Trellix

Trellix® Intrusion Prevention System

Physical and Virtual appliance specifications
(Models NS9600, NS7600, NS3600, VM1000, and VM 5000)

Miercom CERTIFIED SECURE

Trellix Intrusion Prevention System (IPS) discovers and blocks sophisticated malware threats across the network.

Sensor Hardware Model: NS9600				
	20 Gbps license (1 unit)	**40 Gbps license (1 unit)**	**60 Gbps license (1 unit)**	**120 Gbps license (2 units)**
Performance				
Aggregate performance	20 Gbps	40 Gbps	60 Gbps	120 Gbps
Maximum throughput (UDP 1512-byte packets)	Up to 80 Gbps	Up to 90 Gbps	Up to 100 Gbps	Up to 200 Gbps
Maximum concurrent connections	18,000,000	32,000,000	36,000,000	72,000,000
Connections per second	800,000	1,000,000	1,200,000	2,400,000
HTTP connections per second (using 1 GET with 5000 HTTP response)	400,000	700,000	800,000	1,600,000
Throughput with SSL decryption (100% SSL traffic)	20 Gbps	40 Gbps	60 Gbps	120 Gbps
Maximum SSL flow count	1,800,000	3,200,000	3,600,000	7,200,000
SSL keys imported	1,024	1,024	1,024	1,024
Number of virtual IPS systems	1,000	1,000	1,000	1,000

Sensor Hardware Model: NS9600

	20 Gbps license (1 unit)	40 Gbps license (1 unit)	60 Gbps license (1 unit)	120 Gbps license (2 units)
Maximum DoS profiles	5,000	5,000	5,000	NA
ACL rules	30,000	40,000	80,000	80,000
Ports				
Fixed 100/40 GB Ethernet ports	4 (in G0 slot)	4 (in G0 slot)	4 (in G0 slot)	4 (2 each in G0 slot per unit)
Network I/O Slots	3	3	3	6
Network I/O Modules	▪ 4-port 100/40 Gigabit SR MTP/MPO * ▪ 6-port RJ-45 10/1 Gigabit with internal fail-open ▪ 8-port 10/1 Gigabit SM (8.5 micron) with internal fail-open ▪ 8-port 10/1 Gigabit MM (50 or 62.5 micron) with internal fail-open			
10 Gigabit Ethernet**	Up to 24	Up to 24	Up to 24	Up to 48
40 Gigabit Ethernet**	Up to 12	Up to 12	Up to 12	Up to 20
100 Gigabit Ethernet**	Up to 12	Up to 12	Up to 12	Up to 20
Dedicated Response Ports (RJ45)	1 (10G/1G)	1 (10G/1G)	1 (10G/1G)	1 (10G/1G) (per unit)
Dedicated Management Ports (RJ45)	1 (10G/1G)	1 (10G/1G)	1 (10G/1G)	1 (10G/1G) (per unit)
Physical				
Dimensions	17.26" (W) x 1.75" (H) x 29.10" (D)	17.26" (W) x 1.75" (H) x 29.10" (D)	17.26" (W) x 1.75" (H) x 29.10" (D)	17.26" (W) x 1.75" (H) x 29.10" (D) (per unit)
Weight	34 lbs	34 lbs	34 lbs	34 lbs (per unit)
Storage	2x400GB M.2 NVMe	2x400GB M.2 NVMe	2x400GB M.2 NVMe	2x400GB M.2 NVMe (per unit)
Maximum Power Consumption	780W	780W	780W	780W (per unit)
DC Power Supply	No	No	No	No
Redundant Power Supply	Yes	Yes	Yes	Yes
Power	100 - 240 VAC (50-60Hz)			
Temperature	Operating: 0° to 35° C , Non-operating: - 40° to 70° C			
Relative Humidity (non-condensing)	Operational: 10% to 90%, Non-operational: 5% to 95%			
Altitude	0 to 10,000 feet			

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Sensor Hardware Model: NS9600

	20 Gbps license (1 unit)	40 Gbps license (1 unit)	60 Gbps license (1 unit)	120 Gbps license (2 units)
Product Regulatory Compliance				
LVD/Safety Certification	CAN/CSA 22.2 No. 62368 UL 62368 IEC 62368 EN 62368			
EMC Certification	FCC 47 Part 15, ICES-0003 CISPR 32, VCCI-CISPR32 EN 55032, EN 55035, EN 61000 KS C 9832, KS C 9835			
Environmental Compliance	RoHS REACH			

* 4-port 100/40 Gigabit SR MTP/MPO network interface module is supported only in G1 and G2 slots of NS9600 Sensor

