High-Performance Network Visibility Platform

The Niagara Networks Fixed Network Packet Broker 42xx Series is a high-performance visibility platform purpose-built for SOC and NOC environments in on-premises and private data center networks, delivering complete traffic visibility, control, and optimized tool efficiency.

4224E Model

4216E Model

These two models deliver uncompromising switching performance for high-throughput, mission-critical environments. Built on a non-blocking 1Tb switching fabric, they provide deterministic traffic delivery, predictable performance under load, and carrier-grade packet visibility for on-premises and private data center deployments. The architecture ensures lossless traffic handling and consistent distribution across connected monitoring and security tools.

The 4216E model offers 16 fixed ports configurable as 1G/10G/25G, while the 4224E scales to 24 fixed ports configurable as 1G/10G/25G, enabling flexible deployment across aggregation, core, or tool-facing environments. Both models include dual field-replaceable power supply units and dual field-replaceable fan units to ensure high availability and operational resilience..

These highly compact 1RU platforms support advanced aggregation, replication, and multi-level filtering, enabling precise and reliable traffic distribution while reducing tool overload and eliminating blind spots. Their flexible traffic management capabilities simplify complex network architectures and improve overall visibility efficiency.

Integrated packet broker functions ensure seamless traffic flow for both performance monitoring and security inspection, enhancing the efficiency, accuracy, and responsiveness of SOC and NOC operations.

Product Highlights

Highly Optimized Network Packet Broker

- 16 or 24 ports supporting 1G/10G/25G
- 1RU Form Factor - reduces power, space, and cooling requirements

Switching Fabric - 1Tb Bi-directional

FabricFlow™ Technology exposes network packet broker features, enabling the users to map traffic in flexible modes. It maps traffic flow relationships between source and destination ports and supports:

- Aggregates traffic to a single port
- Replicates traffic to multiple ports
- Advanced filtering (L2–L4, User-Defined Byte – UDB)

Tunnel Handling

- GTP filtering
- GRE termination
- MPLS filtering and stripping
- VXLAN filtering and stripping

Traffic Optimizationg

- VLAN tag filtering, stripping, and rewriting
- Multiple flexible load-balancing modes
- Layer 2–Layer 4 hashing criteria
- Port-utilization-based load balancing
- Session stickiness
- Virtual bypass segments for advanced service chaining
- Ingress/egress filtering with internal traffic loopback
- Filter templates for rapid deployment and reuse

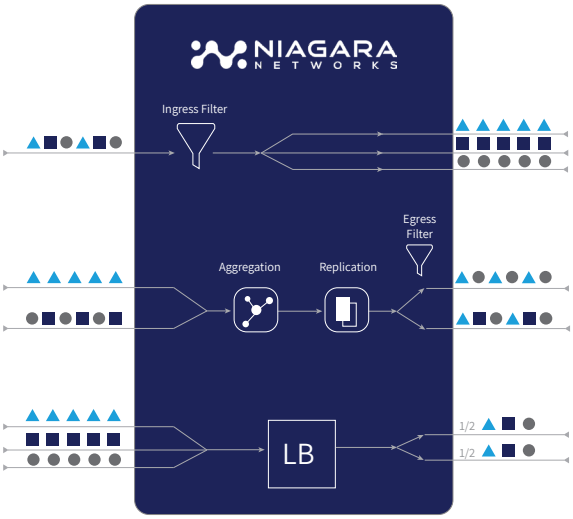
Management

- Robust command line interface (CLI)
- User-friendly, web-based user interface
- REST API for third-party integration
- Support TACACS+, RADIUS, SNMP and NTP

