

Juniper Networks **Secure Services Gateway** **500 Series**

The Juniper Networks Secure Services Gateway 500 Series (SSG) represents a new class of purpose-built security appliance that delivers a perfect mix of high performance, security and LAN/WAN connectivity for regional and branch office deployments. With proven network and application level protection the SSG 550 and SSG 520 can both be implemented as standalone security devices to stop worms, Spyware, Trojans, malware and other emerging attacks. In addition, the SSG 500 Series combines security and LAN routing functionality from the market leading firewall appliances running ScreenOS with best-in-class routing hardware and WAN protocols from the Juniper Networks J-series routers and JUNOS. The result is a high performance security platform that can be deployed as a combination firewall and routing device for those customers who wish to consolidate devices and reduce IT expenses. The Secure Services Gateway 500 Series provides customers with the following features and benefits:

- Dedicated, security specific processing hardware and software platform delivers performance required to protect high speed LAN as well as lower speed WAN connections
- Advanced security features such as network segmentation that allow you to isolate guests, wireless networks and regional servers or databases from the rest of the branch to address regulatory compliance requirements
- Extensible I/O architecture delivers LAN and WAN connectivity options on top of unmatched security to reduce costs and extend investment protection



The SSG 550 and SSG 520 are ideally suited for regional/branch offices, medium businesses and service providers that want a security platform to protect their WAN and high speed internal networks while extending the platform return on investment through high levels of system and interface modularity.

SSG 550:

The SSG 550 delivers 1 Gbps of IMIX firewall traffic, 500 Mbps of IPSec VPN and 500 Mbps of IPS (Deep Inspection). The SSG 550 supports redundant power supplies and is NEBS compliant.

SSG 520:

The SSG 520 delivers 600 Mbps of IMIX firewall traffic, 300 Mbps of IPSec VPN and 300 Mbps of IPS (Deep Inspection).

Security and performance

Integrating best-in-class security features such as IPSec VPN for site-to-site connectivity and Deep Inspection firewall for both network and application level protection, the SSG 500 Series enables secure, regional/branch office legacy LAN connectivity while facilitating the migration to next generation WAN. A content security suite made up of Antivirus, Anti-Phishing, Anti-Spyware and Anti-Spam components will bolster network security by keeping viruses and emerging malware at bay. Expected content security suite availability is 2nd half of 2006.

Modular LAN/WAN connectivity

The SSG 500 Series supports four on-board 10/100/1000 interfaces plus six interface slots that accept a wide range of LAN and WAN I/O cards including T1/E1, DS3, Serial, 10/100/1000, SFP and FE. The combination of supported LAN and WAN hardware and supporting

protocols extends the return on investment by providing customers with interface and routing flexibility to match their current and future connectivity requirements.

Network segmentation

The SSG 500 Series delivers an advanced set of network segmentation features such as Security Zones, Virtual Routers and VLANs that allow administrators to deploy different levels of security to different user groups by dividing the network into distinct, secure domains, each with their own security policy.

Juniper Networks Secure Services Gateway 500 Series

	SSG 550	SSG 520
Maximum Performance and Capacity⁽¹⁾		
ScreenOS version support	ScreenOS 5.1	ScreenOS 5.1
Firewall performance	1 Gbps IMIX traffic	600 Mbps IMIX traffic
3DES VPN performance	500 Mbps	300 Mbps
Packets per second (64 byte packets)	600,000	300,000
IPS performance	500 Mbps	300 Mbps
Concurrent sessions	128,000	64,000
New sessions/second	15,000	10,000
Policies	4,000	1,000
Users supported	Unrestricted	Unrestricted
Network Connectivity		
Fixed I/O	4x 10/100/1000	4x 10/100/1000
Physical Interface Module (PIM) Slots	6	6
Enhanced PIM Slots	4	2
WAN interface options	Serial, T1, E1, DS3	
LAN interface options	SFP, FE, 10/100/1000	
Mode of Operation		
Layer 2 (transparent mode) ⁽²⁾	Yes	Yes
Layer 3 (route and/or NAT mode)	Yes	Yes
Address Translation		
Network Address Translation (NAT)	Yes	Yes
Port Address Translation (PAT)	Yes	Yes
Policy-based NAT/PAT	Yes	Yes
Mapped IP	6,000	1,500
Virtual IP	64	32
Firewall		
Network attack detection	Yes	Yes
DoS and DDoS protection	Yes	Yes
TCP reassembly for fragmented packet protection	Yes	Yes
Malformed packet protection	Yes	Yes
IPS		
Deep Inspection firewall	Yes	Yes
Protocol anomaly detection	Yes	Yes
Stateful protocol signatures	Yes	Yes
Number of attack objects	900 +	900 +
Protocols supported	MS-RPC, P2P, IM, NetBIOS/SMB, HTTP, SMTP, IMAP, POP, FTP, DNS	
VoIP Security		
H.323, ALG	Yes	Yes
SIP ALG	Yes	Yes
MGCP	Expected in 2H06	Expected in 2H06
NAT for SIP and H.323	Yes	Yes
Content Security		
External URL filtering	Yes (Websense or SurfControl)	
Integrated URL filtering	Yes (SurfControl)	Yes (SurfControl)
Anti-Spam	Expected in 2H06	Expected in 2H06
Anti-Phishing	Expected in 2H06	Expected in 2H06
Antivirus	Expected in 2H06	Expected in 2H06
Spyware/Adware/Keylogger protection	Expected in 2H06	Expected in 2H06

