# High Density Advanced Packet Broker - 1/10Gb with multi-purpose 40Gb aggregation ports

The 4248-6XL is part of the FixedBroker product line, consisting of 1U high density, high performance, packet brokers.



4248-6XL Front View

The 4248-6XL includes up to 48 ports of 1/10Gb, plus another six ports of 40Gb. With Niagara's unique software licensing feature, units can be offered with as little as eight ports of 1/10Gb. Users protect their investment and can grow with the system up to its full capacity of 48 ports of 1/10Gb plus 6 ports of 40Gb, 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 4248-6XL is a fully featured packet broker that is capable of not only aggregation, but replication, with sophisticated filtering, load balancing, tunneling support and more.

The 4248-6XL includes Niagara Networks' FabricFlow™ 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 48 ports of 10Gb plus six ports of 40Gb

**1U Form Factor**
- Reduced footprint, saving power, space and cooling

**Port Licensing**
- Only pay for the ports you need and scale up as you grow – protecting your investment*

**Switching Fabric**
- 1.28Tb Bi-directional

**Packet and Flow Processing**
- Mapping traffic flow relationships between source and destination ports:
  - Aggregate traffic to a single port
  - Replicate traffic to multiple ports
  - Sophisticated filtering - L2-L4, User Defined Byte (UDB)
- Tunnel handling: GTP, GRE, MPLS, VXLAN, VLAN
- Multiple flexible load balancing regimes
  - Layer 2 to Layer 4 hashing criteria
  - Port utilization based load balancing
  - Session stickiness
- Virtual bypass segments for advanced service chaining
- Ingress and egress filtering, internal traffic loopback for efficient creation of sophisticated multi-level filters
- Filter templates for rapid deployment and filter re-use
- Port fan-in and fan-out for optimized interface deployment
- Port configuration for listen-only, transmit-only and bi-directional deployment
- MAC header rewrite

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

**Management**
- SNMP v1, v2, v3 support
- Local, RADIUS, and TACACS+ support (members and groups)
- Intuitive, web-based user interface
- Granular access control features
- Syslog
- REST API for third-party integration and support
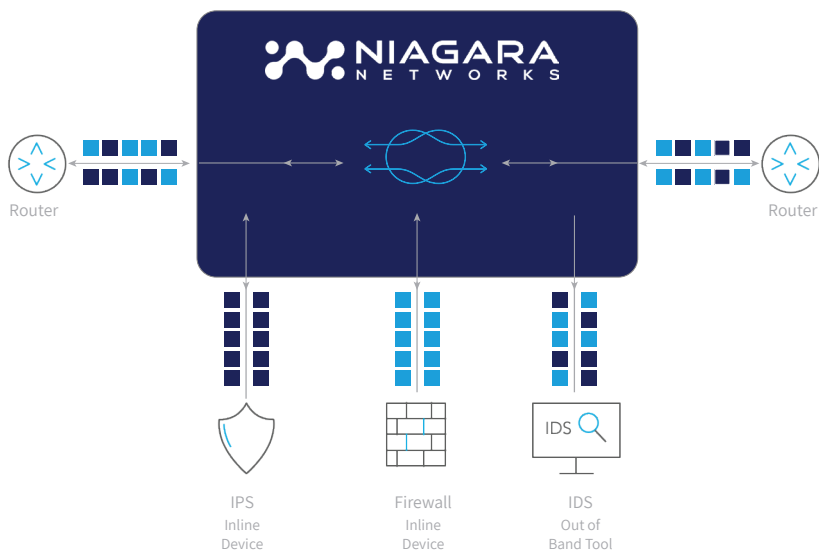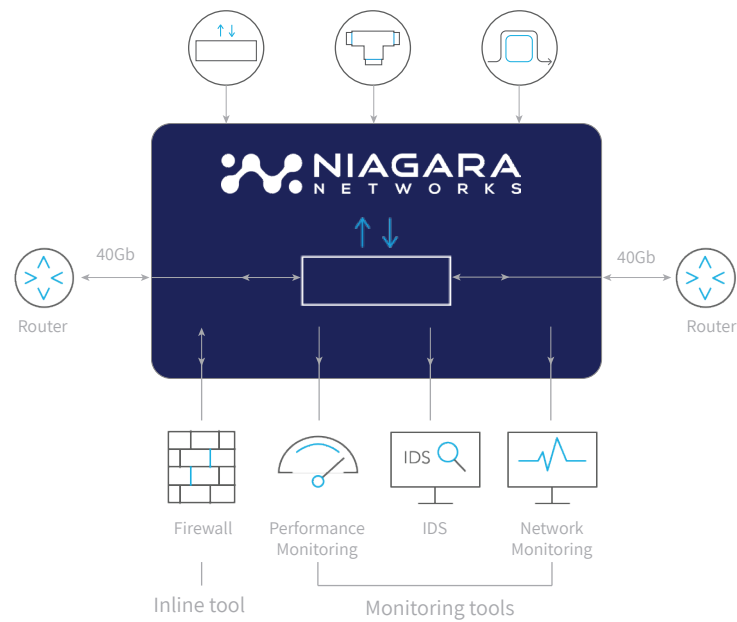- Auto discoverable and managed by the NVC

*From as few as eight ports.

