

# Cisco Security Manager

Cisco<sup>®</sup> Security Manager is an integrated end-to-end solution that helps administrators enforce consistent access policies, rapidly troubleshoot security events, and view summarized reports across the deployment.

#### **Product Overview**

Businesses are facing ever greater challenges in their security operations. The growing number and complexity of technologies, combined with the reduction of IT professionals once dedicated to security management, has dramatically increased the potential for human error, which can lead to exposures and breaches.

Cisco Security Manager counteracts these challenges. It provides scalable, centralized management for a wide range of devices. Administrators gain visibility across the network and can share highly secure information with other essential network services, such as compliance systems and advanced analysis systems. Designed for operational efficiency, Security Manager also includes a powerful suite of automated capabilities, such as health and performance monitoring, software image management, automatic conflict detection, and integration with ticketing systems.

Security Manager supports a wide range of Cisco security devices, including the Cisco ASA 5500 Series and ASA 5500-X Series appliances; and the Cisco AnyConnect® Secure Mobility Client.

From Cisco Security Manager 4.17 onwards, it does not support

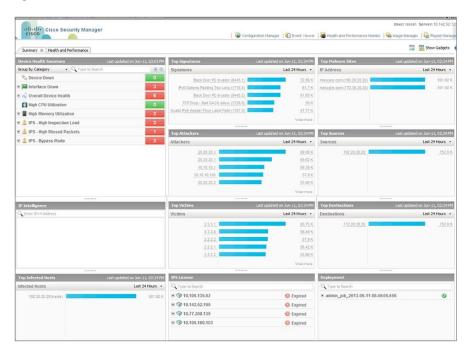
- Cisco Catalyst 6500 and 7600 Series Firewall Services Modules (EOL8184)
- Cisco Catalyst 6500 Series Intrusion Detection System Services Module 2 (<u>EOL8843</u>)
- Cisco Intrusion Prevention System: IPS 4200, 4300, and 4500 Series Sensors (EOL9916)
- Cisco SR 500 Series Secure Routers (EOL7687, EOL7657)

Several features in Security Manager make for simplified and efficient management. The following sections describe these features.

#### Dashboard

The manager's dashboard (Figure 1) is a widget-based home screen that gives a bird's-eye view of the health, functioning, and other major performance indicators of a network security setup. Several widgets, such as the Device Health Summary, Top Attackers, Top Victims, and Top Signatures, provide an excellent summary of priority security aspects. These widgets act as a starting point for any security readiness analysis. For example, in the Signatures widget, you can click the number of times a specific signature has been hit. Security Manager then takes you to the Event Viewer, where events corresponding to that signature can be analyzed. Similarly, you can click an IP address in the Top Attackers widget and look at value-added information related to that IP address. So, in summary, the dashboard screen is the starting point for security administrators. These dashboards can be personalized to suit each administrator's needs.

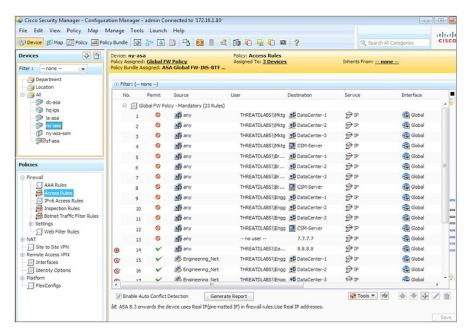
Figure 1. Dashboard



## Integrated Policy and Object Management

Security Manager helps enable the reuse of security rules and objects. It also enhances your ability to monitor threats throughout the deployment, reducing the potential for errors and improving efficiency. You can implement security deployments on either an on-demand or a scheduled basis and can roll back to a previous configuration if required. Role-based access control and deployment workflows help ensure that compliance processes are followed (Figure 2).

Figure 2. Security Policy Management



## **Event Management and Troubleshooting**

Integrated event management helps enable the viewing of real-time and historical events for rapid incident analysis and troubleshooting. You can quickly navigate from events to source policies. In addition, you can identify and isolate interesting events by using the advanced filtering and search capabilities. Cross-linkages between the Event Manager and Configuration Manager shorten the troubleshooting time for firewall rules (Figure 3).

