

## Data Sheet

### Key Features

- Provides unmatched visibility into encrypted traffic to protect against advanced threats:
  - Automatically identifies all SSL/TLS traffic, regardless of port number or application
- Supports privacy and compliance initiatives:
  - Selectively decrypts traffic to meet data privacy and compliance requirements
  - Enforces acceptable use policies for encrypted traffic
- Integrates seamlessly with the existing security infrastructure:
  - Preserves and extends the ROI of the infrastructure
  - Supports multiple network segments and can feed active and passive security appliances simultaneously and provide TLS offload for Symantec® Edge Secure Web Gateway
- Simplifies management and administration:
  - Delivers detailed logs and alerts to easily spot trends and potential issues with SSL use
  - Integrates with Symantec Management Center for configuration backup, scheduling, and synchronization

# SSL Visibility Appliance

## Remove Security Blind Spots Created by SSL/TLS Encryption

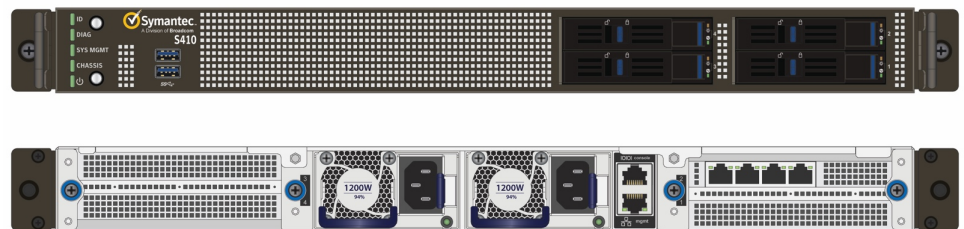
### Introduction

Encryption protects the privacy and integrity of data, but also creates a blind spot that attackers can exploit to evade security controls. Considering nearly all Internet traffic today is encrypted, it creates a rather large gap in an organization's security posture, leading to increased vulnerability and risk, as well as a damaged reputation. The Symantec® SSL Visibility Appliance enables organizations to cost-effectively eliminate blind spots within their environment and maximize the effectiveness of their security infrastructure investments. This technology enables organizations to have the visibility and control they need over encrypted traffic to ensure compliance with their privacy, regulatory and acceptable use policies.

### Provide Visibility into Encrypted Traffic to Improve Security

The SSL Visibility Appliance is an integral component to any organization's traffic management strategy, providing visibility into encrypted traffic that ensures attacks cannot slip by undetected. The appliance identifies and decrypts all SSL connections and applications across all network ports, and even irregular ports. The decrypted feeds can be used by the existing security infrastructure to strengthen their ability to detect and protect against advanced threats; by offloading process intensive decryption, the SSL Visibility Appliance also helps improve the overall performance of the organization's network and security infrastructure.

Figure 1: SSL Visibility Appliance Hardware, Model SSP-S410



### Support Privacy and Compliance Initiatives

The SSL Visibility Appliance serves as an effective policy enforcement point to control SSL traffic throughout the enterprise, reducing risks posed by encrypted traffic, while maintaining compliance with relevant privacy policies and regulatory requirements. Using Host Categorization and SSL traffic types for policies, organizations can easily create and customize granular policies to selectively decrypt traffic to meet their business needs, for example, do not decrypt financial or banking traffic going out of the business. Policies can easily be set to control obsolete or weak ciphers and standards, such as controlling SSL and TLS versions.

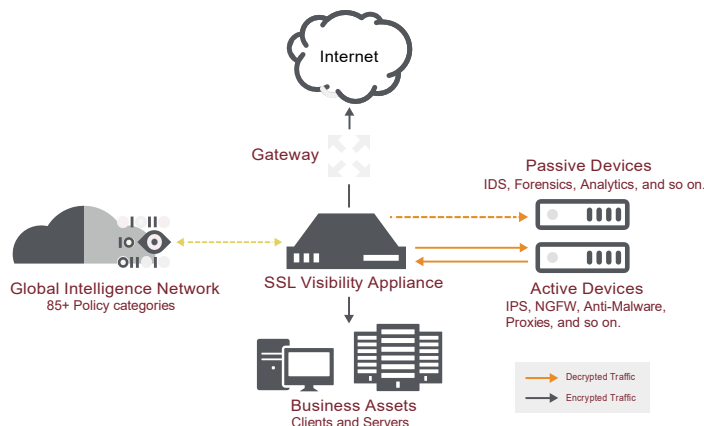
This enables organizations to focus on the communications that represent the highest risks, effectively balancing security with data privacy and compliance requirements. These policies also utilize Symantec Global Intelligence Network to exchange and update SSL host categorization, threat, and malware knowledge across the globe.

