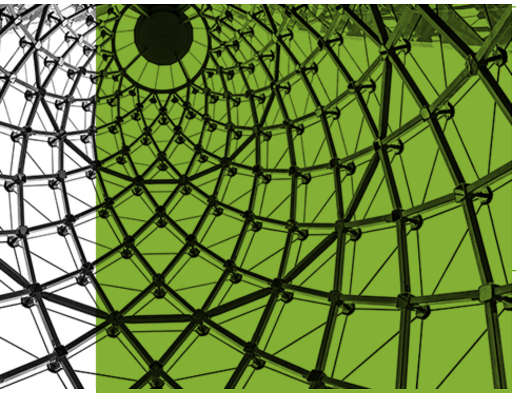
JUNIPER SESSION SMART NETWORKING ADVANCED SECURITY PACK DATASHEET



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 to 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® SD-WAN driven by Mist AI™ has built-in capabilities to 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 as a result of needless double encryption and overhead.

Juniper® Session Smart™ Router's Advanced Security Pack (Figure 1) integrates further security functionality into the routing fabric:

- 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.

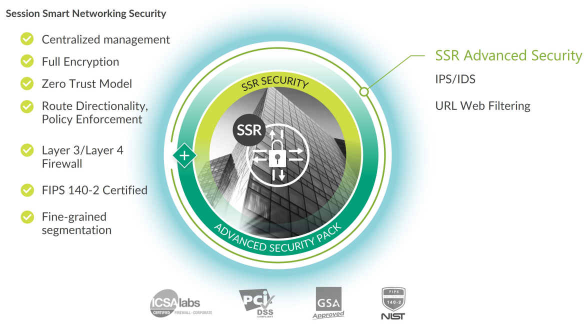


Figure 1: Foundational SSR router security and the Advanced Security Pack

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

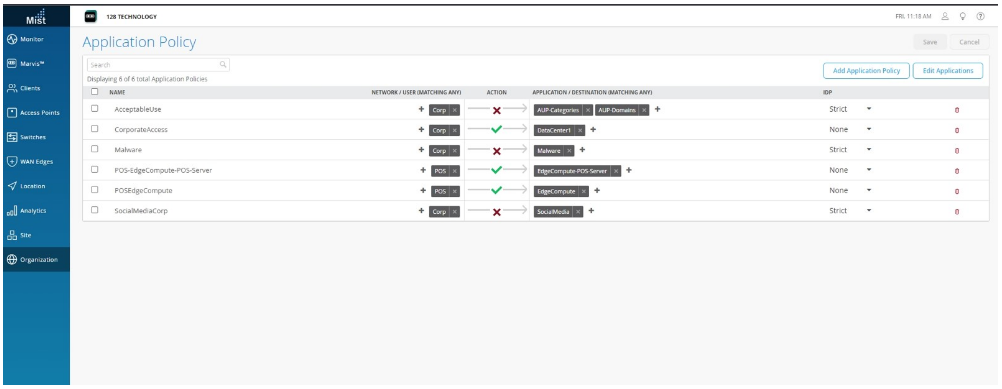
The IDS/IDP and URL filtering functionality in the Advanced Security Pack is made possible with the following features:

- 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-Driven 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; examples include applications, services, and web sites (Figure 2).



Application Policy

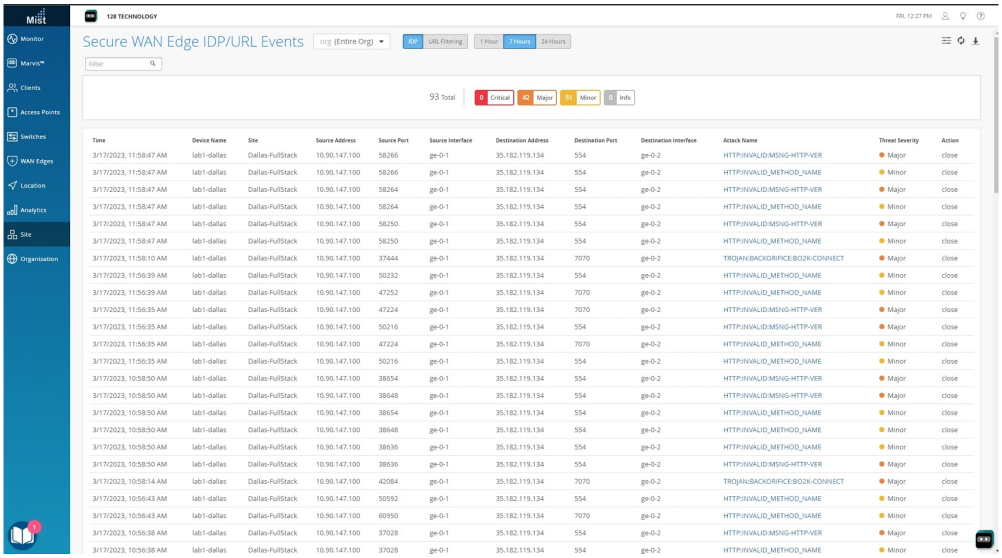
Displaying 6 of 6 total Application Policies

☐	NAME	NETWORK / USER (MATCHING ANY)	ACTION	APPLICATION / DESTINATION (MATCHING ANY)	IDP
☐	AcceptableUse	Corp	✗	AUP-Categories, AUP-Domains	Strict
☐	CorporateAccess	Corp	✓	DataCenter1	None
☐	Malware	Corp	✗	Malware	Strict
☐	POS-EdgeCompute-POS-Server	POS	✓	EdgeCompute-POS-Server	None
☐	POSEdgeCompute	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).



