Datasheet

Juniper Networks NetScreen-500

The NetScreen-500 is a purpose-built, security system designed to provide a flexible, high performance solution for medium and large enterprise central sites and service providers. The NetScreen-500 security system integrates firewall, DoS, VPN and traffic management functionality in a low-profile, modular chassis. It provides high levels of total throughput for firewall and VPN plus support for virtual systems and security zones. Combined with a flexible and resilient hardware architecture incorporating modular physical interfaces, redundant power supplies, fans and high availability interfaces, the NetScreen-500 exceeds most enterprises' typical traffic conditions. It is well suited to match the peak load and strong deterrence requirements of the most demanding environments.

Specifications	Juniper Networks NetScreen-500[1]
Maximum Performance and Capacity[1]	
ScreenOS version support	ScreenOS 5.4
Firewall performance	700 Mbps
3DES+SHA-1 performance	250 Mbps
Concurrent sessions[2]	250,000
New Sessions/Second	7,000
Policies[2]	20,000
Interfaces	8 10/100 or mini-GBIC (SX or LX), 4 GBIC (SX or LX)
Mode of Operation	
Layer 2 mode (transparent mode)[4]	Yes
Layer 3 mode (route and/or NAT mode)	Yes
NAT (Network Address Translation)	Yes
PAT (Port Address Translation)	Yes
Policy-based NAT	Yes
Virtual IP	4
Mapped IP[3]	4,096
MIP/VIP Grouping	Yes
Users supported	Unrestricted
Firewall	
Number of network attacks detected	31
Network attack detection	Yes
DoS and DDoS protections	Yes
TCP reassembly for fragmented packet protection	Yes
Malformed packet protections	Yes
Deep Inspection (DI) firewall	Yes
Protocol anomaly	Yes
IPS (Deep Inspection) firewall	Yes
Stateful protocol signatures	Yes
Content Inspection	Yes
Embedded antivirus	No
Malicious Web filtering	up to 48 URLs
External Web filtering (Websense or SurfControl)	Yes
Integrated Web filtering	No
Brute force attack mitigation	Yes
Deep Inspection (DI) attack pattern obfuscation	Yes
SYN cookie	Yes
Zone-based IP spoofing	Yes
VPN	
Site-to-site VPN tunnels[2]	up to 5,000
Remote access VPN tunnels	10,000[3]
Tunnel interfaces	up to 1,024
DES (56-bit), 3DES (168-bit) and AES encryption	Yes
MD-5 and SHA-1 authentication	Yes
Manual Key, IKE, PKI (X.509)	Yes
Perfect forward secrecy (DH Groups)	1,2,5
Prevent replay attack	Yes
Remote access VPN	Yes
L2TP within IPSec	Yes
Dead Peer Detection	Yes
IPSec NAT Traversal	Yes
Redundant VPN gateways	Yes
VPN tunnel monitor	Yes

Firewall and VPN User Authentication

Built-in (internal) database – user limit(2)	up to 15,000
3rd Party user authentication	RADIUS, RSA SecurID, 802.1X and LDAP
XAUTH VPN authentication	Yes
Web-based authentication	Yes

PKI Support

PKI Certificate requests (PKCS 7 and PKCS 10)	Yes
Automated certificate enrollment (SCEP)	Yes
Online Certificate Status Protocol (OCSP)	Yes
Self Signed Certificates	Yes
Certificate Authorities Supported	
Verisign	Yes
Entrust	Yes
Microsoft	Yes
RSA Keon	Yes
iPlanet (Netscape)	Yes
Baltimore	Yes
DOD PKI	Yes

Logging/Monitoring

Syslog (multiple servers)	External, up to 4 servers
E-mail (2 addresses)	Yes
NetIQ WebTrends	External
SNMP (v1, v2)	Yes
Standard and custom MIB	Yes
Traceroute	Yes

Virtualization

Maximum number of Virtual Systems(5)	0 Default, upgradeable to 25
Maximum number of security zones(5)	8 default, upgradeable to 58
Maximum number of virtual routers(5)	3 default, upgradeable to 28
Number of VLANs supported	100 per port

Routing

OSPF/BGP dynamic routing(2)	up to 8 instances each
RIPv1/v2 dynamic routing(2)	up to 256 instances
Static routes	8,192
Source Based Routing, Source Interface Based Routing	Yes
Equal cost multi-path routing	Yes

High Availability (HA)

Active/Active	Yes
Active/Passive	Yes
Redundant Interfaces	Yes
Configuration synchronization	Yes
Session synchronization for firewall and VPN	Yes
Device failure detection	Yes
Link failure detection	Yes
Authentication for new HA members	Yes
Encryption of HA traffic	Yes
LDAP and RADIUS server failover	Yes

VoIP

H.323 ALG	Yes
SIP ALG	Yes
SCCP ALG	Yes
MGCP ALG	Yes
NAT for H.323/SIP/MGCP/SCCP	Yes

IP Address Assignment

Static	Yes
DHCP, PPPoE client	No
Internal DHCP server	No
DHCP Relay	Yes

RADIUS Accounting

RADIUS Start/Stop	Yes

System Management

WebUI (HTTP and HTTPS)	Yes
Command Line Interface (console)	Yes
Command Line Interface (telnet)	Yes
Command Line Interface (SSH)	Yes, v1.5 and v2.0 compatible
NetScreen-Security Manager	Yes
All management via VPN tunnel on any interface	Yes
SNMP Full Custom MIB	Yes
Rapid deployment	No