# Common Use Cases
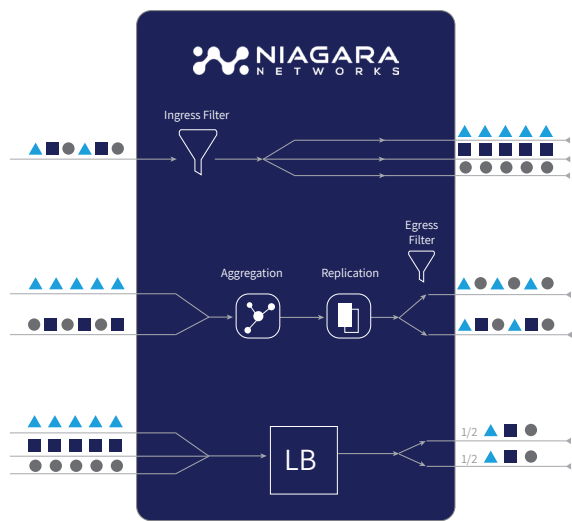


FabricFlow™ technology for efficient aggregation, replication, filtering and load balancing of traffic.

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



Firewall

Performance Monitoring

IDS

Network Monitoring

Inline tool

Monitoring tools



Provides visibility to network traffic.

IPS
Inline Device

Firewall
Inline Device

IDS
Out of Band Tool

## Specifications

| | | | |
|---|---|---|---|
| Height | 1.75 in (44.45 mm) | Max Power | 284.48 Watts |
| Length | 19.29 in (490.1 mm) | BTU/hr | 1151.07 |
| Width | 17.25 in (438.15 mm) | Airflow | Front to back |
| Weight | 19.5 lb (8.85 kg) | Altitude | 80,000 ft |
| Operating Temp | 32-104°F (0-40°C) | AC | 100-240V, 50-60Hz, 8-4A |
| Operating Humidity | 5-95% | DC | 48-60V 19-15A |
| Raw Power | 389.42 Watts | Max Current | 2.85A @ $100V_{AC}$<br>5.93A @ $48V_{DC}$ |

## Emissions | Immunity

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|---|---|
| FCC Part 15B, ICES 003, EN55032 | EN55024 |

## Safety | Certifications

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|---|---|---|
| UL/CSA 60950-1, EN 60950-1, IEC 60950-1<br>CB Scheme with all country differences | North America (NRTL)<br>European Union (EU)<br>VCCI (Japan) | 2014/35/EU Low Voltage Directive<br>2014/30/EU EMC Directive<br>2011/65/EU RoHS Directive<br>2012/19/EU WEEE Directive |

## Part Number | Description

| Part Number | Description |
|---|---|
| 4248-6XL-MN-8P-AC | 4248-6XL main chassis AC, includes two field replaceable power supply units and four field replaceable fan units. License for 8 x 10Gb ports. Transceivers sold and ordered separately. |
| 4248-6XL-MN-8P-DC | 4248-6XL main chassis DC, includes two field replaceable power supply units and four field replaceable fan units. License for 8 x 10Gb ports. Transceivers sold and ordered separately. |
| 550W-PSU-AC | Field replaceable power supply unit AC - 550W. |
| 750W-PSU-DC | Field replaceable power supply unit DC - 750W. |
| NN-FAN-1 | Field replaceable fan unit for 1RU products. |

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|---|---|
| 4248-6XL-LC-9-16P | 4248-6XL license upgrade from nine to 16 ports. Transceivers sold separately. |
| 4248-6XL-LC-17-24P | 4248-6XL license upgrade from 17 to 24 ports. Transceivers sold separately. |
| 4248-6XL-LC-25-48P | 4248-6XL license upgrade from 25 to 48 ports. Transceivers sold separately. |
| 4248-6XL-LC-6P-40 | 4248-6XL license upgrade for six ports of 40Gb. Transceivers 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. For more informationplease visit us at www.niagaranetworks.com