

NPB-1e8 Network Packet Broker

Product Overview

NPB-1e8 is part of CGS **Tera-Pro™** solution that optimizes cyber security and performance monitoring applications by delivering the required data in the right volume and the correct format. CGS's disaggregation approach across its entire portfolio, revolutionizes the network visibility market with its Unified Visibility Architecture (UVA) that streamlines deployment of the CGS Software Defined Packet Broker on the most modern, scalable, and powerful open switches and network appliances, resulting in superior performance and scalability, wider deployment options, enhanced productivity and compelling TCO.

NPB-1e8 is based on a modern and powerful Trident 3 switch offering two key advantages: rates and functionality. It supports all common rates from 1G to 100G and advanced functionality such as MPLS Stripping, GRE/VXLAN Termination, Timestamping and Dynamic Load Balancing and compelling TCO.

Key Features

Aggregation, L2-L4 including 5-tuple Filtering, MPLS Stripping, L2GRE Tunnelling/Termination, Dynamic Load Balancing, Slicing
High performance TRIDENT 3 platform with 4 Tbps capacity and 32MB Buffer Size
Full range of rates supported in a 1U platform: 1G, 10G, 25G, 40G, 50G, 100G
Service/Tool chain for Inline Tools use cases
MPLS stripping (up to 7 labels)
Nanosecond timestamping
48 x 1G/10G/25G + 8 x 40G/100G or 16 x 50G or 32 x 1G/10G/25G (using breakout cables)
Management Ports: 1 x RJ-45 serial console, 1 x RJ-45 100/1000BASE-T, 1 x 10G SFP+
Enhanced productivity with Drag & Drop Filter Editor
Unified management including CLI, SNMP, WEB UI, Net CONF and REST API



Use Cases

- Aggregation of TAP/SPAN network traffic to a centralized location where tools are deployed.
- Optimize tools performance by filtering network traffic.
- Regenerate network traffic to multiple tools
- Adjust high-rate networks to lower rate monitoring applications.
- Replace MAC address to enable device identification, authentication, and tracking
- Dynamic Load Balancing to prevent over-subscription by elephant flows
- Strip up to 7 MPLS labels
- Compliance for high frequency trading
- Monitor and optimize 5G networks with nanosecond timestamping



Features	Benefits	Features	Benefits
Aggregation	Aggregate and redirect network traffic on all rates for further processing. One-to-One, One-to-Many, Many-to-Many	User Defined Filters	Track packets that match a certain "window" in the incoming traffic
Replication	Enable multiple tools to analyse the same traffic. Replication is supported according to the maximum ports on the device.	Dynamic Load Balancing	Prevent over-subscription by elephant flows with hash-based mechanism.
Inner Tunnel Filtering	Filtering according to Inner tunnel parameters of MPLS, GTP, L2TP, GRE, PPPoE, VXLAN	Port Labelling	Add / Remove / Replace Tag to mark & track Ingress port or flow
Filtering	Filtering out unnecessary network traffic with conditional L2-L4 including 5-tuple Filtering classifiers from any to any ports mapping	Time Stamping	Enhances network visibility with nanosecond time stamping capabilities
Egress Filtering	Second stage of filtering traffic before it is transmitted to the tools	Packet Slicing	Improve monitoring and network data analysis performance by reducing packet size and maintaining the required packet slice for further processing
GRE/VXLAN Tunnelling	Interconnect packet brokers across multiple sites with L2GRE/VXLAN protocol and tunnel stripping	Stacking	Connecting multiple NPBs to operate as a single entity, resulting in increased capacity and redundancy in the visibility network.
AND/OR/NOT Operators	Simplify packet broker operation with logic filter actions	Reliability	Hot/cold aisle with port-to-power and power-to-port airflow
Copy	Enable orthogonal filter paths on the same traffic	Redundancy	Hot-swappable, load-sharing, redundant AC/DC PSU and N+1 fan modules
MAC Replace	Enable device tracking, identification, or authentication by setting MAC address	User Management	Support both local and remote management with Radius and TACACS+
MPLS Stripping	Enable applications to analyse network traffic by removing up to 7 MPLS labels	Management	Web UI, CLI, SNMP, NETCONF, REST API

For more information about the products and support programs
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