2TP over IPSec, PPTP, L2TP)
VPN client	IPSec/L2TP
Firewall	Yes
VLAN/interface group	Yes
Bandwidth management	Yes
Logging and monitoring	Yes
Cloud Helper	Yes
Remote Management	Yes
Power Requirements	
Power input	110 to 240 V AC, 50/60 Hz, 2 A max.
Max. power consumption (watt)	10.95
Heat dissipation (BTU/hr)	37.36

Physical Specifications		
Item	Dimensions (WxDxH)(mm/in.)	272 x 180.74 x 39.5/10.7 x 7.11 x 1.55
	Weight (Kg/lb.)	1.5/3.3
Packing	Dimensions (WxDxH)(mm/in.)	468 x 250 x 72/18.42 x 9.84 x 2.83
	Weight (Kg/lb.)	2.4/5.29
Included accessories		Power adapter

Environmental Specifications		
Operating environment	Temperature	0°C to 50°C/32°F to 122°F
	Humidity	10% to 90% (non-condensing)
Storage environment	Temperature	–40°C to 70°C/–40°F to 158°F
	Humidity	10% to 90% (non-condensing)
MTBF (hr)		44,000

Certifications	
EMC	FCC Part 15B (Class B), FCC Part 68 CE EMC (Class B), BSMI
Safety	CE LVD, BSMI

Note:
*: This matrix with firmware OPAL BE 1.10 or later.
*1: RJ-11 is for Annex A, while RJ-45 is for Annex B.
*2: Actual performance may vary depending on network conditions and activated applications.
*3: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).
*4: VPN throughput measurement based on RFC 2544 (1,424-byte UDP packets).
*5: Maximum sessions measured using the industry-standard IXIA IxLoad testing tool.
*6: Including Gateway-to-Gateway and Client-to-Gateway.

Feature Sets

VDSL2/ADSL2+

- IPoE/IPoA/PPPoE/PPPoA
- Packet Transfer Mode (PTM)
- Asynchronous Transfer Mode (ATM)
- ITU-T G.993.1/2 (VDSL1/2)
- ITU-T G.992.1/2/3/5 (ADSL1/2/2+) Annex A & Annex B
- ITU-T G.994.1 (G.hs), G.997.1 (G.ploam)
- VDSL2 profile: up to 30a & 35b
- G.INP, G.Vector

Ethernet WAN

- IPoE/PPPoE
- DHCP Client/Static IP
- Routing mode/Bridge mode
- IGMP proxy
- DHCP option 43, 60, 61, 120, 121, 125
- Outgoing VLAN tagging (802.1Q)
- Configurable MTU
- Port setting (LAN port can be confiured as WAN port)
- MAC clone
- SFP dual personality and Digital Diagnostic Monitoring Information (DDMI)(SBG5500-A/SBG5500-B)

Mobile WAN

- WAN connection via 3G/4G USB Dongle*
- Authentication type (PPP/CHAP)
- Budget control (Time budget/Data budget)

Multi-WAN

- Load balance/failover
- Load balance algorithm (Weight round robin/Least load first/Spillover)
- Connectivity check (Auto fallback when primary WAN recovers)
- Dynamic DNS and default server for multiple interfaces

Firewall/Security

- Stateful Packet Inspection (SPI)
- DoS/DDoS protection (Protocol anomaly, traffic anomaly, flooding dection)
- Firewall flow chart
- Up to 500 firewall rules
- MAC filter
- Firewall rule schedules
- Device service access control
- Zone control

VPN

- IPSec, L2TP over IPSec (Server/Client), L2TP (Server/Client), PPTP
- Key management: manual key, IKEv1 and IKEv2 with EAP
- Encryption: AES (128/192/256 bits), 3DES
- Support generating SHA-1 & SHA-2 certificate
- Perfect forward secrecy (DH groups 2/5/14)
- Up to 50 concurrent VPN tunnels
- Hardware VPN engine
- IPSec NAT traversal
- VPN dead peer detection, relay detection, and auto-reconnection
- PKI (X.509) certificate support
- VPN wizard for easy setup
- VPN failover

VLAN/Interface Group

- VLAN tagging (802.1Q)
- 802.1P
- Multiple subnets
- DHCP option 60, 61, 125
- WAN/LAN bridge for triple play
- Port-Based VLAN

Routing and NAT

- Port forwarding
- Port triggering
- Address mapping (One-to-One, Many-to-One, Many-to-Many)
- Policy route
- Static route
- Dynamic route (RIPv1/v2)
- Up to max. 100,000 concurrent NAT sessions

Ethernet LAN

- DHCP server/relay
- Static DHCP
- Additional subnet (IP alias)
- Wake on LAN
- DHCP option 66, 67, 150
- DNS entry
- IGMP snooping
- DNS proxy and query forwarding by domain name

Bandwidth Management

- Bandwidth limitation (upstream/downstream)
- Class-based bandwidth management
- QoS policer for guaranteed bandwidth
- QoS shaper for rate limit by outgoing interface
- 8-Level queue priority

System Management

- Multi-lingual Web GUI
- Firmware upgrade via Web GUI, FTP, TR-069, and Cloud Helper
- USB file sharing
- AAA server
- Certificate management
- HTTP/HTTPS
- SSH
- Telnet
- TR-069
- SNMP v1, v2c

IPv6

- IPv4/IPv6 dual stack
- DS-Lite
- 6RD
- SLAAC
- DHCPv6 client/server
- Static IP
- DNS
- MLD proxy

*: For specific models supporting the 3G and 4G dongles on the list, please refer to the Zyxel product page at 3G dongle document.

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