

JUNIPER SESSION SMART NETWORKING ADVANCED SECURITY PACK DATASHEET

Product overview

The Juniper Session Smart Router's Advanced Security Pack integrates security functionality into the routing fabric. The unique, state-of-the-art security offering provides:

URL filtering to prevent access to and from specific sites and meet special business requirements

An **intrusion detection and prevention system (IDS/IPS)** to protect against advanced malicious attacks.

An extensive **intrusion detection and prevention** (IDP) signature database for state-of-the-art protection against the most up-to-date vulnerabilities.

Product description

Juniper® AI-native [SD-WAN](#) has built-in capabilities that provide sophisticated security services from every router in the network. The solution uses the [Session Smart™ Router \(SSR\)](#) and includes deny-by-default access based on application policies that ensure Zero Trust access control to the networking fabric.

Built on Juniper's patented [Secure Vector Routing \(SVR\)](#) technology, this guaranteed secure coupling of users and their applications is unique in the industry. The tunnel-free protocol enables a 30% to 50% reduction in bandwidth costs, and includes an adaptive encryption feature, ensuring that the user experience is not sacrificed due to needless double encryption and overhead.

Juniper Session Smart Router's [Advanced Security Pack](#) (Figure 1) integrates further security functionality into the routing fabric. Those security features include:

- **URL filtering:** Prevents access to and from specific sites and to meet special business requirements
- **An intrusion detection and prevention system (IDS/IPS):** Protects against advanced malicious attacks
- **Antivirus:** Provides file-based antivirus protection on a per-application basis for traffic such as HTTP, FTP, and email



Figure 1: Foundational SSR security and the Advanced Security Pack

These features eliminate the need for additional security appliances at the branch, providing this enhanced functionality within the [Juniper Mist™](#) ecosystem of [wired](#), [wireless](#), and SD-WAN. If more cloud-integrated security is needed, customers have the option of adding the [Juniper Secure Edge](#) to the environment.

Features and benefits

The IDS/IPS, URL filtering, and antivirus functionality in the Advanced Security Pack is made possible with the following features:

- Policy establishment maps the policies for networks and their users to applications and destinations. This ensures that applications can only be accessed by permitted users
- Event filtering and capturing provides information on attacks and their threat levels. Operators are continually aware of current security attacks and threats
- Signature database mapping provides further information on vulnerabilities, along with how to apply appropriate protections

Wherever you are in your security journey with AI-native SD-WAN, Session Smart Networking functions will add the needed features for your evolving needs.

Establishing policies

With the Advanced Security Pack, policies are established for all network users and outside resources, such as applications, services, and websites (Figure 2).

NAME	NETWORK / USER (MATCHING ANY)	ACTION	APPLICATION / DESTINATION (MATCHING ANY)	IDP
AcceptableUse	Corp	✗	AppCategories	Strict
CorporateAccess	Corp	✓	DataCenter	None
Malware	Corp	✗	Malware	Strict
POS-EdgeCompute-POS-Server	POS	✓	EdgeCompute-POS-Server	None
POS-EdgeCompute	POS	✓	EdgeCompute	None
SocialMediaCorp	Corp	✗	SocialMedia	Strict

Figure 2: Policy to restrict social media access for corporate employees

Filtering and capturing events

The Advanced Security Pack filters and captures relevant events (Figure 3).

Time	Device Name	Site	Source Address	Source Port	Source Interface	Destination Address	Destination Port	Destination Interface	Attack Name	Threat Severity	Action
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	58266	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	58266	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	58264	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	58264	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	58250	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	58250	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 11:58:10 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	37444	ge-0-1	35.182.119.134	7070	ge-0-2	TRIGONBACKORFICEBOX-CONNECT	Major	close
3/17/2023, 11:56:39 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	50232	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 11:56:39 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	47252	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	47224	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	50216	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	47224	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	50216	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	38654	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	38648	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	38654	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	38648	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	38636	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	38636	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 10:58:14 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	42084	ge-0-1	35.182.119.134	7070	ge-0-2	TRIGONBACKORFICEBOX-CONNECT	Major	close
3/17/2023, 10:56:48 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	50592	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 10:56:48 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	60950	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close
3/17/2023, 10:56:38 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	37028	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Major	close
3/17/2023, 10:56:38 AM	lab1-dallas	Dallas-FullStack	10.96.147.100	37028	ge-0-1	35.182.119.134	554	ge-0-2	HTTP_INVALID_METHOD_HTTP-VER	Minor	close

Figure 3: Captured events from IDP and URL filtering

Matching against a signature database

These events may be matched against a signature database that contains definitions of attack objects and application signatures defined in the form of an IDP policy rule set (Figure 4). This rule set is updated regularly by automatically downloading the latest definitions and application signatures.

The screenshot shows the Juniper Networks website with the 'Signature Detail' page for 'TROJAN: Back Orifice 2000 Client Connection'. The page includes a navigation bar with links like 'Why Juniper?', 'Products & Solutions', 'Support', and 'Training'. The main content area is divided into sections: 'Extended Description', 'Affected Products', and 'References'. The 'Extended Description' explains that the signature detects connections between a Back Orifice 2000 (BO2K) client and server. The 'Affected Products' section lists 'Qssl voyager'. The 'References' section includes BugTraq: 1648, CVE: CVE-1999-0660, and a URL. On the right side, there is a table with details about the signature.

Short Name	TROJAN:BACKORIFICE:BO2K-CONNECT
Severity	Major
Recommended	False
Recommended Action	Drop
False Positive	Unknown
Category	TROJAN
Standard Ports	TCP/6000-10000,31337
Keywords	2000 Back CVE-1999-0660 Client Connection Orifice bid:1648
Release Date	10/16/2003
Signature Version	3336
Supported Platforms	mx-12.3 mx-19.3 mx-19.4 srx-12.3 srx-19.3 srx-19.4 srx-branch-12.3 srx-branch-19.3 srx-branch-19.4 vmx-19.3 vmx-19.4 vsrx-12.3 vsrx-19.2 vsrx-19.4 vsrx3bsd-19.2 vsrx3bsd-19.4

Figure 4: IPS signature for a detected vulnerability

The SSR provides cutting-edge security solutions for your network. When vulnerabilities are discovered, you can either have your router alerted to the vulnerability or block the traffic. This protects your network without the need to purchase specialized appliances that add complexity.

Meeting you where you are

Juniper Networks wants to meet you where you are when it comes to your network security. Install the Advanced Security Pack as a standalone device or alongside a Juniper [SRX Series Firewall](#) at your branch or data center.

The Advanced Security Pack can also be used to help you with your [SASE Journey](#), giving you protection in the branch or data center before easily offloading that traffic to an SSE such as [Juniper Secure Edge](#).

Ordering information

To order the Advanced Security Pack and access software licensing information, please visit the How to Buy page at <https://www.juniper.net/us/en/how-to-buy/form.html>.

About Juniper Networks

Juniper Networks is leading the convergence of AI and networking. Juniper's [Mist™ AI-native networking platform](#) is purpose-built to run AI workloads and simplify IT operations assuring exceptional secure user and application experiences—from the edge, to the data center, to the cloud. Additional information can be found at www.juniper.net, [X](#), [LinkedIn](#), and [Facebook](#).

Corporate and Sales Headquarters

Juniper Networks, Inc.
1133 Innovation Way
Sunnyvale, CA 94089 USA

Phone: 888.JUNIPER (888.586.4737)

or +1.408.745.2000

www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.
Boeing Avenue 240 1119 PZ Schiphol-Rijk
Amsterdam, The Netherlands

Phone: +31.207.125.700

