

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 performance, security and LAN/WAN connectivity for regional and branch office deployments. A complete set of Unified Threat Management (UTM) security features including Stateful firewall, IPS, Antivirus (includes Anti-Spyware, Anti-Adware, Anti-Phishing), Anti-Spam, and Web Filtering allow the SSG 500 Series to be implemented as standalone security devices to stop worms, Spyware, Trojans, malware and other emerging attacks.

Complementing the powerful UTM security features is a robust routing engine that allows the SSG 500 Series to be deployed as a traditional branch office router or as a combination firewall and routing device to reduce capital and operational 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
- UTM security features backed by best-in-class security partners to ensure that the network is protected against worms, Spyware, Trojans, malware and other emerging attacks.
- Advanced security features such as network segmentation allows administrators to deploy security policies to isolate guests, wireless networks and regional servers or databases to prevent unauthorized access and contain any attacks that may occur.
- Extensible I/O architecture delivers LAN and WAN connectivity options on top of unmatched security to reduce costs and extend investment protection

The SSG 500 Series 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/SSG 550M:

The SSG 550 and SSG 550M deliver 1 Gbps of IMIX Stateful firewall traffic, and 500 Mbps of IPSec VPN. Connectivity options include four on-board 10/100/1000 interfaces and six I/O expansion slots for LAN and WAN flexibility.

SSG 520/SSG 520M:

The SSG 520 and SSG 520M deliver 600 Mbps of IMIX firewall traffic and 300 Mbps of IPSec VPN. Connectivity options include four on-board 10/100/1000 interfaces and six I/O expansion slots for LAN and WAN flexibility.

Security

Proven firewall and IPSec VPN combined with best-in-class UTM security features including IPS, Antivirus (includes Anti-Spyware, Anti-Adware, Anti-Phishing), Anti-Spam, and Web Filtering protects both LAN and WAN traffic from worms, Spyware, Trojans, malware and other emerging attacks.

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, E3, 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.

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	SSG 550/SSG 550M	SSG 520/SSG520M
Maximum Performance and Capacity⁽¹⁾		
ScreenOS version support	ScreenOS 5.4	ScreenOS 5.4
Firewall performance (Large packets)	1 + Gbps	650 + Mbps
Firewall performance ⁽²⁾ (IMIX)	1 Gbps	600 Mbps
3DES + SHA-1 performance	500 Mbps	300 Mbps
FW packets per second (64 byte)	600,000	300,000
Concurrent sessions	128,000	64,000
New sessions/second	15,000	10,000
Policies	4,000	1,000
Users supported	Unrestricted	Unrestricted
Upgradeable to JUNOS 8.0	SSG 550M Only	SSG 520M Only
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) ⁽³⁾	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
Unified Threat Management / Content Security⁽⁴⁾		
IPS (Deep Inspection FW)	Yes	Yes
Protocol anomaly detection	Yes	Yes
Stateful protocol signatures	Yes	Yes
Antivirus	Yes	Yes
Signature database	100,000 +	
Protocols scanned	POP3, SMTP, HTTP, IMAP, FTP	
Anti-Phishing	Yes	Yes
Anti-Spyware	Yes	Yes
Anti-Adware	Yes	Yes
Anti-Keylogger	Yes	Yes
Anti-Spam	Yes	Yes
Integrated URL filtering	Yes	Yes
External URL filtering ⁽⁵⁾	Yes	Yes
VoIP Security		
H.323 ALG	Yes	Yes
SIP ALG	Yes	Yes
SCCP ALG	Yes	Yes
MGCP ALG	Yes	Yes
NAT for SIP/H.323/MGCP/SCCP	Yes	Yes
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

	SSG 550/SSG 550M	SSG 520/SSG520M
Firewall and VPN User Authentication		
Built-in (internal) database – user limit	1,500	1,500
3rd Party user authentication	RADIUS, RSA SecurID, 802.1X and LDAP	
XAUTH VPN authentication	Yes	Yes
Web-based authentication	Yes	Yes
Routing		
BGP	15 instances supported	9 instances supported
OSPF	8 instances supported	3 instances supported
RIPv1/v2	256 instances supported	128 instances supported
Dynamic routing	Yes	Yes
Static routes	Yes	Yes
Source-based routing	Yes	Yes
ECMP	Yes	Yes
Routes	20,000	10,000
Multicast	Yes	Yes
Reverse Forwarding Path (RFP)	Yes	Yes
IGMP (v1, v2)	Yes	Yes
IGMP Proxy	Yes	Yes
PIM SM	Yes	Yes
PIM SSM	Yes	Yes
Mcast inside IPSec Tunnel	Yes	Yes
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
Ingress Traffic Policing	Yes	Yes
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	No	No
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 550M	SSG 520/SSG520M
Virtualization		
Maximum number of security zones	60	60
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	Yes
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
External Flash		
Additional log storage	USB 1.1	USB 1.1
Event logs and alarms	Yes	Yes
System config script	Yes	Yes
ScreenOS Software	Yes	Yes

	SSG 550/SSG 550M	SSG 520/SSG520M
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 (Hot Swappable)	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
NEBS Level 3	SSG 550/SSG 550M	SSG 520M only

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

(1) Performance, capacity and features listed are based upon systems running ScreenOS 5.4 and are the measured maximums under ideal testing conditions unless otherwise noted. Actual results may vary based on ScreenOS release and by deployment.

(2) IMIX stands for Internet mix and is more demanding than a single packet size as it represents a traffic mix that is typical of a customer's network. The IMIX traffic used is made up of 58.33% 64 byte packets + 33.33% 570 byte packets + 8.33% 1518 byte packets of UDP traffic.

