

# NEOXPacketTiger Network Packet Broker

## MAXIMIZE NETWORK VISIBILITY THROUGH THE ADVANCED FUNCTIONALITIES OF OUR NEXT GENERATION NPB PLATFORM















Network Packet Brokers (Data/Network Monitoring Switches) are used to provide the network analysis tools with the network data packets (e.g. via Network TAP) reliably and in optimised form. New network protocols and tunnel methods lead to changes in the format and length of the packet structure. To gain real insight into network traffic, the payload of the packets must also be analysed. Such changes push the parsing capabilities of switch-based NPBs to their limits and reveal a growing need for more sophisticated methods to process the network data.

NEOXPacketTiger Advanced Network Packet Brokers (ANPBs) allow full flexibility in parsing headers and processing payloads, and provide advanced technology for modifying and optimising these packets. Advanced features such as IPv6 filtering in GTP tunneling, regex and DPI or application-based metadata extraction using CPU-based NPBs are available.

NEOXPacketTiger ANPBs use modern, high-performance, modular and scalable COTS hardware that can be configured for the desired processing capacity. This unique approach removes hardware performance constraints and enables better scaling and matching between hardware and performance requirements. Media type and speed of your network do not matter, as our PacketTigers are equipped with RJ45/SFP/SFP+/QSFP+/QSFP28 ports depending on the configuration.

The PacketTiger's Advanced Packet Processing allows you to work even more granularly and look deeper into the individual packets of the data load than you are used to with regular Network Packet Brokers. Even resource-intensive scenarios such as removing duplicates in the network or masking or blacking out content in the individual packets are no problem for PacketTiger!

All in all, an Advanced Network Packet Broker has significantly more functionalities to optimally distribute network data than a conventional NPB. NEOXPacketTiger ANPBs are available in different categories: Desktop Appliances, Network Appliances and Servers, enabling a wide range of solutions, from stand-alone solutions with lower data capacity for small businesses and small remote sites to multi-Gbps processing clusters for service providers.

	Up to 8x 100Gbps
	PacketLion Features
	GTP Correlation
	Data Masking
	Deduplication
	Advanced Filtering
	Netflow/IPFIX Support
	Deep Packet Inspection
	Tunnel Support
	Packet Capturing & Replay
	GTP Tunneling & IMSI Filtering
	Development & QA in Germany



### STANDARD FEATURES

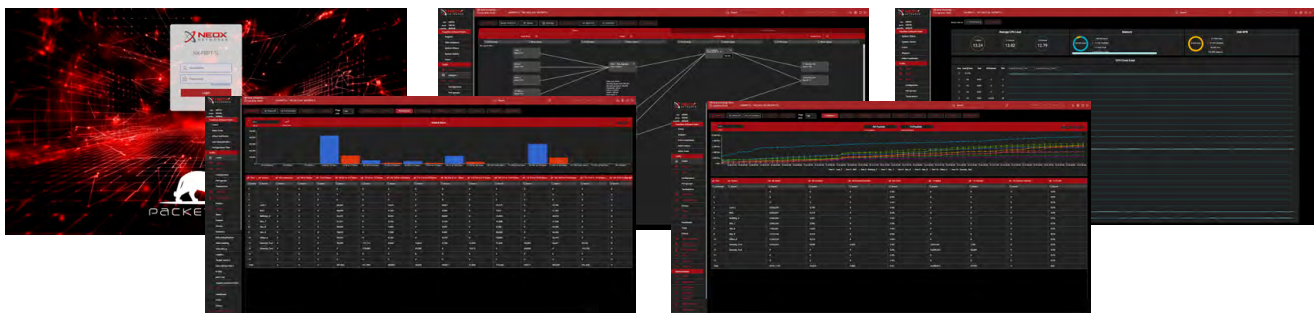
Flexible Port Assignment	1:1, N:N, N:1, 1:N
Flexibility	Aggregation of 10M/100M/1000M, 1G, 2.5G, 10G, 40G and 100G network ports
Filter Rules	Support for MAC, VLAN, IPv4/IPv6, TCP/UDP, DSCP, TCP Flags, MPLS, GTP, L2TP, VxLAN, Regular Expressions
Filter Rule Count	Support for up to 1,000,000 filter rules, AND & OR logical operation
Traffic Handling	Aggregation and regeneration of all network traffic
User Defined Filtering	Support for user-defined filtering rules (UDF)
Management Options	CLI, SSH, SNMP V2/V3, WEB UI, Net CONF and REST API
Cluster	Of multiple Network Packet Broker systems possible, HA configuration support
Tunnelling	Support for Layer 2 and Layer 3 GRE Tunnelling Protocol
Load Balancing	Based on 3-tuple, 4-tuple and 5-tuple criteria, IP addresses
Port Labeling	Allows to identify the physical source of the network traffic after aggregation at your analysis tool despite correlation
Header Stripping	MPLS, PPPoE, VN-Tag, VxLAN, GRE, L2TP, CTP-U, GENEVE
Packet Slicing	Static and dynamic
AAA-Servers	Radius and TACACS+
Metadata Export	Kafka
Modular	RJ45, SFP, SFP+, QSFP+ and/or QSFP28 interfaces
Logging	Through syslog and SNMP traps
Hardware Acceleration	Via DPDK
Troubleshooting	Digital Diagnostics Monitoring (DDM) <i>(available soon)</i>



