

Juniper Networks Secure Access 6000



The Juniper Networks Secure Access 6000 (SA 6000) SSL VPN is designed for large enterprises, and features best-in-class performance, scalability, and redundancy for organizations with high volume secure access and authorization requirements. The SA 6000 hardware platform is designed to scale to the largest enterprise deployments and optimize application delivery, with available options that include redundant hot swappable hard disks, power supplies and fans, as well as GBIC-based multiple Ethernet ports for redundant or meshed configurations. The SA 6000 also features a state-of-the-art SSL acceleration chipset to speed CPU-intensive encrypt/decrypt processes, as well as built in compression for all traffic.

Like all products built on the Instant Virtual Extranet (IVE) platform, the SA 6000 uses Secure Socket Layer (SSL) available in all Web browsers as a means of secure transport. This enables the enterprise to provide remote access to mobile employees and contractors without deploying client software, as well as secure extranet or intranet access with no DMZ buildout, server hardening, Web agent deployments, or ongoing maintenance. The Secure Access 6000 comes with the streamlined feature set that an enterprise would need to deploy secure remote access, as well as a basic customer/partner extranet or secure intranet. The Advanced license enables additional sophisticated features that meet the needs of more complex deployments with diverse audiences and use cases, as well as Juniper Networks Central Manager.

Value Summary

Rich Access Privilege Management Capabilities

- Dynamic, controlled access at the URL, file, application and server level, based on a variety of session-specific variables including identity, device, security control and network trust level

Provision by Purpose

- Three different access methods allow administrators to balance security and access on a per-user, per-session basis

End-to-End Layered Security

- Numerous security options from the end user device, to the application data and servers
- Juniper’s Endpoint Defense Initiative includes native functionality, client- and server-side APIs and advanced malware protection capabilities for effective enforcement and unified administration of best-of-breed endpoint security

Performance Scalability

- A variety of hardware-based performance enhancing features, including SSL acceleration and clustering, provide optimal scalability

High Availability

- Cluster pair deployment option, for high availability across the LAN and the WAN

Streamlined Manageability

- Central management option for unified administration
- User self service features enhance productivity while lowering administrative overhead

Lower Total Cost of Ownership

- Secure remote access with no client software deployments or changes to servers, and virtually no ongoing maintenance
- Secure extranet access with no DMZ buildout, server hardening, resource duplication, or incremental deployments to add applications or users

Provision by Purpose

The Secure Access 6000 includes three different access methods. These different methods are selected as part of the user’s role, so the administrator can enable the appropriate access on a per-session basis, taking into account user, device, and network attributes in combination with enterprise security policies.

Features	Benefits
Clientless Core Web access	<ul style="list-style-type: none"> • Access to Web-based applications, including complex JavaScript, XML or Flash-based apps and Java applets that require a socket connection, as well as standards-based e-mail, files and telnet/SSH hosted applications. • Core Web access also enables the delivery of Java applets directly from the Secure Access appliance. • Provides the most easily accessible form of application and resource access, and enables extremely granular security control options
Secure Application Manager (SAM)	<ul style="list-style-type: none"> • A lightweight Java or Windows-based download enables access to client/server applications using just a Web browser. Also provides native access to terminal server applications without the need for a pre- installed client
Network Connect	<ul style="list-style-type: none"> • Provides complete network-layer connectivity via an automatically provisioned cross-platform download • Users need only a Web browser. Network Connect transparently selects between two possible transport methods, to automatically deliver the highest performance possible for every network environment.

Access Privilege Management Capabilities

The SA 6000 appliance provides dynamics access privilege management capabilities without infrastructure changes, custom development, or software deployment/maintenance. This facilitates the easy deployment and maintenance of secure remote access, as well as secure extranets and intranets. When a user logs in to the SA 6000, they pass through a pre-authentication assessment, and are then dynamically mapped to the session role that combines established network, device, identity and session policy settings. Granular resource authorization policies further ensure exact compliance to security strictures.

