



Cisco Firepower 4100 Series

Enterprise Firewall
Next Generation Firewall
Next Generation IPS

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Cisco Firepower 4100 Series appliances

The Cisco Firepower 4100 Series is a family of seven threat-focused NGFW security platforms. Their throughput range addresses data center and internet edge use cases. They deliver superior threat defense, at faster speeds, with a smaller footprint. Cisco Firepower 4100 Series supports flow-offloading, programmatic orchestration, and the management of security services with RESTful APIs. Network Equipment Building Standards (NEBS)-compliance is supported by the Cisco Firepower 4120 platform. The 4100 Series platforms can run either the Cisco ASA Firewall or Cisco Firepower Threat Defense (FTD) software.

Model overview



Cisco Firepower 4100 Series summary:

Model	Firewall	NGFW	NGIPS	Interfaces	Optional Interfaces
FPR-4110	35G	11G	15G	8 x SFP+ on-chassis	2 x NM's: 1/10/40G, FTW
FPR-4120	60G	19G	27G	8 x SFP+ on-chassis	2 x NM's: 1/10/40G, FTW
FPR-4140	70G	27G	38G	8 x SFP+ on-chassis	2 x NM's: 1/10/40G, FTW
FPR-4150	75G	39G	52G	8 x SFP+ on-chassis	2 x NM's: 1/10/40G, FTW

Detailed performance specifications and feature highlights

Table 1. Performance specifications and feature highlights for Firepower 4100 with the Cisco Firepower Threat defense image

Features	4110	4120	4140	4150
Throughput: FW + AVC (1024B)	13 Gbps	22 Gbps	32 Gbps	45 Gbps
Throughput: FW + AVC + IPS (1024B)	11 Gbps	19 Gbps	27 Gbps	39 Gbps
Throughput: FW + AVC (450B)	3.5 Gbps	6.5 Gbps	9.5 Gbps	14.5 Gbps
Throughput: FW + AVC + IPS (450B)	2.5 Gbps	4.5 Gbps	6.5 Gbps	10 Gbps
Maximum concurrent sessions, with AVC	10 million	15 million	25 million	30 million
Maximum new connections per second, with AVC	64K	118K	172K	263K

Features	4110	4120	4140	4150
TLS (Hardware Decryption)	4.5 Gbps	7.1 Gbps	7.3 Gbps	7.5 Gbps
Throughput: NGIPS (1024B)	15 Gbps	27 Gbps	38 Gbps	52 Gbps
Throughput: NGIPS (450B)	4.5 Gbps	8 Gbps	11.5 Gbps	16.5 Gbps
IPSec VPN Throughput (1024B TCP w/Fastpath)	6 Gbps	10 Gbps	13 Gbps	14 Gbps
Multi-Instance Capable	Yes			
Centralized management	Centralized configuration, logging, monitoring, and reporting are performed by the 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 Firepower NGIPS	Available; can passively detect endpoints and infrastructure for threat correlation and Indicators of Compromise (IoC) intelligence			
Cisco AMP for Networks	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 AMP for Endpoints is also optionally available			
Cisco AMP Threat Grid sandboxing	Available			
URL Filtering: number of categories	More than 80			
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/standby. Cisco Firepower 4100 Series allows clustering of up to 6 chassis			
Cisco Trust Anchor Technologies	Firepower 4100 Series platforms include Trust Anchor Technologies for supply chain and software image assurance. Please see the section below for additional details			

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 2. ASA Performance and capabilities on Firepower 4100 appliances

Features	4110	4120	4140	4150
Stateful inspection firewall throughput ¹	35 Gbps	60 Gbps	70 Gbps	75 Gbps
Stateful inspection firewall throughput (multiprotocol) ²	15 Gbps	30 Gbps	40 Gbps	50 Gbps
Concurrent firewall connections	10 million	15 million	25 million	35 million
Firewall latency (UDP 64B microseconds)	3-5	3-5	3-5	3-5
New connections per second	150,000	250,000	350,000	800,000
IPsec VPN throughput (450B UDP L2L test)	8 Gbps	10 Gbps	14 Gbps	15 Gbps
Security contexts (included; maximum)	10; 250	10; 250	10; 250	10; 250
High availability	Active/active and active/standby	Active/active and active/standby	Active/active and active/standby	Active/active and active/standby
Clustering	Up to 16 appliances			
Scalability	VPN Load Balancing, Firewall Clustering.			
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.

