DATA SHEET

CISCO ASA 5500 SERIES ADAPTIVE SECURITY APPLIANCE PLATFORM AND MODULE DATASHEET

Cisco® ASA 5500 Series adaptive security appliances are purpose-built solutions that combine best-of-breed security and VPN services with the innovative Cisco Adaptive Identification and Mitigation (AIM) architecture. Designed as a key component of the Cisco Self-Defending Network, the Cisco ASA 5500 Series provides proactive threat defense that stops attacks before they spread through the network, controls network activity and application traffic, and delivers flexible VPN connectivity. The result is a powerful multifunction network security appliance family that provides the security breadth and depth for protecting small and medium-sized business and enterprise networks while reducing the overall deployment and operations costs and complexities associated with providing this new level of security.

The Cisco ASA 5500 Series delivers a powerful combination of multiple market-proven technologies in a single platform, making it operationally and economically feasible to deploy comprehensive security services to more locations. And its multifunction security profile virtually eliminates the difficult---and risky---decision of making trade-offs between robust security protection and the operational costs associated with multiple devices in numerous locations.

Figure 1. Cisco ASA 5500 Series Adaptive Security Appliance

The Cisco ASA 5500 Series helps businesses more effectively and efficiently protect their networks while delivering exceptional investment protection through the following key elements:

- **Market-proven security and VPN capabilities**---Full-featured, high-performance firewall, intrusion prevention system (IPS), network antivirus, and IP Security/Secure Sockets Layer (IPSec/SSL) VPN technologies deliver robust application security, user- and application-based access control, worm and virus mitigation, malware protection, and remote user/site connectivity.

- **Extensible Adaptive Identification and Mitigation services architecture**---Leveraging a modular services processing and policy framework, AIM enables the application of specific security or network services on a per-traffic-flow basis, delivering highly granular policy controls and anti-x protection with streamlined traffic processing. The efficiencies of the Cisco ASA 5500 Series AIM architecture, as well as software extensibility and hardware extensibility via user-installable Security Services Modules (SSMs), enable evolution of existing services as well as deployment of new services without requiring a platform replacement or performance compromise. As the architectural foundation of the Cisco ASA 5500 Series, AIM enables highly customizable security policies and unprecedented services extensibility to help protect against the fast-evolving threat environment.

- **Reduced deployment and operations costs**---Multifunction appliance allows for platform, configuration, and management standardization, helping to decrease the costs of deployment and ongoing operations.

INTRODUCING THE CISCO ASA 5500 SERIES

The Cisco ASA 5500 Series includes the Cisco ASA 5510, 5520, and 5540 adaptive security appliances---three purpose-built, high-performance security solutions that leverage Cisco Systems expertise in developing industry-leading and award-winning security and VPN solutions, and integrate the latest technologies from Cisco PIX® 500 Series Security Appliances, Cisco IPS 4200 Series intrusion prevention systems, and Cisco VPN 3000 Series concentrators. By combining these technologies, the Cisco ASA 5500 Series delivers an unmatched, best-of-breed solution that stops the broadest range of threats and provides businesses with flexible, secure connectivity options. As a key component of Cisco Systems Adaptive Threat Defense and Unified Secure Access strategies, the Cisco ASA 5500 Series converges a wide range of security and VPN technologies to provide rich application security, anti-x defenses, network containment and control, and secure connectivity.

The extensible Cisco AIM services architecture and the flexible multiprocessor design of the Cisco ASA 5500 Series enable it to provide unprecedented performance for multiple concurrent security services while delivering exceptional investment protection. Each Cisco ASA 5500 Series platform combines multiple high-performance processors that work in concert to deliver rich application security services, anti-x defenses, scalable IPSec and SSL VPN services, and more. Businesses can add other high-performance security services, such as intrusion prevention services and advanced anti-x services by installing a Cisco ASA 5500 Series advanced inspection and prevention SSM (AIP-SSM). This flexible design makes the Cisco ASA 5500 Series uniquely capable of adapting to new threats, protecting against the fast evolving threat environment, and providing exceptional investment protection through its use of programmable hardware to "future proof" the platform for years to come. The combination of these high-performance, market-proven security and VPN capabilities, along with integrated Gigabit Ethernet connectivity, and a diskless, flash-based architecture, make the Cisco ASA 5500 Series an ideal choice for businesses requiring a best-of-breed security solution with high performance, flexibility, reliability, and investment protection.

