



neoxnetworks.com

Product Brochure

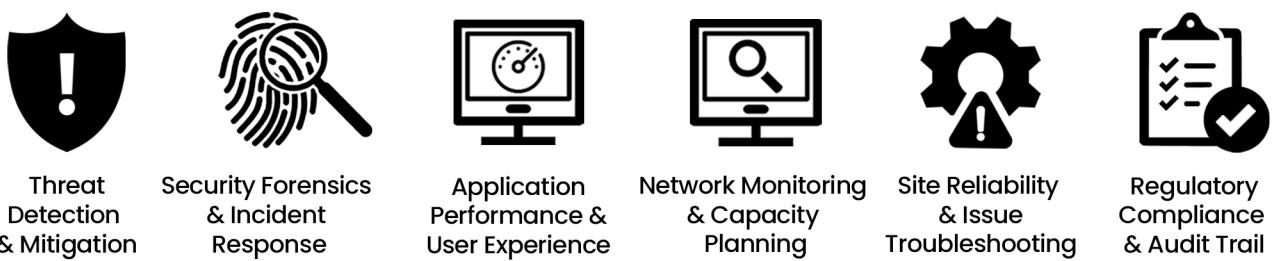
Next-Generation Network Visibility
for IT & OT Observability and Security

Download

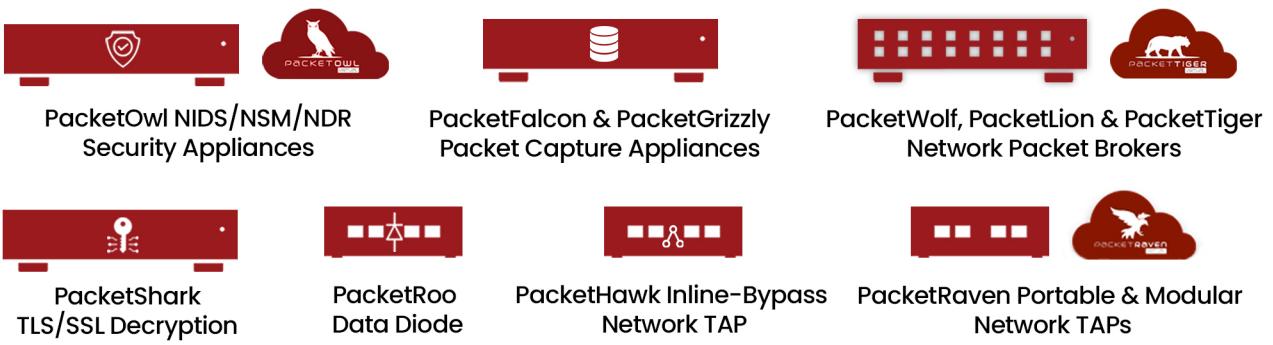


IT & OT Observability & Security

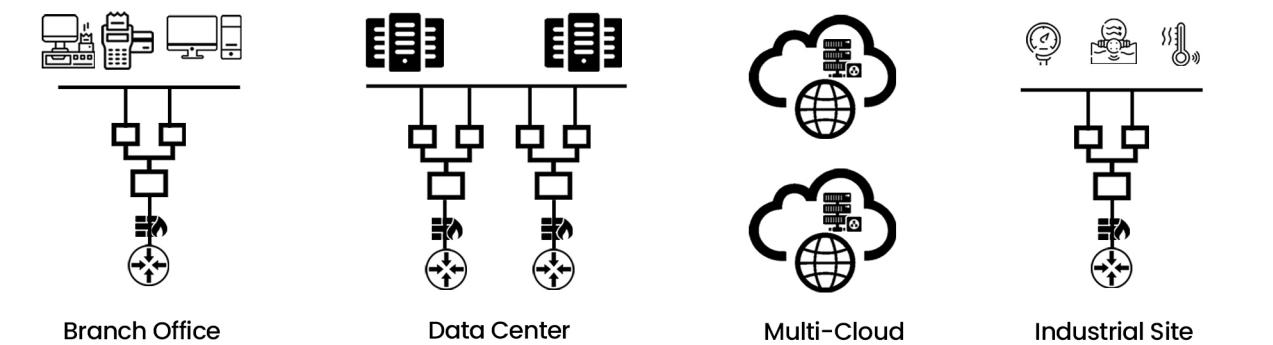
Applications



Visibility Layer



Network Layer



IT

OT

PacketOwl Series NIDS, NSM, and NDR

Network Intrusion Detection & Security Rule-based Threat Analysis
Log Export | North-bound Alerts | Event-Triggered PCAP



