

nGenius 2200 Series Packet Flow Switch

Service providers, private clouds, government organizations, and enterprises must contend with the collection, processing, and aggregation of traffic from a number of network segments. They also need to address space and power constraints in the data center, while managing the migration from 1 Gbps to 10 Gbps network infrastructure.

Network professionals today face increasing network speeds and the pressure to optimize the cost of security and operational tools – challenges especially acute in fast changing environments.

Flexible, modular and powerful visibility systems with traffic optimization at the high-speed edge are critical to enabling cost effective and scalable network packet monitoring for performance and security.

The Solution

NETSCOUT helps you maximize the insight and capabilities of your network intelligence infrastructure. Using nGenius® packet flow switches, you can make better use of your

performance monitoring and security tools, simplify operational complexity and realize additional cost savings and service quality improvements.

The nGenius 2200 series packet flow switches improve network visibility for monitoring and security tools, accelerate the time to diagnose performance problems, and improve your ability to detect and respond to security incidents. This also eases the strain on capex and opex budgets as network size, complexity, and speeds grow.

The nGenius 2200 series packet flow switch supports a self-organizing mesh architecture (vMesh) giving you the flexibility and modularity to deploy just the appliances you need. vMesh enables the ability to scale link-layer visibility and data access to a system-level architecture; participating devices and hundreds of ports are now part of a single logical system.

The tool chaining delivers advanced packet flow switching for 10 GigE networks, while optimizing the effectiveness of security tools.

Modular Chassis

- 2 Rackmount Units
- Up to 4 chassis modules
- Up to 24 ports (1GigE - 10GigE) – 24 1GigE – 24 10GigE
- Up to 240 Gbps throughput, unidirectional (480 Gbps bidirectional)
- Line rate speed conversion; aggregation; replication; filtering; load balancing; port tagging; time stamping; defragmentation; protocol stripping; conditional slicing; encapsulated filtering and balancing
- Active inline and passive traffic forwarding with programmable fail-safety
- Hot-swappable power supplies and fan trays
- Central management
- NEBS III compliant

Product Description

PFS 2204 is a 2RU model that bridges the gap between 1 GigE and 10 GigE networks, providing network intelligence on a large scale. PFS 2204 provides a number of chassis modules that support different features, port densities, and port speeds up to a maximum line rate throughput of 240 Gbps. All ports are enabled by default and are fully I/O configurable. Any port can be designated as an input port or an output port, or as an intermediate or a stacking port. Chassis modules are available with SFP+ ports, or with fixed media ports for active inline tapping or bypass. Active inline chassis modules provide the active bypass or tapping capability using the PowerSafe technology with configurable fail-safe operation to ensure continuous traffic availability or blocking.

PFS 2204 can be locally managed via a serial console and remotely managed via HTTP, HTTPS, SSH, Telnet, and SNMPv1-v3.

Hardware-based, user-independent filtering allows traffic to be distinguished according to source and destination MAC/IP address as well as by specific

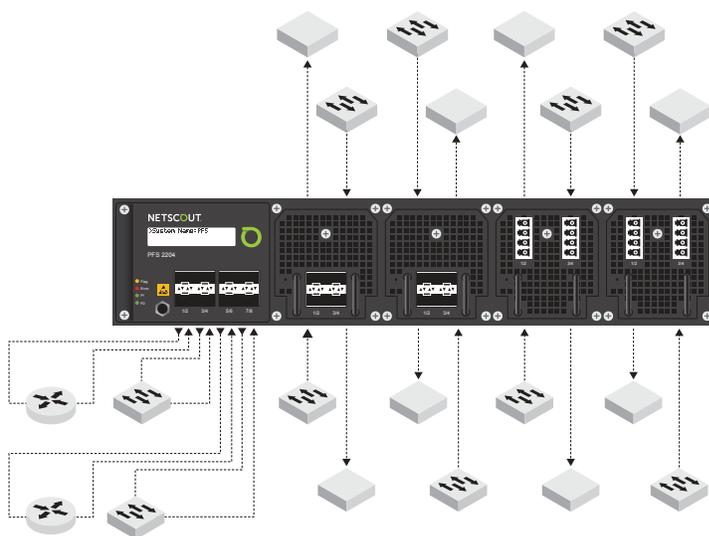


Figure 1: Packet flow switches create a unified visibility plan.



protocols, such as HTTP, VoIP, and others. A customizable (user-defined) filter offers granular selections, specifically within the payload of a packet. Filters can be ingress, egress, and overlapping depending on use of port classes.

Session-based, flow-aware load balancing improves user control of traffic distribution to monitoring tools, increasing output capacity while maintaining session integrity. For example, a 10 GigE network can be captured and automatically balanced across multiple Gigabit monitoring tools based on user-defined session criteria. Session-based, flow-aware load balancing can operate in tandem with hardware-based filtering or independently.

The Active Protection Suite and unified packet visibility from NETSCOUT allow organizations to accelerate advances in cyber security posture, capabilities and responses. The nGenius 2200 series packet flow switches provide network visibility for multiple active inline and out-of-band security systems tool-chained together, creating a pervasive defense architecture against a broad range of attacks. Part of the Active Protection Suite is the vProtector mode, which provides an option for active inline bidirectional traffic access and PowerSafe chassis module(s) for fail-safe capability to ensure no interruption to the inline traffic availability. Should any inline security applications fail, they can be bypassed or traffic can be sent to another system.

Advanced chassis modules have additional hardware resources for a suite of features including time and port stamping, protocol stripping/de-encapsulation (FabricPath, GRE, GTP, MAC-in-MAC, MPLS, NVGRE, TRILL, VLAN, VN-tag, VXLAN), conditional packet slicing (vSlice®), and real-time microburst measurement. Traffic forwarding is also extended to load-balancing on inner layer 3 and 4 packet headers in GTP and MPLS encapsulation, and to filtering on inner L3 and 4 packet headers in GRE, GTP, and MPLS encapsulation.

PFS 2204 supports the vMesh intelligent stacking through the use of the vStack+® protocol, which enables traffic capture devices to be deployed in a redundant, low-latency mesh for dynamic and fault-tolerant visibility. A vMesh system can include a mix of PFS 2204 and PFS 4204 appliances.

PFS 2204 provides automated event-driven monitor output traffic direction and responses (Syslog messages, SNMP traps, light front LED, deactivate ports) with five user-definable trigger event types.

Redundant power supplies allow seamless transitions between power systems and ensure uptime. PFS 2204 is NEBS compliant with hot-swappable power supplies, fans, and air filters.

The nGenius 2200 series packet flow switches support field software updates for additional features and performance enhancements. PFS 2204 also supports field updates to the FPGA firmware.

The nGenius 2200 series packet flow switches deliver maximum performance, scale and flexibility in both distributed environments and hyper-scale data centers. Carriers, private clouds, and large enterprises now have visibility systems that can match and grow with their network densities and performance needs.

Benefits

- Gain link-layer visibility and data access across entire network
- Centralize tools while increasing their reach
- Flexible forwarding of traffic to passive and active inline tools
- Boost monitoring and security tool efficiency
- Reduce both capex and opex through longer tool lifecycles
- Support network upgrades by load balancing traffic across tools
- Quickly provision new tools by eliminating SPAN port contention
- Centrally, remotely, and/or locally manage network visibility and access
- Flexibility in speed and media

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