### ADVANCED FEATURES

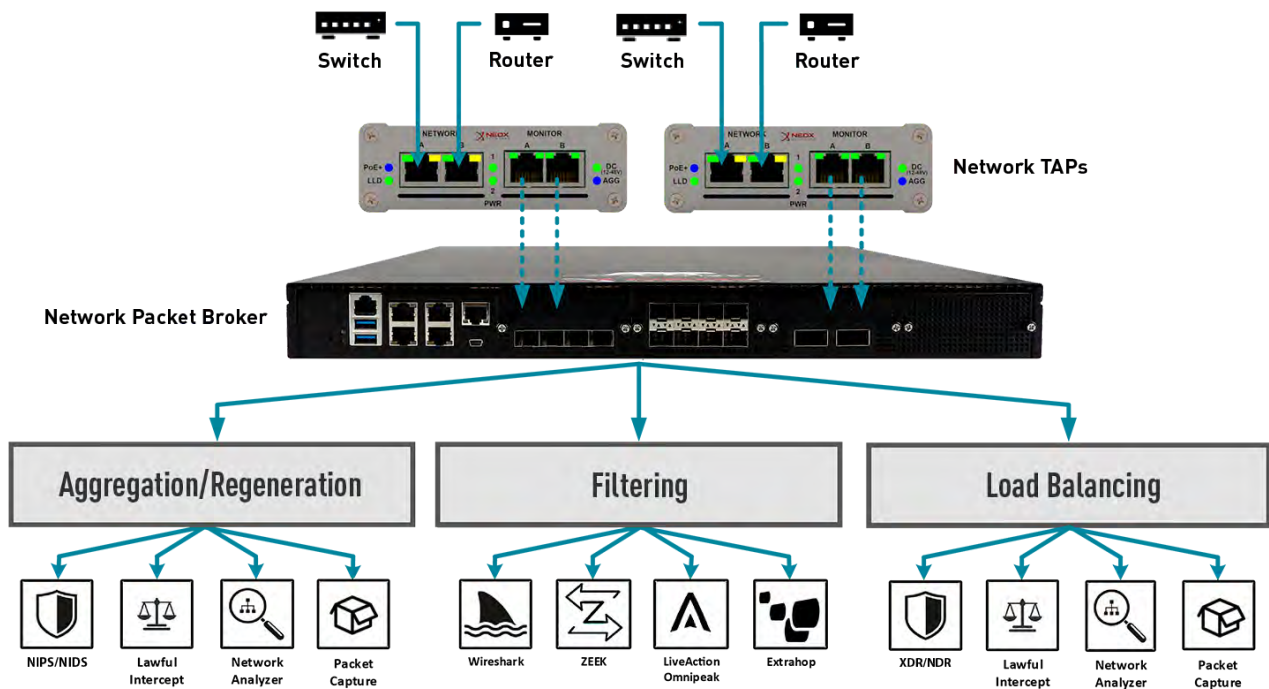
GTP Correlation	Correlate your GTP-U and GTP-C traffic based on F-TEID or Inner-IP and create complex filters from IMSI, IMEI, phone numbers, APN and much more
Data Masking	Hide or black out sensitive data by overwriting specific areas of a packet, no matter where that area is located
De-Duplication	Identify and discard duplicate packets to reduce load on your analysis system
Advanced Filtering	Allow you to set any information in the entire Ethernet packet as a filter condition, whether in the header or payload
Tunnel Filtering	Filtering within a tunnel (GTP, L2TP, MPLS, GRE, etc.)
Netflow Support <sup>1</sup>	Extend your monitoring performance with the high granularity of IPFIX
Deep Packet Inspection <sup>1</sup>	More visibility through DPI - increase network visibility through application discovery
Tunnel Support	PacketTiger allows you to remove, terminate and filter all common tunnel protocols
Packet Capturing	Use the PacketTiger to record directly on the system the data to be processed in PCAP format
Packet Replay	PCAP replay function allows you to check your setup directly and at any time