Administration

Local administrators database	20
External administrator database	RADIUS/LDAP/SecurID
Restricted administrative networks	6
Root Admin, Admin, and Read Only user levels	Yes
Software upgrades	TFTP/WebUI/SCP/NSM
Configuration Roll-back	Yes

Traffic Management

Guaranteed bandwidth	Yes
Maximum bandwidth	Yes
Ingress Traffic Policing	Yes
Priority-bandwidth utilization	Yes
DiffServ stamp	Yes

External Flash

PCMCIA (PC Card)	Supports 96, 128, 440, and 512 MB
Event logs and alarms	Yes
System config script	Yes
NetScreen ScreenOS software	Yes

Dimensions and Power

Dimensions (W x H x D)	17.5 x 3.5 x 17 in (44.5 x 8.9 x 43.2 cm)
Weight	27 lbs
Rack mountable	19" standard, 23" optional
Power Supply (AC)	90 to 264 VAC, 100 watts
Power Supply (DC)	-36 to -72 VDC, 100 watts

Licensing Options: The NetScreen-500 is available with two licensing options to provide two different levels of functionality and capacity.

Advanced Models: The Advanced software license provides all of the features and capacities listed within this specsheet.

Baseline Models: The Baseline software license provides an entry-level solution for customer environments where features such as Deep Inspection™, OSPF and BGP dynamic routing, advanced High Availabilty, and full capacity are not critical requirements. The following table shows the features and capacities that are different than the Advanced models:

	NetScreen-500 Baseline
Sessions	128,000
Concurrent VPN tunnels	1,000
Deep Inspection Firewall	N/A
OSPF/BGP	N/A
High Availability (HA)	Active/Passive only
NetScreen Security Manager	Supported

Certifications

Safety Certifications	UL, CUL, CSA, CB
EMC Certifications	FCC class A, BSMI Class A, CE class A, C-Tick, VCCI class A

Environment

Operational temperature	32° to 122° F, (0° to 50° C)
Non-operational temperature	-4° to 158° F, (-20° to 70° C)
Humidity	10 to 90% noncondensing
MTBF (Bellcore model)	6.5 years

Security Certifications (Advanced models only)

Common Criteria	EAL4
FIPS 140-2	Level 2
ICSA Firewall and VPN	

Ordering Information

Juniper Networks NetScreen-500SP Bundles

NetScreen-500 System SX GBIC, AC power	NS-500SP-GB1-AC
NetScreen-500 System SX GBIC, DC power	NS-500SP-GB1-DC
NetScreen-500 System SX dual-GBIC, AC power	NS-500SP-GB2-AC
NetScreen-500 System SX dual-GBIC, DC power	NS-500SP-GB2-DC
SP Systems include 25 Virtual Systems and 2 power supplies	

Juniper Networks NetScreen-500ES Bundles

NetScreen-500 System 2 SX GBIC modules, 2 AC power supplies	NS-500ES-GB1-AC
NetScreen-500 System 2 SX GBIC modules, 2 DC power supplies	NS-500ES-GB1-DC
NetScreen-500 System 2 SX dual-GBIC modules, 2 AC power supplies	NS-500ES-GB2-AC
NetScreen-500 System 2 SX dual-GBIC modules, 2 DC power supplies	NS-500ES-GB2-DC
NetScreen-500 System 3 dual-10/100 modules, 2 AC power supplies	NS-500ES-FE1-AC
NetScreen-500 System 3 dual-10/100 modules, 2 DC power supplies	NS-500ES-FE1-DC
NetScreen-500 System 2 dual-10/100 modules, 1 AC power supply	NS-500ES-FE2-AC
NetScreen-500 System 2 dual-10/100 modules, 1 DC power supply	NS-500ES-FE2-DC
ES Systems include 0 Virtual Systems.	

Juniper Networks NetScreen-500 Baseline Systems

NetScreen-500 System 2 dual-10/100 modules, 1 AC power supply	NS-500B-FE2
NetScreen-500 System 2 SX GBIC modules, 1 AC power supply	NS-500B-GB1

Juniper Networks NetScreen-500 Virtual System Upgrades

Upgrade to 5 Virtual Systems	NS-500-VSYS-5
Upgrade from 5 to 10 Virtual Systems	NS-500-VSYS-10
Upgrade from 10 to 25 Virtual Systems	NS-500-VSYS-25

Every Virtual System includes one virtual router and two security zones, usable in the virtual or root system.

(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) Shared among all Virtual Systems.

(3) Not available with Virtual Systems.

(4) The following features are not supported in Layer 2 (transparent mode): NAT, PAT, policy based NAT, virtual IP, mapped IP, virtual systems, virtual routers, VLANs, OSPF, BGP, RIPv2, Active/Active HA, and IP address assignment.

(5) Requires purchase of virtual system key. Every Virtual System includes one virtual router and two security zones, usable in the virtual or root system.

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Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network. This fuels high-performance businesses. Additional information can be found at www.juniper.net.

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110005-008 Nov 2007

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