Cisco Secure Firewall 4200 Series

Enterprise Firewall | Next Generation Firewall | Next Generation IPS

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Cisco Secure Firewall 4200 Series appliances

The Cisco Secure Firewall 4200 Series is a high-end firewall designed to meet the security requirements of large enterprises, datacenters, and service providers. It is available in three different performance models, offering a wide range of options while providing superior threat defense within a compact 1 RU form factor. Key features and benefits of the appliance include:

- Cryptographic acceleration architecture preserves performance with SSL and VPN decryption
- Save space and energy with 1RU form factor
- Future-proof your investment with 16x node cluster
- Flexibility of 2x interface module bays for additional interface support
- Customize and future-proof investment up to 400G interfaces
- 2x SSD for event storage and malware analysis
- Uptime/resilience with dual management interfaces
- Fail-to-wire network modules, further enhancing its reliability and fault tolerance
- **SD-WAN Capable:** Simplified site-to-site communication using on-demand tunnels and dynamic application path selection across multiple WAN interfaces
- **AI/ML Powered:** Detect anomalies, remediate threats, and optimize the policy for peak performance with Cisco's native AI/ML solution. Streamline NetOps and SecOps operations using multi-threaded Snort 3 engine; Admins benefit from natural language interactions with Cisco's AI chatbot for guidance, troubleshooting, and policy configuration

These platforms can be deployed in both firewall and dedicated IPS modes, providing versatile deployment options. For inline sets and passive interfaces, the 4200 Series supports Q-in-Q (stacked VLAN) with the ability to handle up to two 802.1Q headers in a packet.

Model overview

Cisco Secure Firewall 4200 Series summary

Model	Firewall	NGFW	IPS	Interfaces	Optional Interfaces
4215	90 Gbps	65 Gbps	65 Gbps	8 x SFP+ on-chassis	2 x NM's: 1/10/40/100G, FTW
4225	95 Gbps	80 Gbps	80 Gbps	8 x SFP+ on-chassis	2 x NM's: 1/10/40/100G, FTW
4245	180 Gbps	140 Gbps	140 Gbps	8 x SFP+ on-chassis	2 x NM's: 1/10/40/100G, FTW

Detailed performance specifications and feature highlights

Table 1. Performance specifications and feature highlights for Cisco Secure Firewall 4200 with the Cisco Secure Firewall Threat Defense (FTD) image

Features	4215	4225	4245
Throughput: FW + AVC (1024B)	65 Gbps	80 Gbps	140 Gbps
Throughput: FW + AVC + IPS (1024B)	65 Gbps	80 Gbps	140 Gbps
Maximum concurrent sessions, with AVC	15 Million	30 Million	60 Million
New Connections Per Second with, AVC	350 K	600 K	800 K
TLS (Hardware Decryption)[1]	20 Gbps	30 Gbps	45 Gbps
Throughput: NGIPS (1024B)	65 Gbps	80 Gbps	140 Gbps
IPSec VPN Throughput (1024B TCP w/Fastpath)	45 Gbps	80 Gbps	140 Gbps
Instances (Multi-Instance)	10	15	34
Maximum VPN Peers	20,000	25,000	30,000
Centralized Management	Centralized configuration, logging, monitoring, and reporting are performed by the Firewall Management Center or alternatively in the cloud with Cisco Defense Orchestrator		

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

Features	4215	4225	4245
Application Visibility and Control (AVC)	Standard, Supporting more than 4000 applications, as well as geolocation, 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 120		
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		
Third-party and open-source ecosystem	Open API for integrations with third-party products; Snort® and OpenAppID community resources for new and specific threats		

Features	4215	4225	4245
High Availability and Clustering	Active/active (with clustering), Active/standby. Cisco Secure Firewall 4200 Series allows clustering of up to 16 chassis		
Cisco Trust Anchor Technologies	Secure Firewall 4200 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, 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 Cisco Secure Firewall 4200 appliances

Features	4215	4225	4245
Stateful inspection firewall throughput[1]	90 Gbps	95 Gbps	180 Gbps
Stateful inspection firewall throughput (multiprotocol)[2]	65 Gbps	85 Gbps	100 Gbps
Concurrent firewall connections	40 Million	90 Million	180 Million
New connections per second	1.4 Million	1.7 Million	2.0 Million
Max. IPSec VPN throughput (450 Byte UDP L2L test, ASA)	50 Gbps	60 Gbps	70 Gbps
Maximum VPN Peers	20,000	25,000	30,000

[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.