(3) 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.

(4) UTM Security features (IPS/Deep Inspection, Antivirus, Anti-Spam and Web filtering) are delivered by annual subscriptions purchased separately from Juniper Networks. Annual subscriptions provide signature updates and associated support. The high memory option is required for UTM Security features.

(5) Redirect Web filtering sends traffic to a secondary server and therefore entails purchasing a separate Web filtering license from either Websense or SurfControl.

IPS (Deep Inspection FW) Signature Packs

Signature Packs provide the ability to tailor the attack protection to the specific deployment and/or attack type. The following Signature packs are available for the SSG 500 Series.

Signature Pack	Target Deployment	Defense Type	Type of Attack Object
Base	Branch Offices, small medium businesses	Client/Server and worm protection	Range of signatures and protocol anomalies
Client	Remote/Branch Offices	Perimeter defense, compliance for hosts (desktops, etc)	Attacks in the server-to-client direction
Server	Small/Medium Businesses	Perimeter defense, compliance for server infrastructure	Attacks in the client-to-server direction
Worm Mitigation	Remote/Branch Offices of Large enterprises	Most comprehensive defense against worm attacks	Worms, Trojans, backdoor attacks

Ordering Information

Product	Part Number
SSG 550	
SSG 550 512 MB Memory System, 0 PIM Cards, 1 AC Power supply	SSG-550B-001
SSG 550, 1GB Memory, 0 PIM Cards, 1 AC Power Supply	SSG-550-001
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 520 512 MB 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 550M	
SSG 550M System, 1GB Memory, 0 PIM Cards, 1 AC Power Supply	SSG-550M-SH
SSG 550M System, 1GB Memory, 0 PIM Cards, 1 AC Power Supply, NEBS Compliant	SSG-550M-SH-N
SSG 550M System, 1GB Memory, 0 PIM Cards, 1 DC Power Supply, NEBS Compliant	SSG-550M-SH-DC-N

SSG 520M	
SSG 520M System, 1GB Memory, 0 PIM Cards, 1 AC Power Supply	SSG-520M-SH
SSG 520M System, 1GB Memory, 0 PIM Cards, 1 AC Power Supply, NEBS Compliant	SSG-520M-SH-N
SSG 520M System, 1GB Memory, 0 PIM Cards, 1 DC Power Supply, NEBS Compliant	SSG-520M-SH-DC-N

SSG 500 Series I/O Options

1 Port Gigabit Ethernet 10/100/1000 Copper Enhanced PIM	JXE-1GE-TX-S
1 Port Fiber Gigabit Ethernet Enhanced PIM (SFP sold separately)	JXE-1GE-SFP-S
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
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

Product	Part Number
Unified Threat Management/Content Security (High Memory Option Required)	
SSG 520/SSG 520M Anti-Virus (includes Anti-Spyware, Anti-Phishing)	NS-K-AVS-SSG550
SSG 550/SSG 550M Anti-Virus (includes Anti-Spyware, Anti-Phishing)	NS-K-AVS-SSG520
SSG 550/SSG 550M IPS (Deep Inspection)	NS-DI-SSG550
SSG 520/SSG 520M IPS (Deep Inspection)	NS-DI-SSG520
SSG 550/SSG 550M Web Filtering	NS-WF-SSG550
SSG 520/SSG 520M Web Filtering	NS-WF-SSG520
SSG 550/SSG 550M Anti-Spam	NS-SPAM-SSG550
SSG 520/SSG 520M Anti-Spam	NS-SPAM-SSG520
SSG 550/SSG 550M Remote Office Bundle (Includes AV, DI, WF)	NS-RBO-CS-SSG550
SSG 520/SSG 520M Remote Office Bundle (Includes AV, DI, WF)	NS-RBO-CS-SSG520
SSG 550/SSG 550M Main Office Bundle (Includes AV, DI, WF, AS)	NS-SMB-CS-SSG550
SSG 520/SSG 520M Main Office Bundle (Includes AV, DI, WF, AS)	NS-SMB-CS-SSG520

SSG 500 Series Memory Upgrades, Spares and Communications Cables

Spare Power Supply for SSG 550, AC Power	SSG-PS-AC
Spare Power Supply for SSG 550, DC Power	SSG-PS-DC
Power cable, Australia	CBL-JX-PWR-AU
Power cable, China	CBL-JX-PWR-CH
Power cable, Europe	CBL-JX-PWR-EU
Power cable, Italy	CBL-JX-PWR-IT
Power cable, Japan	CBL-JX-PWR-JP
Power cable, UK	CBL-JX-PWR-UK
Power cable, US	CBL-JX-PWR-US
1 Gigabyte Memory Upgrade for the SSG 500 series	SSG-500-MEM-1GB
Replacement air filter for SSG 550 Series	SSG-500-FLTR
EIA530 cable (DCE)	JX-CBL-EIA530-DCE
EIA530 cable (DTE)	JX-CBL-EIA530-DTE
RS232 cable (DCE)	JX-CBL-RS232-DCE
RS232 cable (DTE)	JX-CBL-RS232-DTE
RS449 cable (DCE)	JX-CBL-RS449-DCE
RS449 cable (DTE)	JX-CBL-RS449-DTE
V.35 cable (DCE)	JX-CBL-V35-DCE
V.35 cable (DTE)	JX-CBL-V35-DTE
X.21 cable (DCE)	JX-CBL-X21-DCE
X.21 cable (DTE)	JX-CBL-X21-DT
Blank I/O plate	JX-Blank-FP-S

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



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