Cisco Security Manager - Event Viewer - admin Connected to '172.16.1.10' □ □ 3 All Device Events

All Device Events

Frewall Traffic Events

AAA Events

NAT Events 🄞 last 12 hour ▼ All Events (Default) ▼ 📓 Save ▼ 👂 Start 🗏 Stop 📋 Clear 3,589 Receive Ti... Seventy \* Differen... 67/1/12 372. \* Informa... 67/1/12 Teardown TCP ( ny-ass tcp/51178 Teardown TCP Ony-asa tcp/51175 302013 # Bult TCP Built TCP
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Figure 3. Event Management and Troubleshooting

The Event Manager provides:

- Support for syslog messages created by Cisco ASA appliances, and Cisco Catalyst<sup>®</sup> 6500 Series ASA Services Module
- · Real-time and historical event viewing
- · Cross-linkages to firewall access rules for quick navigation to the source policies
- · A pre-bundled set of views for firewall, and VPN
- · Customizable views for monitoring select devices or a select time range
- · Intuitive GUI controls for searching, sorting, and filtering events
- · Administrative options to turn event collection on or off for select security devices
- Tools such as ping, traceroute, and packet tracer for further troubleshooting capabilities

### Reporting

Security Manager generates detailed system reports of events and other essential information gathered throughout the security deployment (Figure 4). Table 1 lists the available system reports. In addition, you can predefine and save reports to meet specific reporting needs. Whether system generated or predefined, all reports can be exported and scheduled for email delivery as PDF or CSV files. You can also find more detail from a specific chart if you want to view additional information for further analysis.

Figure 4. Report Manager

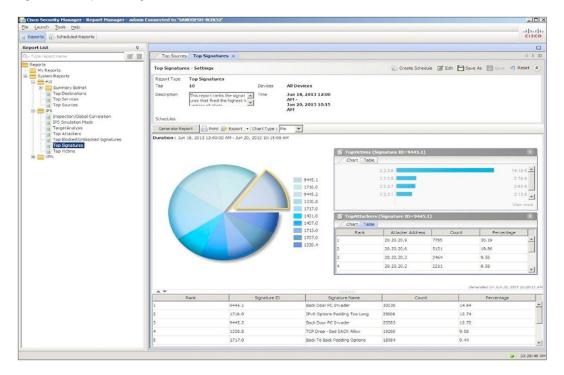


Table 1. System Reports

Firewall	VPN
Top Infected Hosts	Top Bandwidth Users (SSL/IPsec)
Top Malware Ports	Top Duration Users (SSL/IPsec)
Top Malware Sites	Top Throughput Users (SSL/IPsec)
Top Destinations	User Report
Top Services	VPN Device Usage Report
Top Sources	

## Health and Performance Monitoring

The integrated Health and Performance Monitor can help you increase your productivity. It continuously analyzes the security environment and sends alerts when preset thresholds are reached. Customizable alert notifications can be set for such events as critical firewall failover, or excessive CPU or memory use.

With the monitor's simple color-coded interface, you can immediately identify any devices that are in critical condition. You can view commonly monitored attributes (CPU or memory use, for example) to rapidly ascertain the general health and performance of all devices across the security deployment. Detailed charts give additional insights regarding the health, traffic, and performance metrics of each device, as desired. Figure 5 shows the primary monitoring interface.

