SA SERIES SSL VPN VIRTUAL APPLIANCES

Product Overview

The world's mobile worker population passed the 1 billion mark in 2010 and will grow to more than 1.3 billion by 2015.[1] To support these workers, connectivity is needed across various mobile platforms and devices. Businesses require enterprise-class remote connectivity solutions that are affordable and easy to use. With Juniper Networks SA Series SSL VPN Virtual Appliances, service providers can offer cost-effective managed mobile and remote access services. SA Series Virtual Appliances include Juniper Networks Junos Pulse—a simple, intuitive, enabling user Interface that delivers secure, authenticated access for remote users to corporate resources from any Web-enabled device.

Product Description

When it comes to business mobility, the first server to which users connect is almost always a VPN. The challenge is trying to adapt the VPN so that it is also a mobile platform, unbound from existing paradigms, and flexible to adapt to the needs of service providers as they tap into the expanding mobile marketplace.

For more than 10 years, Juniper Networks® SA Series SSL VPN Appliances have delivered on the mobile VPN experience, especially among large enterprise corporations. But for service providers serving smaller customers, where is the VPN offering that is so simple to manage that it can be put on a Web-based order form as an optional service while signing up new business accounts for Internet service? Or, that allows small to mid-sized business (SMBs) to order a managed VPN service for a set number of users at a set amount per user, per month?

The SA Series SSL VPN Virtual Appliances run the same software image as the award-winning, hardware-based SA Series SSL VPN Appliances, allowing a nearly seamless transition between hardware-based deployments and virtual deployments. The SA Series SSL VPN Virtual Appliances run on VMware, specifically designed to fulfill service provider Software as a Service (SaaS) and other cloud-based corporate service initiatives. SA Series Virtual Appliances can scale to support a virtually unlimited number of customers using VMware software. The fully virtualized systems can run completely independent of other customers, and provide highly flexible licensing—as well as management interfaces—that can tie directly into a service provider's operations support systems (OSS) and business support systems (BSS).

Juniper Networks Junos® Pulse is a dynamic, integrated, multiservice network interface that delivers accelerated, secure connectivity and seamless, authenticated access to networks and the cloud. Included with the SA Series (for laptops and PCs) and downloadable from most major mobile operating system app stores and marketplaces, Junos Pulse provides enterprises—and the service providers who serve them—with improved productivity, collaboration, security, and ubiquitous access to network and cloud-based resources, anytime, anywhere, using any Web-enabled device.

[1] IDC, Worldwide Mobile Worker Population 2011-2015 Forecast, Dec. 2011

Architecture and Key Components

SA Series Virtual Appliances fulfill the service provider's requirement for managed VPN services for SMB and enterprise customers alike. Service providers want hardware that can scale to support virtually an unlimited number of customers, fully virtualized systems that can run completely independent of other customers, flexible licensing that doesn't limit their options, and management interfaces that allow them to tie straight into their operations and business support systems. Juniper has delivered on each of these requirements with the SA Series SSL VPN Virtual Appliances.

With SA Series Virtual Appliances, any service provider can assemble the right solution with the following:

- Blade servers running VMware are deployed to support SA Series Virtual Appliances.
- A single bulk license (such as 25,000 concurrent users on a three-year subscription) is applied to a Juniper license server.
- SA Series Virtual Appliances configured to meet a particular customer's requirements, licensed as needed from the license server, and moved to any VMware server in the world to best support each customer.
- Service provider's own management systems can automate additional configuration changes, license moves, reporting, etc. as needs change.

Subscription Licensing and License Server

The SA Series Virtual Appliances feature subscription licenses. A service provider simply installs all licenses on a Juniper Networks SA2500 SSL VPN Appliance license server, and administrators assign licenses at various levels to the virtual appliances. This provides tremendous flexibility for service providers to easily adjust how much license support they will need at any given time. This capability also eliminates the need to have In Case of Emergency (ICE) licensing, since the virtual appliances can support burst licensing as well.

Virtual Appliances Schematic

Figure 1 shows a typical deployment model where the SA Series Virtual Appliances are hosted by a service provider within a suitable part of its infrastructure, such as a hosting center with direct connectivity to the Internet and connectivity to the customer IP environment. The figure also shows potential service enhancements in the form of dedicated customer blades, where enterprise customers can have their own assigned virtual appliance blades offering not only secure mobile and remote access, but hosted virtual systems for back-office applications and other network services. Note that the orange halo around one SA Series appliance means that it is a virtual appliance.

