



Protector Series™

Inline Copper Load Balancer

Protector 204 | Protector 408 | Protector 612



Benefits

- Work with any active Inline Tool, e.g.
 - Intrusion Protection System (IPS)
 - Packet Shaper
 - Web Filter
 - other
- Spread traffic across multiple instances of same tool
- Direct specific traffic to different tool types
- Enable tool Redundancy (N+N)
- Provide High Availability
- Swap out IPS without Network Downtime or Loss of tool coverage
- Monitor two or more networks with a single inline tool
- Reduce load on inline tools
- Easy to install and manage
- Local and Remote management

Features

- Intelligent Speed Conversion
(10M/100M/1000M/Gigabit Fiber)
- Full line-rate traffic redirection
- Low latency
- Session-aware tool load balancing
- Traffic Grooming on OSI Layers 2-7
- Policy-based action triggering
 - Custom health-check packets
 - Bandwidth utilization checking
- Selective Aggregation
- Intelligent stacking with vStack+™
- Access via Command line, Web browser, and SNMP
 - Telnet and HTTP/HTTPS for management
 - SNMP v3 with RMON for reporting
 - RADIUS and TACACS+ for AAA security
- Network Bypass Options: Fail Open/Closed
- In-field upgradable

Inline Load Balancers

VSS Monitoring is at the forefront of inline traffic redirection and bypass technology to help end-users get the most from their inline network monitoring tools. The Protector is a unique, policy-driven load balancer and speed converter for inline network tools such as Intrusion Prevention Systems and Web filter devices. The Protector acts as a signal and/or tool protection system, enabling granular contingency control based on inline tool status.

A real-time tool that functions primarily in hardware, the Protector passively streams bidirectional full-duplex network(s) to an IPS (or other tool) for inspection and reinsertion inline. Intelligent 10/100/1000 speed conversion (step up/down) and Session-Aware Load Balancing enable multiple IPS tools to share traffic inspection for one or more networks.

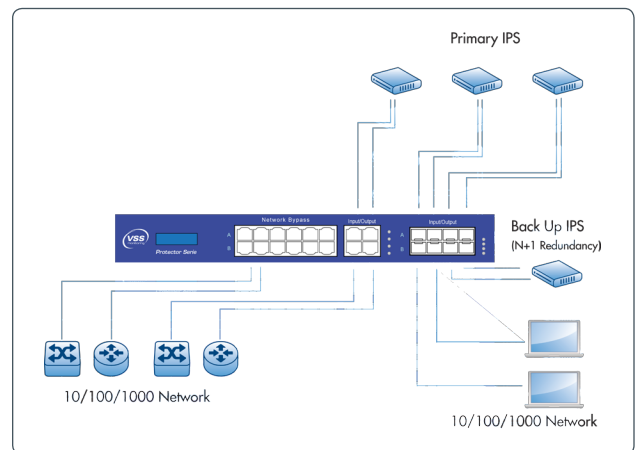
The Protector is transparent and failsafe on the network. In the event of IPS failure, the Protector can (1) stream traffic to alternate, redundant IPSs, (2) stream the traffic around the IPS (directly connecting network nodes), or (3) break the network link to ensure traffic does not continue uninspected.

Network bypass and monitoring redundancy options are policy-based and configurable through the Protector's intuitive graphical user interface.

The Protector can also simultaneously support passive analysis tools for out-of-band monitoring. Passive monitoring tools are segmented from the inline application and will not affect the transfer of traffic through the Protector or IPS. For passive monitoring ports, the Protector supports aggregation, filtering and Session-Aware Load Balancing.

Product Description

The Protector Inline Load Balancer allows inline bypass, load balancing aggregation, and grooming of traffic from networks ranging from 10 Megabit to 1 Gigabit using any of its ports. The Protector is designed to scale to any size deployment for virtually any budget. The 204, 408, and 612 models ship with four, eight, and twelve fixed UTP ports, respectively, enabled for redirecting traffic from 10/100/1000 networks having Fail Open (Bypass or pass-through) capability. The remaining respective four, eight, and twelve ports are enabled for redirecting traffic from 10/100/1000 networks having Fail Closed (traffic blocked) capability. The 408 model ships with four of the ports being SFP, and the 612 with eight ports being SFP. All ports are independently controllable and flexible, allowing the operator to designate any port as input, output or a stack port.



Intelligent Speed Conversion

Real-time conversion of speed enables one or multiple 10/100/1000 IPSs to be deployed on a 10/100, 10/100/1000, or 1G network. The Protector streams 10/100/1000 traffic from

the network to an IPS and, upon inspection by the IPS, the Protector will stream the traffic back through the network at 10/100/1000.