CISCO ASA 5510 ADAPTIVE SECURITY APPLIANCE

The Cisco ASA 5510 Adaptive Security Appliance delivers a wealth of advanced security and networking services for small-to-medium businesses and enterprise remote/branch offices in an easy-to-deploy, cost-effective appliance. These services can be easily managed and monitored by the integrated, Web-based management application, Cisco Adaptive Security Device Manager, thus reducing the overall deployment and operations costs associated with providing this high level of security. The Cisco ASA 5510 Adaptive Security Appliance provides high performance firewall and VPN services, three integrated 10/100 Fast Ethernet interfaces, and optional high-performance intrusion prevention and anti-x services via a Security Services Module making it an excellent choice for businesses requiring a cost-effective, extensible, DMZ-enabled security solution. As business needs grow, the Cisco ASA 5510 Adaptive Security Appliance can also scale to higher interface density and integrate into switched network environments through VLAN support by installing a Security Plus upgrade license. Furthermore, this upgrade license maximizes business continuity by enabling Active/Standby high availability services and expands VPN capacity by supporting a greater number of concurrent VPN connections for mobile users, remote sites, and business partners.

Table 1.   Cisco ASA 5510 Adaptive Security Appliance Platform Capabilities and Capacities

Features	Descriptions
Firewall Throughput	Up to 300 Mbps
Concurrent Threat Mitigation Throughput (Firewall + Anti-x Services)	Up to 150 Mbps with AIP-SSM-10
VPN Throughput	Up to 170 Mbps
Concurrent Sessions	32,000/64,000*
IPSec VPN Peers	50/150*
WebVPN Peers	50/150*
Security Contexts	Not Supported
Interfaces	3 Fast Ethernet + 1 management port/5 Fast Ethernet ports*

Features	Descriptions
Virtual Interfaces (VLANs)	0/10*
High Availability	Not Supported / Active/Standby*

* Upgrade available with Cisco ASA 5510 Security Plus license

CISCO ASA 5520 ADAPTIVE SECURITY APPLIANCE

The Cisco ASA 5520 Adaptive Security Appliance delivers a wide range of security services with Active/Active high availability and Gigabit Ethernet connectivity for medium-sized enterprise networks, in a modular, high performance appliance. Using its four Gigabit Ethernet interfaces and support for up to 25 VLANs, businesses can easily deploy these security services into multiple zones within their network. The Cisco ASA 5520 Adaptive Security Appliance scales with businesses as their network security requirements grow, delivering solid investment protection. Businesses can extend their IPSec and SSL VPN capacity through multiple means to support a larger number of mobile workers, remote sites, and business partners. VPN capacity can be increased by taking advantage of the integrated VPN clustering and load-balancing capabilities of the Cisco ASA 5520 Adaptive Security Appliance, as well as more than doubling each platform's VPN capacity through the installation of a VPN upgrade license. The advanced application layer security and anti-x defenses provided by the Cisco ASA 5520 Adaptive Security Appliance can be extended by deploying a high performance Security Services Module. Using the optional security context capabilities of the Cisco ASA 5520 Adaptive Security Appliance, businesses can deploy up to 10 virtual firewalls within an appliance to enable compartmentalized control of security policies on a departmental level. This virtualization strengthens security and reduces overall management and support costs while consolidating multiple security devices into a single appliance.

Table 2. Cisco ASA 5520 Adaptive Security Appliance Platform Capabilities and Capacities

Features	Descriptions
Firewall Throughput	Up to 450 Mbps
Concurrent Threat Mitigation Throughput (Firewall + Anti-x Services)	Up to 225 Mbps with AIP-SSM-10
	Up to 375 Mbps with AIP-SSM-20
VPN Throughput	Up to 225 Mbps
Concurrent Sessions	130,000
IPSec VPN Peers	300/750*
WebVPN Peers	300/750*
Security Contexts	Up to 10**
Interfaces	4 Gigabit Ethernet ports and 1 Fast Ethernet port
Virtual Interfaces (VLANs)	25
Scalability	VPN clustering and load balancing
High Availability	Active/Active, Active/Standby

* Upgrade available with Cisco ASA 5520 VPN Plus license

** Separately licensed feature, includes two with base system

CISCO ASA 5540 ADAPTIVE SECURITY APPLIANCE

The Cisco ASA 5540 Adaptive Security Appliance delivers a wide range of high-performance, high-density security services with Active/Active high availability and Gigabit Ethernet connectivity for medium-to-large enterprise and service-provider networks, in a reliable, modular appliance. Using its four Gigabit Ethernet interfaces and support for up to 100 VLANs, businesses can segment their network into numerous zones for improved security. The Cisco ASA 5540 Adaptive Security Appliance scales with businesses as their network security requirements grow, delivering exceptional investment protection and services scalability. The advanced network and application layer security services and anti-x

