

# 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 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**

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.

# Juniper Networks Secure Services Gateway 500 Series

	SSG 550	SSG 520
<b>Maximum Performance and Capacity<sup>(1)</sup></b>		
ScreenOS version support	ScreenOS 5.4	ScreenOS 5.4
Firewall performance (Large packets)	1 + Gbps	650 + Mbps
Firewall performance <sup>(2)</sup> (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

<b>Network Connectivity</b>		
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	

<b>Mode of Operation</b>		
Layer 2 (transparent mode) <sup>(4)</sup>	Yes	Yes
Layer 3 (route and/or NAT mode)	Yes	Yes

<b>Address Translation</b>		
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

<b>Firewall</b>		
Network attack detection	Yes	Yes
DoS and DDoS protection	Yes	Yes
TCP reassembly for fragmented packet protection	Yes	Yes
Malformed packet protection	Yes	Yes

<b>Unified Threat Management / Content Security</b>		
IPS (Deep Inspection FW)	Yes	Yes
Protocol anomaly detection	Yes	Yes
Stateful protocol signatures	Yes	Yes
Antivirus <sup>(5)</sup>	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 <sup>(6)</sup>	Yes	Yes
Integrated URL filtering <sup>(7)</sup>	Yes	Yes
External URL filtering <sup>(8)</sup>	Yes	Yes

<b>VoIP Security</b>		
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

	SSG 550	SSG 520
<b>VPN</b>		
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

<b>Firewall and VPN User Authentication</b>		
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

<b>Routing</b>		
BGP	up to 15 instances supported	up to 9 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

<b>Encapsulations</b>		
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

<b>Traffic Management (QoS)</b>		
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

<b>System Management</b>		
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

<b>Logging and Monitoring</b>		
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
<b>Virtualization</b>		
Maximum number of security zones	60	60
Maximum number of virtual routers	8	5
Number of VLANs supported	150	125
<b>High Availability (HA)</b>		
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
<b>IP Address Assignment</b>		
Static	Yes	Yes
DHCP, PPPoE client	Yes	Yes
Internal DHCP server	Yes	Yes
DHCP relay	Yes	Yes
<b>PKI Support</b>		
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	
<b>Administration</b>		
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
<b>External Flash</b>		
Additional log storage		Future support via USB
Event logs and alarms	Yes	Yes
System config script	Yes	Yes
ScreenOS Software	Yes	Yes
<b>Dimensions and Power</b>		
Dimensions (H/W/L)	3.5H/17.5W/21.5L	3.5H/17.5W/21.5L
Weight	25.0 lbs	23.0 lbs
	(no interface modules + one power supply)	(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
<b>Certifications</b>		
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
<b>Environment</b>		
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	N/A
<p>(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.</p> <p>(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.</p> <p>(3) IPS (Deep Inspection) performance is derived using HTTP traffic with average page size of 100K with a mix of 60% text/css, 20% images, and 20% files.</p> <p>(4) 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.</p> <p>(5) Supported via Kaspersky Lab Antivirus engine</p> <p>(6) Supported via Symantec Brightmail</p> <p>(7) Supported via SurfControl</p> <p>(8) Supported via SurfControl and Websense</p>		

## Ordering Information

Product	Part Number
<b>SSG 550</b>	
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 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

<b>SSG 520</b>	
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

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
1 Port E3 PIM	JX-1E3-S

Product	Part Number
<b>SSG Spares, Memory Upgrades and communications Cables</b>	
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

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

1 Gigabyte Memory Upgrade for the SSG 500 series	SSG-500-MEM-1GB
Replacement air filter for SSG 550	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



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