

100G High-Density Open Visibility Packet Broker

The 4540 is part of the FixedBroker product line, consisting of 1U high density, high performance, packet brokers with Open Visibility Platform enabled functionality. 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.



4540 front and rear view

The 4540 includes up to 28 ports of 40/100Gb plus another 8 ports of 10/25Gb¹. 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 4540 is a fully-featured packet broker that is capable of not only aggregation, but replication, sophisticated filtering, load balancing, tunneling supports, and more.

The 4540 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 Platform™ Enabled

Open Visibility Platform (OVP) technology enables the user to combine advanced network intelligence applications and other 3rd parties virtual machine-based applications² seamlessly integrated with the packer broker functionality.

Advanced network intelligence applications² include such applications as de-duplication, TLS decryption, 4G/5G mobile visibility, and more. Open Visibility Platform is achieved by up to two [Packetron](#) processing² modules (up to 200Gb processing) in the rear of the device so that that critical front panel real-estate is not sacrificed.

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

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

Product Highlights

High Density:

- Up to 28 ports of 40/100Gb and additional 8 ports of 10/25Gb

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

Open Visibility Platform™ Enabled

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

Fabric Flow™



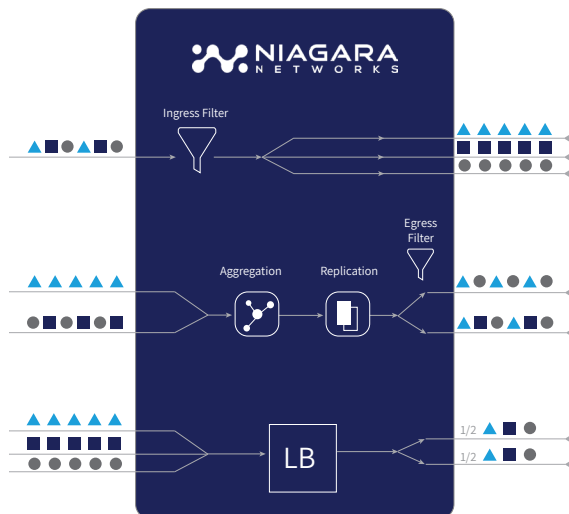
Mapping traffic flow relationships between source and destination ports:

- 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

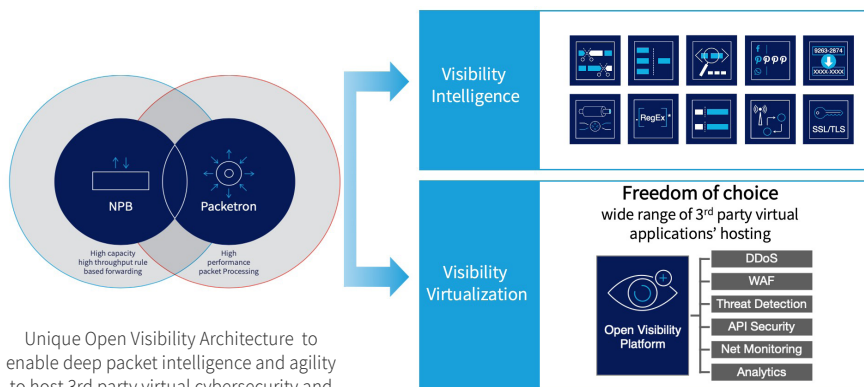
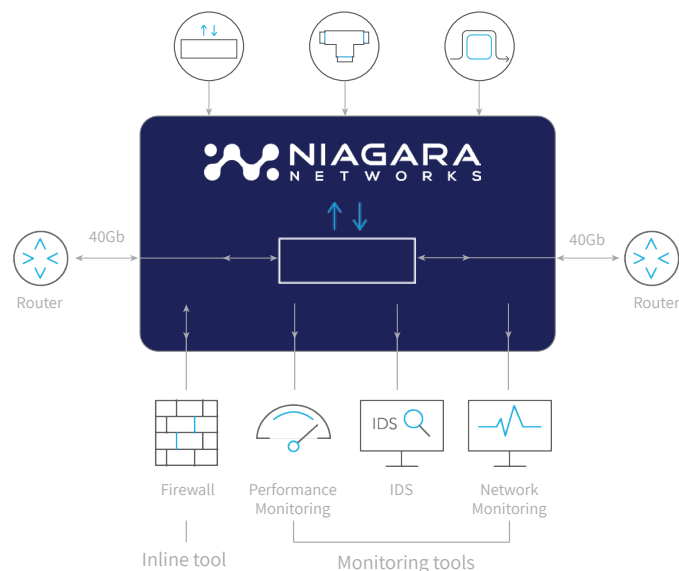
- Robust Command Line Interface (CLI)
- User friendly, Web-based user interface
- REST API for 3rd party integration and support
- Managed by Niagara Visibility Controller
- Support TACACS+, RADIUS, SNMP and NTP

