



Myricom nVoy Series 1-100Gbit Packet Broker

The **Myricom nVoy Series Packet Broker** enables Security Operations Engineers to build next-generation network security or visibility solutions. Our nVoy Packet Broker makes it easy to aggregate, replicate, tag, strip, filter, and load-balance traffic from a tap into your collection of network sensors. Providing flexible and scalable flow routing to flow monitoring and/or security and forensic tools allows Engineers to focus on potential traffic of interest at the application level, from a source, to a destination – or any combination thereof. It is fully backed by a customer support team that specializes in network sensor technologies.

Benefits

- No proprietary command line interface (CLI) to learn. Instead draw lines between boxes using a web interface built into the appliance (see figure below). There is also a JSON API for configuring the broker under program control.
- Deploy on your 1 or 10 Gbit network knowing that your investment already supports 25, 40, and 100 Gbit to leverage later when you need it with 3.6 Tbps of line rate processing.
- Or, if your network is already faster than 10 Gbit, use the Packet Broker's filtering and load balancing to process packets from 25-100 Gbit network taps into a cluster of 10 Gbit servers.

Key Features

- Traffic Aggregation, Traffic Replication, Load Balancing, Virtual Wire, Mirror and Tap
- 48, 10Gb/25Gb Ports
- 6, 40Gb/100Gb Ports
- Powerful GUI for web based configuration and status information
- Full 5 tuple flow level routing and filtering.
- Extract and map any group of flows and/or up to 2000 individual flows - on a source destination and application basis
- Extensible protocol support allowing additions via software update
- Extract statistics from the broker using SNMP/TRAP, SYSLOG, EMAIL, or JSON API based polling

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**nVoy Series
1-100Gbit
Packet Broker**



Features

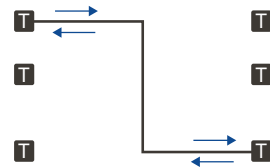
- 48x 10G/25G SFP+/SFP28 and 6x 40Gb/100Gb QSFP+/QSFP28 ports
- Fabric Visibility Appliance

Flow Operation Domain

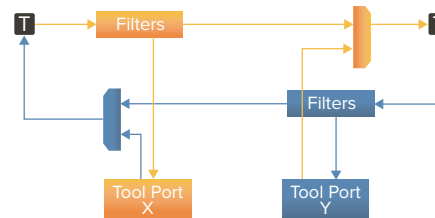
The CSPi nVoy Packet Broker's data path is graphically configured using a Virtual Flow Domain paradigm. The Packet Broker supports up to 10,240 Virtual Flow Domains, each isolated from the others. Virtual Flow Domains can have their own data path, filter configuration, and load-balancing rules, etc. Once activated, the configuration is mapped and pushed into hardware.

CSPi's nVoy Packet Broker understands wide variety of protocols including: TRILL, MPLS, VPWS, Q-in-Q, MAC-in-MAC, IPv4, IPv6, GRE, ECMP, TCP, UDP, IGMPv1, IGMPv2, IGMPv3, and VEPA+

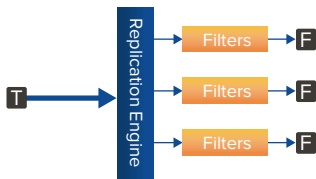
Typical Flow Domains Supported by Flow Domain Designer Software



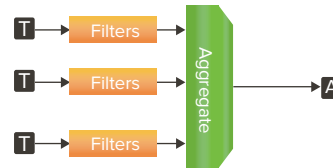
Dynamically connect ports together without processing. This emulates a matrix switch which are often found inside network testing labs or used for broadcast video.



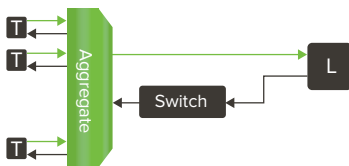
Split some of the traffic off for processing using an external appliance. Merge the results back in.



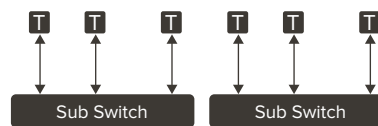
Replicate a single packet stream and then filter each copy differently. This configuration can share a network tap with multiple security appliances.



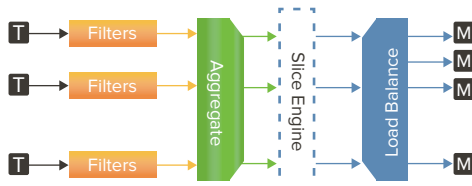
Monitor three separate ports and consolidate the packets to send over a single port to a different location for analysis



Aggregate multiple switch uplinks to pass through a single firewall-like appliance.