## Deliver Unmatched Performance and Scale

The SSL Visibility Appliances operate at line-rate, providing visibility into encrypted traffic and potential threats, without hindering device or network performance:

- Line-rate network performance: Port-to-port latency for non-SSL flows is less than 40 microseconds. Hardware appliances support decryption of up to 300 Gb/s of SSL traffic.
- High connection rate/flow count: Inspects up to 3,140,000 concurrent SSL sessions and supports the setup and teardown of up to new 23,000 RSA 4K sessions per second.
- High availability: Integrated fail-to-wire/fail-to-open hardware and configurable link state monitoring and mirroring for guaranteed network availability and network security.

Figure 2: Centralized Management of Encrypted Traffic



## Integrate Seamlessly with Existing Infrastructure

SSL Visibility Appliances simplify deployment within existing infrastructures; there is no need to duplicate security appliances or re-architect network infrastructure. The appliance provides a suite of features:

- Improved ROI of infrastructure: Enhance the performance and existing capabilities of network and security appliances by offloading decryption and providing visibility into formerly encrypted traffic to help uncover hidden threats.
- Network transparency: Deployment is transparent to end systems and to intermediate network elements. It does not require network reconfiguration, IP address or topology changes, or modifications to client IP and web browser configurations.
- Flexible deployment options: Support multiple in-line or tap segments that feed one or more active or passive attached appliances; the number of segments supported varies depending on the product model number.
- Copy ports: Send copies to many devices via the additional ports on the device. This allows organizations to feed all decrypted and non-SSL traffic to additional passive devices on the network.
- Application preservation: Deliver decrypted plain-text to security appliances as a generated TCP stream, with packet headers as they were received. This allows applications and appliances, such as next-generation firewalls (NGFW), intrusion detection/prevention systems (IDS/IPS), data loss prevention (DLP) systems, and security analytics to expand scope and provide protection from threats hiding in the previously encrypted traffic. This is done in the attached security tools, without any special software or capabilities. When feeding Symantec Edge SWG, the SSL Visibility Appliance must be running software version 5.x or later, and Edge SWG must be running software version 6.7.2.x or later.
- Comprehensive support: Deliver complete visibility into inbound and outbound SSL sessions; support networks with asymmetric traffic routing; provide support for multiple re-signing Certificate Authorities (CA) when inspecting outbound SSL flows; allow the import of many server key/cert pairs to inspect inbound SSL flows to enterprise SSL servers.

Figure 3: Active Devices for Segment 1

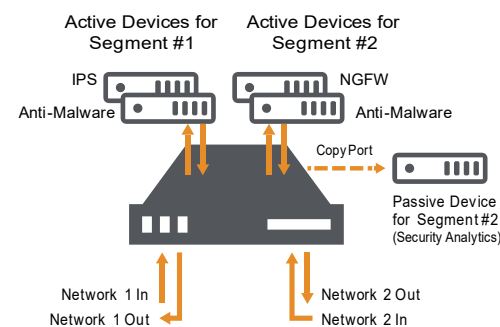
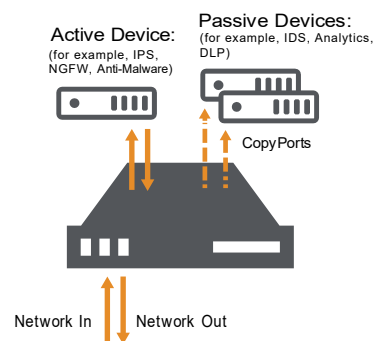


Figure 4: Active Devices for Segment 2



## Simplify Management and Administration

The SSL Visibility Appliances are simple to configure and manage:

- Single device management: A powerful, intuitive, SSL-secured, web-based user interface provides configuration and management with Role-based Access Control (RBAC).
- Centralized management: Allows multiple appliances to be administered by Symantec Management Center for inventory and system performance monitoring, health monitoring, configuration backup, and scheduling and configuration synchronization. Management Center also supports RBAC.
- Email alerting: Configure logs to trigger alerts that can be immediately forwarded via email or sent at intervals to designated network administrators.
- SSL session identification: Provide session logs that detail all SSL flows, inspected or not, allowing suspicious trends or patterns of SSL use to be detected.
- Syslog reporting: Support up to eight remote syslog servers to enable enhanced reporting and logging applications within distributed environments.
- SNMP support: Enables monitoring and management by third-party devices via the SNMP v3 standard.

