# High-Density Open Visibility Packet Broker

The 4248-6C is part of the FixedBroker product line, consisting of 1U high density, high performance, packet brokers with Open Visibility Platform enabled capabilities. The Open Visibility advanced capabilities enable to turn the NPB into an intelligent cross-connect with Network Intelligent applications such as de-duplication, Netflow/IPFIX generation, TLS decryption, and more.
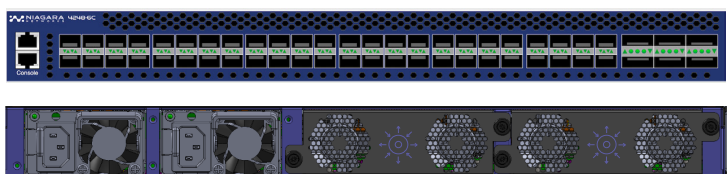
4248-6C front and rear view

The 4248-6C includes up to 48 ports of 10/25Gb[1], plus another six ports of 40/100Gb. All ports connect to a non-blocking switching fabric, ensuring that all combinations of ports are supported at full line rate, with no oversubscription, and with full-switching, line-rate connectivity from any port to any port.

The 4248-6C is a fully-featured packet broker that is capable of not only aggregation, but replication, sophisticated filtering, load balancing, tunneling supports, and more.

The 4248-6C includes Niagara Network's FabricFlow technology which is at the core of the system's exhaustive packet broker functionality, responsible for the mapping of traffic flow relationships between source and destination ports.

Open Visibility Platfrom Enabled

Open Visibility Platform (OVP) technology enables the user to combine advanced network intelligence applications and other 3rd parties virtual machine-based applications[2] seamlessly integrated with the packer broker functionality.

Advanced network intelligence applications[2] include such applications as de-duplication, TLS decryption, 4G/5G mobile visibility, and more. Open Visibility Platform is achieved by up to two Packetron processing[2] modules (up to 200Gb processing) in the rear of the device so that that critical front panel real-estate is not sacrificed.

Product Highlights

High Density
- Up to 48 ports of 10/25Gb plus six ports of 40/100Gb

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

Switching Fabric
- 2.0Tb Bi-directional

Clustering Capabilities
- Stack any number of units by using any ports to connect between devices

Open Visibility Platform™ Enabled
- Up to 2 rear Packetron™ modules supporting 200G processing
- Network Intelligence applications
- 3rd Party virtual applications

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
- 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 / egress filtering and internal traffic loopback for efficient creation of sophisticated multi-level filters
- Filter templates for rapid deployment and filter re-use

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

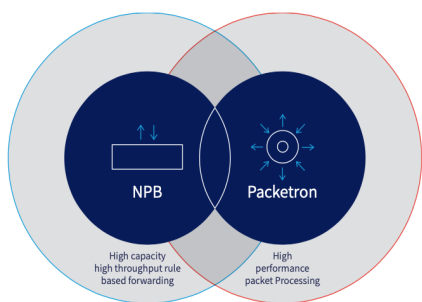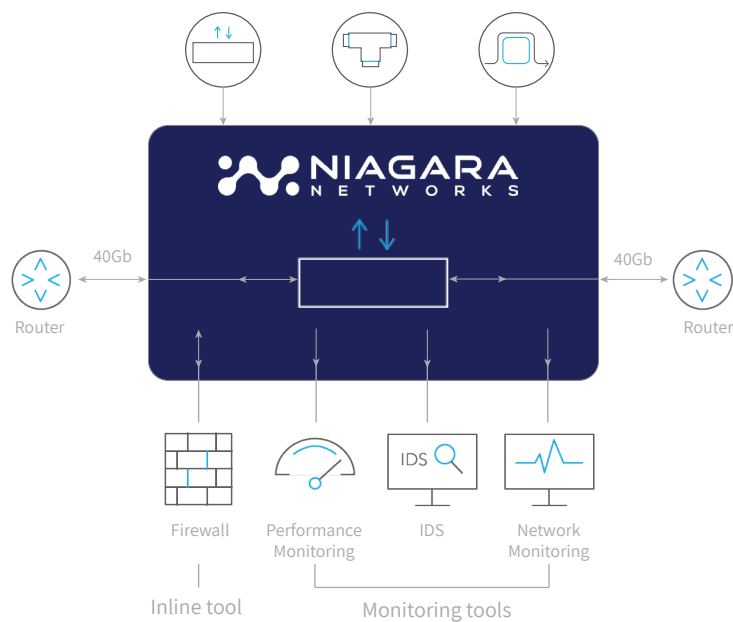[1] 1Gb rate is supported on 10/25G ports

[2] Packetron hardware and licensing ordered separately- please refer to Packetron datasheet.