defenses provided by the Cisco ASA 5540 Adaptive Security Appliance can be extended by deploying a high performance Security Services Module. Businesses can scale their IPSec and SSL VPN capacity through multiple means to support a larger number of mobile workers, remote sites, and business partners. VPN capacity and resiliency can be increased by taking advantage of the integrated VPN clustering and load balancing capabilities of the Cisco ASA 5540 Adaptive Security Appliance, with support for up to 10 appliances in a cluster supporting a maximum of 50,000 VPN peers per cluster. Businesses can also scale up to 5000 IPSec and 2500 SSL VPN peers on each Cisco ASA 5540 Adaptive Security Appliance through the installation of a VPN upgrade license. Using the optional security context capabilities of the Cisco ASA 5540 Adaptive Security Appliance, businesses can deploy up to 50 virtual firewalls within an appliance to enable compartmentalized control of security policies on per-department or per-customer basis, and deliver reduced overall management and support costs.

Table 3.   Cisco ASA 5540 Adaptive Security Appliance Platform Capabilities and Capacities

Features	Descriptions
Firewall Throughput	Up to 650 Mbps
Concurrent Threat Mitigation Throughput (Firewall + Anti-x Services)	Up to 450 Mbps with AIP-SSM-20
VPN Throughput	Up to 325 Mbps
Concurrent Sessions	280,000
IPSec VPN Peers	500/2000*/5000**
WebVPN Peers	500/1250*/2500**
Security Contexts	Up to 50***
Interfaces	4 Gigabit Ethernet ports and 1 Fast Ethernet port
Virtual Interfaces (VLANs)	100
Scalability	VPN clustering and load balancing
High Availability	Active/Active, Active/Standby

*   Upgrade available with Cisco ASA 5540 VPN Plus license

**   Upgrade available with Cisco ASA 5540 VPN Premium license

*** Separately licensed feature, includes two with base system

PRODUCT SPECIFICATIONS

See Table 4 for characteristics of the Cisco ASA 5500 Series Adaptive Security Appliance.

Table 4.   Characteristics of Cisco ASA 5500 Series Adaptive Security Appliances

	Cisco ASA 5510	Cisco ASA 5520	Cisco ASA 5540
Users/Nodes	Unlimited	Unlimited	Unlimited
Firewall Throughput	Up to 300 Mbps	Up to 450 Mbps	Up to 650 Mbps
Concurrent Threat Mitigation Throughput (Firewall + Anti-x Services)	Up to 150 Mbps with AIP-SSM-10	Up to 225 Mbps with AIP-SSM-10 Up to 375 Mbps with AIP-SSM-20	Up to 450 Mbps with AIP-SSM-20
3DES/AES VPN Throughput	Up to 170 Mbps	Up to 225 Mbps	Up to 325 Mbps
IPSec VPN Peers	50/150*	300/750*	500/2000*/5000*

	Cisco ASA 5510	Cisco ASA 5520	Cisco ASA 5540
WebVPN Peers	50/150*	300/750*	500/1250*/2500*
Concurrent Sessions	32,000/64,000*	130,000	280,000
New Sessions/Second	6000	9000	20,000
Integrated Network Ports	3 + 1 Management Port/5* Fast Ethernet Ports	4 Gigabit Ethernet, 1 Fast Ethernet	4 Gigabit Ethernet, 1 Fast Ethernet
Virtual Interfaces (VLANs)	0/10*	25	100
Security Contexts (Included/Maximum)	0/0	2/10	2/50
High Availability	Not Supported / Active/Standby*	Active/Active and Active/Standby	Active/Active and Active/Standby
SSM Expansion Slot	1	1	1
User Accessible Flash Slot	1	1	1
USB 2.0 Ports	2	2	2
Serial Ports	2 RJ-45, Console and Auxiliary	2 RJ-45, Console and Auxiliary	2 RJ-45, Console and Auxiliary
Technical Specifications			
Memory	256 MB	512 MB	1024 MB
System Flash	64 MB	64 MB	64 MB
System Bus	Multi-bus Architecture	Multi-bus Architecture	Multi-bus Architecture
ENVIRONMENTAL OPERATING RANGES			
Operating			
Temperature	32º to 104ºF (0º to 40ºC)		
Relative Humidity	5 to 95 percent noncondensing		
Altitude	0 to 9840 ft (3000 m)		
Shock	1.14 m/sec (45 in./sec) 1/2 sine input		
Vibration	0.41 Grms2 (3 to 500 Hz) random input		
Acoustic Noise	60 dBa max		
Nonoperating			
Temperature	-13º to 158ºF (-25 to 70ºC)		
Relative Humidity	5 to 95 percent noncondensing		
Altitude	0 to 15,000 ft (4570 m)		
Shock	30 G		
Vibration	0.41 Grms2 (3 to 500 Hz) random input		
Power			
Input (per power supply)			
Range Line Voltage	100 V---240 VAC		
Normal Line Voltage	100 V---240 VAC		
Current	3 A		
Frequency	47 to 63 Hz, single phase		
Output			
Steady State	150 W		
Maximum Peak	190 W		
Maximum Heat Dissipation	648 BTU/hr		

