

Cisco ASA 5500 Series IPS Solution

Product Overview

Network threats and security compliance mandates continue to increase in number. The Cisco® ASA 5500 Series Intrusion Prevention System (IPS) solution with Global Correlation provides superior protection for your critical information assets using industry-leading IPS, firewall, and VPN technology. IPS extends firewall protection by blocking threats including worms, trojans, viruses, distributed denial of service, reconnaissance, and attacks against operating system and application vulnerabilities. The Cisco ASA 5500 Series IPS solution delivers intrusion prevention capabilities using a hardware-accelerated IPS module, the Cisco ASA Advanced Inspection and Prevention Security Services Module (AIP SSM). A core component of Cisco's Self-Defending Network, the Cisco ASA 5500 Series IPS solution provides integrated, collaborative, and adaptive security to help ensure the continuous operations of your business. It is:

- **Integrated:** The Cisco ASA 5500 Series IPS solution provides hardware-accelerated IPS, industry-leading firewall, and advanced VPN in a single easy-to-deploy platform. An integrated appliance saves you deployment, management, and training costs.
- **Collaborative:** The AIP SSM collaborates closely with the firewall within the Cisco ASA 5500 Series IPS solution as well as with Cisco Security Agent and Cisco Wireless LAN Controller, routers, and switches. The close collaboration among the platforms greatly increases the security protection of your network and assets.
- **Adaptive:** With updates every 5 minutes, Cisco IPS with Global Correlation provides the fastest and most accurate threat protection with real-time global intelligence from Cisco IPS, firewall, email and web appliances.

In addition to securing your network, the Cisco ASA 5500 Series IPS solution also plays a primary role in helping you meet compliance mandates. Whether it is the Payment Card Industry (PCI) standard in retail, the Federal Financial Institutions Examination Council (FFIEC) in banking, or the Health Insurance Portability and Accountability Act (HIPAA) in healthcare, the Cisco ASA 5500 Series IPS solution helps ensure that your network is safe and your compliance requirements are met.

Figure 1. Cisco ASA 5500 Series IPS Solution



Features and Benefits

The Cisco ASA 5500 Series IPS solution delivers high performance and powerful security protection in a single easy-to-deploy platform.

Superior Security Protection

The Cisco ASA 5500 Series IPS solution provides extremely strong intrusion prevention, stopping threats including worms, trojans, viruses, distributed denial of service, reconnaissance, and exploits against application and operations system vulnerabilities before they enter your network. Whether you have an IPv6 network, IPv4 network, or hybrid IPv6 and IPv4 network, the solution provides:

- **Complete IPS capabilities:** The Cisco ASA 5500 Series IPS solution delivers the complete IPS capabilities available on Cisco IPS 4200 Series Sensors. The Cisco AIP SSM can be deployed inline of the traffic path, or in promiscuous mode, whereby a copy of the traffic is sent to the Cisco AIP SSM for inspection. The Cisco ASA 5500 Series IPS solution provides proven protection against tens of thousands of attacks. With Cisco anomaly detection, your network is protected against day-zero threats before signature updates are available.
- **Global Correlation:** Provides organizations with unprecedented accuracy, visibility, and response time in addressing security threats harnessing the power of Cisco Security Intelligence Operations, the world's largest threat intelligence and operations infrastructure. Global Correlation for IPS provides real-time updates on the global threat environment beyond the perimeter by adding reputation analysis, reducing the window of threat exposure, and providing continuous feedback. With these new capabilities, Cisco IPS sensors can detect more threats, detect them earlier and more accurately, and protect critical assets from malicious attacks.
- **Comprehensive and timely attack protection:** The Cisco ASA 5500 Series IPS solution provides proven protection against tens of thousands of known exploits and millions more potential unknown exploit variants. This protection is delivered using specialized IPS detection engines and thousands of signatures. Cisco Services for IPS provides signature updates by a global intelligence team working 24 hours a day to help ensure that you are protected against the latest threats.
- **Day-zero attack protection:** The Cisco ASA 5500 Series IPS solution provides powerful protection against day-zero attacks with Cisco anomaly detection. It learns the normal behavior on your network and alerts you when it sees anomalous activities in your network. Cisco anomaly protection helps protect you against new threats before signatures are available.
- **Application inspection and control:** The application inspection engines in the Cisco ASA 5500 Series IPS solution provide granular control of who and what can enter the network. You can prevent access to potentially dangerous URLs. Rogue callers can be blocked. With blacklists, you can stop infected file attachments from entering your network.
- **Wireless protection:** The Cisco ASA 5500 Series IPS solution is tightly integrated with the Cisco Wireless LAN Controller to help ensure that intruders do not enter your wireless network. The Cisco Wireless LAN Controller blocks intruders based on real-time threat intelligence from the Cisco ASA 5500 Series IPS solution.
- **Unified Communications protection:** Strong protection of voice-over-IP (VoIP) protocols, Cisco Unified CallManager, and devices provides maximum uptime of your critical voice