Features	Benefits
Hybrid role- / resource-based policy model	Administrators can tailor access to dynamically ensure that security policies reflect changing business requirements
Pre-authentication assessment	Network and device attributes, including presence of Host Checker/Cache Cleaner, source IP, browser type and digital certificates, can be examined even before login is allowed and results are used in dynamic policy enforcement decisions
Dynamic authentication policy	Leverages the enterprise's existing investment in directories, PKI, and strong authentication, enabling administrators to establish a dynamic authentication policy for each user session
Dynamic role mapping	Combines network, device and session attributes to determine which of three different types of access is allowed, enabling the administrator to provision by purpose for each unique session
Resource authorization	Enables extremely granular access control to the URL, server, or file level to tailor security policies to specific resources
Granular auditing and logging	Fine-grained auditing and logging capabilities in a clear, easy-to-understand format can be configured to the per-user, per-resource, and per-event level. Auditing and logging features can be used for security purposes as well as capacity planning
Custom expressions Advanced software feature set	Enables the dynamic combination of attributes on a "per-session" basis, at the role definition/mapping rules and the resource authorization policy level
Web-based Single Sign-On BASIC Auth & NTLM	Alleviates the need for end users to enter and maintain multiple sets of credentials for web-based and Microsoft applications
Web-based Single Sign-On Forms-based, Header Variable-based, SAML-based Advance software feature set	In addition to BASIC Auth and NTLM SSO, the advanced feature set provides the ability to pass user name, credentials and other customer defined attributes to the authentication forms of other products and as header variables, to enhance user productivity and provide a customized experience. SAML-based integration for authentication and authorization

End-to-End Layered Security

The SA 6000 series provides complete end-to-end layered security, including endpoint client, device, data and server layered security controls. These include:

Features	Benefits
Native Host Checker	Client computers can be checked at the beginning and throughout the session to verify an acceptable security posture requiring or restricting network ports; checking files/process and validating their authenticity with MD5 hash checksums. Performs version checks on security applications, and carries out pre-authentication checks and enforcement. Enables enterprises to write their own host check method to customize the policy checks. Resource access policy for non-compliant endpoints is configurable by the administrator.
Host Checker API	Created in partnership with best-of-breed endpoint security vendors, enables enterprises to enforce an endpoint trust policy for managed PCs that have personal firewall, antivirus clients, or other installed security clients, and quarantine non-compliant endpoints
Host Check Server Integration API	Enables enterprises to deliver and update third party security agents from the SA 6000, which reduces public-facing infrastructure, enables consolidated reporting of security events, and enables policy-based remediation of non-compliant clients
Policy-based enforcement	Allows the enterprise to establish trustworthiness of non-API-compliant hosts without writing custom API implementations, or locking out external users such as customers or partners that run other security clients
Hardened security appliance and Web server	Hardened security infrastructure, audited by 3rd party security experts including CyberTrust, effectively protects internal resources and lowers total cost of ownership by minimizing the risk of malicious attacks
Security services employ kernel-level packet filtering and safe routing	Ensures that unauthenticated connection attempts, such as malformed packets or DOS attacks are filtered out
Custom expressions Advanced software feature set	Enable the dynamic combination of attributes on a "per-session" basis, at the role definition/mapping rules and the resource authorization policy level
Cache Cleaner	All proxy downloads and temp files installed during the session are erased at logout, ensuring that no data is left behind
Data Trap & cache controls	Prevents sensitive meta-data (cookies, headers, form entries, etc) from leaving the network, and allows for rendering of content in a non-cacheable format
Malware Protection	Enables customers to provision endpoint containment capabilities and secure the endpoint either prior to granting access or during the user session for comprehensive network protection

Performance Scalability

The SA 6000 hardware platform is specifically designed to accommodate large numbers of users with complex application needs, and provides application performance optimization via compression algorithms and hardware-based SSL acceleration. These features allow the appliance to process large, simultaneous transaction loads while minimizing perceptible latency to users.

Features	Benefits
Built-in SSL acceleration	Offloads compute-intensive encrypt/decrypt process from the CPU, enhancing performance
GBIC-based ports with flexibility to select SX, LX and Copper based GBIC interfaces	Fully redundant / meshed configuration of SSL VPN appliances with multiple load balancers for optimized uptime
Dual Gigabit Ethernet interfaces	Enables strong performance in the highest speed enterprise networks
Clustering	Cluster pairs or multi-unit clusters can be deployed across the LAN or across the WAN for superlative scalability with a large number of user licenses, which scales access as the user base grows

High Availability

The SA 6000 includes a variety of unique, first-in-industry capabilities for the availability and redundancy required for mission-critical access in demanding enterprise environments.