Key Benefits

- ✓ **Stronger Security Posture:** Full-fidelity Suricata rule-based 10-100Gbps NIDS reduces blind spots and speeds up threat detection and action as a key addition in a SoC.
- ✓ **Lower Operational Costs:** Smart NSM with conditional capture and scalable 90-720TB SSD capacity minimizes wasted storage, legal costs, and speeds up investigations.
- ✓ **Compliance & Forensic Readiness:** Accurate timestamping and long-term archiving of log and packet data support incident response, audits, investigations, and regulatory requirements.
- **Unmatched Threat Detection & Zero-Trust Security:** Built on an enhanced Suricata engine, delivering advanced NIDS, NSM, and NDR from 1 to 100Gbps without packet loss. It supports up to 10,000 log events per second, making it ideal for enterprises that demand an uncompromising security posture.
- **Forensic Precision & Long-Term Visibility:** With ultra-fast event-triggered packet capture, indexing, and historical search, PacketOwl empowers proactive threat hunting and incident response. It's scalable, 90TB to 720TB of SSD & SED storage ensures durable data retention for compliance and forensic investigations.
- **Seamless SOC & SIEM Integration & Operational Efficiency:** PacketOwl integrates natively with SIEM and SOC workflows by generating standardized logs and alerts while supporting log compression, log rotation, and custom rules. Pre-processing for threats offloads security tools, increasing their ROI.

-  Suricata-based IDS
-  100Gbps Performance
-  NDR Probe
-  Threat Analysis
-  Event Logs Export
-  Selective PCAP Capture
-  Northbound Alerts

[Learn More](#)



PacketShark Series Encryption & Decryption

Up to 50Gbps TLS & SSL Encrypted Traffic Visibility & Policy Control

Certificates | Filtering & Bypass | Forward Proxy | Compliance



Up to 50Gbps Performance



Up to 8 x 100Gbps SFP28



TLS & SSL Support



SSL Decryption on all L4 Ports



5-Tuple Support



Bypass Functionality



URL Filtering



Certificate Distribution & Control



Compliance & Privacy



Forward Proxy & Reverse Proxy

Key Benefits

- ✓ **Maximized & Deep Security:** Perfect the security posture by providing full visibility into 100% of TLS & SSL-encrypted network traffic, ensuring no threats remain hidden.
- ✓ **Guaranteed Compliance & Privacy:** Maintain regulatory compliance by using an advanced URL classification to selectively bypass decryption for sensitive financial or medical data.
- ✓ **Future-Proof Network Security:** Easily scale and adapt with the increasing encrypted traffic through dynamic service chaining and policy-based traffic routing.

- **Visibility & Centralization:** The PacketShark acts as an all-in-one solution, providing security tools with 100% visibility into TLS & SSL-encrypted traffic and centralizes the encryption & decryption process using the latest technologies.
- **Dynamic Protection:** Dynamic service chaining allows for flexible, policy-based routing of specific network traffic through tailored service chaining (L2/L3 inline, receive-only, ICAP, etc.), optimizing security posture based on traffic type.
- **Threat Mitigation & Productivity:** Boosts employee productivity and mitigates risk by using URL filtering to block access to malicious websites linked to malware, spam, and phishing, while supporting a "secure decrypt zone" deployment.

[Learn More](#)



PacketRoo Series Data Diode

IT & OT Logical Separation and Reverse-Path Protection
Secure File Transfer | Air Gap Assurance | Galvanic Isolation



Key Benefits

- ✓ **Fool-Proof Security:** Enforce a critical air gap with full galvanic isolation, ensuring data only flows one way, eliminating the physical attack surface.
- ✓ **Highest Safety Standards:** Strengthen security for critical infrastructure (IT & OT) and meet stringent Safety Integrity levels (SIL 3 & 4) for industrial environments
- ✓ **Flexible, Vendor-Agnostic Integration:** Transfer data unidirectionally with a modular and vendor-agnostic solution working seamlessly with existing data diodes

- **Designed for Criticality:** Essential for protecting IT & OT networks in critical sectors (energy, transportation, defense, manufacturing) by physically separating operational technology systems from external networks.
- **Designed for Criticality:** The PacketRoo is available only in fixed, fully sealed configurations, reducing the risk of configuration errors and ensuring a robust solution for both civilian and military use cases.
- **Dual Transfer Methods:** Operators can achieve secure, one-way data transfer from OT to IT using either the PacketRoo Data Diode hardware functionality or the SecureFileTransmitter software on both Windows and Linux hosts.