	SSG 550	SSG 520
VPN		
Concurrent VPN tunnels	1,000	500
Tunnel interfaces	300	100
DES (56-bit), 3DES (168-bit) and AES encryption	Yes	Yes
MD-5 and SHA-1 authentication	Yes	Yes
Manual key, IKE, PKI (X.509)	Yes	Yes
Perfect forward secrecy (DH Groups)	Yes	Yes
Prevent replay attack	Yes	Yes
Remote access VPN	Yes	Yes
L2TP within IPSec	Yes	Yes
IPSec NAT traversal	Yes	Yes
Redundant VPN gateways	Yes	Yes
Firewall and VPN User Authentication		
Built-in (internal) database – user limit	1,500	1,500
3rd Party user authentication	RADIUS, RSA SecurID, and LDAP	
XAUTH VPN authentication	Yes	Yes
Web-based authentication	Yes	Yes
Routing		
BGP	up to 8 instances supported	up to 3 instances supported
OSPF	up to 8 instances supported	up to 3 instances supported
RIPv1/v2	up to 256 instances supported	up to 128 instances supported
Dynamic routing	Yes	Yes
Static routes	Yes	Yes
Source-based routing	Yes	Yes
ECMP	Yes	Yes
Routes	20,000	10,000
Encapsulations		
PPP	Yes	Yes
MLPPP	Yes	Yes
MLPPP max physical interfaces	12	12
Frame Relay	Yes	Yes
MLFR (FRF 15, FRF 16)	Yes	Yes
MLFR max physical interfaces	12	12
HDLC	Yes	Yes
Traffic Management (QoS)		
Guaranteed bandwidth	Yes	Yes
Maximum bandwidth	Yes, per physical interface	Yes, per physical interface
Priority-bandwidth utilization	Yes	Yes
DiffServ stamp	Yes, per policy	Yes, per policy
System Management		
WebUI (HTTP and HTTPS)	Yes	Yes
Command Line Interface (console)	Yes	Yes
Command Line Interface (telnet)	Yes	Yes
Command Line Interface (SSH)	Yes, v1.5 and v2.0 compatible	
NetScreen-Security Manager	Yes	Yes
All management via VPN tunnel on any interface	Yes	Yes
SNMP full custom MIB	Yes	Yes
Rapid deployment	Yes	Yes
Logging and Monitoring		
Syslog (multiple servers)	External, up to 4 servers	
E-mail (2 addresses)	Yes	Yes
NetIQ WebTrends	External	External
SNMP (v2)	Yes	Yes
Traceroute	Yes	Yes
VPN tunnel monitor	Yes	Yes

	SSG 550	SSG 520
Virtualization		
Maximum number of security zones	18	12
Maximum number of virtual routers	8	5
Number of VLANs supported	150	125
High Availability (HA)		
Active/Active	Yes	No
Active/Passive	Yes	Yes
Redundant interfaces	Yes	Yes
Configuration synchronization	Yes	Yes
Session synchronization for firewall and VPN	Yes	Yes
Session failover for routing change	Yes	Yes
Device failure detection	Yes	Yes
Link failure detection	Yes	Yes
Authentication for new HA members	Yes	Yes
Encryption of HA traffic	Yes	Yes
IP Address Assignment		
Static	Yes	Yes
DHCP, PPPoE client	Yes	Yes
Internal DHCP server	Yes	No
DHCP relay	Yes	Yes
PKI Support		
PKI Certificate requests (PKCS 7 and PKCS 10)	Yes	Yes
Automated certificate enrollment (SCEP)	Yes	Yes
Online Certificate Status Protocol (OCSP)	Yes	Yes
Certificate Authorities Supported	Verisign, Entrust, Microsoft, RSA Keon, iPlanet (Netscape), Baltimore, DOD PKI	
Administration		
Local administrators database	20	20
External administrator database	RADIUS/LDAP/SecurID	
Restricted administrative networks	6	6
Root Admin, Admin, and Read Only user levels	Yes	Yes
Software upgrades	TFTP/WebUI/NSM	
Configuration Roll-back	Yes	Yes

