NEXT GENERATION NETWORK VISIBILITY

Feature Brief

Improve Operational Efficiency with **Packet Slicing**

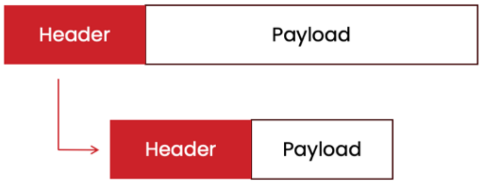
In today's high-speed networks, capturing every byte of network traffic is often unnecessary—and sometimes impractical. As bandwidth demands surge and security threats evolve, the ability to extract only the most critical packet data becomes essential for efficient monitoring, threat detection, and storage optimization. At NEOX, we recognize that Packet Slicing isn't just about reducing data volume—it's about delivering focused, high-value intelligence to your security and monitoring tools without sacrificing visibility.

What is Packet Slicing

Packet Slicing is the process of truncating packets to retain only the most relevant portions—typically headers and key payload segments—while discarding non-essential data. Unlike full packet capture, which consumes excessive bandwidth and storage, Packet Slicing ensures that security and monitoring tools receive only what they need to monitor and analyze, optimizing performance and resource utilization.

NEOX Packet Slicing capabilities include

- Header-Only Slicing (L2-L3-L4 headers for flow analysis) Partial Payload Capture (First n bytes for protocol identification)
- Application-Aware Slicing (Extract HTTP headers, DNS queries, API calls)
- Security-Focused Slicing (Retain malware signatures, C2 traffic patterns)
- Customizable Slice Lengths (Dynamic adjustment per traffic type)



Why Packet Slicing Matters

NEOX's Packet Slicing technology ensures that your monitoring and security infrastructure operates at peak efficiency, reducing overhead while maintaining critical network visibility. Here's why it's indispensable:

1. Reduced Storage & Bandwidth Costs
   Capture only the first 128-256 bytes of each packet (enough for most analysis) instead of full payloads. This minimizes packet data forwarding and analysis (for NDR, SIEM) and packet capture and storage requirements (PCAP) for long-term traffic retention.

2. Enhanced Security Monitoring
   Focus on threat indicators (e.g., malicious headers, handshake patterns) without irrelevant data that does not add value but consumes bandwidth. It optimizes encrypted traffic inspection by extracting TLS/SSL metadata.

3. Faster Analysis & Tool Performance
   Prevent monitoring tools from being overwhelmed by unnecessary payload data, as tools are the most expensive part of the infrastructure. Accelerate forensic investigations and incident response by storing, retrieving, and analyzing only high-value packet data segments.

4. Compliance & Data Privacy
   Avoid capturing sensitive payload data (PII, financial records) to comply with GDPR, HIPAA, PCI-DSS and other standards in highly regulated industries. Maintain low risk and visibility while reducing legal exposure from full-data retention.

How NEOX Delivers Packet Slicing

NEOX Packet Slicing technology is designed to overcome these challenges with advanced algorithms, scalable architecture, and seamless integration capabilities. By leveraging cutting-edge innovation, NEOX ensures that your network visibility remains efficient, secure, and future-ready.

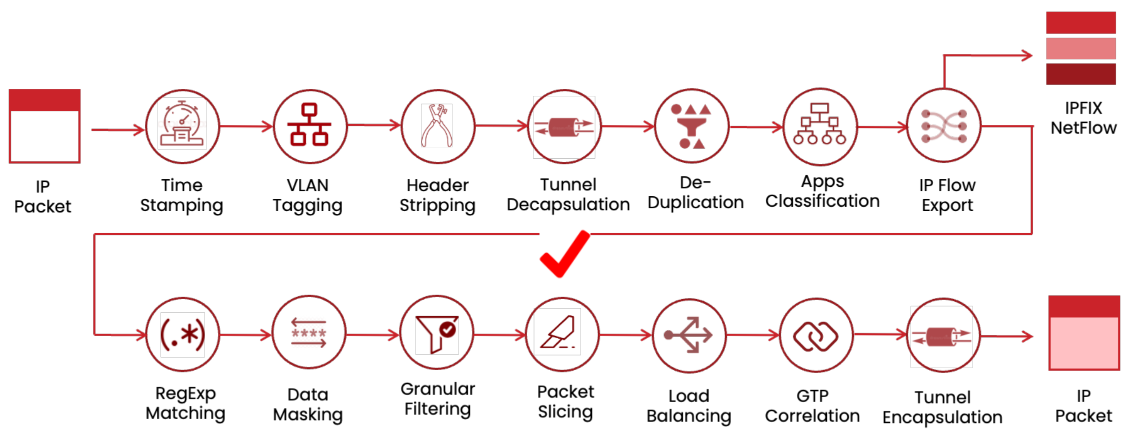
NEOX PacketWolf, PacketLion, and PacketTiger, series of Network Packet Brokers are engineered to maximize the efficiency of Packet Slicing deployments. Unlike other vendors who require a license, Packet Slicing is a Free (no license needed) feature with NEOX Packet Brokers. It is by-default turned on and ready to use. Here's how we do it:

1. Dynamic Slicing Policies
   Apply real-time rules (ACLs, regex patterns, flow attributes) to isolate traffic of interest. Support for stateful filtering to track sessions and enforce context-aware policies.