Features	Benefits
Dual redundant hot swappable hard disks with real time data mirroring	Optimized uptime, operational convenience, and high availability
Redundant hot swappable power supplies	Optimized uptime, operational convenience, and high availability
Hot swappable fans	Optimized uptime, operational convenience, and high availability
Stateful peering	Units that are part of a cluster synchronize system-state, user profile-state, and session-state data among a group of appliances in the cluster for seamless failover with minimal user downtime and loss of productivity
Clustering	Cluster multiply aggregate throughput to handle unexpected burst traffic as well as resource intensive application use. Clusters can be deployed in either Active/Passive or Active/Active modes across the LAN or across the WAN for superlative scalability with a large number of user licenses, which scales access as the user base grows

Streamlined Management and Administration

The SA 6000 includes a variety of features available from a central management console at the click of a button. These benefits are extended across clustered devices, with the addition of SA Central Manager, part of the Advanced Software features set. Central Manager is a robust product with an intuitive Web-based UI designed to facilitate the task of configuring, updating and monitoring Secure Access appliances whether within a single device, local cluster or across a global cluster deployment.

Features	Benefits
Central Manager Advanced software feature set	Cluster pairs can be seamlessly managed from an integrated central management console, making administration convenient and efficient. The Central Manager allows administrators to track cluster-wide metrics, push configurations and updates, and provide backup and recovery for local and clustered appliances.
User self-service features Password management integration Web Single Sign-On	Increases end user productivity, greatly simplifies administration of large diverse user groups, and lowers support costs
Role-based delegation Advanced software feature set	Granular role-based delegation lessens IT bottlenecks by allowing administrators to delegate control of diverse internal and external user populations to the appropriate parties, associating real-time control with business, geographic, and functional needs
Easy-to-edit role mapping and resource authorization policies	Administrators can copy and re-use existing policies, simplifying the process of setting up complex multi-variable policies or administration for multiple types of groups/roles
Customizable audit log data Advanced software feature set	Using Secure Access Central Manager, log data can be compiled in standard formats including W3C or WELF, as well as tailored for input into proprietary report packages
SNMP	Enhanced monitoring with standards-based integration to third party management systems

Lower Total Cost of Ownership

In addition to enterprise-class security benefits, the SA 6000 has many features that enable low total cost of ownership.

Features	Benefits
Uses SSL, available in all standard Web browsers	Secure remote access with no client software deployment and no changes to existing servers
Based on industry-standard protocols and security methods	The investment in the Secure Access 6000 can be leveraged across many applications and resources over time.
Extensive directory integration & broad interoperability	Existing directories can be leveraged for authentication and authorization. Standard-based interfaces and APIs provide seamless integration with 3rd party products
User self-service features	Increases end user productivity, greatly simplifies administration of large diverse user groups, and lowers support costs, with features that include password management integration and Web Single Sign-On
Multiple Hostname Support Advanced software feature set	Provides the ability to host different virtual extranet Websites from a single SA 6000 appliance, saving the cost of incremental servers, easing management overhead and providing a transparent user experience with differentiated entry URLs
Customizable User Interface Advanced software feature set	Allows the creation of completely customized sign-in pages to give an individualized look for specified roles, streamlining the user experience

Specifications

Upgrade Options

Hardware

- Redundant hot swappable hard disk
- Redundant hot swappable power supply
- Replacement hot swappable chassis fan
- 2 GB memory upgrade (VAR only)
- SFP transceiver
 - 1000base-T RJ45 copper
 - 1000base-SX fiber
 - 1000base-LX fiber

Software

- Secure Application Manager and Network Connect Upgrade Option (SAMNC)
- Advanced Software Feature Set (includes Central Manager)
- Secure Meeting Upgrade Option
- Instant Virtual System Upgrade Option

Technical Specifications

SA 6000

- Dimensions: 16.7"W x 3.5"H x 16.2"D (42.42cmW x 8.89cmH x 41.15cmD)
- Weight: 28.5lb (12.94 kg) typical (unboxed)
- Material: 18 gauge (.048") cold-rolled steel
- Fans: 2 externally accessible, hot swappable ball-bearing fans

Panel Display

- Front Panel Power Button
- Power LED, HD Activity, Temp, PS Fail
- HDD Activity and RAID Status LEDs

Ports

Network

- Management: One RJ-45 Ethernet - 10/100/1000 full or half-duplex (auto-negotiation)
- Traffic
 - Two RJ-45 Ethernet - 10/100/1000 full or half-duplex (auto-negotiation)
 - Two SFP ports – Gig-E

Console

- One 9-pin serial console port

Power

- AC Power Wattage 500 Watts
- AC Power Voltage 100-240VAC, 50-60Hz, 5A Max
- System Battery CR2032 3V lithium coin cell
- Efficiency 65 % minimum, at full load
- MTBF 78,000 hours