network. With dedicated voice engines and comprehensive voice signatures, the Cisco ASA 5500 Series IPS solution protects your voice network from intruders and attacks.

High Performance

The Cisco ASA 5500 Series IPS solution is hardware accelerated to provide maximum performance and not negatively affect firewall or VPN throughput. With the Cisco AIP SSM-40, the Cisco ASA 5500 Series IPS solution can achieve up to 650 Mbps of firewall and IPS throughput.

Today, applications are using the Internet as never before. VoIP, e-commerce, streaming video, and Web 2.0 enable higher productivity and employee collaboration. These networked applications pose different and varying demands on resources such as connection rates, concurrent connections, flow length, transaction size, and so on. From a performance perspective, there is a spectrum of application types ranging from media-rich environments that feature converged content to highly transactional environments populated by rapid-fire, lightweight connections. The Cisco ASA 5500 Series IPS solution is optimized for both media-rich and transactional environments.

Advanced Policy Provisioning

Policy provisioning simplifies management, reduces chances of mistakes, and allows you to focus on important tasks at hand. With the Cisco ASA 5500 Series IPS solution, you can apply unified policies with the Cisco Modular Policy Framework (MPF) and assign IPS policies within the Cisco AIP SSM:

- **Cisco Modular Policy Framework:** The Cisco Modular Policy Framework provides you a powerful mechanism to assign Cisco ASA firewall, VPN, and IPS policies in one place. With the Cisco Modular Policy Framework, the Cisco ASA firewall passes traffic to the AIP SSM for inspection on a flow-by-flow, as-needed basis.
- **Cisco IPS policy provisioning:** For IPS policy provisioning, the Cisco AIP SSM is the only product that provides Risk Rating–based policy provisioning. Instead of tuning individual signatures, you assign IPS policies based on risk. All events are assigned a Risk Rating number between 0 and 100 based on the risk level of the event. Based on the Risk Rating, different policy actions can be assigned, including drop packet, alarm, and log.

Industry-Leading Management

Cisco can provide you market-leading management solutions, whether you have five Cisco ASA 5500 Series IPS solutions or thousands.

- **Cisco Security Management Suite:** The Cisco Security Management Suite is a powerful management application suite that scales up to thousands of devices. You can use the Cisco Security Management Suite to manage the IPS, firewall, and VPN capabilities of your Cisco ASA 5500 Series IPS solution. The Cisco Security Management Suite includes Cisco Security Manager and the Cisco Security Monitoring, Analysis, and Response System (Cisco Security MARS). With Cisco Security Manager, you can at one click apply security policies or perform software updates to hundreds or thousands of Cisco ASA appliances. Cisco Security MARS can collect and correlate data from the Cisco ASA 5500 Series IPS solution and other security devices to identify problems and recommend corrective actions.