	SSG 550	SSG 520
External Flash		
Additional log storage		Future support via USB
Event logs and alarms	Yes	Yes
System config script	Yes	Yes
ScreenOS Software	Yes	Yes
Dimensions and Power		
Dimensions (H/W/L)	3.5H/17.5W/21.5L	3.5H/17.5W/21.5L
Weight	25.0 lbs (no interface modules + one power supply)	23.0 lbs (no interface modules)
	30.7 lbs (six interface + two power supplies)	25.3 lbs (six interface modules)
Rack mountable	Yes, 2RU	Yes, 2RU
Power Supply (AC)	100-240 VAC, 420 watts	100-240 VAC, 350 watts
Power Supply (DC)	-48 to -60 VDC, 420 watts	-48 to -60 VDC, 420 watts
Redundant Power Supply	Yes	No
Certifications		
Safety Certifications	UL, CUL, CSA, CB	UL, CUL, CSA, CB
EMC Certifications	FCC class A, CE class A, C-Tick, VCCI class A	FCC class A, CE class A, C-Tick, VCCI class A
Environment		
Operational temperature:	32° to 122° F, 0° to 50° C	32° to 122° F, 0° to 50° C
Non-operational temperature:	-4° to 158° F, -20° to 70° C	-4° to 158° F, -20° to 70° C
Humidity:	10 to 90% non-condensing	10 to 90% non-condensing
MTBF (Bellcore model)	12 years	12 years
Other	NEBS Level 3	NEBS Level 3

(1) Performance, capacity and features listed are based upon systems running ScreenOS 5.1 and are the measured maximums under ideal testing conditions. Performance may vary with other ScreenOS releases and by deployment. IMIX is comprised of 58.33% 64 byte packets + 33.33% 570 byte packets + 8.33% 1518 byte packets of UDP traffic.

(2) NAT, PAT, policy based NAT, virtual IP mapped IP virtual systems, virtual routers, VLANs, OSPF, BGP, RIPv2, Active/Active HA, and IP address assignment are not available in layer 2 transparent mode.

Ordering Information

Product	Part Number
SSG 550	
SSG 550 Base Memory System, 0 PIM Cards, 1 AC Power supply	SSG-550B-001
SSG 550, 1GB 0 PIM Cards, 1 AC Power Supply	SSG-550-001
SSG 550 Base Memory System, 0 PIM Cards, 1 AC Power supply	SSG-550B-001
SSG 550 System, 1GB Memory, 0 PIM Cards, 1 AC Power Supply, NEBS Compliant	SSG-550-001-NEBS
SSG 550 System, 1GB Memory, 0 PIM Cards, 1 DC Power Supply	SSG-550-001-DC

SSG 520	
SSG 520 Base Memory System, 0 PIM Cards, AC Power	SSG-520B-001
SSG 520 System, 1GB Memory, 0 PIM Cards, AC Power	SSG-520-001
SSG 520 System, 1GB Memory, 0 PIM Cards, DC Power	SSG-520-001-DC

SSG Series I/O Options	
Small Form Factor Pluggable 1000Base-LX Gigabit Ethernet Optic Module	JX-SFP-1GE-LX
Small Form Factor Pluggable 1000Base-SX Gigabit Ethernet Optic Module	JX-SFP-1GE-SX
1 Port Gigabit Ethernet 10/100/1000 Copper Enhanced PIM	JXE-1GE-TX-S
1 Port Fiber Gigabit Ethernet Enhanced PIM with SFP	JXE-1GE-SFP-S
4 Port Fast Ethernet Enhanced PIM	JXE-4FE-TX-S
2 Port T1 PIM with integrated CSU/DSU	JX-2T1-RJ48-S
2 Port E1 PIM with integrated CSU/DSU	JX-2E1-RJ48-S
2 Port Serial PIM	JX-2Serial-S
1 Port DS3 PIM	JX-1DS3-S

SSG Spares	
Spare Power Supply for SSG 550, AC Power	SSG-PS-AC
Spare Power Supply for SSG 550, DC Power	SSG-PS-DC
1 Gigabyte Memory Upgrade for the SSG 500 series	SSG-500-MEM-1GB
Replacement air filter for SSG 550	SSG-500-FLTR

Note: The appropriate power cord is included based upon the sales order "Ship To" destination.



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