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.



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

Advanced Network Intelligence and 3rd party virtual applications hosting

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 | 1.72 inches (43.70 mm) | Max Power | 481.32 Watts (w/o Packetron module) 724.52 Watts (with two Pacektron modules) |
| Length | 24.0 inches (609.60 mm) | BTU/hr | 1642.33 (w/o Packeron modules) 2472.16 (with two Pacektron modules) |
| Width | 17.3 inches (439.42 mm) | Airflow | Front to back |
| Weight | 25.6 lb (11.4 kg) | DC | 40-60V DC, 20-15A |
| Operating Temp | 32-104°F (0-40°C) | AC | 90-264V AC, 50-60Hz, 8-4A |
| Operating Humidity | 5-95% | Max Current | 10A @ 115V AC 5A @ 230V AC 14.38A @ 40V DC |
| 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 | | |
| 4540-MN-AC | 4540 main chassis AC, includes two field-replaceable power supply units and two field replaceable fan units. Supports 28 ports of 40/100Gb and 8 ports of 10/25Gb. OVP Enabled for up to 2 rear Packetron modules (sold separately). Includes license 4540-LN-MN to enable 28 ports of 40/100Gb, 8 ports of 10/25Gb. Transceivers sold and ordered separately. | | |
| 4540-MN-DC | 4540 main chassis DC, includes two field-replaceable power supply units and two field replaceable fan units. Supports 28 ports of 40/100Gb and 8 ports of 10/25Gb. OVP Enabled for up to 2 rear Packetron modules (sold separately). Includes license 4540-LC-MN to enable 28 ports of 40/100Gb, 8 ports of 10/25Gb. Transceivers sold and ordered separately. | | |
| 4540-MN-16P-AC | 4540 main chassis AC, includes two field-replaceable power supply units and two field replaceable fan units. Supports 28 ports of 40/100Gb and 8 ports of 10/25G. OVP Enabled for up to 2 rear Packetron modules (sold separately). Includes license 4540-LC-16 to enable 16 ports of 40/100Gb, 8 ports of 10/25Gb. Transceivers sold and ordered separately. | | |
| 4540-MN-16P-DC | 4540 main chassis DC, includes two field-replaceable power supply units and two field replaceable fan units. Supports 28 ports of 40/100Gb and 8 ports of 10/25Gb. OVP Enabled for up to 2 rear Packetron modules (sold separately). Includes Base license to enable 16 ports of 40/100Gb, 8 ports of 10/25Gb. Transceivers sold and ordered separately. | | |
| License | Description | | |
| 4540-LC-MN | 4540 license to enable 40G/100G ports 1-28, 1G/10G ports 29-36 | | |
| 4540-LC-16 | 4540 license to enable 40G/100G ports 1-16, 1G/10G ports 29-36 | | |
| 4540-LC-17-28 | 4540 license enable to activate 40G/100G ports 17-28 | | |

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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

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