³ In unclustered configuration.

Performance testing methodologies [LINK](#)

Hardware specifications

Table 3. Cisco Firepower 4100 Series hardware specifications

Features	Cisco Firepower model			
	4110	4120	4140	4150
Dimensions (H x W x D)	1.75 x 16.89 x 29.7 in. (4.4 x 42.9 x 75.4 cm)			
Form factor (rack units)	1RU			
Supervisor	Cisco Firepower 4000 Supervisor with 8 x 10 Gigabit Ethernet ports and 2 Network Module (NM) slots for I/O expansion			

Features		Cisco Firepower model			
Network modules		8 x 10 Gigabit Ethernet Enhanced Small Form-Factor Pluggable (SFP+) network modules 4 x 40 Gigabit Ethernet Quad SFP+ network modules 8-port 1Gbps copper, FTW (fail to wire) Network Module <ul style="list-style-type: none"> ◦ 6-port 1 Gbps SX Fiber FTW (fail to wire) Network Module ◦ 6-port 10Gbps SR Fiber FTW (fail to wire) Network Module ◦ 6-port 10Gbps LR Fiber FTW (fail to wire) Network Module 			
Maximum number of interfaces		Up to 24 x 10 Gigabit Ethernet (SFP+) interfaces; up to 8 x 40 Gigabit Ethernet (QSFP+) interfaces with 2 network modules			
Integrated network management ports		1 Gigabit Ethernet Supports 1-G fiber or copper SFPs			
Serial port		1 x RJ-45 console			
USB		1 x USB 2.0			
Storage		200 GB	200 GB	400 GB	400 GB
Power supplies	Configuration	Single 1100W AC, dual optional. Single/dual 950W DC optional ^{1, 2}	Single 1100W AC, dual optional. Single/dual 950W DC optional ¹	Dual 1100W AC ¹	Dual 1100W AC ¹
	AC input voltage	100 to 240V AC			
	AC maximum input current	13A			
	AC maximum output power	1100W			
	AC frequency	50 to 60 Hz			
	AC efficiency	>92% at 50% load			
	DC input voltage	-40V to -60VDC			
	DC maximum input current	27A			
	DC maximum output power	950W			
	DC efficiency	>92.5% at 50% load			
	Redundancy	1+1			
Fans		6 hot-swappable fans			
Noise		78 dBA			
Rack mountable		Yes, mount rails included (4-post EIA-310-D rack)			
Weight		36 lb (16 kg): 2 x power supplies, 2 x NMs, 6x fans; 30 lb (13.6 kg): no power supplies, no NMs, no fans			
Temperature: operating		32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C) or NEBS operation (see below)	32 to 95°F (0 to 35°C), at sea level	32 to 95°F (0 to 35°C), at sea level

Features	Cisco Firepower model		
Temperature: nonoperating	-40 to 149°F (-40 to 65°C)		
Humidity: operating	5 to 95% noncondensing		
Humidity: nonoperating	5 to 95% noncondensing		
Altitude: operating	10,000 ft (max)	10,000 ft (max) or NEBS operation (see below)	10,000 ft (max)
Altitude: nonoperating	40,000 ft (max)		
NEBS operation (FPR 4120 only)	Operating altitude: 0 to 13,000 ft (3960 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 50°C, up to 6,000 ft (1829 m)		

¹ Dual power supplies are hot-swappable.

Table 4. Cisco Firepower 4100 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 60950-1 CAN/CSA-C22.2 No. 60950-1 EN 60950-1 IEC 60950-1 AS/NZS 60950-1 GB4943
EMC: emissions	47CFR Part 15 (CFR 47) Class A (FCC Class A) AS/NZS CISPR22 Class A CISPR22 CLASS A EN55022 Class A ICES003 Class A VCCI Class A EN61000-3-2 EN61000-3-3 KN22 Class A CNS13438 Class A EN300386 TCVN7189

Specification	Description
EMC: Immunity	EN55024 CISPR24 EN300386 KN24 TVCN 7317 EN-61000-4-2, EN-61000-4-3, EN-61000-4-4, EN-61000-4-5, EN-61000-4-6, EN-61000-4-8, EN61000-4-11

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