It isn't just a broker. You can setup specific ports as an L2 or L3 aware switch. Line rate with jumbo frame support.



A slightly more complex example that includes packet slicing and load balancing into a compute cluster. Many IDS implementations at 10+ Gbit require load balancing.

External Interfaces Specification

Function	Compliance	Type	Quantity
Bi-mode 10Gb/25Gb Traffic Ports	IEEE 802.3 by Optical fiber, twinax, back-plane 25 Gigabit Ethernet IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3aq 10GBASE-LRM	25G SFP28 Fiber Optics 25G SFP28 passive DAC 10G SFP+ Fiber Optics 10G SFP+ Passive DAC Cable	48
40Gb/100Gb Traffic Ports	SFF-8436, SFF-8635 QSFP+ 40Gb port; QSFP28 100Gb Ports	QSFP+/QSFP28+ Fiber Optics or QSFP+/QSFP28 DAC Cable	6
40Gb/100Gb Traffic Ports Break-out Capabilities 	Each 40Gb/100G Traffic Port can be split into 4 ports to support 10Gb/25Gb Operation. IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.3aq 10GBASE-LRM SFP+ MSA, Revision 4.1 Direct-attach Copper Support up to 10 meters	40G QSFP+ to 4x SFP+ splitter cable 100G QSFP28 to 4x SFP28 splitter cable	6 QSFP+/ QSFP28 to 24 SFP+/SFP28
10Gb/25Gb Traffic Ports Gang Capabilities 	Each 4 adjacent 10Gb/25Gb Ports can be ganged into 1 QSFP+/QSP28 Port with QSFP+/QSP28 to SFP+/SFP28 Cable	QSFP+/QSP28 Fiber Optics or QSFP+/QSP28 DAC Cable	48 SFP+/SFP28 to 12 QSFP+/ QSFP28
LED For the System	Power Module 1 Status LED Power Module 2 Status LED FAN Status LED STAT Status LED	Green/Amber Green/Amber Green/Amber Green/Amber	1 1 1 1
LED For SFP+ Traffic Ports	Combo LED for Link and Activity	Green LED	1 Per Port
LED For QSFP+ Traffic Ports	Combo LED for Link and Activity	Blue LED	1 Per Port
10/100/1000 Mbps Management Port	10/100/1000BASE-T Category 5, Category 5e, Category 6 UTP	Copper RJ-45. There is no path between the management port and the switch ASIC dataplane.	1
Visible LED for RJ-45 Management Port	LED for Link LED for Activity	Green/Orange LED Green LED	2
Console Port	115200 Baud 8 Bit Data No Parity 1 Stop Bit	Mini USB Type B	1
USB Port	USB 2.0 High Speed 480Mbps Port	USB Type A	1
Air Flow and Fans	PWM Controlled Long Endurance Fan	Front to Back Air Flow	4
Redundant Power Supply	Dual 750W High Efficiency 90-230V AC 50-60Hz Class I	1+1 Redundant Power Supply	2
Rack Mount Kit	19 Inch Rack Mountable	19 Inch Rack Mountable	1

There are no locks on transceivers. CSPi provides a list of transceivers it has tested. Use of other transceivers may require signal integrity testing and an update to our database of signal preemphasis levels. This work will require a service charge.

Standard Peripherals

Part Name	Quantity
DB-9 to Mini-B USB Serial Console Cable	1
UTP Cat 6, Ethernet Cable	1
Rail Mounting Kit	1
CD (User Manual, software package)	1
USB System Recovery Thumb Drive	1 or Download

Package and Environmental Specifications

Item	Description
Dimension (Unit: mm)	485 x 440 x 44 (Width x Depth x Height)
Net Weight (Unit: Kilogram)	8.5
Environment	Operating Temperature: 10-35 C Non Operating Temperature: -40-70 C Humidity: 20- 90% (Non-condensing)

Order Code

Part Number	Traffic Ports	Hardware
100G-PACBRO-1-100GB	48 SFP+/SFP28+ 6 QSFP+/QSFP28	1U with dual power supplies

 **Meet your intelligent packet flow directing, contact us at myricom.sales@cspi.com**

About CSPI

CSPI (NASDAQ: CSPi) is a global technology innovator driven by a long history of business ingenuity and technical expertise. A market leader since 1968, we are committed to helping our customers meet the demanding performance, availability, and security requirements of their complex network, applications and services that drive success.

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