Session-Aware Load Balancing

The distribution of traffic across groups of IPSs can be defined by the user so that session consistency is maintained for each tool. Once session criteria have been defined based on the available options, the traffic is automatically (dynamically) load balanced across the inline monitor ports. In the event of link failure to a tool in a load balanced group, the traffic will redistribute across remaining ports in the group. A failover policy can also be implemented where traffic would be steered to a designated redundant IPS. Load balancing can be conducted over a group of IPS tools that are connected to multiple different Protector units, using VSS Monitoring's vStack+ technology.

Inline Tool Redundancy

N+N options for tool redundancy can be implemented through either Session-Aware Load Balancing or user-defined failover actions, where, in the event of primary tool failure, traffic is steered to a backup tool.

Network Bypass

In event of total IPS or other inline tool failure, the Protector can bypass the IPS tools and allow traffic to flow uninspected or it can close the network traffic stream to prevent uninspected traffic from continuing through the network. This is a hard-wired configuration.

Policy-Based Triggering

In addition to monitoring the state of the inline or IPS tools, users can select from and define additional policies for triggering actions to be taken by the Protector. Triggering can be set for events such as link/port activity, power supply status, health (using custom crafted health-check packets) of the inline tool (not just outright failure), or status of another interconnected Protector, and actions taken can be to send a SNMP trap, send a Syslog message, illuminate a front panel LED, disable ports, etc.

VSS Monitoring's Protector Series is uniquely capable and highly versatile and is the only vendor-neutral device addressing policy-based load balancing and redundancy for inline tools and IPSs.

Technical Specifications

Unit Model:	Protector 204	Protector 612	Protector 408
Mechanical			
Network Bypass Port Pairs:	(x2)	(x6)	(x4)
Input/Output Ports:	(x4)	(x12)	(x8)
Total Weight:	10 lb. / 4.5 kg.	14.75 lb. / 6.7 kg.	9.25 lb. / 4.2 kg.
Size:	17.5"(w) x 15.5"(d) x 1.75"(h) / (445mm x 393 mm x 44.5mm) 1RU High, Fits standard 19" Rack, 21" Deep	17.3"(w) x 22.5"(d) x 1.75"(h) / (441mm x 572 mm x 44.5mm) 1RU High, Fits standard 19" Rack, 21" Deep	17.3"(w) x 15.5"(d) x 1.75"(h) / (441mm x 393 mm x 44.5mm) 1RU High, Fits standard 19" Rack, 21" Deep
Performance			
Full line rate:	8 Gbps	24 Gbps	16 Gbps
Data			
Rates:	10/100/1000 Mbps	10/100/1000 Mbps, 1 Gbps	
Types:	Ethernet, 10Base-T, 100Base-Tx, 1000 Base-T	Ethernet, 10 Base-T, 100 Base-T, 1000 Base-T, SFP	
Power			
AC Voltage: 90-264 V	84 W	96 W	92 W
DC Voltage: -48 to -72 dc	76 W	84 W	84 W
Propagation Delay			
Network to Network:	< 6µs		
Network to Monitor:	10M < 1.3ms, 100M < 130µs, 1G < 14µs		
Environmental			
Temperature:	0 – 55 degrees C (operating); -20 – 100 degrees C (storage)		
Humidity:	5% – 95%, non-condensing		



Network Visibility. Optimized.

USA
 (Corporate HQ)
 + 1 650 697 8770 phone
 + 1 650 697 8779 fax
 1850 Gateway Drive, Suite 500
 San Mateo, CA 94404
 USA
www.vssmonitoring.com

Japan
 + 81 422 26-8831 phone
 + 81 422 26-8832 fax
 T's Loft 3F, 1-1-9,
 Nishikubo, Musashino,
 Tokyo, 180-0013
 Japan
www.vssmonitoring.co.jp

China
 + 86 10 6563-7771 phone
 + 86 10 6563-7775 fax
 C519, 5 Floor,
 CBD International Tower
 16 Yong'An Dong Li,
 Beijing, China 100022
www.vssmonitoring.com.cn

VSS Monitoring, Inc. is the world's leading innovator of Distributed Traffic Capture Systems™ and network taps, focused on meeting the rapidly evolving requirements of security and performance conscious network professionals. Distributed Traffic Capture Systems herald a new architecture of network monitoring, one which fundamentally improves its capability and price-performance.

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