Junos Pulse is an integrated, multiservice network solution that enables anytime, anywhere connectivity, access control, security, acceleration, and collaboration with a simplified user experience that requires minimal user interaction. It makes secure network and cloud access easy through virtually any device—mobile or nonmobile, Wi-Fi or 3G/4G, Long Term Evolution (LTE)-enabled, managed or unmanaged—over a broad array of computer and mobile operating systems. The following table provides key features and benefits of Junos Pulse.
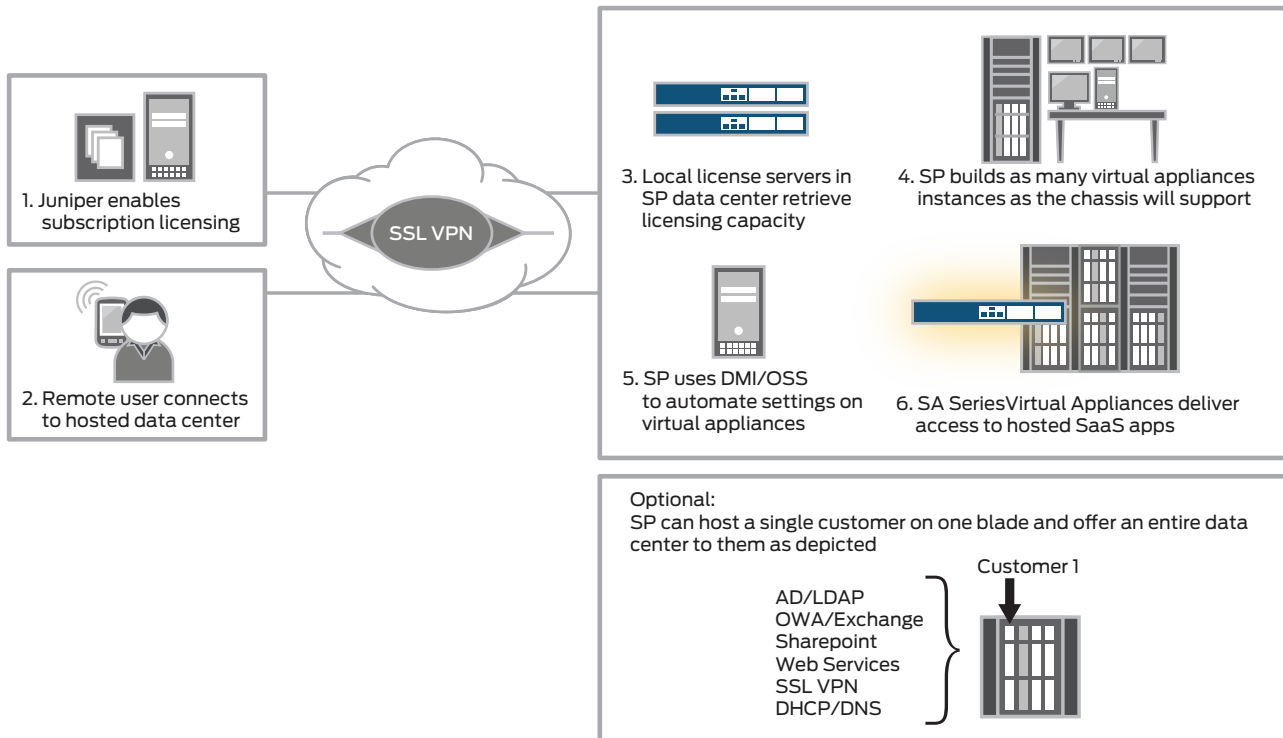

Figure 1: Virtual appliance schematic Junos Pulse

Table 1: Junos Pulse Features and Benefits

Features	Benefits
Layer 3 SSL VPN	• Layer 3 VPN connectivity with granular, role-based access control is provided. • Offers SSL or Encapsulating Security Payload (ESP) transport mode.
Location awareness	• Seamless roaming from remote access (to SA Series Virtual Appliance) to local LAN access (via Juniper Networks Unified Access Control or MAG Series Junos Pulse Gateways running Junos Pulse Access Control Service) is allowed for laptops. • Junos Pulse can be preconfigured by administrators to automatically prompt end users for credentials to authenticate to the SA Series when they are remote.
Endpoint security	• Full Host Checker capability checks endpoint security for Windows, Mac OS, and Linux devices, as well as Apple iOS and Google Android mobile devices. Host Checker for iOS and Android platforms enables administrators to restrict or prohibit VPN access from noncompliant devices based on centrally defined corporate policies, including OS version restrictions, jail-broken or rooted status, or presence and/or enablement of Junos Pulse Mobile Security Suite. • Enhanced Endpoint Security option delivers on-the-fly malware protection, pre-connection scanning policies, and real-time protection supported by SA Series SSL VPN Virtual Appliances (or MAG Series running Junos Pulse Secure Access Service) and UAC (or MAG Series running Junos Pulse Access Control Service).
Split tunneling options (enable or disable without route monitoring)	• Key split tunneling options found in Network Connect are also supported in Junos Pulse. • Secure, granular, user role-based access control is enforced.
Flexible launch options (standalone client, browser-based launch)	• Users can easily launch Junos Pulse via the Web from the SA Series landing page. • Remote users can simply launch Junos Pulse from their desktop or mobile device.
Preconfiguration options (preconfigured installer to contain list of SA Series appliances)	• Administrators can preconfigure a nonmobile Junos Pulse deployment with a list of corporate SA Series SSL VPN Virtual Appliances from which users can choose.
Connectivity options (max/idle session timeouts, automatic reconnect, logging)	• Administrators can set up flexible connectivity options for remote users.

