Models

HP S1500 SSL Appliance   JC190A

Key features

- Increased application and server security
- Support for Advanced Encryption Standard
- High-performance SSL offloading and bridging
- Regulatory compliance contributions
- Highly scalable for data center environments

Product overview

The HP S1500 SSL Appliance provides hardware-accelerated Secure Sockets Layer (SSL) offloading and bridging to enable high-performance intrusion prevention system (IPS) inspection of SSL encrypted traffic, increasing security coverage in next-generation data centers. This easy-to-use SSL appliance helps prevent encrypted attacks from compromising Web servers and Web applications and helps enterprises address compliance requirements without impacting the performance or availability of the network.

Features and benefits

Technical features

- **Increased application and server security**: Web application vulnerabilities and attacks on these vulnerabilities are a major threat, so enterprises are increasingly using both SSL encryption to ensure Web traffic privacy and IPSs to block attacks on the data center. The HP S1500 SSL Appliance with the IPS platform protects the entire data center attack surface, including inspection of SSL encrypted traffic to prevent encrypted attacks from compromising Web servers and Web applications.
- **Supports Advanced Encryption Standard** (AES): The HP S1500 SSL Appliance supports multiple encryption standards, including AES, RC4, DES, and 3DES encryption algorithms.
- **High-performance SSL capabilities for critical network environments**: The HP SSL appliance provides high-performance, hardware-accelerated SSL decryption and encryption capabilities suitable for deployment in high-bandwidth, critical network environments.
- **SSL offloading**: The SSL appliance can be deployed in both SSL offloading and bridging configurations. SSL offloading relieves Web servers of the processing burden of decrypting and encrypting SSL traffic from Web browsers. The processing is offloaded to the SSL appliance specifically to perform SSL acceleration and termination.
- **SSL bridging**: SSL bridging occurs when the SSL appliance is located at the edge of the data center and decrypts SSL traffic for IPS platform traffic inspection and then re-encrypts the traffic before sending it on to the Web server. SSL bridging can be useful when there are security concerns about unencrypted traffic traversing the internal network. SSL offloading offers higher overall throughput than SSL bridging.
- **Carrier-class reliability**: When it comes to security solutions in critical parts of the network, maintaining uptime is the first priority. The SSL appliance is designed to deliver carrier-class reliability with built-in high-availability features and redundancy options, including dual hot-swappable power supplies and built-in zero power high availability (ZPHA) bypass on all network ports.
- **Zero power high availability** (ZPHA) **bypass**: The ZPHA bypass feature ensures the SSL appliance will fail-open or fail-closed, depending on customer configuration, meaning organizations can maintain network uptime or network security in the event of a complete loss of power to the HP S1500 SSL Appliance.
- **IPS link monitoring**: The SSL appliance provides IPS bypass when an IPS link down state is detected and network link down synchronization to propagate network failures, allowing network failover systems to deploy. This capability prevents network downtime in the event of an IPS or link failure.

Overview

- **Regulatory compliance contributions**: HP solutions can be a critical component in IT compliance programs. Organizations must enforce security policy on network traffic flows, including encrypted traffic flows. The HP SSL appliance with the IPS platform demonstrates to auditors that the network is protected from the latest threats and may provide a "compensating control" where a requirement is not specifically satisfied with other solutions or processes.
- **Inspect encrypted traffic flows without compromising compliance efforts**: The SSL appliance enables IPS inspection of SSL encrypted flows without compromising any aspect of enterprise or government-regulated compliance efforts, and contributes to the requirement that encrypted traffic used for privacy protection be fully inspected for malicious content.
- **SSL offloading reduces server utilization**: In addition to improving IT compliance efforts, the HP SSL appliance also contributes to reducing overall security operating expenses (OPEX). When used for SSL offloading, the SSL appliance offloads computationally intensive SSL decryption and encryption, reducing server processor utilization significantly.
- **Simple, transparent deployment minimizes IT workloads**: The SSL appliance is transparent to the network, eliminating the need for costly reconfiguration of the network, servers, or clients.
- **Scale SSL capacity independent of IPS inspection capacity**: The SSL appliance allows organizations to separately optimize the SSL decryption capacity and the IPS inspection capacity, as opposed to an integrated "do-it-all" device.
- **Easy-to-use SSL management**: The SSL appliance provides easy-to-use Web-based management, making administration of the solution simple and minimizing IT configuration and management demands. Policy-based control provides the ability to determine which SSL encrypted flows should be decrypted for inspection purposes and which should not. To ensure administrators can monitor the SSL appliance, logs can be configured to trigger alerts to notify designated support personnel via email immediately.
- **Simplify SSL key and certificate management**: The SSL appliance can reduce SSL management and costs by consolidating private key storage and SSL certificate management. The SSL appliance also provides encrypted key storage and hardware tamper detection to detect when the chassis has been opened or a potential security breach has occurred, even when powered off.
- **Highly scalable for data center environments**: In highly critical, high-performing network environments, the SSL appliance can be deployed with the HP core controller solution to provide highly scalable, redundant SSL offloading and SSL bridging capabilities for inspection of encrypted network traffic. In this scenario, organizations can migrate their communications to SSL using secure ciphers with virtually no network bottlenecks or application performance penalty.

Warranty and support

- **1-year warranty**: with advance replacement and 30-calendar-day delivery (available in most countries)
- **Electronic and telephone support**: limited electronic and telephone support is available from HP; refer to: www.hp.com/networking/warranty for details on the support provided and the period during which support is available
- **Software releases**: refer to: www.hp.com/networking/warranty for details on the software releases provided and the period during which software releases are available for your product(s)

Technical Specifications

HP S1500 SSL Appliance (JC190A)

Ports	8 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only	
Physical characteristics	Dimensions	21.5(d) x 17(w) x 1.75(h) in. (54.61 x 43.18 x 4.45 cm) (1U height)
	Weight	21.01 lb. (9.53 kg)
Mounting	19 or 23 inch wide rack -- ears provided	
Performance	Latency	$< 80 \, \mu s$
	Network throughput	2 Gbps
	Connections per second	95,000
	Concurrent sessions	2,000,000
Electrical characteristics	Voltage	100-240 VAC
	Current	4 A
	Frequency	50 / 60 Hz

Notes — Performance footnotes:

- Performance data is based on non-SSL traffic.
- With SSL Decrypt only traffic, the performance data is as follows: Network Throughput = 1Gbps; Concurrent Network Sessions = 32,000; and Connections per Second = 5,000.
- With SSL Decrypt and Re-encrypt only traffic, the performance data is as follows: Network Throughput = 500 Mbps; Concurrent Network Sessions = 16,000; and Connections per Second = 2,500.

Services — Refer to the HP website at: www.hp.com/networking/services for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

To learn more, visit: www.hp.com/networking