HP S5100N 10Gbps IPS Bundle

Data sheet

Product overview

The HP TippingPoint S5100N Intrusion Prevention System (IPS) Bundle provides 10Gbps of in-line, real-time protection, providing proactive network security for today's and tomorrow's real-world networks and data centers. The HP S5100N bundle features two HP TippingPoint S5100N 5Gbps IPS devices and one HP TippingPoint Core Controller. The bundle ships with rail kit mounting hardware.

Key features

- Industry-proven proactive network security
- Up to 10 Gbps IPS protection
- Carrier-class reliability and redundancy
- Security compliance best practices
- Industry leading security research team – DVLabs

Features and benefits

Technical features

- **Up to 10 Gbps IPS traffic inspection:** The HP TippingPoint Core Controller is deployed as a "bump-in-the wire" network element for up to three 10-GbE network links. Traffic entering the core controller is intelligently flow-balanced to two HP TippingPoint S5100N IPS units for traffic inspection. Malicious and unwanted traffic is blocked, and clean traffic is returned to the core controller for distribution, allowing you to scale security up to 10 Gbps with a single solution.
- **Flow management across multiple IPS units:** The HP Core Controller balances traffic inspection loads across multiple IPS units. In addition, the core controller supports both IPv6 and IPv4 traffic inspection and load balancing, providing maximum flexibility for heterogeneous networks. The unit guarantees flow affinity so that all associated traffic goes through the same IPS segment.
- **Protect network resources and critical applications on 10GbE network links:** The HP Core Controller enables automated, in-line traffic inspection, up to 20 Gbps, to protect network devices, virtualization software, operating systems, and enterprise and Web applications from attack.
- **Proven in-line threat protection:** Since 2001, we have been laser-focused on creating IPS solutions that provide proactive, in-line network protection while ensuring high network performance and availability. No network security solution remains in-line if it compromises network performance or uptime. According to a 2008 study by Infonetics Research, more enterprise IPS users use our IPS solutions in-line than any other.
- **New extensible security framework:** The IPS platform includes an extensible security framework that has a modular software design built to support faster development and deployment of new IPS filter packages, security services, and partner security solution integrations.
- **New IPS security services:** The IPS N Series enables the convergence of new security services such as customer-defined IP DNS reputation entries, our Reputation Service, our Web Application Digital Vaccine (DV) Service, location-based policies (perimeter, core, etc.), and customer-developed protection filters.
- **Modular design for solutions integration:** The modular design of the IPS platform enables integrations with partner security solutions such as vulnerability assessment and vulnerability management (VA/VM) products, forensics solutions, security information management (SIM) systems, and network-based anomaly detection (NBAD) products.
- **Support for a broad set of traffic types:** The IPS platform supports a wide variety of traffic types and protocols. It provides uncompromising IPv6/v4 simultaneous payload inspection and support for related tunneling variants (4in6, 6in4, 6in6). It also supports inspection of IPv6/v4 traffic with VLAN and MPLS tags, mobile IPv4 traffic, GRE and GTP (GPRS tunneling), and jumbo frames. This breadth of coverage gives IT administrators the flexibility to deploy IPS protection wherever it is needed.
- **New threat suppression engine (TSE):** The IPS platform employs a new TSE to keep pace with the changing threats and evolving demands of today's enterprise networks and data centers. The TSE architecture utilizes custom ASICs and high-performance network processors to perform total packet flow inspection at Layers 2-7, performing thousands of checks on each packet flow simultaneously, and delivering a significant deep-packet inspection capacity increase to support new and future security services.
- **Proven reliability and redundancy:** The IPS platform is designed to deliver unparalleled high availability. This ensures that network traffic always flows at wire speed in the event of network error, internal device error, or even complete power loss. There are two complementary high availability modes of operation—Intrinsic High Availability and Stateful Network Redundancy—that ensure maximum uptime and availability for both the IPS platform and the security management system (SMS) devices.
- **Maintain network reliability for 10 GbE network segments:** All HP TippingPoint appliances are purpose-built with the reliability to go in-line within enterprise and service provider networks. In addition, the HP Core Controller has sophisticated high-availability features, including redundant core controller configurability, built-in zero power high availability (Smart ZPHA), IPS heartbeat monitoring, link down synchronization, and hardware watchdogs.

