Juniper Sky Advanced Threat Prevention

Product Overview

Sky Advanced Threat Prevention is a cloud-based service that provides complete advanced malware protection. Integrated with SRX Series Services Gateways, Sky Advanced Threat Prevention delivers a dynamic anti-malware solution that can adapt to an ever-changing threat landscape.

Product Description

As malware evolves and becomes more sophisticated, it grows more difficult for conventional anti-malware products to effectively defend against these types of attacks. Juniper Networks® Sky Advanced Threat Prevention delivers advanced anti-malware protection against sophisticated "zero-day" and unknown threats by monitoring ingress and egress network traffic looking for malware and other indicators of compromise. Using a pipeline of technologies in the cloud, Sky Advanced Threat Prevention delivers progressive verdicts that assess the risk level of each potential attack, providing a higher degree of accuracy in threat prevention. Hosted securely in the cloud, Sky Advanced Threat Prevention integrates with Juniper Networks SRX Series Services Gateways to deliver deep inspection, inline malware blocking, and actionable reporting.

Sky Advanced Threat Prevention's identification technology uses a range of techniques to quickly identify a threat and prevent an impending attack. These range from rapid cache lookups to identify known files to dynamic analysis using unique deception techniques applied in a sandbox environment to trick malware into activating and self-identifying. Patented machine learning algorithms allow Sky Advanced Threat Prevention to adapt and identify new malware in the ever-changing threat landscape.

Using evolving techniques that take into account multiple attributes and behaviors of large datasets, Sky Advanced Threat Prevention can also identify zero-day attacks and eliminate threats before an attacker infiltrates the network. Once identified, the malware's signature is recorded in the lookup cache and widely propagated to stop similar attacks in the future.

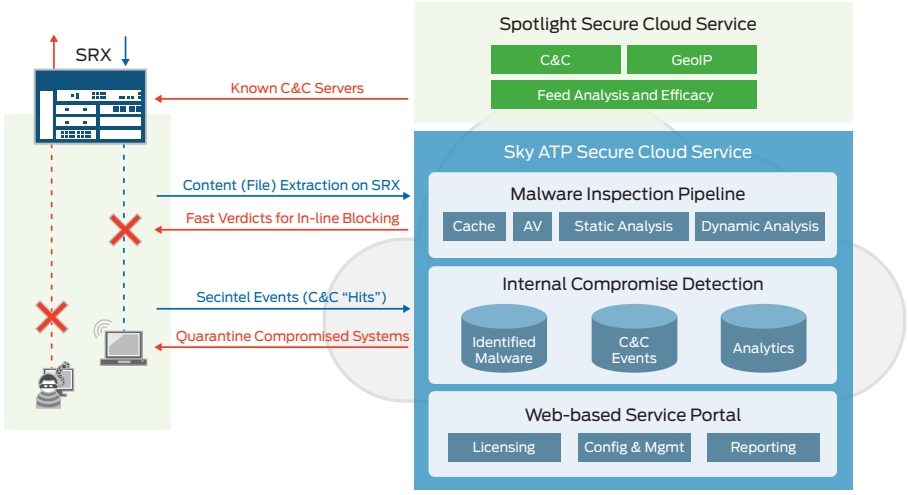

Figure 1: Juniper's Sky Advanced Threat Prevention solution.

Your ideas. Connected.™

Architecture and Key Components

Sky Advanced Threat Prevention leverages Juniper's next-generation SRX Series firewall platforms and a cloud-based service component for all management, configuration, and reporting.

Sky Advanced Threat Prevention's progressive pipeline analysis engine starts with a cache lookup against a database of known threats. This is accomplished in near real time and facilitates inline blocking of malicious content. Suspicious files are subjected to a series of deeper inspection steps that attempt to positively identify malware. Static analysis combined with processing through multiple antivirus engines attempts to identify the threat; if a file is identified as malware through analysis, its signature is added to the cache to ensure immediate identification of recurring threats in the future.

Finally, dynamic analysis is applied in a sandbox environment, where the threat is "detonated" and observed. Unique deception techniques are employed to elicit malware response and self-identification. Threats that slip by during the more extensive analysis stage are identified, logged, reported, and can be easily mitigated by security operations staff. Infected hosts are automatically isolated and blocked from outbound network access by delivering an "infected host" feed to the SRX Series device.

Sky Advanced Threat Prevention utilizes public cloud infrastructure to deliver a flexible and scalable solution. All communications between the SRX Series device and the cloud are secure, conducted over encrypted connections on both sides. Files uploaded to the cloud for processing are destroyed afterward to ensure privacy.

Features and Benefits

Integrating with next-generation SRX Series firewalls for detection and enforcement allows Sky Advanced Threat Prevention to provide dynamic, automated protection against known malware and advanced zero-day threats, resulting in nearly instantaneous threat responses.

Features and capabilities include:

- Deep analysis and sandboxing support for multiple file types including EXEs, PDFs, MS Office files, and the Windows 7 operating system
- Limited analysis of other file types including archives, java, active media, dlls, mobile applications, audio/video, and source code
- Support for HTTP and HTTPS protocols
- Fast verdict capability that enables the SRX Series firewall to block malicious traffic in inline blocking mode
- Scalable secure cloud infrastructure that, when a threat is discovered, shares updates globally among customers in near real time to block additional attacks
- Patented pipeline of technologies to analyze sophisticated malware, "detonate" files in a controlled sandboxing environment, and identify zero day threats
- Rich set of curated threat feeds, provided by the Spotlight Secure threat intelligence platform, to proactively block outbound command and control (C&C) communication
- Full-featured, web-based portal to provision, monitor, and manage services, as well as a rich set of reports and analytics to provide customers with deep visibility into threats and potentially compromised hosts
- Deep analytics that identify compromised systems; this information is propagated to SRX Series firewalls via infected host feeds to quarantine compromised systems

Product Options

Sky Advanced Threat Prevention is available in both free and premium versions; Table 1 below shows the key differences between the two. Both versions support inline blocking and provide the full Sky Advanced Threat Prevention anti-malware identification stack with detailed reporting.

Table 1: Sky Advanced Threat Prevention versions

	Free	Premium
Licensing	Available to all SRX Series customers with a valid software support contract; no additional license purchase required.	Requires purchase of a subscription license
File types	EXE	Full analysis: EXE, PDF, MS Office Limited analysis: Archives, java, active media, dlls, mobile applications, audio/video, source code
Feeds	Infected host	Infected host, C&C, GeoIP
Files / day / device	2500	10,000

SRX Series Platform Support

Sky Advanced Threat Prevention requires an SRX Series firewall running version 15.1X49-D33 of the Juniper Networks Junos® operating system. Only the Juniper Networks SRX1500 Services Gateway platform is currently supported.

The Junos software is available for download on the Sky Advanced Threat Prevention portal (details included in the administrator's guide). Please contact your Juniper sales representative for additional information.

Ordering Information

Model Number	Description
SRX1500-ATP-1	One Year Subscription for Sky Advanced Threat Prevention on SRX1500
SRX1500-ATP-3	Three Year Subscription for Sky Advanced Threat Prevention on SRX1500

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

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