Cisco Firepower 2100 Series

Enterprise Firewall

Next Generation Firewall

Next Generation IPS

Contents

Cisco Firepower 2100 Series appliances

The Cisco Firepower 2100 Series is a family of four threat-focused NGFW security platforms that deliver business resiliency through superior threat defense. It offers exceptional sustained performance when advanced threat functions are enabled. These platforms uniquely incorporate an innovative dual multicore CPU architecture that optimizes firewall, cryptographic, and threat inspection functions simultaneously. The series' firewall throughput range addresses use cases from the Internet edge to the data center. Network Equipment Building Standards (NEBS)- compliance is supported by the Cisco Firepower 2100 Series platform. The 2100 Series platforms can run either the Cisco ASA Firewall or Cisco Firepower Threat Defense (FTD).

Model overview

Cisco Firepower 2110/2120 Model

Cisco Firepower 2130/2140 Model

Cisco Firepower 2100 series summary:

Model	Firewall	NGFW	NGIPS	Interfaces	Optional interfaces
FPR-2110	3G	2.3G	2.3G	12 x RJ45, 4 x SFP	N/A
FPR-2120	6G	3G	3G	12 x RJ45, 4 x SFP	N/A
FPR-2130	10G	5G	5G	12 x RJ45, 4 x SFP+	10G SFP+, 1/10G FTW
FPR-2140	20G	9G	9G	12 x RJ45, 4 x SFP+	10G SFP+, 1/10G FTW

Detailed performance specifications and feature highlights

Table 1. Performance specifications and feature highlights for firepower 2100 with the Cisco Firepower Threat defense image

Features	2110	2120	2130	2140
Throughput: FW + AVC (1024B)	2.3 Gbps	3 Gbps	5 Gbps	9 Gbps
Throughput: FW + AVC + IPS (1024B)	2.3 Gbps	3 Gbps	5 Gbps	9 Gbps
Maximum concurrent sessions, with AVC	1 million	1.5 million	2 million	3 million
Maximum new connections per	14K	17K	27K	57K

Features	2110	2120	2130	2140
second, with AVC				
TLS	365 Mbps	475 Mbps	735 Mbps	1.4 Gbps
Throughput: NGIPS (1024B)	2.3 Gbps	3 Gbps	5 Gbps	9 Gbps
IPSec VPN Throughput (1024B TCP w/Fastpath)	800 Mbps	1 Gbps	1.6 Gbps	3.2 Gbps
Maximum VPN Peers	1500	3500	7500	10,000
Cisco Firepower Device Manager (local management)	Yes	Yes	Yes	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 Trust Anchor Technologies	Firepower 2100 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 2100 appliances

Features	2110	2120	2130	2140
Stateful inspection firewall throughput[1]	3 Gbps	6 Gbps	10 Gbps	20 Gbps
Stateful inspection firewall throughput (multiprotocol)[2]	1.5 Gbps	3 Gbps	5 Gbps	10 Gbps
Concurrent firewall connections	1 million	1.5 million	2 million	3 million
Firewall latency (UDP 64B microseconds)	-	-	-	-
New connections per second	18000	28000	40000	75000
IPsec VPN throughput (450B UDP L2L test)	500 Mbps	700 Mbps	1 Gbps	2 Gbps
Maximum VPN Peers	1500	3500	7500	10,000
Security contexts (included; maximum)	2; 25	2; 25	2; 30	2; 40
High availability	Active/active and active/standby	Active/active and active/standby	Active/active and active/standby	Active/active and active/standby
Clustering	-			
Scalability	VPN Load Balancing			
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 2100 Series hardware specifications

Features	Cisco Firepower Model			
	2110	2120	2130	2140
Dimensions (H x W x D)	1.73 x 16.90 x 19.76 in. (4.4 x 42.9 x 50.2 cm)	1.73 x 16.90 x 19.76 in. (4.4 x 42.9 x 50.2 cm)	1.73 x 16.90 x 19.76 in. (4.4 x 42.9 x 50.2 cm)	1.73 x 16.90 x 19.76 in. (4.4 x 42.9 x 50.2 cm)
Form factor (rack units)	1RU	1RU	1RU	1RU