** Maximum supported port type entries assume all supported pluggable modules populated with that particular port type

Sensor Hardware Model: NS7600

	5 Gbps license (1 unit)	10 Gbps license (1 unit)	15 Gbps license (1 unit)
Performance			
Aggregate performance	5 Gbps	10 Gbps	15 Gbps
Maximum throughput (UDP 1512-byte packets)	Up to 18 Gbps	Up to 19 Gbps	Up to 20 Gbps
Maximum concurrent connections	10,000,000	13,000,000	15,000,000
Connections per second	300,000	400,000	525,000
HTTP connections per second	140,000	250,000	300,000
Throughput with SSL decryption (based on 10% SSL traffic)	5 Gbps	10 Gbps	15 Gbps
Throughput with SSL decryption (100% SSL traffic)	5 Gbps	10 Gbps	15 Gbps
Maximum SSL flow count	900,000	1,200,000	1,500,000

Sensor Hardware Model: NS7600

	5 Gbps license (1 unit)	10 Gbps license (1 unit)	15 Gbps license (1 unit)
SSL keys imported	1,024	1,024	1,024
Number of virtual IPS systems	1,000	1,000	1,000
Maximum DoS profiles	5,000	5,000	5,000
ACL rules	3,000	3,000	5,000

	5 Gbps license (1 unit),	10 Gbps license (1 unit),	15 Gbps license (1 unit)
Ports			
Fixed GB ethernet—copper ports (internal fail-open)	—		
Fixed 10 GigE/1 GigE (SFP+) ports	4		
Fixed 40 GB ethernet	—		
Network I/O slots	3		
Network I/O module (three options)	▪ 6-Port RJ-45 10/1 Gigabit with internal fail-open ▪ 8-Port 10/1 Gigabit SM (8.5 micron) with internal fail-open ▪ 8-Port 10/1 Gigabit MM (50 or 62.5) with internal fail-open		
10 GB ethernet	Up to 28		
40 GB ethernet	—		
Dedicated response ports (RJ45)	1 (10G/1G)		
Dedicated management ports (RJ45)	1 (10G/1G)		
Physical			
Dimensions	17.26" (W) x 29.10" (D) x 1.75" (H)		
Weight	34 lbs		
Storage	400 GB M.2 NVMe Drive		
Maximum power consumption	450W		
DC power available	Not included		
Spare power supply	Included		
Power	100–240 VAC (50/60Hz)		

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Sensor Hardware Model: NS7600

	5 Gbps license (1 unit),	10 Gbps license (1 unit),	15 Gbps license (1 unit)
Temperature	0° C to 35° C (operating) -40° C to 70° C (non-operating)		
Relative humidity (non-condensing)	Operational: 10% to 90% Nonoperational: 5% to 95%		
Altitude	0 to 10,000 feet		
Physical			
Safety certification	CAN/CSA 22.2 No. 62368, UL 62368, IEC 62368, EN 62368		
EMI certification	FCC 47 Part 15, ICES-0003, CISPR 32, VCCI-CISPR32 EN 55032, EN 55035, EN 61000, KS C 9832, KS C 9835		
ROHS compliance	RoHS REACH		

Sensor Hardware Model: NS3600

	1 Gbps license (1 unit)	3 Gbps license (1 unit)	5 Gbps license (1 unit)
Performance			
Aggregate performance	1 Gbps	3 Gbps	5 Gbps
Maximum throughput (UDP 1512-byte packets)	Up to 8 Gbps	Up to 10 Gbps	Up to 15 Gbps
Maximum concurrent connections	2,000,000	4,000,000	5,000,000
Connections per second	90,000	130,000	190,000
HTTP connections per second	50,000	80,000	120,000
Throughput with SSL decryption (based on 10% SSL traffic)	1 Gbps	3 Gbps	5 Gbps
Throughput with SSL decryption (100% SSL traffic)	1 Gbps	3 Gbps	5 Gbps
Maximum SSL flow count	200,000	400,000	500,000
SSL keys imported	1,024	1,024	1,024

Sensor Hardware Model: NS3600

	1 Gbps license (1 unit)	3 Gbps license (1 unit)	5 Gbps license (1 unit)
Number of virtual IPS systems	1,000	1,000	1,000
Maximum DoS profiles	5,000	5,000	5,000
ACL rules	4,000	4,000	4,000

	1 Gbps license (1 unit),	3 Gbps license (1 unit),	5 Gbps license (1 unit)
Ports			
Fixed Gigabit Ethernet - Copper Ports (internal fail open)	8		
Fixed 10 GigE/1 GigE (SFP+) ports	2		
Fixed 40 GB ethernet	—		
Network I/O slots	1		
Network I/O modules (two options)	▪ 4-Port RJ-45 1 Gbps/100 Mbps/10 Mbps ▪ 4-Port 10/1 GigE MM 50/62.5 µm		
10 GB ethernet	up to 6		
40 GB ethernet	—		
Dedicated response ports (RJ45)	1 (1000/100/10 Mbps)		
Dedicated management ports (RJ45)	1 (1000/100/10 Mbps)		
Physical			
Dimensions	17.16" (W) x 12.3"(D) x 1.75"(H)		
Weight	12.4 lbs		
Storage	400GB M.2 NVMe Drive		
Maximum power consumption	125W		
DC power available	Not included		
Spare power supply	Included (internal)		
Power	100–240 VAC (50/60Hz)		