<sup>1</sup> Optionally available



**USE CASES**

- Aggregation of TAP/SPAN traffic in a central location to provide data efficiently to security and monitoring tools
- Decide for yourself which network traffic you want to forward to which analysis system
- Intelligent Load Balancing of all traffic according to the capacity of your connected monitoring systems
- Regeneration of data traffic, for example to provide network data to multiple security systems in parallel
- Layer 2 matrix switch functionality for any interconnection of network data (many to one, one to many, many to many, any to any), easy media conversion due to modular design (RJ45/SFP/SFP+/QSFP+/QSFP28)
- Intelligent filtering rules let you sort out network data to be analyzed without loss or interruption
- Enables you to analyze 10M - 100G network lines using 1G/10G/40G monitoring systems



**TECHNICAL SPECIFICATIONS**

ITEM NO.	DIMENSIONS (WxHxD) / WEIGHT	RACK MOUNTING	CERTIFICATIONS / CE
NX-PBPT-1SC	25.4 cm x 4.4 cm x 20.2 cm / 1.15 kg	No	CE, RoHS, FCC Class B <sup>1)</sup>
NX-PBPT-1SCR	35.0 cm x 4.4 cm x 26.0 cm / 5.0 kg	Yes	CE, RoHS, FCC Class A, EC Class A <sup>1)</sup>
NX-PBPT-1XL-20/40/100	43.8 cm x 4.4 cm x 61.0 cm / c.a. 18.0 kg	Yes	CE, RoHS, FCC Class A, UL <sup>1)</sup>
NX-PBPT-2XL/2XXL	48,3 cm x 8.7 cm x 77,2 cm / 25.0 kg	Yes	CE, RoHS, FCC Class A <sup>1)</sup>

<sup>1)</sup> Further certifications available on request

ITEM NO.	POWER SUPPLIES AC 100 – 240V @ 50 – 60 Hz
NX-PBPT-1SC	60W external power adapter with locking plug
NX-PBPT-1SCR	150W internal Open Frame power supply
NX-PBPT-1XL-20/40/100	850W 1+1 ATX Redundant PSUs
NX-PBPT-2XL/2XXL	2x 800W Hot Swapable



MODELS & ACCESSORIES



Model: NX-PBPT-2XL/XXL



Model: NX-PBPT-1SCR



Model: NX-PBPT-1XL-20/40/100



Model: NX-PBPT-1SC

ITEM NO.	RJ45 PORTS	SFP PORTS	SFP+ PORTS	QSFP28 PORTS <sup>1)</sup>	NMC SLOTS
NX-PBPT-1SC	4x 10M/100M/1000/2500M	1x 1G <sup>2)</sup>	2x 10G	-	-
NX-PBPT-1SCR	5x 10M/100M/1000M	2x 1G <sup>3)</sup>	4x 1G/10G	-	-
NX-PBPT-1XL-20 <sup>4)</sup> PCIe Gen4	-	-	-	-	4
NX-PBPT-1XL-40 <sup>4)</sup> PCIe Gen4	-	-	-	-	4
NX-PBPT-1XL-100 <sup>4)</sup> PCIe Gen4	-	-	-	-	4
NX-PBPT-2XL PCIe Gen4	-	-	-	2x 40G/100G	-
NX-PBPT-2XXL PCIe Gen4	-	-	-	4x 40G/100G	-

<sup>1)</sup> Backwards compatible with QSFP+

<sup>2)</sup> Combo Ports: Either 1x 1G SFP or 1x 1G RJ45

<sup>3)</sup> Combo Ports: Either 2x 1G SFP or 2x 1G RJ45

<sup>4)</sup> Max. Throughput 20/40/100 Gb/s (restriction by software licence)

ACCESSORIES for NX-PBPT-1XL-20/40/100	
NMC MODULE	PORTS
NX-PBPT-1L-4PC	4x 10G RJ45
NX-PBPT-1L-8PS+	8x 1G/10G SFP+
NX-PBPT-1L-2PQ+	2x 40G QSFP+
NX-PBPT-1L-2PQ28	2x 100G QSFP28



Model: NX-PBPT-1XL-20/40/100



NX-PBPT-1L-4PC



NX-PBPT-1L-2PQ28



NX-PBPT-1L-8PS+



NX-PBPT-1L-2PQ+