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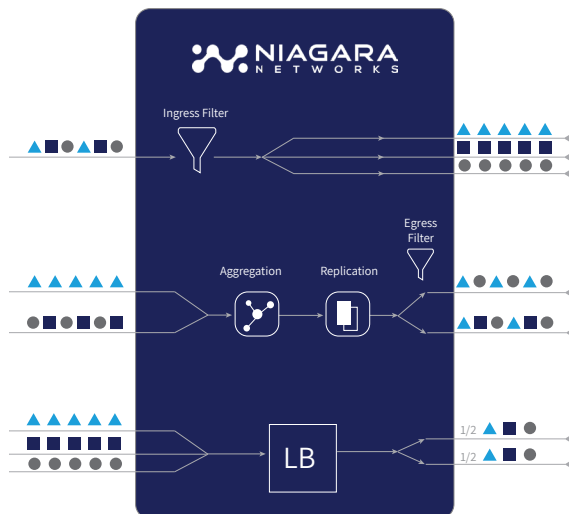
FabricFlow™ technology for efficient aggregation, replication, filtering and load balancing of traffic.

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

NPB — High capacity high throughput rule based forwarding

Packetron — High performance packet Processing

Unique Open Visibility Achitecture to enable deep packet intelligence and agility to host 3rd party virtual cybersecurity and monitoring applications

Deep Traffic Intelligence

Visibility Intelligence
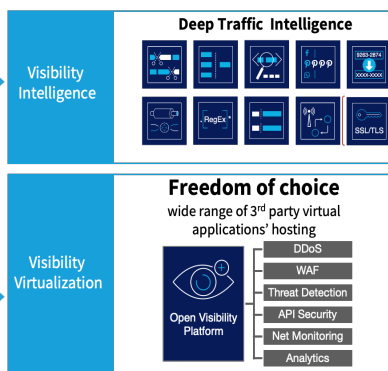
Advanced Network Intelligence and 3rd party virtual applications hosting.

Freedom of choice
wide range of 3rd party virtual applications' hosting

Visibility Virtualization

Open Visibility Platform

- DDoS
- WAF
- Threat Detection
- API Security
- Net Monitoring
- Analytics

Integrated Packetron modules offer a wide selection of Network Intelligence applications, including Deduplication, Data masking, Application Filtering, RegEx filtering, NetFlow/IPFIX generation 4G/5G mobile visibility, and more.

Specifications

Height	1.75 in (44.45 mm)	Max Power	332 Watts (up to 575.2W with rear Packetron modules installed)
Length	24.0 in (609.6 mm)	Airflow	Front to back
Width	17.3 in (439.42 mm)	DC	40-60V DC, 20-15A
Weight	25.6 lb (11.4 kg)	AC	90-264V AC, 50-60Hz, 8-4A
Operating Temp	32-104°F (0-40°C)	Max Current	10A @ 115V AC 5A @ 230V AC 14.38A @ 40V DC
Operating Humidity	5-95%		

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

Safety	Certifications	
UL/CSA 60950-1, EN 60950-1, IEC 60950-1, UL 62368 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
4248-6C-MN-AC	4248-6C main chassis AC, includes two field replaceable power supply units. OVP Enabled for up to 2 rear Packetron modules (sold separately).Includes License for 48 ports of 10/25Gb and 6 ports of 40/100Gb Transceivers sold and ordered separately.
4248-6C-MN-DC	4248-6C main chassis DC, includes two field replaceable power supply units. OVP Enabled for up to 2 rear Packetron modules (sold separately). Includes License for 48 ports of 10/25Gb and 6 ports of 40/100Gb Transceivers sold and ordered separately.
4248-6C-MN-24P-AC	4248-6C main chassis AC, includes two field replaceable power supply units and two field replaceable fan units. OVP Enabled for up to 2 rear Packetron modules (sold separately). Includes License to enable 24 ports of 10/25Gb. Transceivers sold and ordered separately.
4248-6C-MN-24P-DC	4248-6C main chassis DC, includes two field replaceable power supply units and two field replaceable fan units. OVP Enabled for up to 2 rear Packetron modules (sold separately). Includes License to enable 24 ports of 10/25Gb. Transceivers sold and ordered separately.
4248-6C-LC-25-48	4248-6C license to enable 10G/25G ports 25-48
4248-6C-LC-6C	4248-6C license to enable 40G/100G ports 49-54

For ordering Packetron Processor acceleration modules and associated Network Intelligence Application software and licenses, refer to the **Packetron datasheet** in the Resources section on our website.

For subscription licenses with pay-per-use terms enabling hardware configurations of 12 months or longer, please contact sales@niagaranetworks.com for ordering details