- Cisco IPS Manager Express:** Cisco IPS Manager Express is an all-in-one IPS management and reporting application for small deployments. With one application, you can provision, monitor, troubleshoot, and provide reports on up to five Cisco IPS devices. A customizable dashboard with more than 10 drag-and-drop gadgets allows you to personalize it to your needs.

Figure 2. Cisco IPS Manager Express



Table 1 provides Cisco ASA 5500 Series IPS solution specifications.

Table 1. Cisco ASA 5500 Series IPS Solution Specifications





Feature	Cisco ASA 5505 IPS Solution (Base License/Security Plus License)	Cisco ASA 5510 IPS Solution (Base License/Security Plus License)	Cisco ASA 5520 IPS Solution	Cisco ASA 5540 IPS Solution
IPS				
Maximum Firewall + IPS Throughput	75 Mbps with AIP SSC-5	150 Mbps with AIP SSM-10	225 Mbps with AIP SSM-10 375 Mbps with AIP SSM-20 450 Mbps with AIP SSM-40	500 Mbps with AIP SSM-20 650 Mbps with AIP SSM-40
Threat Protection	25,000+ threats	25,000+ threats	25,000+ threats	25,000+ threats
Global Correlation	No	Yes	Yes	Yes
Day-Zero Protection with Anomaly Detection	No	Yes	Yes	Yes
Custom signature support	No	Yes	Yes	Yes
Virtual sensors	1	4	4	4
Firewall				
Maximum Firewall Throughput (Mbps)	150	300	450	650
Maximum Firewall Connections	10,000/25,000	50,000/130,000	280,000	400,000
Maximum Firewall Connections per Second	4,000	9,000	12,000	25,000

Feature	Cisco ASA 5505 IPS Solution (Base License/Security Plus License)	Cisco ASA 5510 IPS Solution (Base License/Security Plus License)	Cisco ASA 5520 IPS Solution	Cisco ASA 5540 IPS Solution
VPN				
Maximum Triple Data Encryption Standard/Advanced Encryption Standard (3DES/AES) VPN throughput (Mbps)	100	170	225	325
Maximum Site-to-Site and Remote-Access VPN User Sessions	10/25	250	750	5000
Maximum SSL VPN User Sessions*	25	250	750	2500
Bundled SSL VPN user session	2	2	2	2

* Beginning with Cisco ASA Software v7.1, SSL VPN (Web VPN) capability requires a license. Systems include 2 SSL VPN users by default for evaluation and remote management purposes

Table 2 provides Cisco AIP SSM specifications.

Table 2. Cisco AIP SSM Specifications

Feature	Cisco AIP SSC-5	Cisco AIP SSM-10	Cisco AIP SSM-20	Cisco AIP SSM-40
				
Technical Specifications				
Management and Monitoring Interface	Uses host ASA 5505 management interface	1 Ethernet 10/100 port	1 Ethernet 10/100 port	1 Ethernet 10/100/1000 port
Memory	512 MB	1 GB	2 GB	4 GB
Minimum Flash	512 MB	256 MB	256 MB	2 GB
Environmental Operating Ranges				
Operating				
Temperature	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)
Relative Humidity	5 to 95% noncondensing	5 to 95% noncondensing	5 to 95% noncondensing	5 to 95% noncondensing
Nonoperating				
Temperature	-13 to 158°F (-25 to 70°C)	-13 to 158°F (-25 to 70°C)	-13 to 158°F (-25 to 70°C)	-13 to 158°F (-25 to 70°C)
Relative Humidity	5 to 95% noncondensing	5 to 95% noncondensing	5 to 95% noncondensing	5 to 95% noncondensing
Altitude	0 to 15,000 ft (4570 m)	0 to 15,000 ft (4570 m)	0 to 15,000 ft (4570 m)	0 to 15,000 ft (4570 m)
Power and Mean Time between Failure				
Power Consumption	30W maximum	90W maximum	90W maximum	90W maximum
Mean Time between Failure (MTBF)	874,070 hours (100 years)	299,588 hours (31 years)	309,296 hours (35 years)	221,679 hours (25 years)
Physical Specifications				
Dimensions (HxWxD)	0.68 x 3.55 x 5.2 in (1.73 x 9.02 x 13.21 cm)	1.70 x 6.80 x 11.00 in. (4.32 x 17.27 x 27.94 cm)	1.70 x 6.80 x 11.00 in. (4.32 x 17.27 x 27.94 cm)	1.70 x 6.80 x 11.00 in. (4.32 x 17.27 x 27.94 cm)
Weight	0.42 lb (0.19 kg)	3.00 lb (1.36 kg)	3.00 lb (1.36 kg)	2.58 lb (1.17 kg)