Sensor Hardware Model: NS3600

	1 Gbps license (1 unit),	3 Gbps license (1 unit),	5 Gbps license (1 unit)
Temperature	0° C to 35° C (operating) -10° C to 70° C (non-operating)		
Relative humidity (non-condensing)	Operational: 10% to 90% Nonoperational: 5% to 95%		
Altitude	0 to 10,000 feet		
Product Regulatory Compliance			
Safety certification	CAN/CSA 22.2 No. 62368, UL 62368, IEC 62368 EN 62368		
EMI certification	FCC 47 Part 15, ICES-0003 CISPR 32, VCCI-CISPR32 EN 55032, EN 55035, EN 61000 KS C 9832, KS C 9835		
ROHS compliance	RoHS REACH		

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Virtual IPS sensor model	VM1000		VM5000	
Platform	VMware ESXi ESXi 7.0 Update 3	KVM 2.12	VMware ESXi ESXi 7.0 Update 3	KVM 2.12
Type of virtual IPS deployment	Stand-alone	Distributed	Stand-alone	Distributed
Aggregate Performance	1 Gbps	1 Gbps	5 Gbps	5 Gbps
Aggregate Performance Layer 7 Enabled	1 Gbps	1 Gbps	5 Gbps	5 Gbps
Maximum throughput with test equipment sending UDP packet size of 1518 bytes	5 Gbps	5 Gbps	9 Gbps	9 Gbps
Concurrent connections	426000	426000	2500000	2500000
Connections established per second	97000	80000	149000	125000
Latency (Average UDP per packet Latency)	< 100 us	< 100 us	< 100 us	< 100 us
SSL Flow count	30000	30000	120000	120000
Number of SSL certificates that can be imported into the Sensor	256	256	256	256
Throughput with SSL Decryption (based on 10% SSL traffic)	900 Mbps	900 Mbps	4 Gbps	4 Gbps
Quarantine rules per Sensor - IPv4	8000	8000	8000	8000
Quarantine rules per Sensor - IPv6	500	500	500	500
Quarantine Zones per Sensor	50	50	50	50
Quarantine Zone ACLs per Sensor	1,000	1,000	1,000	1,000
Virtual Interfaces (VIDS) per Sensor	100	100	100	100
VLAN / CIDR Blocks per Sensor	300	300	300	300
VLAN / CIDR Blocks per Interface	254	254	254	254
Customized attacks See the note below on how the number of customized attacks is affected	100,000	100,000	100,000	100,000
Ignore rules	131072	131072	131072	131072
Number of attacks with ignore rules	100000	100000	100000	100000
DoS Profiles	300	300	300	300
SYN cookie rate (64-byte packets per second)	600,000	600,000	600,000	600,000
Effective (Firewall) access rules	2,000	2,000	2,000	2,000
Firewall rule objects	14,000	14,000	14,000	14,000
Firewall DNS rule objects	750	750	750	750

Virtual IPS sensor model	VM1000		VM5000	
Firewall rule object groups	200	200	200	200
Application on Custom Port rule objects	250	250	250	250
Firewall user-based rule objects	750	750	750	750
Firewall user groups in access rules	2,000	2,000	2,000	2,000
Number of exclusion list entries permitted for IP Reputation	64	64	128	128
Maximum host entries supported for Connection Limiting policies	128,000	128,000	128,000	128,000
Passive device profile limits	15,000	15,000	15,000	15,000
Advanced Malware - Maximum simultaneous file scan capacity when the file is saved in the Sensor See the note below for more information.	32	32	32	32
Advanced Malware - Maximum simultaneous file scan capacity without saving files in the Sensor See the note below for more information.	1,024	1,024	1,024	1,024
QNew HTTP connections per second (using 1 GET with 5000 HTTP response)	59,000	47,000	78,000	83,000
AWS support	No	Yes	No	Yes
Azure support	No	Yes	No	Yes
OCI support	No	Yes	No	Yes
Number of logical CPU cores	4	4	12	12
Memory required	8	8	16	16
Storage	8	8	32	32
Monitoring port	6	6	6	6
Management port	1	1	1	1
Response port	1	1	1	1
Virtual interfaces (VIDS) per sensor	100	100	100	100
Deployment Modes		Inter-VM inspection, physical-to-VM inspection, physical-to-physical inspection, SPAN/inline port inspection		

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