🔤 Monitoring | 🥼 Alerts | 🧓 🧓 🔑 👫 🦊 🕐 nority Devices W All Devices × Summary - 6 \$ 10.77.208.171 Wed Jun 12 15:01:00 IST 2013 3 Critical **3** 10.106.161.50 Wed Jun 12 15:01:00 IST 2013 Normal Connected Not Applicable 8.4(4) @ \$\infty 10.106.161.200 Wed Jun 12 15:01:00 IST 2013 3 Critical @ 10.106.135.62 Wed Jun 12 15:01:00 IST 2013 @ Critical 94%7.0(1)E4 @ 10.142.52.199 Wed Jun 12 15:01:00 IST 2013 @ Critical Connected 94%7.0(1)E4 Wed Jun 12 15:01:00 IST 2013 (3) Critical 4 Name: 10.77.208.171 Connected & IP Address: 10.77.208.171 Firewall Mode: ROUTER Failover Status: Not Configured Peer Status: --NA-Model: Cisco ASA-5520 Adaptive Security Applie e Version: 8.4(2) Context Mode: SINGLE Host Role: Summary Alerts The Device Information 2 T Device Report Card \* Interface Status \* 0% inside 2.1.1.1 14:07 14:11 14:31 14:51 10.77.208.171 mgmt 57% 14:51 14:07 14:11 14:31

Figure 5. Health and Performance Monitor

These health and monitoring features are available for the new Cisco ASA clustering features as well.

## Software Image Upgrades

Firewall software images can be upgraded using an intuitive wizard. The wizard leads you through the steps required to download the images, create the image bundle, and verify that the image is appropriate for each device. The tool then performs the backup, takes the devices down, and performs the update. The updates can be performed on each firewall individually or run in groups for more speed and efficiency. The process is automated so it can be run overnight or during noncritical times to reduce disruption to the operating environment. Figure 6 shows the primary image-management interface of the solution.

🔊 🗓 🖫 🔞 🦻 Install In Release Notes Last updated at : Sun Jan 29 13:28:24 PST 2012 ▼ Size ▼ Description Image ▼ Version ▼ Location asa701-k8.bin ASA System Software 7.0.1.ED Cisco.com Cisco Adaptive Sec 4 asa702-k8.bin ASA System Software 7.0.2.ED Cisco.com 4.8 MB Cisco Adaptive Sec Bundles ASA 8.3 Golden Image - Lat 4 Cisco.com asa704-k8.bin ASA System Software 7.0.4.ED 5.1 MB Cisco Adaptive Sec Devices 4 asa705-k8.bin 7.0.5.ED Cisco.com 5.2 MB ASA System Software Cisco Adaptive Sec Device Groups 1 asa706-k8.bin ASA System Software 7.0.6.ED Cisco.com 5.2 MB Cisco Adaptive Sec Department 4 asa707-k8.bin ASA System Software 7.0.7.ED Cisco.com 5.2 MB Cisco Adaptive Sec Location 4 asa708-12-k8.bin ASA System Software 7.0.8 Interim 🗞 Cisco.com 5.2 MB Cisco Adaptive Sec 4 7.0.8 Interim Cisco.com 5.2 MB Sof-asa asa708-13-k8.bin ASA System Software Cisco Adaptive Sec 3 5.2 MB 1 Cisco.com Install Jobs asa708-k8,bin ASA System Software 7.0.8.GD 5.2 MB Cisco Adaptive Ser 4 asa711-k8.bin ASA System Software Cisco.com 6.4 MB Cisco Adaptive Se 7.1.1.ED 4 asa712-k8.bin ASA System Software 7.1.2.ED Cisco.com 6.4 MB Cisco Adaptive Se

Figure 6. Software Image Upgrade Wizard

## API-Based Access to the Security Manager

With highly secure API-based access, Security Manager can share information with other essential network services, such as compliance and advanced security analysis systems, to streamline the security operations and compliance adherence. Using representational state transfer, external firewall compliance systems can directly request access to data from any security device that the Security Manager manages. These third-party client programs can also add, delete, or modify firewall-access policies and policy objects in the Security Manager through APIs. The APIs integrate transparently with the solution's workflow, so administrators can enforce strict controls when the APIs automate the policy configuration.

#### Additional Features and Benefits

Table 2 summarizes the additional features and benefits of Security Manager.

