

Cisco ASA 5500 Series Adaptive Security Appliances

Cisco® ASA 5500 Series Adaptive Security Appliances deliver a robust suite of highly integrated, market-leading security services for small and medium-sized businesses (SMBs), enterprises, and service providers—in addition to providing unprecedented services flexibility, modular scalability, feature extensibility, and lower deployment and operations costs.

Cisco ASA 5500 Series Adaptive Security Appliances are purpose-built solutions that integrate world-class firewall, unified communications security, VPN, intrusion prevention (IPS), and content security services in a unified platform. The series builds upon proven technologies from Cisco PIX® 500 Series Security Appliances, Cisco IPS 4200 Series Sensors, and Cisco VPN 3000 Series Concentrators.

Cisco ASA 5500 Series Adaptive Security Appliances are a key component of the Cisco Self-Defending Network. The Cisco ASA 5500 Series provides intelligent threat defense that stops attacks before they penetrate the network perimeter, controls network and application activity, and delivers secure remote access and site-to-site connectivity. The result is a powerful multifunction network security appliance family that provides security breadth, precision, and depth for protecting business networks of all sizes, while reducing the overall deployment and operations costs associated with implementing comprehensive multilayer security.

Figure 1. Cisco ASA 5500 Series Adaptive Security Appliances



The Cisco ASA 5500 Series helps businesses increase effectiveness and efficiency in protecting their networks and applications, while delivering exceptional investment protection through the following elements:

- **Market-proven security capabilities**—The Cisco ASA 5500 Series integrates multiple full-featured, high-performance security services, including application-aware firewall, SSL and IPsec VPN, IPS, antivirus, antispam, antiphishing, and web filtering services. These technologies deliver strong network- and application-layer security, user-based access control, worm mitigation, malware protection, improved employee productivity, instant messaging and peer-to-peer control, and secure remote user and site connectivity.
- **Extensible integrated services architecture**—The Cisco ASA 5500 Series offers businesses strong, adaptive protection from the fast-evolving threat environment through its unique combination of hardware and software extensibility and its powerful Modular Policy Framework (MPF). The innovative extensible multiprocessor design and software architecture of the Cisco ASA 5500 Series enables businesses to easily install additional

high-performance security services through security services modules (SSMs) and security services cards (SSCs). This provides businesses with outstanding investment protection, while enabling them to expand the security services profile of their Cisco ASA 5500 Series, as their security and performance needs grow. All these services are easily managed through the powerful Cisco Modular Policy Framework, which allows businesses to create highly customized security policies while making it simple to add new security and networking services into their existing policies.

- **Reduced deployment and operations costs**—The Cisco ASA 5500 Series enables standardization on a single platform to reduce the overall operational cost of security. A common environment for configuration simplifies management and reduces training costs for staff, while the common hardware platform of the series reduces sparing costs. Additional efficiencies are realized by deploying integrated capabilities, obviating the need for the complex designs required to connect standalone solutions.
- **Comprehensive management interfaces**—The graphical Cisco Adaptive Security Device Manager (ASDM), a comprehensive command line interface (CLI), verbose syslog, and Simple Network Management Protocol (SNMP) support round out a rich complement of management options. Multi-unit deployments benefit greatly from Cisco Security Manager, a platform capable of managing distributed deployments of 5 to 5000 devices. The award-winning Cisco Security Monitoring, Analysis, and Response System (Cisco Security MARS) recognizes and correlates real network attacks and then rapidly defines how to stop them, thereby decreasing administrative overhead by reducing false positives and simplifying audit compliance.

The Cisco ASA 5500 Series

The Cisco ASA 5500 Series includes the Cisco ASA 5505, 5510, 5520, 5540, 5550, and 5580 Adaptive Security Appliances—purpose-built, high-performance security solutions that take advantage of Cisco's expertise in developing industry-leading, award-winning security and VPN solutions. Through the Cisco MPF, the Cisco ASA 5500 Series brings a new level of security and policy control to applications and networks. MPF enables highly customizable, flow-specific security policies that have been tailored to application requirements. The performance and extensibility of the Cisco ASA 5500 Series are enhanced through user-installable SSMs. This adaptable architecture enables businesses to rapidly deploy security services when and where they are needed, such as tailoring inspection techniques to specific application and user needs or adding additional intrusion prevention and content security services such as those delivered by the Adaptive Inspection and Prevention (AIP) and Content Security and Control (CSC) SSMs. Furthermore, the modular hardware architecture of the Cisco ASA 5500 Series, along with the powerful MPF, provides the flexibility to meet future network and security requirements, extending the outstanding investment protection provided by the Cisco ASA 5500 Series, and allowing businesses to adapt their network defenses to new threats as they arise.