Features	4215	4225	4245
Security contexts (included; maximum)	2; 250	2; 250	2; 250
High Availability	Active/active and active/standby	Active/active and active/standby	Active/active and active/standby
Clustering	16	16	16
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		

Hardware specifications

Table 3. Cisco Secure Firewall 4200 Series hardware specifications

Features	4215	4225	4245
Dimensions (H x W x D)	1.73 x 16.89 x 32.0 inches (4.39 x 42.9 x 81.28 cm)		
Form factor (rack units)	1RU		
Fixed Ports	8 x 1/10/25 Gigabit Ethernet ports (SFP28)		
Integrated Network Management Ports	2 x 1/10/25 Gigabit Ethernet ports (SFP28)		
Network modules	• 8-port 1Gbps copper, FTW (fail to wire) Network Module – Ports that are not configured as FTW can be used as regular 1 Gb copper ports • 8 x 1/10 Gigabit Ethernet Small Form-Factor Pluggable (SFP+) network modules • 8 x 1/10/25 Gigabit Ethernet Small Form-Factor Pluggable (SFP28) network modules • 4 x 40 Gigabit Ethernet Quad SFP+ network modules • 4 x 40/100/200 Gigabit Ethernet Quad SFP28 (QSFP28) network modules • 2 x 100G Gigabit Ethernet QSFP SFP28 network modules • 2 x 400G Gigabit Ethernet QSFP DD network modules • 6-port 10Gbps SR Fiber FTW (fail to wire) Network Module • 6-port 10Gbps LR Fiber FTW (fail to wire) Network Module • 6-port 25Gbps LR Fiber FTW (fail to wire) Network Module • 6-port 25Gbps SR Fiber FTW (fail to wire) Network Module		

Features		4215	4225	4245
Maximum number of interfaces		Up to 24 x 10 Gigabit Ethernet (SFP+) interfaces; up to 8 x 25 Gigabit Ethernet (SFP28) interfaces with 2 network modules; up to 8 x 40 Gigabit Ethernet (QSFP+) interfaces with 2 network modules; up to 24 x 1 Gigabit Ethernet ports (SFP) with 2 network modules and fixed ports; up to 8 x 100 Gigabit Ethernet (QSFP28) interfaces with 2 network modules; up to 4 x 400 Gigabit Ethernet (QSFPDD) interfaces with 2 network modules **Note:** The above port counts do not factor in the breakout capability supported by different interfaces		
Serial port		1 x RJ-45 console		
USB		1 x USB 2.0		
Storage		1.8 TB x 2		
Power supplies	Configuration	Dual: 1900W for 220 AC, 1200W for 110 AC	Dual: 1900W for 220 AC, 1200W for 110 AC	Dual: 1900W for 220 AC, 1200W for 110 AC
	AC input voltage	100 to 120 VAC (low line) or 200 to 240 VAC (high line)		Only 200 to 240 VAC (high line)
	AC maximum input current	14A, @ 100VAC or @ 200VAC		
	AC maximum Input power	770W	870W	1380W
	AC frequency	50/60 Hz (nominal)		
	AC efficiency	>90% (Platinum)		
	Redundancy	1+1		
Fans		3 Dual fan modules (FRU). Each module has two fans		

Features	4215	4225	4245
Noise	Sound Pressure: <=78 dBA (typical), <= 84 dBA (maximum)		
Rack mountable	Yes, mount rails included (4-post EIA-310-D rack)		
Weight	4215: 43 lbs (19.5 kgs): 2 x power supplies, 2 x NMs, 3 x fan-modules; 33 lbs (15 kgs): no power supplies, no NMs, no fans 4225: 43 lbs (19.5 kgs): 2 x power supplies, 2 x NMs, 3 x fan-modules; 33 lbs (15 kgs): no power supplies, no NMs, no fans 4245: 46 lbs (20.8 kgs): 2 x power supplies, 2 x NMs, 3 x fan-modules; 36 lbs (16.3 kgs): 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)	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C) or NEBS operation (see below)	32 to 104°F (0 to 40°C), at sea level
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)	10,000 ft (max)
Altitude: Nonoperating	40,000 ft (max)		
NEBS operation (FPR 4215 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 Secure Firewall 4200 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

Specification	Description
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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