Cisco Secure Firewall 3100 Series

Cisco Secure Firewall

Cisco Secure IPS

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Cisco Secure Firewall 3100 Series

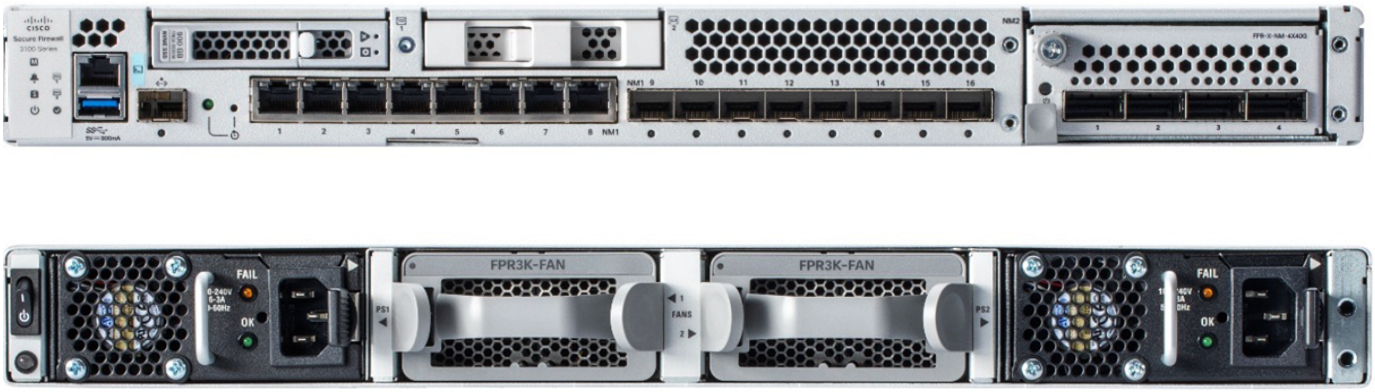
The mid-range Cisco Secure Firewall 3100 Series supports your evolving world. It makes hybrid work and zero trust practical, with the flexibility to ensure strong return on investment.

The Cisco Secure Firewall 3100 Series is a family of threat-focused security appliances that delivers business resiliency and superior threat defense. **Each model offers outstanding performance for multiple firewall use cases, even when advanced threat functions are enabled**. These performance capabilities are enabled by a modern CPU architecture coupled with purpose-built hardware that optimizes firewall, cryptographic, and threat inspection functions.

The five models in the 3100 Series deliver a range of performance levels to address use cases from the Internet edge to the data center and private cloud. The 3100 Series supports also clustering to deliver increased performance that can scale to meet your needs as your organization grows.

Each model in the series can run either ASA or Firewall Threat Defense (FTD) software and the platform can be deployed in both firewall and dedicated IPS modes. For inline sets and passive interfaces, the 3100 series supports Q-in-Q (stacked VLAN) with up to two 802.1Q headers in a packet.

Model overview



Cisco Secure Firewall 3100 series summary

Table 1. Cisco Secure Firewall 3100 Series performance and specification highlights

Secure Firewall Models	Firewall	FW+AVC+IPS	IPS Throughput	Interfaces	Optional interfaces
3105	10G	10G	10G	8 x RJ45, 8 x 1/10G SFP+	10G SFP+
3110	18G	17G	17G	8 x RJ45, 8 x 1/10G SFP+	10G SFP+
3120	22G	21G	21G	8 x RJ45, 8 x 1/10G SFP+	10G SFP+
3130	42G	38G	38G	8 x RJ45, 8 x 1/10/25G SFP+	10G/25G/40G SFP+, 4X40G NM
3140	49G	45G	45G	8 x RJ45, 8 x 1/10/25G SFP+	10G/25G/40G SFP+, 4x40G NM

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Performance specifications and feature details

Table 2. Cisco Secure Firewall 3100 Series performance and capabilities, running on Firewall Threat Defense (FTD) software