Feature	Cisco AIP SSC-5	Cisco AIP SSM-10	Cisco AIP SSM-20	Cisco AIP SSM-40
Regulatory and Standards Compliance				
Safety	UL 1950, CSA C22.2 No. 950, EN 60950 IEC 60950, AS/NZS3260, TS001	UL 1950, CSA C22.2 No. 950, EN 60950 IEC 60950, AS/NZS3260, TS001	UL 1950, CSA C22.2 No. 950, EN 60950 IEC 60950, AS/NZS3260, TS001	UL 1950, CSA C22.2 No. 950, EN 60950 IEC 60950, AS/NZS3260, TS001
Electromagnetic Compatibility (EMC)	CE marking, FCC Part 15 Class A, AS/NZS 3548 Class A, VCCI Class A, EN55022 Class A, CISPR22 Class A, EN61000-3-2, EN61000-3-3	CE marking, FCC Part 15 Class A, AS/NZS 3548 Class A, VCCI Class A, EN55022 Class A, CISPR22 Class A, EN61000-3-2, EN61000-3-3	CE marking, FCC Part 15 Class A, AS/NZS 3548 Class A, VCCI Class A, EN55022 Class A, CISPR22 Class A, EN61000-3-2, EN61000-3-3	CE marking, FCC Part 15 Class A, AS/NZS 3548 Class A, VCCI Class A, EN55022 Class A, CISPR22 Class A, EN61000-3-2, EN61000-3-3

Ordering Information

To place an order, visit the [Cisco Ordering Homepage](#). See Table 3 for ordering information.

