

P10: 10 Gigabit Ethernet Security Appliance

Capture and filter at line-rate 10 GbE

Open, flexible programmability

Line-rate and low latency performance under all traffic conditions

Deterministic inspection with hardware-based rule processing

High Performance Traffic Inspection, Monitoring, and Capture at 10 Gbps

The Force10 P-Series 10 GbE inspection appliance is the first to deliver comprehensive deep packet inspection for line-rate 10 GbE applications. Based on patented Dynamic Parallel Inspection (DPI) technology, the P-Series uses an innovative, new processing architecture to simultaneously apply thousands of rules to each packet. Through the use of an FPGA-based rule engine, the P-Series can also dynamically reprogram hardware rules to deliver predictable performance and total signature flexibility under all traffic conditions.

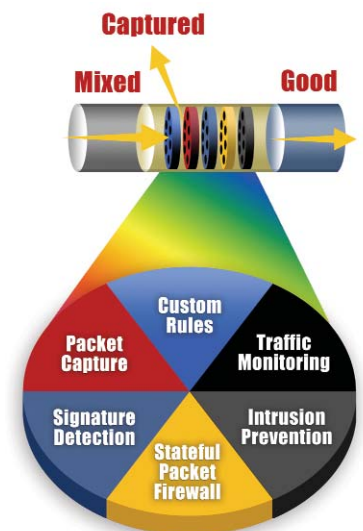
Using an open framework, the P-Series supports Open Source and customizable network monitoring applications, enabling users to specify capture and filtering policies from public domain signatures, standard network monitoring libraries, or user-defined custom rule bases.

Key P-Series Applications

- High speed programmable network probe delivers inspection and flexible capture rules for lawfully authorized electronic surveillance and CALEA applications
- 10 GbE stateful filtering applications
- Pre-processing and filtering capabilities to scale existing solutions to 10 GbE in the core or at the WAN edge
- Open application program interface for creating custom line-rate monitoring, packet capture, and network security applications

Key P-Series Features

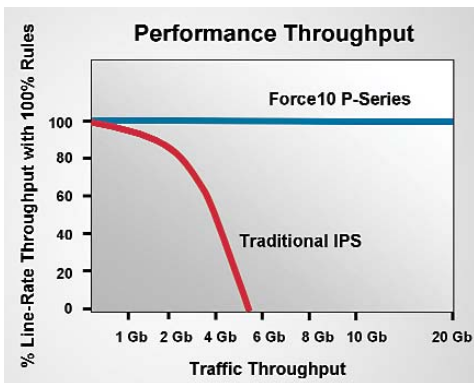
- Line-rate 10 GbE deep packet inspection with support for jumbo frames and LAN or WAN PHY
- Ethernet Frame Deencapsulation (EFD) removes 802.1Q or MPLS headers and passes the raw Ethernet frame with a correct CRC through to devices that cannot understand the encapsulated frame
- Up to 16 Virtual Network Interfaces (VNIs) that support parallel and independent Layer 3 – 7 rules for different filtering or analysis applications
- Dynamically write rules directly into hardware for greater flexibility in responding to malicious traffic and line-rate performance regardless of traffic conditions or number of rules
- Extensive counters for VLAN, subnet and zone-based rules
- Support for both active inline or passive monitor/capture deployments



Force10 P-Series security filter



P-Series P10: 10 Gigabit Ethernet Security Appliance



Force10 P-Series line-rate and low latency performance

Flexible Inspection Capabilities

The P-Series runs at line-rate for 10 GbE network links with full deep-packet inspection and stateful signatures/policies enabled. Anchored content constructs allow flexible custom rules to be written that match the Layer 7 payload at a specific offset from the packet header, or offset from a pattern in the packet.

Line-rate and Low Latency Performance

As a pure hardware-based inspection system, the P-Series is inherently 100% predictable in how operations are performed and always compiles a rule base that runs at line-rate. This leads to identical performance, throughput, and latency under any traffic load, and with any number of rules applied.

Management

Text-based rule management screen that enables users to:

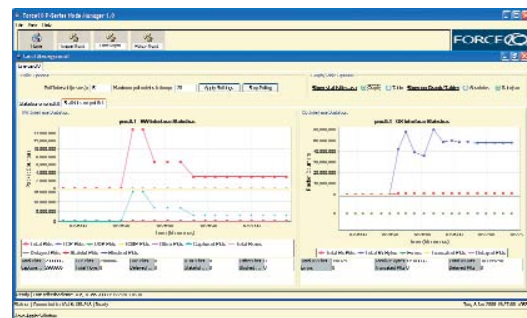
- Start and stop the interface; turn each rule on and off
- Manage runtime parameters such as flow length and timeout
- Set capture/ignore and block/forward policies for each rule

Web-based Node Manager with support for:

- Rule and image management
- Traffic and counter monitoring
- System status and health monitoring

Integration with Sguil, an Open Source network security monitoring and reporting system that provides the ability to:

- Collect, monitor, and correlate security events/alerts in the network
- Analyze security events based on context
- Categorize and escalate events for intrusion response decisions



Monitoring statistics with the P-Series Node Manager

Specifications: P-Series P10

Ordering Information

ORDER NO.	DESCRIPTION
PB-10GE-2P	P10 2-port 10 GbE inspection and monitoring appliance with two 10 GbE XFP sensing and two GbE SFP mirroring ports
SW-P-SDK	P-Series security rules optimization software



Physical

- 2 line-rate 10 GbE XFP LAN/WAN PHY sensing/inspection ports
- 2 line-rate GbE SFP mirroring ports
- 2 10/100Base-T management Ethernet ports
- 1 RJ45 console/management port with RS232 signaling

Size: 1 RU, 1.75 h x 17.6 w x 15.5" d (4.44 h x 44.7 w x 39.37 cm d)

Weight: 20 lbs (9.07 kg)

Power supply: 100-240 VAC 50/60 Hz

Thermal output: 888 BTU/h nominal, 1360 BTU/h maximum

Maximum current draw per system: 3.6 A at 100/120 VAC, 2 A at 200/240 VAC

Power consumption: 260 W nominal, 400 W maximum

Maximum operating specifications:

Operating temperature: 41° to 104°F (5° to 40°C)

Operating humidity: 20 to 80% (RH), non-condensing

Maximum non-operating specifications:

Storage temperature: -40° to 149°F (-40° to 65°C)

Storage humidity: 20 to 80% (RH), non-condensing

Performance

Inspection throughput:

20 Gbps with 64 to 9K byte frames

Inspection rate: 14,880,952 pps per port

Latency: < 2 microseconds

Number of flows: 8,000,000

Capture rate: 1,000,000 pps

Full header and IPv4 payload inspection



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