Features	Cisco Firepower Model			
Integrated I/O	12 x 10M/100M/1GBASE-T Ethernet interfaces (RJ-45), 4 x 1 Gigabit (SFP) Ethernet interfaces	12 x 10M/100M/1GBASE-T Ethernet interfaces (RJ-45), 4 x 1 Gigabit (SFP) Ethernet interfaces	12 x 10M/100M/1GBASE-T Ethernet interfaces (RJ-45), 4 x 10 Gigabit (SFP+) Ethernet interfaces	12 x 10M/100M/1GBASE-T Ethernet interfaces (RJ-45), 4 x 10 Gigabit (SFP+) Ethernet interfaces
Network modules	None	None	10G SFP+, 1/10G FTW Options	10G SFP+, 1/10G FTW Options
Note: The 2100 Series appliances may also be deployed as dedicated threat sensors with fail-to-wire network modules. Please contact your Cisco representative for details.				
Maximum number of interfaces	Up to 16 total Ethernet ports, (12x1G RJ-45, 4x1G SFP)	Up to 16 total Ethernet ports, (12x1G RJ-45, 4x1G SFP)	Up to 24 total Ethernet ports (12x1G RJ-45, 4x10G SFP+, and network module	Up to 24 total Ethernet ports (12x1G RJ-45, 4x10G SFP+, and network module
Integrated network management ports	1 x 10M/100M/1GBASE-T Ethernet port (RJ-45)	1 x 10M/100M/1GBASE-T Ethernet port (RJ-45)	1 x 10M/100M/1GBASE-T Ethernet port (RJ-45)	1 x 10M/100M/1GBASE-T Ethernet port (RJ-45)
Serial port	1 x RJ-45 console	1 x RJ-45 console	1 x RJ-45 console	1 x RJ-45 console
USB	1 x USB 2.0 Type-A (500mA)	1 x USB 2.0 Type-A (500mA)	1 x USB 2.0 Type-A (500mA)	1 x USB 2.0 Type-A (500mA)
Storage	1x 100 GB, 1x spare slot (for MSP)	1x 100 GB, 1x spare slot (for MSP)	1x 200 GB, 1x spare slot (for MSP)	1x 200 GB, 1x spare slot (for MSP)
Power supply configuration	Single integrated 250W AC power supply.	Single integrated 250W AC power supply.	Single 400W AC, Dual 400W AC optional. Single/Dual 350W DC optional[1]	Dual 400W AC. Single/dual 350W DC optional[1]
AC input voltage	100 to 240V AC	100 to 240V AC	100 to 240V AC	100 to 240V AC
AC maximum input current	< 2.7A at 100V	< 2.7A at 100V	< 6A at 100V	< 6A at 100V
AC maximum output power	250W	250W	400W	400W
AC frequency	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz
AC efficiency	>88% at 50% load	>88% at 50% load	>89% at 50% load	>89% at 50% load
DC input voltage	-	-	-48V to -60VDC	-48V to -60VDC
DC maximum input current	-	-	< 12.5A at -48V	< 12.5A at -48V
DC maximum output power	-	-	350W	350W
DC efficiency	-	-	>88% at 50% load	>88% at 50% load
Redundancy	None	None	1+1 AC or DC with dual supplies	1+1 AC or DC with dual supplies
Fans	4 integrated (2 internal, 2	4 integrated (2 internal, 2	1 hot-swappable fan	1 hot-swappable fan

Features	Cisco Firepower Model			
	exhaust) fans[2]	exhaust) fans[2]	module (with 4 fans)[2]	module (with 4 fans)[2]
Noise	56 dBA @ 25C	56 dBA @ 25C	56 dBA @ 25C	56 dBA @ 25C
	74 dBA at highest system performance.	74 dBA at highest system performance.	77 dBA at highest system performance.	77 dBA at highest system performance.
Rack mountable	Yes. Fixed mount brackets included. (2-post). Mount rails optional (4-post EIA-310-D rack)	Yes. Fixed mount brackets included. (2-post). Mount rails optional (4-post EIA-310-D rack)	Yes. Mount rails included (4-post EIA-310-D rack)	Yes. Mount rails included (4-post EIA-310-D rack)
Weight	16.1 lb (7.3 kg): with 2x SSDs	16.1 lb (7.3 kg): with 2x SSDs	19.4 lb (8.8 kg) 1 x power supplies, 1 x NM, 1 x fan module, 2x SSDs	21 lb (9.53 kg) 2 x power supplies, 1 x NM, 1 x fan module, 2x SSDs
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)
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)
Humidity: operating	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
Altitude: operating	10,000 ft (max)	10,000 ft (max)	10,000 ft (max) or NEBS operation (see below)[3]	10,000 ft (max)
Altitude: nonoperating	40,000 ft (max)	40,000 ft (max)	40,000 ft (max)	40,000 ft (max)
NEBS operation (FPR-2130 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-2130 platform is designed to be NEBS ready. The availability of NEBS certification is pending.

Table 4. Table 4: Cisco Firepower 2100 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

Specification	Description
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
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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