Features	3105	3110	3120	3130	3140
Throughput: FW + AVC (1024B)	10 Gbps	17.0 Gbps	21.0 Gbps	38.0 Gbps	45.0 Gbps
Throughput: FW + AVC + IPS (1024B)	10 Gbps	17.0 Gbps	21.0 Gbps	38.0 Gbps	45.0 Gbps
Maximum concurrent sessions, with AVC	1.5 million	2 million	4 million	6 million	10 million
Maximum new connections per second, with AVC	90,000	130,000	170,000	240,000	300,000
TLS[1]	3.2 Gbps	4.8 Gbps	6.7 Gbps	9.1 Gbps	11.5 Gbps
Throughput: NGIPS (1024B)	10.0 Gbps	17.0 Gbps	21.0 Gbps	38.0 Gbps	45.0 Gbps
IPSec VPN Throughput (1024B TCP w/Fastpath)	5.5 Gbps	8 Gbps	10 Gbps	17.8 Gbps	22.4 Gbps
Projected IPSec VPN Throughput (1024B TCP w/Fastpath) with VPN Offload (FTD 7.2)	NA	11.0 Gbps	13.5 Gbps	33.0 Gbps	39.4 Gbps
Maximum VPN Peers	2,000	3,000	7,000	15,000	20,000
Local On-device Management	Yes	Yes	Yes	Yes	Yes
Centralized management	Centralized configuration, logging, monitoring, and reporting are performed by the Firewall Management Center or alternatively in the cloud with Cisco Defense Orchestrator				
Application Visibility and Control (AVC)	Standard, supporting more than 4000 applications, as well as geolocations, users, and websites				
AVC: OpenAppID support for custom, open source, application detectors	Standard				
Cisco Security Intelligence	Standard, with IP, URL, and DNS threat intelligence				
Cisco Secure IPS	Available; can passively detect endpoints and infrastructure for threat correlation and Indicators of Compromise (IoC) intelligence				
Cisco Malware Defense	Available; enables detection, blocking, tracking, analysis, and containment of targeted and persistent malware, addressing the attack continuum both during and after attacks. Integrated threat correlation with Cisco Secure Endpoint is also optionally available				
Cisco Secure Malware Analytics	Available				
URL Filtering: number of categories	More than 80				

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Features	3105	3110	3120	3130	3140
URL Filtering: number of URLs categorized	More than 280 million				
Automated threat feed and IPS signature updates	Yes: class-leading Collective Security Intelligence (CSI) from the Cisco Talos Group (https://www.cisco.com/c/en/us/products/security/talos.html)				
Third-party and open-source ecosystem	Open API for integrations with third-party products; Snort® and OpenAppID community resources for new and specific threats				
High availability and clustering	Active/active, Active/standby. Cisco Secure Firewall 3100 Series allows clustering of up to 8 chassis				
Cisco Trust Anchor Technologies	Secure Firewall 3100 Series platforms include Trust Anchor Technologies for supply chain and software image assurance. Please see the section below for additional details				

[1] Throughput measured with 50% TLS 1.2 traffic with AES256-SHA with RSA 2048B keys.

Note: Performance will vary depending on features activated, and network traffic protocol mix, and packet size characteristics. Performance is subject to change with new software releases. Consult your Cisco representative for detailed sizing guidance.

Table 3. ASA Performance and capabilities on Secure Firewall 3100 appliances

Features	3105	3110	3120	3130	3140
Stateful inspection firewall throughput[1]	10.0 Gbps	18.0 Gbps	22.0 Gbps	42.0 Gbps	49.0 Gbps
Stateful inspection firewall throughput (multiprotocol)[2]	9.0 Gbps	15.0 Gbps	17.0 Gbps	39.0 Gbps	43.0 Gbps
Concurrent firewall connections	1.5 million	2 million	4 million	6 million	10 million
New connections per second	150,000	300,000	500,000	875,000	1,100,000
IPsec VPN throughput (450B UDP L2L test)	5.5 Gbps	8 Gbps	10 Gbps	14 Gbps	17 Gbps
Projected IPsec VPN throughput (450B UDP L2L test) with VPN Offload (ASA 9.18)	7.0 Gbps	12.0 Gbps	15.4 Gbps	28.0 Gbps	33.0 Gbps
Maximum VPN Peers	2,000	3,000	7,000	15,000	20,000
Security contexts (included; maximum)	2; 100	2; 100	2; 100	2; 100	2; 100
High availability	Active/active and active/ standby	Active/active and active/ standby	Active/active and active/ standby	Active/active and active/ standby	Active/active and active/ standby
Clustering	8	8	8	8	8
Scalability	VPN Load Balancing				

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Features	3105	3110	3120	3130	3140
Centralized management	Centralized configuration, logging, monitoring, and reporting are performed by Cisco Security Manager or alternatively in the cloud with Cisco Defense Orchestrator				
Adaptive Security Device Manager	Web-based, local management for small-scale deployments				

[1] Throughput measured with 1500B User Datagram Protocol (UDP) traffic measured under ideal test conditions.

[2] "Multiprotocol" refers to a traffic profile consisting primarily of TCP-based protocols and applications like HTTP, SMTP, FTP, IMAPv4, BitTorrent, and DNS.

