PA-5000 Series

The PA-5000 Series is a next-generation firewall that delivers unprecedented visibility and control over applications, users and content on enterprise networks.

PA-5060

PA-5050

PA-5020

APPLICATION IDENTIFICATION:
- Identifies and controls applications irrespective of port, protocol, encryption (SSL or SSH) or evasive tactic employed.
- Enables positive enforcement application usage policies: allow, deny, schedule, inspect, apply traffic shaping.
- Graphical visibility tools enable simple and intuitive view into application traffic.

USER IDENTIFICATION:
- Policy-based visibility and control over who is using the applications through seamless integration with Active Directory, LDAP, and eDirectory.
- Identifies Citrix, Microsoft Terminal Services and XenWorks users, enabling visibility and control over their respective application usage.
- Control non-Windows hosts via web-based authentication.

CONTENT IDENTIFICATION:
- Block viruses, spyware, modern malware, and vulnerability exploits, limit unauthorized transfer of files and sensitive data such as CC# or SSN, and control non-work related web surfing.
- Single pass software architecture enables multi-gigabit throughput with low latency while scanning content.

The Palo Alto Networks™ PA-5000 Series is comprised of three high performance platforms, the PA-5020, the PA-5050 and the PA-5060, all of which are targeted at high speed Internet gateway and datacenter deployments. The PA-5000 Series manages multi-Gbps traffic flows using dedicated processing and memory for networking, security, threat prevention and management.

A 20 Gbps backplane smoothes the pathway between dedicated processors, and the physical separation of data and control plane ensures that management access is always available, irrespective of the traffic load.

The controlling element of the PA-5000 Series next-generation firewalls is PAN-OS™, a security-specific operating system that tightly integrates three unique identification technologies: App-ID™, User-ID™ and Content-ID™, with key firewall, networking and management features.

PERFORMANCE AND CAPACITIES[1]	PA-5060	PA-5050	PA-5020
Firewall throughput (App-ID enabled)	20 Gbps	10 Gbps	5 Gbps
Threat prevention throughput	10 Gbps	5 Gbps	2 Gbps
IPSec VPN throughput	4 Gbps	4 Gbps	2 Gbps
Max sessions	4,000,000	2,000,000	1,000,000
New sessions per second	120,000	120,000	120,000
IPSec VPN tunnels/tunnel interfaces	8,000	4,000	2,000
SSL VPN Users	20,000	10,000	5,000
SSL decrypt sessions	90,000	45,000	15,000
SSL inbound certificates	1000	300	100
Virtual routers	225	125	20
Virtual systems (base/max[2])	25/225	25/125	10/20
Security zones	900	500	80
Max number of policies	40,000	20,000	10,000
Address objects	80,000	40,000	10,000
Fully Qualified Domain Names (FQDN)	2,000	2,000	2,000

[1] Performance and capacities are measured under ideal testing conditions using HTTP traffic and PAN-OS 4.1.

[2] Adding virtual systems to the base quantity requires a separately purchased license.

For a complete description of the PA-5000 Series next-generation firewall feature set, please visit www.paloaltonetworks.com/literature.

HARDWARE SPECIFICATIONS

I/O

• PA-5060, PA-5050: (12) 10/100/1000, (8) Gigabit SFP, (4) 10 Gigabit SFP+
• PA-5020: (12) 10/100/1000, (8) Gigabit SFP

MANAGEMENT I/O

• (2) 10/100/1000 High Availability, (1) 10/100/1000 out-of-band management, (1) Console Port

POWER SUPPLY (AVG/MAX POWER CONSUMPTION)

• PA-5060: Redundant 450W AC (330W/415W)
• PA-5050: Redundant 450W AC (270W/340W)
• PA-5020: Redundant 450W AC (270W/340W)

INPUT VOLTAGE (INPUT FREQUENCY)

• 100-240VAC (50-60Hz); -40 to -72 VDC

MAX CURRENT CONSUMPTION

• 8A@100VAC, 14A@48VDC

MAX INRUSH CURRENT

• 80A@230VAC; 40A@120VAC; 40A@48VDC

DIMENSIONS

• 2U, 19″ standard rack (3.5″H x 20″D x 17.5″W)

WEIGHT (STAND ALONE DEVICE/AS SHIPPED)

• 41lbs/55lbs

SAFETY

• UL, CUL, CB

EMI

• FCC Class A, CE Class A, VCCI Class A

ENVIRONMENT

• Operating temperature: 32° to 122° F, 0° to 50° C
• Non-operating temperature: -4° to 158° F, -20° to 70° C

NETWORKING

INTERFACE MODES

• L2, L3, Tap, Virtual Wire (transparent mode): Supported

ROUTING

• Modes: OSPF, RIP, BGP, Static
• Forwarding table size (entries per device/per VR): 64,000/64,000
• Policy-based forwarding: Supported
• Point-to-Point Protocol over Ethernet (PPPoE): Supported
• Jumbo frames: Supported, 9210 bytes max frame size
• Multicast: PIM-SM, PIM-SSM, IGMP v1, v2, and v3

HIGH AVAILABILITY

• Modes: Active/Active, Active/Passive
• Failure detection: Path Monitoring, Interface Monitoring