For more details on Junos Pulse, please visit **www.juniper.net/us/en/products-services/software/junos-platform/junos-pulse/.**

Features and Benefits

SA Series SSL VPN Virtual Appliances are the best way to secure access to data centers hosting virtual desktops and other applications, providing the following key features and benefits:

High Scalability
• Gives service providers the ability to quickly scale to meet the needs of many new SMB and enterprise customers

Service Offerings that Increase Average Revenue per User (ARPU)
• Allows service providers to offer new applications to end customers today (such as Enhanced Endpoint Security, Junos Pulse Application Acceleration Service, or Junos Pulse Mobile Security Suite), with more offerings in the future to further increase revenue stream

Changing Needs Easily Addressed
• Provides flexibility to perform additional configuration changes, license moves, reporting, etc. at any time, as required

Junos Pulse Support for Mobile Devices
• Enables service providers to sell mobile devices such as Apple iPhones and iPads, Google Android devices (running Android 4.0 or higher, or any Samsung GALAXY mobile devices), as well as additional services into SMBs and enterprises, while supporting corporate Bring Your Own Device (BYOD) initiatives
• Increases enterprise productivity by empowering employees to safely, securely access corporate applications on personal and/or corporate handsets

Long-Term Investment Protection
• Provides users with a single platform to access virtual desktops, Web applications, terminal services, client/server applications, and to obtain access from various mobile devices
• Enables companies to change their mix of remote access needs over time through a single, already deployed solution

Improved Productivity and Ubiquitous Access
• Provides broad cross-platform device support including Microsoft Windows, Apple Mac OS, Linux, and mobile devices running Apple iOS, Google Android, Microsoft Windows Mobile, Nokia Symbian, and RIM BlackBerry
• Offers access for diverse audiences (employee, contractor, partner) using a variety of Web-enabled devices (corporate laptop, home PC, smartphone, tablet device, kiosk) from virtually any location (home, airport, hotel, office, etc.)

Easy to Deploy and Manage
• Allows for plug-and-play connectivity, with desktop users easily launching Junos Pulse via the Web from the SA Series landing page, and mobile or remote users launching Junos Pulse from their desktop or from the Junos Pulse interface downloaded and installed on their mobile device
• Requires only a Web browser and Internet connection to simplify the user's network and cloud access experience
• With cloud/Web single sign-on (SSO), allows service providers to easily and securely federate enterprise user identity with third-party Web applications, including cloud-based SaaS applications, delivering seamless, authenticated cloud/Web application access and a quality user experience

Greater Security
• Enables granular access control to users based on the user type, endpoint device, and network connectivity location
• Supports endpoint health checking to significantly reduce the influx of devices infected with viruses, trojans, and bots—even from unmanaged devices such as home and contractor PCs, employee-owned mobile devices, etc.

Superior Reliability

- Proven SSL VPN vendor deployed in tens of thousands of enterprises and service provider networks worldwide
- Market leader since SSL VPN category was created in 2002, and recipient of numerous industry awards

Specifications

Since the SA Series SSL VPN Virtual Appliances are meant for service providers, the specifications needed to run them vary depending on the service provider's network environment. Please consult with your Juniper representative to determine the specifications required to run SA Series Virtual Appliances based on your specific network infrastructure.

Juniper Networks Services and Support

Juniper Networks is the leader in performance-enabling services that are designed to accelerate, extend, and optimize your high-performance network. Our services allow you to maximize operational efficiency while reducing costs and minimizing risk, achieving a faster time to value for your network. Juniper Networks ensures operational excellence by optimizing the network to maintain required levels of performance, reliability, and availability. For more details, please visit **www.juniper.net/us/en/products-services**.

Ordering Information

Model Number	Description
License Server Licensing	
ACCESS-LICENSE-SVR	Enables appliance as a license server
Subscription Licensing—Includes Maintenance/Support	
ACCESS-xU-zYR	Subscribe x simultaneous users to ACCESS for z Year
	(x options: 2500; 5000; 7500; 10K; 15K; 20K or 25K simultaneous users)
	(z options: 1, 2, or 3 year terms)

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**.