

Feature	PA-820 	PA-440	PA-220 
---------	---	--------	---

## Performance

\*1. Firewall throughput measured with App-ID and User-ID features enabled utilizing AppMix transactions. 2. Threat prevention throughput measured with App-ID, User-ID, IPS, antivirus and anti-spyware features enabled utilizing AppMix transactions. 3. New sessions per second measured with 1 byte HTTP transactions. Additionally, for VM models, please refer to hypervisor, cloud specific data sheet for associated performance.

App-ID firewall throughput	1.7 Gbps	1.8 Gbps	560 Mbps
Threat prevention throughput	900 Mbps	900 Mbps	300 Mbps
IPSec VPN throughput	1.4 Gbps	1.6 Gbps	570 Mbps
Connections per second	8,100	39,000	4,200

## Sessions

Max sessions (IPv4 or IPv6)	128,000	200,000	64,000
-----------------------------	---------	---------	--------

## Policies

Security rules	1,500	2,000	500
Security rule schedules	256	256	256
NAT rules	3,000	3,000	400
Decryption rules	100	300	100
App override rules	100	300	100
Tunnel content inspection rules	100	300	100
SD-WAN rules	100	250	100
Policy based forwarding rules	100	300	100
Captive portal rules	500	300	500
DoS protection rules	100	300	100

## Security Zones

Max security zones	30	50	15
--------------------	----	----	----

## Objects (addresses and services)

Address objects	2,500	10,000	2,500
Address groups	250	250	250

Members per address group	2,500	2,500	2,500
Service objects	1,000	1,500	1,000
Service groups	250	500	250
Members per service group	500	500	500
FQDN address objects	2,000	2,000	2,000
Max DAG IP addresses <i>*System wide capacity</i>	1,000	50,000	1,000
Tags per IP address	32	64	32

## Security Profiles

Security profiles	100	100	75
-------------------	-----	-----	----

## App-ID

Custom App-ID signatures	6,000	6,000	6,000
Shared custom App-IDs	512	512	512
Custom App-IDs (virtual system specific)	6,416	6,416	6,416

## User-ID

IP-User mappings (management plane)	524,288	512,000	524,288
IP-User mappings (data plane)	128,000	128,000	128,000
Active and unique groups used in policy <i>*Aggregate of LDAP groups, XML API Groups and Dynamic User Groups</i>	1,000	1,000	1,000
Number of User-ID agents	100	100	100
Monitored servers for User-ID	100	100	100
Terminal server agents	1,000	800	400
Tags per User <i>*Only valid for PAN-OS 9.1 and above</i>	32	64	32

## SSL Decryption

Max SSL inbound certificates	75	75	25
SSL certificate cache (forward proxy)	1,000	1,000	128
Max concurrent decryption sessions	12,800	25,600	6,400
SSL Port Mirror	Yes	Yes	Yes
SSL Decryption Broker	No	No	No
HSM Supported	No	No	No

## URL Filtering

Total entries for allow list, block list and custom categories	25,000	25,000	25,000
--	--------	--------	--------

Max custom categories	2,849	2,849	2,849
Max custom categories (virtual system specific)	500	500	500
Dataplane cache size for URL filtering	90,000	150,000	90,000
Management plane dynamic cache size	600,000	600,000	100,000

## EDL

Max number of custom lists	30	30	30
Max number of IPs per system	50,000	50,000	50,000
Max number of DNS Domains per system	1,000,000	1,000,000	50,000
Max number of URL per system	100,000	100,000	50,000
Shortest check interval (min)	5	5	5