	Cisco ASA 5510	Cisco ASA 5520	Cisco ASA 5540
Physical Specifications			
Form Factor	1 rack unit (1 RU), 19-in rack mountable		
Dimensions (H x W x D)	1.75" x 17.5" x 13.2"		
Weight (With Power Supply)	20.0 lb (9.07 kg)		
Regulatory and Standards Compliance			
Safety	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		

* Available through an upgrade license

SECURITY SERVICES MODULES

The Cisco ASA 5500 Series, utilizing its unique Adaptive Identification and Mitigation services architecture and multiprocessor hardware architecture, brings a new level of integrated security performance to networks. This architecture allows businesses to adapt and extend the high-performance security services profile of the Cisco ASA 5500 Series through the ability to add additional high-performance security services using Security Services Modules (SSM) with dedicated security co-processors, and the ability to custom-tailor flow-specific policies using a highly flexible policy framework. This adaptable architecture enables businesses to deploy new security services when and where they are needed, such as adding the broad range of intrusion prevention and advanced anti-x services delivered by the Adaptive Inspection and Prevention Security Services Module (AIP SSM). Further, the architecture allows new services to be introduced by Cisco Systems® in the future to address new threats, delivering businesses outstanding investment protection for the Cisco ASA 5500 Series.

Table 5. Characteristics of Cisco ASA 5500 AIP SSM Modules

	Cisco ASA 5500 SSM-AIP-10	Cisco ASA SSM-AIP-20
Concurrent Threat Mitigation Throughput (Firewall + Anti-x Services)	150 Mbps with Cisco ASA 5510 225 Mbps with Cisco ASA 5520	375 Mbps with Cisco ASA 5520 450 Mbps with Cisco ASA 5540
Technical Specifications		
Memory	1 GB	2 GB
Flash	256 MB	256 MB
ENVIRONMENTAL OPERATING RANGES		
Operating		
Temperature	32º to 104ºF (0º to 40ºC)	
Relative Humidity	5 to 95 percent noncondensing	
Nonoperating		
Temperature	-13º to 158ºF (-25 to 70ºC)	
Power Consumption	90 W Max.	

	Cisco ASA 5500 SSM-AIP-10	Cisco ASA SSM-AIP-20
Physical Specifications		
Dimensions (H x W x D)	1.70" x 6.80" x 11.00"	
Weight (With Power Supply)	3.00 lb (1.36 kg)	
Regulatory and Standards Compliance		
Safety	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	

ORDERING INFORMATION

To place an order, visit the [Cisco Ordering Home Page](). See Table 6 for ordering information.

