NIAGARA NETWORKS

4432

32 ports of 40/100Gb nonblocking switching fabric

The 4432 is a fully featured packet broker that is capable of not only aggregation, but replication, sophisticated filtering, load balancing, tunneling supports and more.

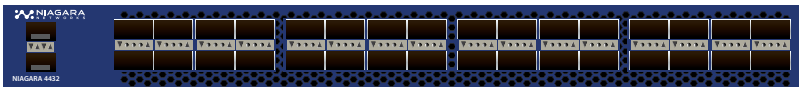


Figure 1: Front panel of 4432 with 32 ports of 40/100Gb plus two ports of 10Gb. Users can mix and match 40Gb and 100Gb pluggable transceivers to meet network needs

The 4432 includes up to 32 ports of 40Gb and 100Gb where the user can flexibly select the mix of port speeds to match the required network deployment. In addition, two ports of 1/10Gb are available. With the unique software licensing feature, units can be offered with 16 ports. Users protect their investment and can grow with the system up to its full capacity of 32 ports of 40/100Gb, without adding other physical devices or performing a fork-lift upgrade in their deployment.

All ports connect to a non-blocking switching fabric, ensuring that all combinations of ports are supported at full line rate with no over subscription and with full-switching, line rate connectivity from any port to any port.

The 4432 is a fully featured packet broker that is capable of not only aggregation, but replication, sophisticated, filtering, load balancing, tunneling supports and more.

The 4432 include Niagara Network's Fabric Flow technology which is at the core of the systems exhaustive packet broker functionality, responsible for the mapping of traffic flow relationships between source and destination ports.

Product Highlights

High Density:

- Up to 32 ports of 40/100Gb - any mix
- Additional two ports of 1/10Gb

1U Form Factor:

- Reduced footprint, saving power, space and cooling

Switching Fabric

- 3.2Tb Bi-directional

Clustering Capabilities

- Stack any number of units by using any ports to connect between devices (some clustering capabilities require the Niagara Visibility Controller (NVC)

Management

- Robust Command Line Interface (CLI)
- User friendly, Web-based user interface
- REST API for 3rd party integration and support
- Auto discoverable and managed by Niagara Visibility Controller
- Support TACACS+, RADIUS, SNMP and NTP

Fabric Flow:

Mapping traffic flow relationships between source and destination ports:

- Aggregate traffic to single port
- Replicate traffic to multiple ports
- Sophisticated filtering - L2-L4, User Defined Byte (UDB)
- Tunnel handling:
  - GTP filtering
  - GRE termination
  - MPLS filtering and stripping
  - VXLAN filtering and stripping
- VLAN support for filtering, stripping and modifying
- Flexible load balancing regimes
- User defined virtual bypass segments
- User configurable packet heartbeat (ms resolution)
- Ingress and egress filters
- Internal loopback for efficient creation of multilevel filters

Common Use Cases

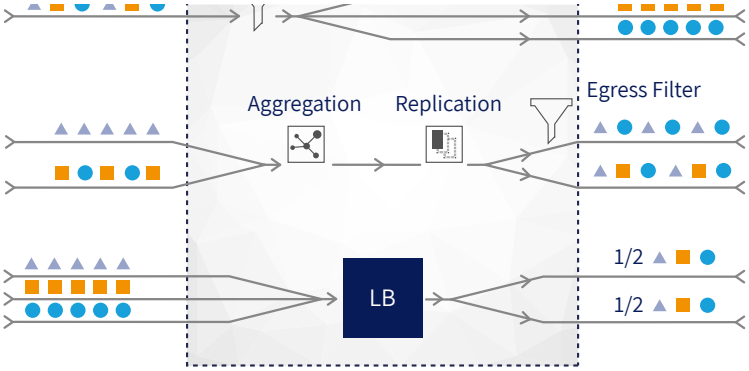
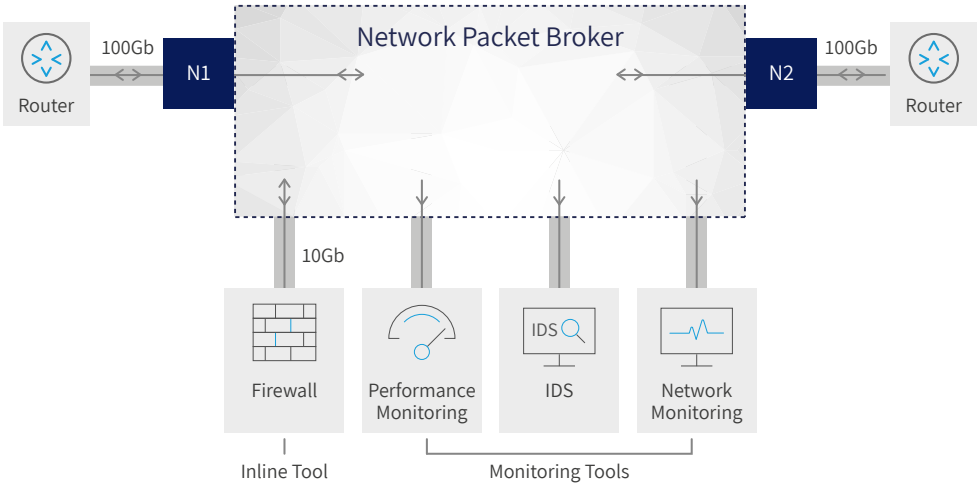


Figure 2: Fabric Flow technology for efficient aggregation, Replication, Filtering and load balancing of traffic.

