

## 1/10Gb Packet Broker 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

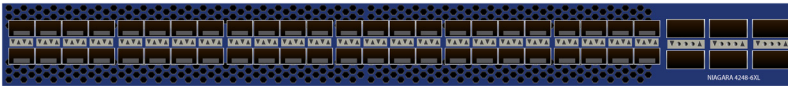


Figure 1: 4248-6XL Front View

The 4248-6XL includes up to 48 ports of 1/10Gb plus another 6 ports of 40Gb. With the unique software licensing feature, units can be offered with as little as 8 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, sophisticated filtering, load balancing, tunneling supports and more.

The 4248-6XL includes Niagara Network's 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 6 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.
- From as little as 8 ports

### Switching Fabric

- 1.28Tb 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

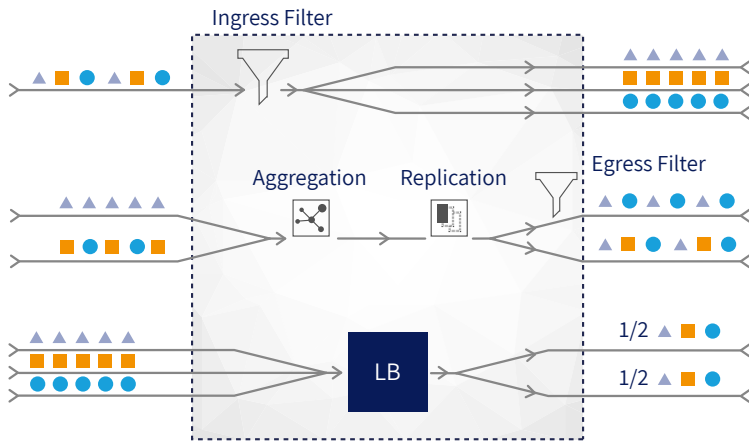


Figure 2: Fabric Flow technology for efficient aggregation, Replication, Filtering and load balancing of traffic.

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.

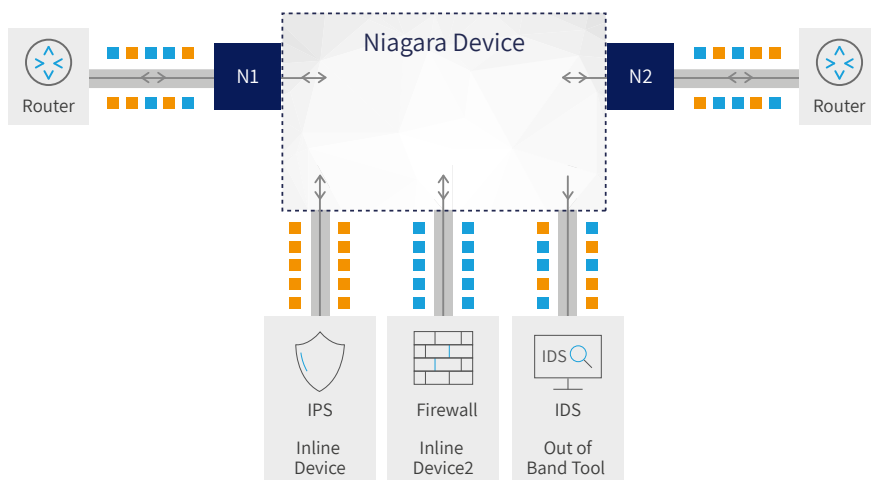
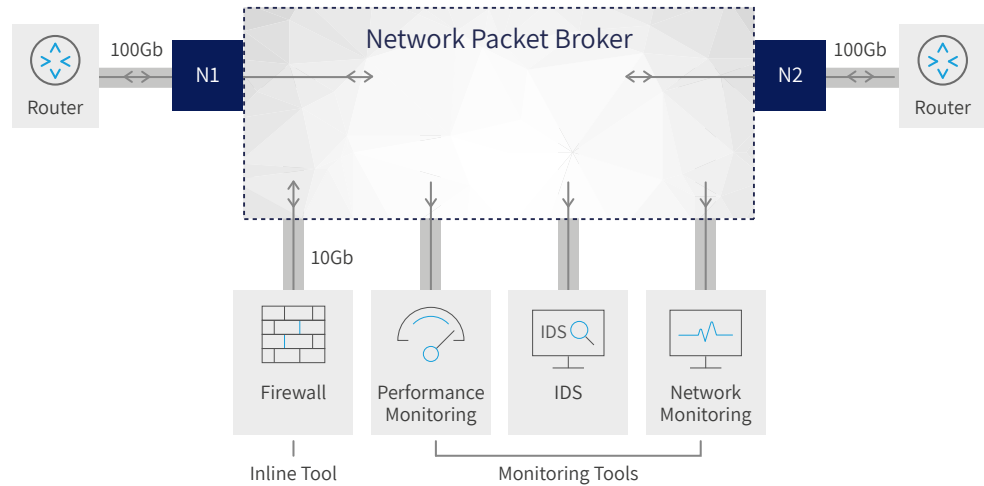


Figure 4: Provides visibility to network service tools by sending the right traffic to right tools.

## 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 <sub>AC</sub> 5.93A @ 48V <sub>DC</sub>

## Emissions

FCC Part 15B, ICES 003, EN55032

## Immunity

EN55024

## Safety

UL/CSA 60950-1, EN 60950-1, IEC 60950-1  
CB Scheme with all country differences

## Certifications

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

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

## LICENSING

4248-6XL license options, 8 ports license included in base product

4248-6XL-LC-9-16P	4248-6XL license upgrade from 9 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 6 ports of 40Gb. Transceivers sold separately