## SSLV Performance in Classic (Non-ProxySG) Mode Only

Software Version	6.2.x						6.1.1
Product Model	SSP-S410-20B	SSP-S410-40B	SSP-S620-10	SV-S550 Models			SSP-S210-10
				SV-S550-5	SV-S550-10	SV-S550-20	
Total Packet Processing Capacity (Gb/s)	40	70	300	25	50	100	10
Classic Segment Inspection Capacity (Gb/s) <sup>a</sup>	10.15	19.3	40	5	10	20	2
Concurrent SSL Flow States	1,048,900	1,638,800	3,140,000	1,000,000	1,500,000	2,750,000	480,033
Full-Handshake EC 256 <sup>b</sup>	15,974	17,409	30,000	8000	14,000	28,000	4106
Full-Handshake RSA 4096	8670	13,194	23,000	8000	16,000	23,000	2647
Full-Handshake EC 256 <sup>c</sup>	16,493	17,622	30,000	8500	14,500	27,000	3345
SSL Session Log Entries	80,000,000	160,000,000	1,000,000,000	250,000,000			80,000,000

a. Testing based on TLS inspected throughput

b. Utilized RSA 4096 cert

c. Utilized ECDSA 256 cert

## SSLV Performance for ProxySG Segment

Software Version	6.2.x						6.1.1
Product Model	SSP-S410-20B	SSP-S410-40B	SSP-S620-10	SGOS 7.4.x			SSP-S210-10
				SV-S550 Models			
				SV-S550-5	SV-S550-10	SV-S550-20	
Total Packet Processing Capacity (Gb/s)	40	70	300	25	50	100	10
Proxy Segment Inspection Capacity (Gb/s) <sup>a</sup>	5.15	8	15	5	9	15	1.15
Chained Segment Capacity A + B (Gb/s) <sup>a</sup>	3	6	12.5	4.5	8	12	0.7
Concurrent SSL Flow States	524,450	819,400	1,573,450	550,000	800,000	1,250,000	240,017
SSL Session Log Entries	80,000,000	160,000,000	1,000,000,000	250,000,000			80,000,000

a. Tested with 3 x 34K Proxy transaction size and SSP-S410-40B appliances

## Hardware Specifications

Specifications	SSP-S410-20B <sup>a</sup>	SSP-S410-40B <sup>a</sup>	SSP-S620-10 <sup>a</sup>	SV-S550 Models SV-S550-5, SV-S550-10, SV-S550-20	SSP-S210-10 <sup>a</sup>
Configuration	4 x PCI slots with various 1 Gb/s, 10 Gb/s, and 10/25 Gb/s interface options			5 x PCI slots with various 10 Gb/s, 40 Gb/s, and 100 Gb/s interface options	2 x PCI slots with various 1 Gb/s, 10 Gb/s, and 10/25 Gb/s interface options
Power Supply	2 x 1200W	2 x 1200W	2 x 1200W	1+1 redundant 1200W	2 x 300W
Management Interface	1 x RJ-45 1 GbE copper	1 x RJ-45 1 GbE copper	2 x 1 GbE copper	1 x RJ-45	1 x RJ-45 1 GbE copper
Manageability	SNMP v1, v2c and v3 supported; GETs and TRAPs supported across multiple Symantec MIBs; SETs supported only for the System Group				
Display	—	—	—	LCD 32 x 4 character display	—
Operating Temperature	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-20°C to 70°C (-4°F to 158°F)
Dimensions H x W x D	1.71 in. x 17.24 in. x 30.33 in.	1.71 in. x 17.24 in. x 30.33 in.	3.48 in. x 17.24 in. x 31.33 in.	1.7 in. x 17 in. x 30 in. (43.5 mm x 438 mm x 759.2 mm)	1.71 in. x 17.24 in. x 18.55 in.
Regulatory and Environmental Standards/Compliance	CE (EN55022, EN55024, EN60950), FCC part 15 class A, UL60950-1SSL-Visibility-DS104 EN 62368-1:2014 / IEC 62368-1:2014 (Second Edition), UL62368				
Modes of Operation (per network segment)	Passive-Inline, Active-Inline Fail to Network (FTN) and Fail to Appliance (FTA), ProxySG segment				
Visibility Modes	Controlled-client (Re-sign) Mode (In-line Only), Controlled-server (Known-key) Mode A full list of modes is available in the Administrator Guide.				
Encryption	TLS 1.3 (RFC 8446), TLS 1.2, TLS 1.1, TLS 1.0, SSLv3				
Public Key Algorithms	RSA, DHE, ECDHE				
Symmetrical Key Algorithms	AES, AES-GCM, AES-CCM, 3DES, DES, RC4, ChaCha20-Poly1305, Camellia				
Hashing Algorithms	MD5, SHA-1, SHA-2, SHA256, SHA384				
RSA Keys	512 bits to 4096 bits				
Software Licensing	Software license for inspection activation varies between models. Refer to the licensing section within the Support portal for each specific model. Host Categorization licensing varies between models. Refer to the licensing section within the Support portal.				

a. For more detailed information see the SSP product brief: [docs.broadcom.com/docs/secure-web-gateway-appliances](https://docs.broadcom.com/docs/secure-web-gateway-appliances).