Figure 3: Protect network from security attacks by sending traffic to inline tools like firewall (using virtual segment configuration) and also send copy to monitoring tools for performance analysis.



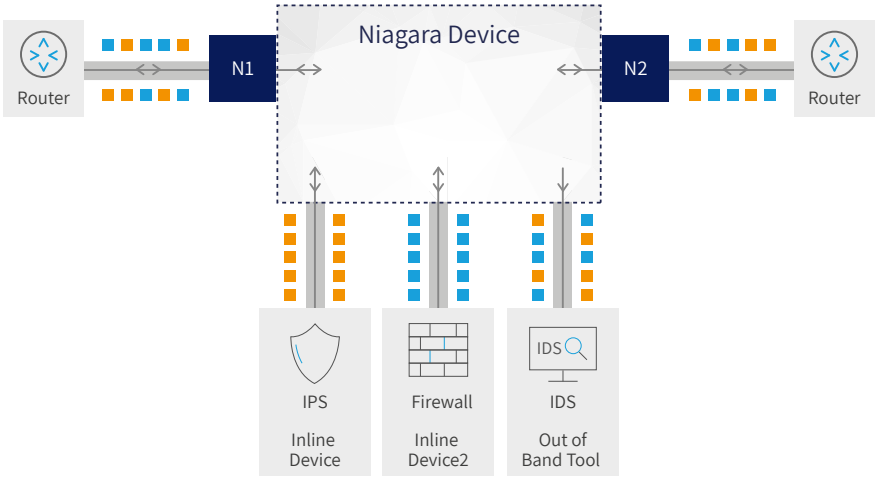


Figure 4: Provides visibility to network traffic by sending right traffic to right tools.

Specifications

Height	1.72 in (43.7 mm)	Max Power	456.30 Watts
Length	19.5 in (495.3 mm)	BTU/hr	1292.12
Width	17.25 in (438.15 mm)	Airflow	100 lfm
Weight	21.60 lb (9.80 kg)	Altitude	80,000 ft
Operating Temp	32-104°F (0-40°C)	AC	100-240V, 50-60Hz, 10-5A
Operating Humidity	5-95%	DC	48-60V, 19-15A
Raw Power	624.63 Watts	Max Current	4.56A @ 100 V_{AC} 9.51A @ 48 V_{DC}

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

Safety	Certifications	
UL/CSA 60950-1, EN 60950-1, IEC 60950-1 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
4432-MN-16P-AC	4432 main chassis AC, includes two power supply and four fan units with license for 16 ports. Ports can be flexibly used as 40Gb or 100Gb ports. An additional 2x10Gb (SFP+) ports available. Transceivers ordered and sold separately
4432-MN-16P-DC	4432 main chassis DC, includes two power supply and four fan units with license for 16 ports. Ports can be flexibly used as 40Gb or 100Gb ports. An additional 2x10Gb (SFP+) ports available. Transceivers ordered and sold separately
4432-MN-32P-AC	4432 main chassis AC, includes two power supply and four fan units with 32 ports of 40Gb or 100Gb and 2 ports of 10Gb. Transceivers ordered and sold separately
4432-MN-32P-DC	4432 main chassis DC, includes two power supply and four fan units with 32 ports of 40Gb or 100Gb and 2 ports of 10Gb. Transceivers order and sold separately
800W-PSU-AC	Field replaceable power supply unit AC - 800W
750W-PSU-DC	Field replaceable power supply unit DC - 750W
NN-FAN-1	Field replaceable fan unit for 1RU products

LICENSING	4432 license options, 16 ports license included in base product
4432-LC-17-32P	4432 license upgrade to support 32 ports of 40/100Gb. Transceivers ordered and sold separately

About Niagara Networks

Niagara Networks provides high performance network visibility solutions for seamless administration of security solutions, performance management and network monitoring. Niagara Networks products provide advantages in terms of network operation expenses, downtime, and total cost of ownership.

A former division of Interface Masters, Niagara Networks provides all the building blocks for an advanced Visibility Adaptation Layer at all data rates up to 100Gb, including Taps, bypass elements, packet brokers and a unified management layer. Thanks to its integrated in-house capabilities and tailor-made development cycle, Niagara Networks are agile in responding to market trends and in meeting the customized needs of service providers, enterprise, data centers, and government agencies.

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