Hardware specifications

Table 4. Cisco Secure Firewall 3100 Series hardware specifications

Features	Cisco Secure Firewall Model				
	3105	**3110**	**3120**	**3130**	**3140**
Dimensions (H x W x D)	1.75 x 17 x 20 in. (4.4 x 43.3 x 50.8 cm)	1.75 x 17 x 20 in. (4.4 x 43.3 x 50.8 cm)	1.75 x 17 x 20 in. (4.4 x 43.3 x 50.8 cm)	1.75 x 17 x 20 in. (4.4 x 43.3 x 50.8 cm)	1.75 x 17 x 20 in. (4.4 x 43.3 x 50.8 cm)
Form factor (rack units)	1RU	1RU	1RU	1RU	1RU
Integrated I/O	8 x 10M/100M/ 1GBASE-T Ethernet interfaces (RJ-45), 8 x 1/10 Gigabit (SFP) Ethernet interfaces	8 x 10M/100M/ 1GBASE-T Ethernet interfaces (RJ-45), 8 x 1/10 Gigabit (SFP) Ethernet interfaces	8 x 10M/100M/ 1GBASE-T Ethernet interfaces (RJ-45), 8 x 1/10 Gigabit (SFP) Ethernet interfaces	8 x 10M/100M/ 1GBASE-T Ethernet interfaces (RJ-45), 8 x 1/10/25 Gigabit (SFP) Ethernet interfaces	8 x 10M/100M/ 1GBASE-T Ethernet interfaces (RJ-45), 8 x 1/10/25 Gigabit (SFP) Ethernet interfaces
Network modules	8 x 1/10G Options	8 x 1/10G Options	8 x 1/10G Options	8 x 1/10/25G, 4 x 40G Options,	8 x 1/10/25G, 4 x 40G Options
Maximum number of interfaces	Up to 24 total Ethernet ports, (8x1G RJ-45, 8x1/10G SFP, and network module)	Up to 24 total Ethernet ports, (8x1G RJ-45, 8x1/10G SFP, and network module)	Up to 24 total Ethernet ports, (8x1G RJ-45, 8x1/10G SFP, and network module)	Up to 24 total Ethernet ports (8x1G RJ-45, 8x1/10/25G SFP, and network module)	Up to 24 total Ethernet ports (8x1G RJ-45, 8x1/10/25G SFP, and network module)
Integrated network management ports	1 x 1/10G SFP	1 x 1/10G SFP	1 x 1/10G SFP	1 x 1/10G SFP	1 x 1/10G SFP
Serial port	1 x RJ-45 console	1 x RJ-45 console	1 x RJ-45 console	1 x RJ-45 console	1 x RJ-45 console
USB	1 x USB 3.0 Type-A (900mA)	1 x USB 3.0 Type-A (900mA)	1 x USB 3.0 Type-A (900mA)	1 x USB 3.0 Type-A (900mA)	1 x USB 3.0 Type-A (900mA)
Storage	1x 900 GB, 1x spare slot	1x 900 GB, 1x spare slot	1x 900 GB, 1x spare slot	1x 900 GB, 1x spare slot	1x 900 GB, 1x spare slot

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Features	Cisco Secure Firewall Model				
	3105	3110	3120	3130	3140
Power supply configuration	Single 400W AC, Dual 400W AC optional. Single/Dual 400W DC optional[1]	Single 400W AC, Dual 400W AC optional. Single/Dual 400W DC optional[1]	Single 400W AC, Dual 400W AC optional. Single/Dual 400W DC optional[1]	Dual 400W AC. Single/dual 400W DC optional[1]	Dual 400W AC. Single/dual 400W DC optional[1]
AC input voltage	100 to 240V AC	100 to 240V AC	100 to 240V AC	100 to 240V AC	100 to 240V AC
AC maximum input current	< 6A at 100V	< 6A at 100V	< 6A at 100V	< 6A at 100V	< 6A at 100V
AC maximum output power	400W	400W	400W	400W	400W
AC frequency	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz
AC efficiency	>89% at 50% load	>89% at 50% load	>89% at 50% load	>89% at 50% load	>89% at 50% load
DC input voltage	-48V to -60VDC	-48V to -60VDC	-48V to -60VDC	-48V to -60VDC	-48V to -60VDC
DC maximum input current	< 12.5A at -48V	< 12.5A at -48V	< 12.5A at -48V	< 12.5A at -48V	< 12.5A at -48V
DC maximum output power	400W	400W	400W	400W	400W
DC efficiency	>88% at 50% load	>88% at 50% load	>88% at 50% load	>88% at 50% load	>88% at 50% load
Redundancy	1+1 AC or DC with dualsupplies	1+1 AC or DC with dualsupplies	1+1 AC or DC with dualsupplies	1+1 AC or DC with dualsupplies	1+1 AC or DC with dualsupplies
Fans	2 hot-swappable fan modules (with 2 fans each)[2]	2 hot-swappable fan modules (with 2 fans each)[2]	2 hot-swappable fan modules (with 2 fans each)[2]	2 hot-swappable fan modules (with 2 fans each)[2]	2 hot-swappable fan modules (with 2 fans each)[2]
Noise	65 dBA@ 25C 74 dBA maximum	65 dBA@ 25C 74 dBA maximum	65 dBA@ 25C 74 dBA maximum	65 dBA@ 25C 74 dBA maximum	65 dBA@ 25C 74 dBA maximum
Rack mountable	Yes. Fixed mount brackets optional. (2- post). Mount railsincluded (4-post EIA-310-D rack)	Yes. Fixed mount brackets optional. (2- post). Mount railsincluded (4-post EIA-310-D rack)	Yes. Fixed mount brackets optional. (2- post). Mount railsincluded (4-post EIA-310-D rack)	Yes. Fixed mount brackets optional. (2- post). Mount railsincluded (4-post EIA-310-D rack)	Yes. Fixed mount brackets optional. (2- post). Mount railsincluded (4-post EIA-310-D rack)
Weight	23 lb (10.5 kg) 1 x power supplies, 1 x NM, fan module, 1x	23 lb (10.5 kg) 1 x power supplies, 1 x NM, fan module, 1x	23 lb (10.5 kg) 1 x power supplies, 1 x NM, fan module, 1x	25 lb (11.4 kg) 2 x power supplies, 1 x NM, fan module, 1x	25 lb (11.4 kg) 2 x power supplies, 1 x NM, fan module, 1x