NAT/PAT

• Max NAT rules: 8,000 (PA-5060), 4,000 (PA-5050), 1,000 (PA-5020)
• Max NAT rules (DIPP): 450 (PA-5060), 250 (PA-5050), 200 (PA-5020)
• Dynamic IP and port pool: 254
• Dynamic IP pool: 16,234
• NAT Modes: 1:1 NAT, n:n NAT, m:n NAT
• DIPP oversubscription (Unique destination IPs per source port and IP): 8

VLANS

• 802.1q VLAN tags per device/per interface: 4,094/4,094
• Max interfaces: 4,096 (PA-5060, PA-5050), 2,048 (PA-5020)
• Aggregate Interfaces (802.3ad): Supported

VIRTUAL WIRE

• Max virtual wires (vwire): 12
• Physical interfaces mapped to VWs: Supported

ADDRESS ASSIGNMENT

• Address assignment for device: DHCP Client/PPPoE/Static
• Address assignment for users: DHCP Server/DHCP Relay/Static

IPV6

• Modes: L2, L3, Tap, Virtual Wire (transparent mode)
• Services: App-ID, Content-ID and SSL Decryption

L2 FORWARDING

• ARP table size/device: 32,000 (PA-5060, PA-5050), 20,000 (PA-5020)
• IPv6 neighbor table size: 5,000 (PA-5060, PA-5050), 2,000 (PA-5020)
• MAC table size/device: 32,000 (PA-5060, PA-5050), 20,000 (PA-5020)

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SECURITY

FIREWALL

- Policy-based control over applications, users and content
- Fragmented packet protection
- Reconnaissance scan protection
- Denial of Service (DoS)/Distributed Denial of Services (DDoS) protection
- Decryption: SSL (inbound and outbound), SSH

USER INTEGRATION (USER-ID)

- Active Directory, LDAP, eDirectory, Citrix and Microsoft Terminal Services, Xenworks, XML API

IPSEC VPN (SITE-TO-SITE)

- Key Exchange: Manual key, IKE v1
- Encryption: 3DES, AES (128-bit, 192-bit, 256-bit)
- Authentication: MD5, SHA1, SHA-256, SHA-384, SHA-512

GLOBALPROTECT (REMOTE ACCESS)

- GlobalProtect Gateway
- GlobalProtect Portal
- Transport: IPSec with SSL fall-back
- Authentication: LDAP, RADIUS, SecurID, Kerberos, local user database
- Client OS: Mac OS X 10.6, 10.7 (32/64 bit), Windows XP, Windows Vista (32/64 bit), Windows 7 (32/64 bit)
- Third Party Client Support: Apple iOS

FILE AND DATA FILTERING

- Control unauthorized data transfer (data patterns and file types)
- Drive-by download protection
- Predefined signatures for SSN and Credit Card numbers
- Unique file types identified: 59

MANAGEMENT, REPORTING, VISIBILITY TOOLS

- Integrated web interface, CLI or central management (Panorama)
- Syslog, SNMPv2/v3
- XML-based REST API
- Graphical summary of applications, URL categories, threats and data (ACC)
- View, filter, export traffic, threat, URL, and data filtering logs
- Fully customizable reporting

THREAT PREVENTION (SUBSCRIPTION REQUIRED)

- Application, operating system vulnerability exploit protection
- Stream-based protection against viruses (including those embedded in HTML, Javascript, PDF and compressed), spyware, worms

WILDFIRE

- Identify and analyze targeted and unknown malware
- Automated analysis of unknown files for malicious behaviors
- Forensic analysis and protection for newly discovered malware

QUALITY OF SERVICE (QOS)

- Policy-based traffic shaping by application, user, source, destination, interface, IPSec VPN tunnel and more
- 8 traffic classes with guaranteed, maximum and priority bandwidth parameters
- Real-time bandwidth monitor
- Per policy diffserv marking
- Physical interfaces supported for QoS: 12

URL FILTERING (SUBSCRIPTION REQUIRED)

- 76-category, 20M URL on-box database
- Dynamic URL filtering (1M URL cache on device)
- Custom block pages and URL categories

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ORDERING INFORMATION	PA-5060	PA-5050	PA-5020
Platform	PAN-PA-5060	PAN-PA-5050	PAN-PA-5020
Solid State Disk Drives (120 GB)	PAN-PA-5000-SSD-120	PAN-PA-5000-SSD-120	PAN-PA-5000-SSD-120
Solid State Disk Drives (240 GB)	PAN-PA-5000-SSD-240	PAN-PA-5000-SSD-240	PAN-PA-5000-SSD-240
AC Power Supply	PAN-PA-5000-PWR-AC	PAN-PA-5000-PWR-AC	PAN-PA-5000-PWR-AC
DC Power Supply	PAN-PA-5000-PWR-DC	PAN-PA-5000-PWR-DC	PAN-PA-5000-PWR-DC
Fan Tray	PAN-PA-5000-FAN	PAN-PA-5000-FAN	PAN-PA-5000-FAN
Fan Filter	PAN-PA-5000-FLTR	PAN-PA-5000-FLTR	PAN-PA-5000-FLTR

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