Secure WAN Edge IDP/URL Events

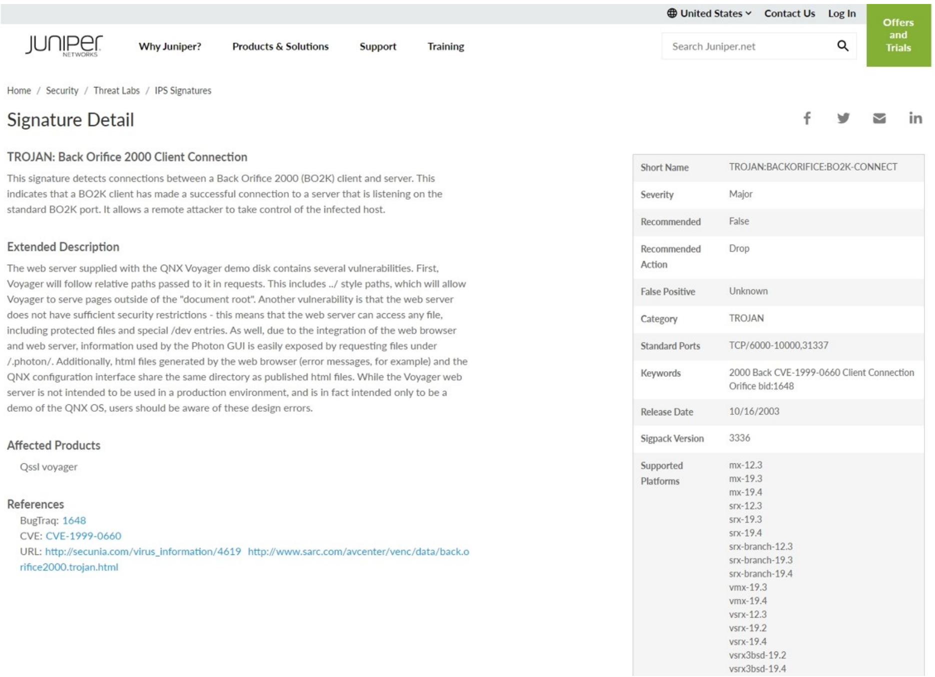
93 Total | 0 Critical | 42 Major | 51 Minor | 0 Info

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	10.90.147.100	58266	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	58266	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	58264	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	58264	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	58250	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 11:58:47 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	58250	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 11:58:10 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	37444	ge-0-1	35.182.119.134	7070	ge-0-2	TROJAN:BACKORIFICE:BO2K-CONNECT	● Major	close
3/17/2023, 11:56:39 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	50232	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 11:56:39 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	47252	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	47224	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	50216	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	47224	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 11:56:35 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	50216	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	38654	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	38648	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	38654	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	38648	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	38636	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 10:58:50 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	38636	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 10:58:14 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	42084	ge-0-1	35.182.119.134	7070	ge-0-2	TROJAN:BACKORIFICE:BO2K-CONNECT	● Major	close
3/17/2023, 10:56:43 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	50592	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 10:56:43 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	60950	ge-0-1	35.182.119.134	7070	ge-0-2	HTTP:INVALID_METHOD_NAME	● Minor	close
3/17/2023, 10:56:38 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	37028	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID:MSNG-HTTP-VER	● Major	close
3/17/2023, 10:56:38 AM	lab1-dallas	Dallas-FullStack	10.90.147.100	37028	ge-0-1	35.182.119.134	554	ge-0-2	HTTP:INVALID_METHOD_NAME	● 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.



Home / Security / Threat Labs / IPS Signatures

Signature Detail

TROJAN: Back Orifice 2000 Client Connection

This signature detects connections between a Back Orifice 2000 (BO2K) client and server. This indicates that a BO2K client has made a successful connection to a server that is listening on the standard BO2K port. It allows a remote attacker to take control of the infected host.

Extended Description

The web server supplied with the QNX Voyager demo disk contains several vulnerabilities. First, Voyager will follow relative paths passed to it in requests. This includes ../ style paths, which will allow Voyager to serve pages outside of the "document root". Another vulnerability is that the web server does not have sufficient security restrictions - this means that the web server can access any file, including protected files and special /dev entries. As well, due to the integration of the web browser and web server, information used by the Photon GUI is easily exposed by requesting files under /.photon/. Additionally, html files generated by the web browser (error messages, for example) and the QNX configuration interface share the same directory as published html files. While the Voyager web server is not intended to be used in a production environment, and is in fact intended only to be a demo of the QNX OS, users should be aware of these design errors.

Affected Products

Qssl voyager

References

BugTraq: 1648
CVE: CVE-1999-0660
URL: http://secunia.com/virus_information/4619 http://www.sarc.com/avcenter/venc/data/back.orifice2000.trojan.html

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
Sigpack 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 router is thus able to provide 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 provides you with the network protection you require, 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. The Advanced Security Pack can thus be installed standalone or alongside a Juniper Networks® 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 the 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.

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