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Features	Cisco Secure Firewall Model				
	3105	3110	3120	3130	3140
	SSD	SSD	SSD	SSD	SSD
Temperature: operating	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C) or NEBS operation (see below)[3]	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Temperature: nonoperating	-4 to 149°F (-20 to 65°C)	-4 to 149°F (-20 to 65°C)	-4 to 149°F (-20 to 65°C)	-4 to 149°F (-20 to 65°C)	-4 to 149°F (-20 to 65°C)
Humidity: operating	10 to 85% noncondensing	10 to 85% noncondensing	10 to 85% noncondensing	10 to 85% noncondensing	10 to 85% noncondensing
Humidity: nonoperating	5 to 95% noncondensing	5 to 95% noncondensing	5 to 95% noncondensing	5 to 95% noncondensing	5 to 95% noncondensing
Altitude: operating	10,000 ft (max)	10,000 ft (max)	10,000 ft (max) or NEBS operation (see below)[3]	10,000 ft (max)	10,000 ft (max)
Altitude: nonoperating	40,000 ft (max)	40,000 ft (max)	40,000 ft (max)	40,000 ft (max)	40,000 ft (max)
NEBS operation (FPR- 3120 Only)[3]			Operating altitude: 0 to 13,000 ft (3962 m) Operating temperature: Long term: 0 to 45°C, up to 6,000 ft (1829 m) Long term: 0 to 35°C, 6,000 to 13,000 ft (1829 to 3964 m) Short term: -5 to 55°C, up to 6,000 ft (1829 m)		

[1] Dual power supplies are hot-swappable.

[2] Fans operate in a 3+1 redundant configuration where the system will continue to function with only 3 operational fans. The 3 remaining fans will run at full speed.

[3] FPR-3120 platform is designed to be NEBS ready. The availability of NEBS certification is pending.

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Table 5. Cisco Secure Firewall 3100 Series NEBS, Regulatory, Safety, and EMC Compliance

Specification	Description
Regulatory compliance	• Products comply with CE markings per directives 2004/108/EC and 2006/108/EC
Safety	• UL 62368-1 • CAN/CSA-C22.2 No. 62368-1 • EN 62368-1 • IEC 62368-1 • IEC 60950-1 • AS/NZS 62368-1 • GB4943
EMC: emissions	• FCC 47CFR15 Class A • AS/NZS CISPR 32 Class A • EN55032/CISPR 32 Class A • ICES-003 Class A • VCCI Class A • KS C 9832 Class A • CNS-13438 Class A • EN61000-3-2 Power Line Harmonics • EN61000-3-3 Voltage Changes, Fluctuations, and Flicker
EMC: Immunity	• IEC/EN61000-4-2 Electrostatic Discharge Immunity • IEC/EN61000-4-3 Radiated Immunity • IEC/EN61000-4-4 EFT-B Immunity • IEC/EN61000-4-5 Surge • IEC/EN61000-4-6 Immunity to Conducted Disturbances • IEC/EN61000-4-11 Voltage Dips, Short Interruptions, and Voltage Variations • KS C 9835
EMC: ETSI/EN	• EN 300 386 Telecommunications Network Equipment (EMC) • EN55032/CISPR 35 Multimedia Equipment (Emissions) • EN55024/CISPR 24 Information Technology Equipment (Immunity) • EN55035/CISPR 35 Multimedia Equipment (Immunity) • EN61000-6-1 Generic Immunity Standard

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Document history

New or Revised Topic	Described In	Date
3105 model added	Tables 1, 2, 3, 4	March xx, 2023

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