Form Factor

- Compact 1RU Rackmount
- Field-replaceable power supply redundancy

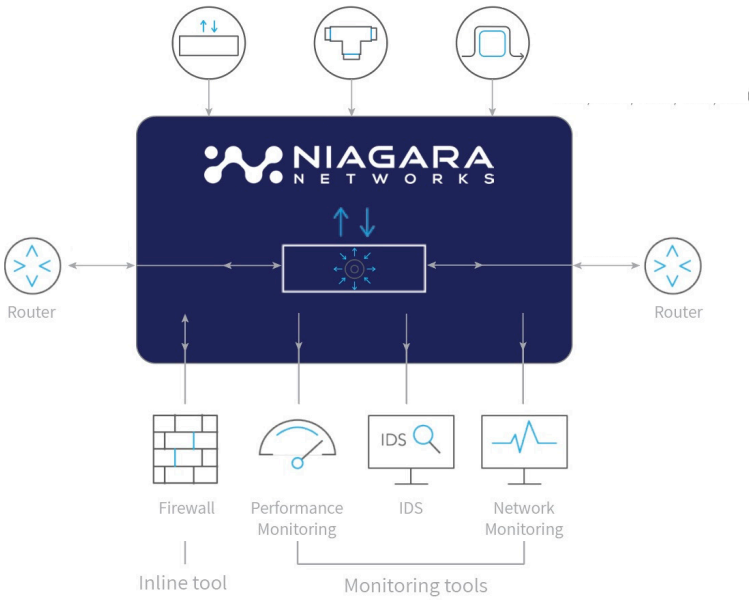
Common Use Cases



FabricFlow™ technology - efficient aggregation, replication, filtering and load balancing of data traffic.

FabricFlow is Niagara Networks' advanced traffic mapping and switching engine that enables intelligent, deterministic distribution of network traffic across monitoring and security tools. Built on a high-performance, non-blocking architecture, FabricFlow dynamically aggregates, filters, replicates, load-balances, and steers traffic flows based on granular policies and multi-layer criteria.
It ensures optimal tool utilization, eliminates blind spots, and maintains consistent traffic delivery even in high-throughput, mission-critical environments. By abstracting complex traffic engineering into a flexible, policy-driven fabric, FabricFlow simplifies network architectures while maximizing visibility, scalability, and operational efficiency for SOC and NOC deployments

Network Visibility at High-speed rates enables IT teams to optimize the flow of data across the network and the NOC/SOC tools. By identifying and prioritizing ultra-bandwidth rates of data to the right tool and with the right data feeds, over utilization can be avoided, and performance optimization and accurate security inspections can help avoid false positive alarms analysis.



Intelligent Visibility Aggregator

Operations teams often deploy the platform as a centralized visibility aggregator that consolidates traffic from multiple TAP and SPAN sources for network architects and security teams. It acts as a powerful force multiplier by efficiently collecting the required traffic, filtering it closer to the source, and distributing optimized data feeds to monitoring and security tools. This approach reduces bottlenecks, improves utilization of available bandwidth, and can deliver CAPEX savings of over 50% by reducing the number of visibility elements required across the infrastructure.

Specifications

Height	1.75 inches (44.45 mm)	Max Power	275 Watts
Length	21.5 inches (546.1 mm)	Airflow	80 CFM
Width	17.0 inches (431.8 mm)	AC	100-240V, 50-60 Hz., 8.5-2.7A
Weight	24.65 lbs (11 kg)	DC	36 to 72VDC 20A-9.6A
Operating Temp	32 to 104F (0 to 40 °C)	Current	2.75 Amps
Operating Humidity	5 to 95%		

Emissions	Immunity
FCC Part 15B, ICES 003, EN55032	EN55024

Safety	Certifications	
UL/CSA 62368-1, EN 62368-1, IEC 62368-1 CB Scheme with all country differences	North America (NRTL) European Union (EU) VCCI (Japan)	2014/35/EU Low Voltage Directive 2014/30/EU EMC Directive 2011/65/EU RoHS Directive 2012/19/EU WEEE Directive

Part Number	Description
4216E-AC	4216E-AC main chassis (AC), 16 ports 1G/10G/25G , includes two field-replaceable power supply units and two field-replaceable fan units. Transceivers are sold and ordered separately.
4216E-DC	4216E-DC main chassis (DC), 16 ports 1G/10G/25G , includes two field-replaceable power supply units and two field-replaceable fan units. Transceivers are sold and ordered separately
4224E-AC	4224E-AC main chassis (AC), 24 ports 1G/10G/25G , includes two field-replaceable power supply units and two field-replaceable fan units. Transceivers are sold and ordered separately.
4224E-DC	4224E-DC main chassis (DC), 24 ports 1G/10G/25G , includes two field-replaceable power supply units and two field-replaceable fan units. Transceivers are sold and ordered separately.

About Niagara Networks

Niagara Networks is a Silicon Valley-based company delivering high-performance, reliable network visibility and traffic delivery solutions for mission-critical environments. Our solutions empower Security and Network Operations Centers (SOC/NOC) with complete visibility and actionable intelligence across physical, virtual, and cloud networks. As a former division of Interface Masters, we provide all the building blocks for an advanced Visibility Layer, including packet brokers, bypass switches, network TAPs, and unified management software, offering a single pane of glass for simplified visibility infrastructure. For more information please visit us at www.niagaranetworks.com.

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