Environmental

- Operating Temp 50°F to 95°F (10°C to 35°C)
- Storage Temp -40° to 158°F (-40°C to 70°C)
- Relative Humidity (Operating) 8% to 90% noncondensing
- Relative Humidity (Storage) 5% to 90% noncondensing
- Altitude (Operating) -50 to 10,000 ft (3,000m)
- Altitude (Storage) -50 to 35,000 ft (10,600m)

Safety and Emissions Certification

- Safety: EN60950-1:2001 + A11, UL60950-1:2003, CSA C22.2 No. 60950-1, IEC 60950-1:2001
- Emissions: FCC Class A, VCCI Class A, CE class A

Warranty

- 90 days – can be extended with support contract

Ordering Information

Secure Access 6000 Base System

SA6000 Secure Access 6000 Base System

Secure Access 6000 User Licenses

SA6000-ADD-1000U	Add 100 simultaneous users to SA 6000
SA6000-ADD-250U	Add 250 simultaneous users to SA 6000
SA6000-ADD-500U	Add 500 simultaneous users to SA 6000
SA6000-ADD-1000U	Add 1000 simultaneous users to SA 6000
SA6000-ADD-2500U	Add 2500 simultaneous users to SA 6000
SA6000-ADD-5000U	Add 5000 simultaneous users to SA 6000

Secure Access 6000 Feature Licenses

SA6000-SAMNC	Secure Application Manager and Network Connect for SA 6000
SA6000-ADV	Advanced for SA 6000
SA6000-MTG	Secure Meeting for SA 6000
SA6000-SSL	SSL Acceleration License for SA 6000
SA6000-IVS	Instant Virtual Systems for SA 6000

Secure Access 6000 Clustering Licenses

SA6000-CL-100U	Clustering: Allow 50 additional users to be shared from another SA 6000
SA6000-CL-250U	Clustering: Allow 100 additional users to be shared from another SA 6000
SA6000-CL-500U	Clustering: Allow 250 additional users to be shared from another SA 6000
SA6000-CL-1000U	Clustering: Allow 1000 additional users to be shared from another SA 6000
SA6000-CL-2500U	Clustering: Allow 2500 additional users to be shared from another SA 6000
SA6000-CL-2500U	Clustering: Allow 5000 additional users to be shared from another SA 6000

Accessories

S6000-PS	Field Upgradeable Secondary Power Supply for SA 6000
S6000-HD	Field Upgradeable Secondary Hard Disk for SA 6000
S6000-MEM	Field Upgradeable (by authorized VAR only) Additional 2 GB Memory for SA 6000
S6000-FAN	Field Replaceable Fan for SA 6000
SA-ACC-RCKMT-KIT-2U	Spare Secure Access Rack Mount Kit - 2U
SA-ACC-PWR-AC-USA	Spare Secure Access AC Power Cord USA
SA-ACC-PWR-AC-UK	Spare Secure Access AC Power Cord UK
SA-ACC-PWR-AC-EUR	Spare Secure Access AC Power Cord EUR
SA-ACC-PWR-AC-JPN	Spare Secure Access AC Power Cord JPN



CORPORATE HEADQUARTERS
AND SALES HEADQUARTERS
FOR NORTH AND SOUTH AMERICA
Juniper Networks, Inc.
1194 North Mathilda Avenue
Sunnyvale, CA 94089 USA
Phone: 888-JUNIPER (888-586-4737)
or 408-745-2000
Fax: 408-745-2100
www.juniper.net

EAST COAST OFFICE
Juniper Networks, Inc.
10 Technology Park Drive
Westford, MA 01886-3146 USA
Phone: 978-589-5800
Fax: 978-589-0800

ASIA PACIFIC REGIONAL
SALES HEADQUARTERS
Juniper Networks (Hong Kong) Ltd.
Suite 2507-11, Asia Pacific Finance Tower
Citibank Plaza, 3 Garden Road
Central, Hong Kong
Phone: 852-2332-3636
Fax: 852-2574-7803

EUROPE, MIDDLE EAST, AFRICA
REGIONAL SALES HEADQUARTERS
Juniper Networks (UK) Limited
Juniper House
Guildford Road
Leatherhead
Surrey, KT22 9JH, U. K.
Phone: 44(0)-1372-385500
Fax: 44(0)-1372-385501

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