Table 6. Ordering Information

Product Name	Part Number
Cisco ASA 5510 Series Adaptive Security Appliances	
Cisco ASA 5510 Appliance (Chassis, Software, 50 VPN Peers, Four Fast Ethernet Interfaces, DES)	ASA5510-K8
Cisco ASA 5510 DC Appliance (Chassis, Software, 50 VPN Peers, Four Fast Ethernet Interfaces, DES)	ASA5510-DC-K8
Cisco ASA 5510 Appliance (Chassis, Software, 50 VPN Peers, Four Fast Ethernet Interfaces, 3DES/AES)	ASA5510-BUN-K9
Cisco ASA 5510 Appliance with SSM-AIP-10 (Chassis, Software, 50 VPN Peers, Four Fast Ethernet Interfaces, 3DES/AES)	ASA5510-AIP10-K9
Cisco ASA 5510 Security Plus Appliance (Chassis, Software, 150 VPN Peers, Five Fast Ethernet interfaces, 3DES/AES)	ASA5510-SEC-BUN-K9
Cisco ASA 5510 Platform License	
Cisco ASA 5510 Security Plus License (150 VPN Peers, Active/Standby HA, VLAN)	ASA5510-SEC-PL=
Cisco ASA 5520 Series Adaptive Security Appliances	
Cisco ASA 5520 Appliance (Chassis, Software, 300 VPN Peers, Four Gigabit Ethernet Interfaces, DES)	ASA5520-K8
Cisco ASA 5520 DC Appliance (Chassis, Software, 300 VPN Peers, Four Gigabit Ethernet Interfaces, DES)	ASA5520-DC-K8
Cisco ASA 5520 Appliance (Chassis, Software, 300 VPN Peers, Four Gigabit Ethernet Interfaces, 3DES/AES)	ASA5520-BUN-K9
Cisco ASA 5520 Appliance with SSM-AIP-10 (Chassis, Software, 300 VPN Peers, Four Gigabit Ethernet Interfaces, 3DES/AES)	ASA5520-AIP10-K9
Cisco ASA 5520 Appliance with SSM-AIP-20 (Chassis, Software, 300 VPN Peers, Four Gigabit Ethernet Interfaces, 3DES/AES)	ASA5520-AIP20-K9
Cisco ASA 5520 VPN License	
Cisco ASA 5520 VPN Plus 750 Peer License	ASA5520-VPN-PL=
Cisco ASA 5540 Series Adaptive Security Appliances	
Cisco ASA 5540 Appliance (Chassis, Software, 500 VPN Peers, Four Gigabit Ethernet Interfaces, DES)	ASA5540-K8
Cisco ASA 5540 DC Appliance (Chassis, Software, 500 VPN Peers, Four Gigabit Ethernet Interfaces, DES)	ASA5540-DC-K8
Cisco ASA 5540 Appliance (Chassis, Software, 500 VPN Peers, Four Gigabit Ethernet Interfaces, 3DES/AES)	ASA5540-BUN-K9
Cisco ASA 5540 Appliance with SSM-AIP-20 (Chassis, Software, 500 VPN peers, Four Gigabit Ethernet Interfaces, 3DES/AES)	ASA5540-AIP20-K9
Cisco ASA 5540 VPN Licenses	
Cisco ASA 5540 VPN Plus 2000 IPSec/ 1,250 SSL Peer License	ASA5540-VPN-PL=
Cisco ASA 5540 VPN Premium 5000 IPSec/ 2,500 SSL Peer License	ASA5540-VPN-PR=
Cisco ASA 5530 VPN Plus-to-Premium 5000 IPSec/ 2,500 SSL Peer License Upgrade	ASA5540-VPN-PL-PR=

Product Name	Part Number
Security Services Modules	
Cisco ASA Advanced Inspection and Prevention (AIP) Security Services Module---10	ASA-AIP-SSM-10=
Cisco ASA Advanced Inspection and Prevention (AIP) Security Services Module---20	ASA-AIP-SSM-20=
Cisco ASA 5500 Series Software	
Cisco ASA Software One-Time Upgrade for Nonsupport Customers	ASA-SW-UPGRADE=
CISCO ASA 5500 SERIES FEATURE LICENSES	
Security Context Licenses	
Cisco ASA 5500 5 Security Contexts License	ASA5500-SC-5=
Cisco ASA 5500 10 Security Contexts License	ASA5500-SC-10=
Cisco ASA 5500 20 Security Contexts License	ASA5500-SC-20=
Cisco ASA 5500 50 Security Contexts License	ASA5500-SC-50=
Cisco ASA 5500 5 to 10 Security Context License Upgrade	ASA5500-SC-5-10=
Cisco ASA 5500 10 to 20 Security Context License Upgrade	ASA5500-SC-10-20=
Cisco ASA 5500 20 to 50 Security Context License Upgrade	ASA5500-SC-20-50=
GTP License	
Cisco ASA 5500 GTP/GPRS Inspection License	ASA5500-GTP=
Cisco ASA 5500 Series Accessories	
Cisco ASA 5500 Series Compact Flash, 512 MB	ASA5500-CF-512MB=
Cisco ASA 180 W AC Power Supply	ASA-180W-PWR-AC=
Cisco ASA 180 W DC Power Supply	ASA-180W-PWR-DC=
Cisco ASA 5500 Series SSM Blank Slot Cover	SSM-BLANK=

TO DOWNLOAD THE SOFTWARE

Visit the Cisco Software Center to download Cisco ASA 5500 Series Adaptive Security Appliance Software.

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 the network for new applications to extend network intelligence and the power of your business. For more information about Cisco Services, see Cisco Technical Support Services or Cisco Advanced Services and Cisco Services for IPS, for services specific to IPS features delivered using the AIP SSM.

FOR MORE INFORMATION

For more information, please visit the following links:

Cisco ASA 5500 Series adaptive security appliances: http://www.cisco.com/go/asa

Cisco Adaptive Security Device Manager: http://www.cisco.com/go/asdm

CISCO SYSTEMS