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Feature	Benefit
Firewall Configuration	
Manages the Cisco security deployment	Facilitates the centralized management of the Cisco security environment, including:  • ASA 5500 Series and 5500-X Series appliances  • ASA on Firepower 2100, 4100 and 9300 Series appliances  • ASAv on VMware and KVM  • AnyConnect® Secure Mobility Client  • Cisco Catalyst 6500 Series ASA Services Modules  • Integrated Services Router (ISR) platforms running a Cisco IOS® Software security image
Zone-based policies	Sets zone-based firewall policies on supported device platforms if desired.
Botnet Traffic Filter	Supports the Cisco Botnet Traffic Filter on the ASA platform, for application-layer inspection and blockage of "phone-home" activity by botnets.
Integration with Cisco TrustSec security group tags	Provides integration with Cisco TrustSec security group tags, so that Security Manager users can configure detailed and highly relevant policies across deployments.
ASA clustering	Offers advanced failover capabilities to support multiple ASA appliances and load-sharing mechanisms to reduce downtime and improve availability.
Content filtering	Supports content filtering on Cisco IOS Software—based device platforms to filter traffic based on deep content inspection.  Supports the management of multiple device platforms using a single rule table.
Efficient policy definition	Increases the efficiency with which administrators can define policies by clearly displaying which rules match a specific source, destination, and service flow, including wildcards.
Syslog forwarding	Supports forwarding logs generated by ASA firewalls to two remote collectors in addition to the in-built Event Viewer.
Simplified setup	Streamlines configuration and simplifies the initial security management setup by making it possible for device information to be imported from a device repository or configuration file, added in the software, or discovered from the device itself.
Streamlined operations	Significantly reduces manual tasks while reducing errors and optimizing the security environment, through:  Rule-conflict detection, hit-count analysis, rule combiner, and other powerful tools to analyze and optimize rule sets.  Role-based access control and workflow to help ensure error-free deployments and process compliance.
Interface roles	Can apply rule policies to groups of interfaces and centrally manages them to increase flexibility and scalability.
VPN Configuration	
VPN wizard	Provides easy configuration of site-to-site, hub-and-spoke, full-mesh, and extranet VPNs.
Support for common VPN deployment scenarios	Supports common VPN deployment scenarios with support for Group Encrypted Transport VPN (GET VPN), Dynamic Multipoint VPN (DMVPN), and generic routing encapsulation (GRE) IP Security (IPsec), both with dynamic IP and hierarchical certificates.
Multiple context configurations	Supports policy segmentation and flexibility with security configurations between branch offices spanning multiple locations.

Feature	Benefit	
Remote configuration	Centralizes the management of VPNs.	
Efficiency and Usability Features		
Ticketing integration	Can tag changes made in multiple ticketing systems with a single ticket identifier, making them easily queried for audit.	
Global search	Can find all devices, policies, and policy objects in the configuration database that use a particular IP address or service.	
Find usage	Helps administrators quickly find usage information about objects by pointing to the exact rules that use a particular policy object, in addition to providing details about all the policies that use the object.	
Automatic conflict detection	Provides a clear picture about rule conflicts to simplify rule optimization and troubleshooting.	
IPv4 and IPv6 cross- compatibility	Supports the configuration of unified IPv4 and IPv6 policies and rules to help speed deployments and improve compatibility between policy configurations.	