## Interfaces

Mgmt - out-of-band	10/100/1000, RJ45/Micro USB console	10/100/1000, RJ45/Micro USB console	10/100/1000, RJ45/Micro USB console
Mgmt - 10/100/1000 high availability	2	NA	NA
Mgmt - 40Gbps high availability	NA	NA	null
Mgmt - 10Gbps high availability	NA	NA	NA
Traffic - 10/100/1000	4	8	8
Traffic - 100/1000/10000	NA	NA	NA
Traffic - 1Gbps SFP	8	NA	NA
Traffic - 10Gbps SFP+	NA	NA	NA
Traffic - 40/100Gbps QSFP+/QSFP28	NA	NA	NA
802.1q tags per device	4,094	4,094	4,094
802.1q tags per physical interface	4,094	4,094	4,094
Max interfaces (logical and physical)	1,024	3,000	1,024
Maximum aggregate interfaces	6	4	4
Maximum SD-WAN virtual interfaces	500	840	300

## Virtual Routers

Virtual routers	5	3	3
-----------------	---	---	---

## Virtual Wires

Virtual wires	512	512	256
---------------	-----	-----	-----

## Virtual Systems

Base virtual systems	1	1	1
Max virtual systems	NA	NA	NA

*\*Additional licenses are required for virtual system capacities above the base virtual systems capacity*

## Routing

IPv4 forwarding table size <i>*Entries shared across virtual routers</i>	10,000	5,000	10,000
IPv6 forwarding table size <i>*Entries shared across virtual routers</i>	5,000	5,000	2,500
System total forwarding table size	15,000	5,000	10,000
32,000	50	null	50
Max routing peers (protocol dependent)	1,000	1,000	500
Static entries - DNS proxy	1,024	1,024	1,024
Bidirectional Forwarding Detection (BFD) Sessions	NA	Yes	NA

## L2 Forwarding

ARP table size per device	3,000	3,000	1,500
IPv6 neighbor table size	3,000	3,000	1,500
MAC table size per device	3,000	3,000	1,500
Max ARP entries per broadcast domain	3,000	3,000	1,500
Max MAC entries per broadcast domain	3,000	3,000	1,500

## NAT

Total NAT rule capacity	3,000	3,000	400
Max NAT rules (static) <i>*Configuring static NAT rules to full capacity requires that no other NAT rule types are used.</i>	3,000	3,000	400
Max NAT rules (DIP) <i>*Configuring DIP NAT rules to full capacity requires that no other NAT rule types are used.</i>	2,000	2,000	400
Max NAT rules (DIPP)	400	1,000	200
Max translated IPs (DIP)	128,000	128,000	16,000
Max translated IPs (DIPP) <i>*DIPP translated IP capacity is proportional to the DIPP pool oversubscription value. The capacity shown here is based on an oversubscription value of 1x.</i>	400	1,000	200
Default DIPP pool oversubscription <i>*Source IP and source port reuse across concurrent sessions</i>	2	2	2

## Address Assignment

--	--	--	--

DHCP servers	5	5	3
DHCP relays	500	500	500
<i>*Maximum capacity represents total DHCP servers and DHCP relays combined</i>			
Max number of assigned addresses	64,000	64,000	64,000
<b>High Availability</b>			
Devices supported	2	2	2
Max virtual addresses	48	48	32
<b>QoS</b>			
Number of QoS policies	250	1,000	100
Physical interfaces supporting QoS	12	8	8
Clear text nodes per physical interface	31	31	31
DSCP marking by policy	Yes	Yes	Yes
Subinterfaces supported	1,024	System Limit	System Limit
<b>IPSec VPN</b>			
Max IKE Peers	1,000	2,800	1,000
Site to site (with proxy id)	2,000	2,800	1,000
SD-WAN IPSec tunnels	1,000	2,800	1,000
<b>GlobalProtect Client VPN</b>			
Max tunnels (SSL, IPSec, and IKE with XAUTH)	1,000	1,000	250
<b>GlobalProtect Clientless VPN</b>			
Max SSL tunnels	200	100	20
<b>Multicast</b>			
Replication (egress interfaces)	200	200	100
Routes	1,500	1,000	500
<b>Product Notes</b>			
End-of-sale	NA	NA	NA