2. Security-Optimized Slicing
   Retain malware signatures, C2 beaconing patterns, and exfiltration attempts while discarding irrelevant data. Forward sliced packets to IDS/IPS, NDR, and SIEM for high-speed security analysis.

3. Cost of Advanced Features
   High-performance Packet Slicing solutions often come with a significant upfront cost, which may be a barrier for smaller organizations. NEOX Packet Brokers do not require any special hardware upgrades, modules, or software licenses and there is no additional cost to use the feature.

4. Cloud & Hybrid Support
   Extend filtering policies to cloud workloads (AWS, Azure, GCP) via NEOX PacketTigerVirtual. NEOX Packet Brokers give network and security teams the necessary visibility into traffic types across systems, including multi-cloud environments. Packet Slicing saves significant costs (and monthly bills) in the cloud by reducing the data transfer costs across the VPCs and out of the cloud.



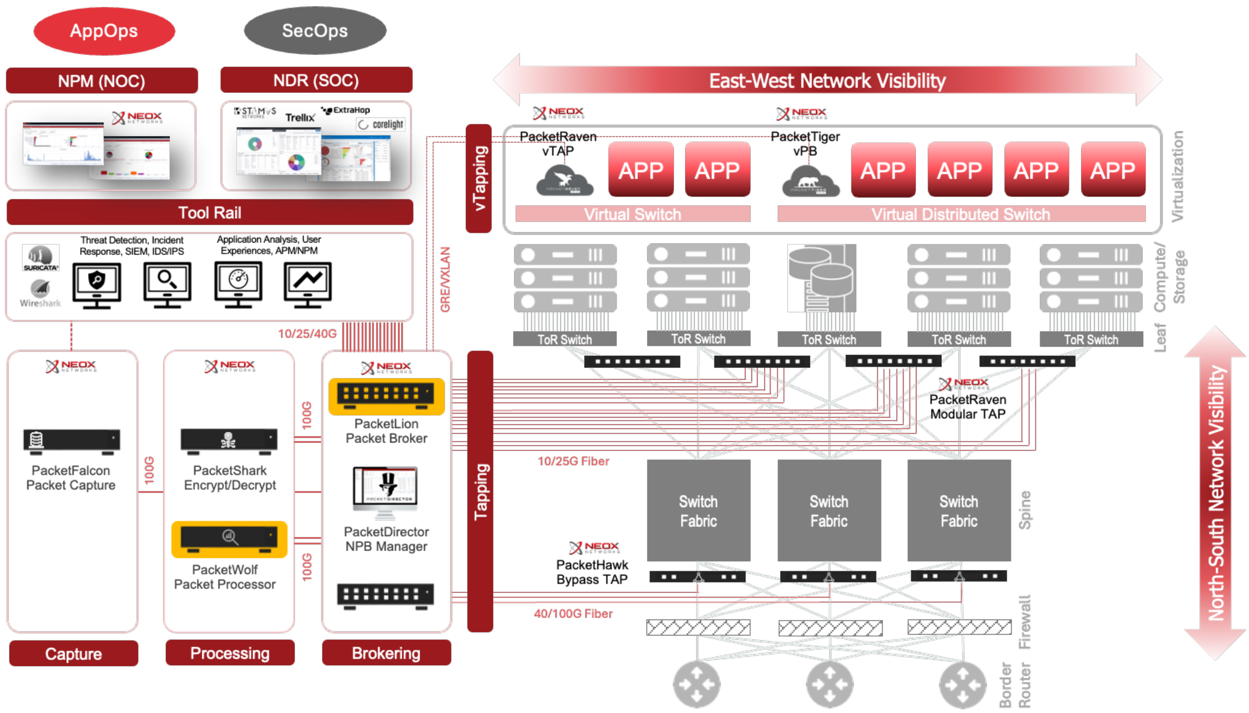
Feature	PacketWolf	PacketLion	PacketTiger	PacketTigerVirtual
Packet Slicing	✓	✓	✓	✓

Best Practices for Packet Slicing with NEOX

To help you get the most out of your network, we recommend the following best practices to funnel, consolidate, and process all network traffic to be monitored through one of the two NEOX Packet Broker approaches:

- For better hardware performance, lower latency network, or for a future-proofed scalable visibility approach, deploy a **two-tier visibility architecture**. Use NEOX PacketLion Packet Broker for high-density TAP and tool aggregation, and use NEOX PacketWolf Packet Broker for faster Packet Slicing and other packet services operations.

- For a lighter or software-driven approach, consolidate all network traffic to be monitored through a NEOX PacketTiger, and then from there to the tool rail. Same can be achieved in the cloud with PacketTigerVirtual before forwarding traffic to cloud-native monitoring or security tools.



The Future of Network Traffic Brokering Starts Here

As networks grow in complexity and speed, the importance of Packet Slicing will only continue to rise. At NEOX we're committed to helping you stay ahead of the curve with innovative solutions that deliver precision, reliability, and performance

Ready to Transform Your Network?

Discover how NEOX can elevate your Network Traffic Brokering with advanced Packet Slicing technology. Contact Us today or Request a Demo to learn more about our solutions and take the first step toward a smarter, faster, and more secure network.
NEOX – Precision. Performance. Perfected.

About NEOX Networks

NEOX Networks provides Next Generation Network Visibility for IT & OT Observability and Security. The result is strengthened cybersecurity, hybrid-cloud application observability, and business continuity, by integrating the network intelligence and real-time data-in-motion. Learn more at neoxnetworks.com