Feature	Benefit
Integrated event management	Helps enable administrators to monitor status and to troubleshoot security information, by providing:  Receipts of syslog messages from Cisco ASA appliances  Real-time and historical event views  Cross-linkages to firewall access rules for quick navigation to the source policies  Prebundled sets of views for firewall, and VPN monitoring  Customizable views for monitoring select devices or a select time range  Intuitive GUI controls for searching, sorting, and filtering events  Administrative options to turn event collection on or off for select security devices  Launch of the Cisco Prime™ Security Manager when an ASA CX deployment is detected in the environment; this provides a way to manage CX through the Security Manager
Report Manager	Supports system reports and the creation of predefined reports, all of which can be:  • Viewed as charts and grids  • Exported as PDF or Excel files  • Scheduled for delivery by email  • Scanned for more detail
Bulk operations	Reduces administrative overhead in networks that have a large number of devices. The feature includes:  Bulk import and export of policy objects  Bulk addition for offline devices  Bulk import of device-level overrides  Bulk automatic software image updates for all Cisco ASA appliances deployed throughout the network, providing a flexible, consistent, and faster way of deploying updates at scale
Device grouping	Allows administrators to create and define device groups based on business function or location, and then manage all devices in a group as a single device.
Policy Object Manager	Defines objects such as network addresses, services, device settings, time ranges, or VPN parameters once and then uses them any number of times to avoid manual entry of values.
Other Capabilities	
Third-party device support	Supports "unmanaged" endpoints and third-party devices.
Security services management	Manages integrated security services, including quality of service (QoS) for VPN, routing, and Cisco Network Admission Control.
Multiple application views	Provides multiple views into the application to support different use cases and experience levels.
Flexible deployment options	Can implement security deployments on either an on-demand or a scheduled basis.
Rollback	Can roll back deployments to a previous configuration if required.
Role-based access control	Defines and enforces up to five administrator roles; additional roles are available with the optional Cisco Secure Access Control Server.
Workflow	Can assign specific tasks to each administrator during the deployment of a policy, with formal change control and tracking.
Distributed deployment	Includes the Auto Update Server and the Cisco Network Services Configuration Engine to simplify updates to large numbers of remote firewalls, which may have dynamic addresses or NAT addresses.
Integration with Cisco Cloud Web Security	Allows users to define rules on firewalls by means of the Security Manager and gives an option to forward web traffic to Cloud Web Security.
Health and performance monitoring	Continuously analyzes normal and clustered security environments and sends alerts when preset thresholds are reached.
IP intelligence	Has embedded IP intelligence in several features. Users can look at value-added information such as FQDN and location information for an IP address from several widgets (for example, Top Attackers) in the home screen, in the Report Manager while analyzing a specific chart, and in the Health and Performance Monitor. IP Intelligence also exists as a separate widget in itself that can be added to a dashboard.

# **Technical Specifications**

Detailed hardware specifications and sizing guidelines for Security Manager are available at: <a href="http://www.cisco.com/go/csmanager">http://www.cisco.com/go/csmanager</a>.

# **Device Support**

Table 3 summarizes the device product families supported by Security Manager. For a detailed list, including supported device software versions, see "Supported Devices and OS Versions for Cisco Security Manager" at: http://www.cisco.com/en/US/products/ps6498/products\_device\_support\_tables\_list.html.

 Table 3.
 Overview of Supported Cisco Devices

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Supported Devices
Cisco Firepower 2100, 4100 and 9300 series platforms for ASA management
ASA 5500 Series and ASA 5500-X Series appliances
Integrated Services Routers (including the 800, 1800, 2800, and 3800 Series)
Integrated Services Routers G2 (including the 1900, 2900, and 3900 Series)
ASR 1000 Series Aggregation Services Routers
7600 Series Routers
7100 Series Routers
3200 Series Routers
7600 Series and Cisco Catalyst 6500 Series IPsec VPN shared port adapters (VPN SPAs)
AIP-SSM for ASA 5500 Series
AIP-SSC for ASA 5500 Series
Cisco 3000 Series Industrial Security Appliances
Cisco Catalyst 4500 Series Switches; and Cisco Catalyst 4948 and 4948 10 Gigabit Ethernet Switches

## **Ordering Information**

For ordering details, please refer to the Licensing chapter of the Installation Guide for Cisco Security Manager.

#### Cisco Services

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 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 <a href="https://www.cisco.com/go/services/security">https://www.cisco.com/go/services/security</a>.

Security Manager software is eligible for technical support service coverage under the Cisco Software Application Support service agreement, which features:

- Unlimited access to the Cisco Technical Assistance Center for award-winning support. Technical assistance is provided by Cisco software application experts trained in Cisco security software applications. Support is available 24 hours a day, 7 days a week, 365 days a year, worldwide.
- Registered access to Cisco.com, a robust repository of application tools and technical documents to assist
  in diagnosing network security problems, understanding new technologies, and staying current with
  innovative software enhancements. Utilities, white papers, application design data sheets, configuration
  documents, and case management tools help expand your in-house technical capabilities.
- Access to application software bug fixes and maintenance, and minor software releases.

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