Table 3. Ordering Information

Product Name	Part Number
Cisco ASA 5505 Series Adaptive Security Appliance	
Cisco ASA 5505 50-User Adaptive Security Appliance with AIP-SSC-5 (chassis, software, 8 Fast Ethernet interfaces, 10 IPsec VPN peers, 2 SSL VPN peers, 3DES/AES license)	ASA5505-50-AIP5-K9
Cisco ASA 5505 Unlimited-User Adaptive Security Appliance with Security Plus License and AIP-SSC-5 (chassis, software, 8 Fast Ethernet interfaces, 25 IPsec VPN peers, 2 SSL VPN peers, DMZ support, stateless Active/Standby high availability, 3DES/AES license)	ASA5505-U-AIP5P-K9
Cisco ASA 5510 Series Adaptive Security Appliance	
Cisco ASA 5510 Adaptive Security Appliance with SSM-AIP-10 (chassis, software, 50 VPN peers, 4 Fast Ethernet interfaces, 3DES/AES)	ASA5510-AIP10-K9
Cisco ASA 5510 Adaptive Security Appliance with Security Plus License and AIP-SSM-10 (chassis, software, 2 Gigabit Ethernet interfaces, 3 Fast Ethernet interfaces, 250 IPsec VPN peers, 2 SSL VPN peers, Active/Active high availability, 3DES/AES)	ASA5510-AIP10SP-K9
Cisco ASA 5510 Adaptive Security Appliance with Security Plus License and AIP-SSM-20 (chassis, software, 2 Gigabit Ethernet interfaces, 3 Fast Ethernet interfaces, 250 IPsec VPN peers, 2 SSL VPN peers, Active/Active high availability, 3DES/AES)	ASA5510-AIP20SP-K9
Cisco ASA 5520 Series Adaptive Security Appliance	
Cisco ASA 5520 Adaptive Security Appliance with AIP-SSM-10 (chassis, software, 300 VPN peers, 4 Gigabit Ethernet interfaces, 3DES/AES)	ASA5520-AIP10-K9
Cisco ASA 5520 Adaptive Security Appliance with AIP-SSM-20 (chassis, software, 300 VPN peers, 4 Gigabit Ethernet interfaces, 3DES/AES)	ASA5520-AIP20-K9
Cisco ASA 5520 Adaptive Security Appliance with AIP-SSM-40 (chassis, software, 300 VPN peers, 4 Gigabit Ethernet interfaces, 3DES/AES)	ASA5520-AIP40-K9
Cisco ASA 5540 Series Adaptive Security Appliance	
Cisco ASA 5540 Adaptive Security Appliance with AIP-SSM-20 (chassis, software, 500 VPN peers, 4 Gigabit Ethernet interfaces, 3DES/AES)	ASA5540-AIP20-K9
Cisco ASA 5540 Adaptive Security Appliance with AIP-SSM-40 (chassis, software, 500 VPN peers, 4 Gigabit Ethernet interfaces, 3DES/AES)	ASA5540-AIP40-K9
Security Services Modules	
Cisco ASA 5500 Series Advanced Inspection and Prevention Security Services Card 5 (AIP SSC-5)	ASA-SSC-AIP-5-K9=
Cisco ASA 5500 Series Advanced Inspection and Prevention Security Services Module 10 (AIP SSM-10)	ASA-SSM-AIP-10-K9=
Cisco ASA 5500 Series Advanced Inspection and Prevention Security Services Module 20 (AIP SSM-20)	ASA-SSM-AIP-20-K9=
Cisco ASA 5500 Series Advanced Inspection and Prevention Security Services Module 40 (AIP SSM-40)	ASA-SSM-AIP-40-K9=

Service and Support

Cisco offers a wide range of service programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you to protect your network investment, optimize network operations, and prepare your network for new applications to extend network intelligence and the power of your business. For more information about Cisco services for security, visit <http://www.cisco.com/go/services/security>.

Cisco Services for IPS

Cisco Services for IPS is an integral part of the Cisco ASA 5500 Series IPS solution and enables operators to receive time-critical signature file updates and alerts. As part of the Cisco Technical Support Services portfolio, Cisco Services for IPS offers a comprehensive security service that allows your Cisco ASA 5500 Series IPS solution to stay current on the latest threats so that malicious or damaging traffic is accurately identified, classified, and stopped. Cisco Services for IPS features include:

- Signature file updates and alerts
- Registered access to Cisco.com for online tools and technical assistance
- Access to the Cisco Technical Assistance Center (TAC)
- Cisco IPS software updates
- Advance replacement of failed hardware

For more information about Cisco Services for IPS, visit

http://www.cisco.com/en/US/products/ps6076/serv_group_home.html.

Export Considerations

The Cisco ASA 5500 Series IPS solution and Cisco AIP SSMs are subject to export controls. For guidance, refer to the export compliance Website at <http://www.cisco.com/wwl/export/crypto/>. For specific export questions, contact export@cisco.com.

Additional Information

For more information about the Cisco ASA 5500 Series IPS solution, visit

<http://www.cisco.com/go/asajps>.

For more information about Cisco IPS solutions, visit <http://www.cisco.com/go/ips>.

For more information about Cisco ASA 5500 Series Adaptive Security Appliances, visit

<http://www.cisco.com/go/asa>.

For information about Cisco IDS and IPS sensors and software versions that have reached end-of-sale status, visit

http://www.cisco.com/en/US/products/hw/vpndevc/ps4077/prod_eol_notices_list.html.

For more information about Cisco Security Manager, Cisco Security MARS, and Cisco IPS Manager Express visit

- <http://www.cisco.com/go/csmanager>
- <http://www.cisco.com/go/mars>
- <http://www.cisco.com/go/ime>



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