- **Flexible core controller and IPS redundancy configurations:** The HP Core Controller solution allows an unprecedented level of flexibility to eliminate a single point of failure. Where 10 GbE redundant paths are implemented, one core controller can be deployed in each path, both of which then share a common pool of IPS units. As a result, an HP Core Controller or IPS can be removed from service without impacting network availability, performance, or security coverage.
- **Hot-swappable XFPs and zero power high availability (Smart ZPHA):** Smart ZPHA is an optional, modular component available for the core controller's 10 GbE segments, enabling optical traffic bypass in the event of system power loss and providing an additional level of network uptime assurance. Smart ZPHA modules may be removed from the core controller without impacting traffic on the 10 GbE segment.
- **Hardware and IPS monitoring:** The HP Core Controller implements advanced monitoring to ensure high availability in mission-critical environments. The core controller periodically sends heartbeat packets across IPS connections. These heartbeat packets measure latency and availability of the IPS. If the latency exceeds a user-specified threshold, or if a user-specified number of heartbeat packets are dropped, the core controller will remove the IPS from the pool.
- **Layer 2 fall-back mode:** In the event one of the monitoring mechanisms triggers a fault, the core controller can go into Layer 2 fall-back (L2FB) mode. If a single core controller is deployed (non-redundant 10 GbE paths), traffic is managed accordingly, up to and including simply passing traffic through uninspected, if the policy is configured to do so.

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)

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Specifications

HP S5100N 5Gbps 5 GigT/1 10GbE/5 1GbE Fiber Segments IPS (JC022A

HP Core Controller Base Chassis with 48x1000Base-T and 6x10GbE Ports (JC182A

Ports	10 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 10 fixed Gigabit Ethernet SFP ports 2 XFP 10-GbE ports (IEEE 802.3ae Type 10GBASE-LR); Duplex: full only	48 RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) 6 XFP 10-GbE ports (IEEE 802.3ae Type 10GBASE-ER); Duplex: full only
Physical characteristics		
Dimensions	24(d) x 16.88(w) x 3.42(h) in. (60.96 x 42.88 x 8.69 cm) (2U height)	19.75(d) x 16.88(w) x 3.42(h) in. (50.17 x 42.88 x 8.69 cm) (2U height)
Weight	31.5 lb. (14.29 kg)	32.01 lb. (14.52 kg)
Mounting	19 or 23 in. wide rack ears provided	19 or 23 inch wide rack – ears provided, optional rails
Performance		
Latency	< 80 µs	< 35 µs
IPS/IDS throughput	5 Gbps	
Network throughput	15 Gbps	Up to 20 Gbps
Security contexts	2,600,000	
Connections per second	230,000	
Concurrent sessions	10,000,000	
Environment		
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Nonoperating/Storage temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
Nonoperating/Storage relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Electrical characteristics		
Voltage	100-240 VAC	100-240 VAC
DC voltage		-36 to -60 VDC
Current	8/5 A	8/5 A
Frequency	50/60 Hz	50/60 Hz
Safety	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; EN 60950-1; CSA 22.2 60950-1; ROHS Compliance	UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; IEC 60950-1; EN 60950-1; CSA 22.2 60950-1; ROHS Compliance
Emissions	FCC Class A; VCCI Class A; EN 55022 Class A; AS/NZS 3548 Class A; ICES-003 Class A	FCC Class A; VCCI Class A; EN 55022 Class A; AS/NZS 3548 Class A; ICES-003 Class A
Immunity		
ESD	EN 61000-4-2	EN 61000-4-2
Radiated	EN 61000-4-3	EN 61000-4-3
EFT/Burst	EN 61000-4-4	EN 61000-4-4
Surge	EN 61000-4-5	EN 61000-4-5
Conducted	EN 61000-4-6	EN 61000-4-6
Voltage dips and interruptions	EN 61000-4-11	EN 61000-4-11
Harmonics	EN 61000-3-2	EN 61000-3-2
Flicker	EN 61000-3-3	EN 61000-3-3
Management	Security Management Server (SMS); command-line interface; Web browser; HP TippingPoint IPS MIB	Security Management Server (SMS); command-line interface; HP TippingPoint Controller MIB
Notes	Performance footnotes: • IPS/IDS throughput represents the inspection throughput levels measured with recommended security profiles. • Network throughput represents the maximum throughput levels that can be achieved with the use of traffic forwarding. • Typical latency is measured on packet sizes up to 1518 bytes. • Concurrent network sessions is the maximum number of concurrent network sessions that can be supported by the IPS. The measured number was limited by available test equipment. • Security contexts is the maximum number of sessions with security state that can be supported by the IPS.	
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.	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.

HP S5100N 10Gbps IPS Bundle accessories

Mounting Kit

HP Slide Kit Quick Release (JC017A)

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

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