All Cisco ASA 5500 Series appliances include maximum IPsec VPN users on the base system; SSL VPN is licensed and purchased separately. By converging SSL and IPsec VPN services with comprehensive threat defense technologies, the Cisco ASA 5500 Series provides highly customizable, granular network access tailored to meet the requirements of diverse deployment environments, while providing advanced endpoint and network-level security.

Cisco ASA 5505 Adaptive Security Appliance

The Cisco ASA 5505 Adaptive Security Appliance is a next-generation, full-featured security appliance for small business, branch office, and enterprise teleworker environments. The Cisco ASA 5505 delivers high-performance firewall, SSL and IPsec VPN, and rich networking services in a modular, "plug-and-play" appliance. Using the integrated Cisco ASDM, the Cisco ASA 5505 can be rapidly deployed and easily managed, enabling businesses to minimize operations costs. The Cisco ASA 5505 features a flexible 8-port 10/100 Fast Ethernet switch, whose ports can be dynamically grouped to create up to three separate VLANs for home, business, and Internet traffic for improved network segmentation and security. The Cisco ASA 5505 provides two Power over Ethernet (PoE) ports, enabling simplified deployment of Cisco IP phones with zero-touch secure voice over IP (VoIP) capabilities, and deployment of external wireless access points for extended network mobility. High-performance intrusion prevention and worm mitigation service is available with the addition of AIP SSC. Multiple USB ports can be used to enable additional services and capabilities in the future.

As business needs grow, customers can install a Security Plus upgrade license, enabling the Cisco ASA 5505 to scale to support a higher connection capacity and up to 25 IPsec VPN users, add full DMZ support, and integrate into switched network environments through VLAN trunking support. Furthermore, this upgrade license maximizes business continuity by enabling support for redundant ISP connections and stateless Active/Standby high-availability services.

Businesses can also extend the Cisco ASA 5505's VPN service by enabling SSL VPN remote access to support various mobile workers and business partners. Cisco Secure Remote-Access Solution deployments can scale up to 25 SSL VPN concurrent users on each Cisco ASA 5505 by installing an SSL VPN upgrade license.

This combination of market-leading security and VPN services, advanced networking features, flexible remote management capabilities, and future extensibility makes the Cisco ASA 5505 an excellent choice for businesses requiring a best-in-class small business, branch office, or enterprise teleworker security solution.

Table 1 lists features of the Cisco ASA 5505.

Table 1. Cisco ASA 5505 Adaptive Security Appliance Platform Capabilities and Capacities

Feature	Description
Firewall Throughput	Up to 150 Mbps
Maximum Firewall and IPS Throughput	Up to 75 Mbps with AIP SSC-5
VPN Throughput	Up to 100 Mbps
Concurrent Sessions	10,000/25,000**
IPsec VPN Peers	10; 25**
SSL VPN Peer License Levels*	2, 10, or 25
Interfaces	8-port Fast Ethernet switch with dynamic port grouping (including 2 PoE ports)
Virtual Interfaces (VLANs)	3 (no trunking support) / 20 (with trunking support)**
High Availability	Not supported; stateless Active/Standby and redundant ISP support**

* Separately licensed feature; includes two with the base system

** Upgrade available with Cisco ASA 5505 Security Plus license

Note: Performance numbers tested and validated with the ASA 7.2 Software Release

Cisco Security Intellishield Alert Manager Service provides a customizable, web-based threat and vulnerability alert service that allows organizations to easily access timely, accurate, and credible information about potential vulnerabilities in their environment.

Cisco Services for IPS supports modules, platforms, and bundles of platforms and modules that feature IPS capabilities. Cisco SMARTnet and Service Provider Base support other products in this family.

For More Information

For more information, please visit the following links:

- Cisco ASA 5500 Series Adaptive Security Appliance: <http://www.cisco.com/go/asa>
- Cisco Adaptive Security Device Manager: <http://www.cisco.com/go/asdm>
- Cisco Security Services:
http://www.cisco.com/en/US/products/svcs/ps2961/ps2952/serv_group_home.html
- Cisco ASA 5500 Series Adaptive Security Appliance Licensing Information:
http://www.cisco.com/en/US/products/ps6120/products_licensing_information_listing.html



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