[Learn More](#)



Unidirectional Data Flow



Galvanic Isolation



Vendor Agnostic



Air Gap Assurance



For Harsh Environments



Automatic Speed Sync



Link Loss Detection



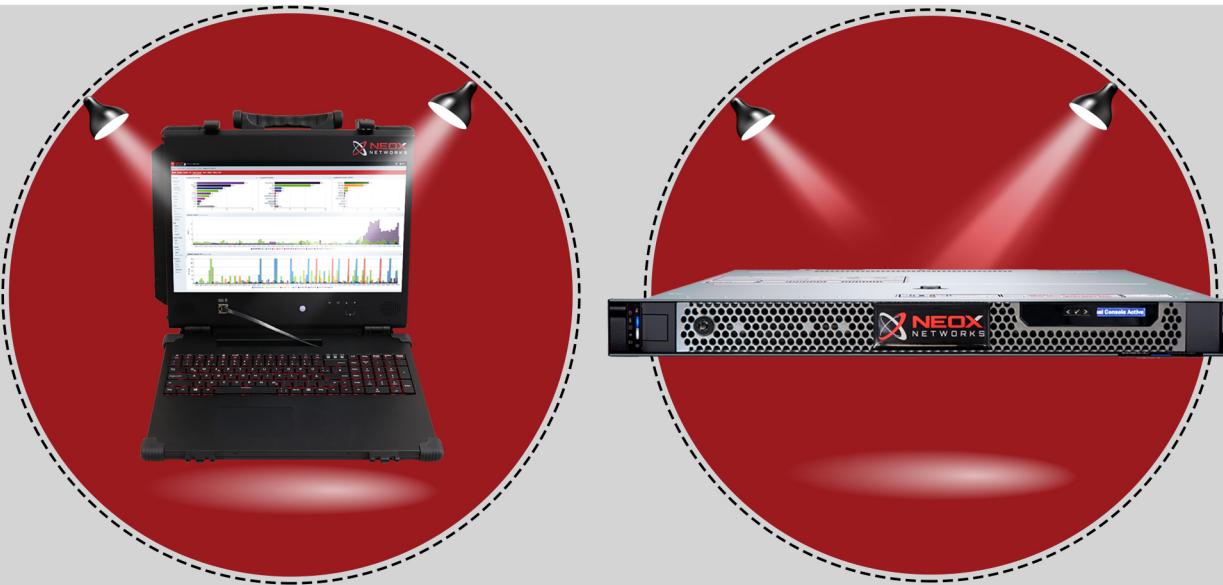
Error Prevention through Fixed Configuration



Windows & Linux Support

PacketFalcon Series Packet Capture

Up to 100Gbps Full Packet Capture in Portable and Compact Form Factors
Analysis & Forensics | Compliance | Out-of-Box Dashboards



Lossless Full
Packet Capture



Sustained Capture
up to 100Gbps



High-Speed FPGA
Capture Cards



Intelligent &
Compression-
based Capture



Storage up to
300/480TB



HW Encrypted
(SED) Storage



Hardware RAID
0,5,6,00,50,60



Portable or Rack-
Mountable



Flexible Connectivity
through SFP, SFP+,
SFP28, QSFP+, QSFP28

Key Benefits

- ✓ **Accelerated Incident Response:** Instantly retrieve and play back historical network data like a DVR for rapid forensic analysis and evidence collection in post-breach situations.
- ✓ **Reduced Troubleshooting Time:** Reduce MTTR and finger-pointing for NetOps & AppOps teams by recreating data streams for session analysis.
- ✓ **Compliance & Audit Trail:** Accurate timestamping and long-term archiving of packet data supports audits, investigations, and regulatory requirements.
- **High-Performance Architecture:** The PacketFalcon uses a high-performance FPGA-based hyper-converged architecture to capture packets from 1 to 100Gbps without loss and permanently stores packet data on built-in SSD storage from 30TB to 300TB (PacketFalcon Compact) and from 24TB to 480TB (PacketFalcon Portable).
- **Sustained Full Packet Capture:** Captures before, during, and after the event packet data, allowing SecOps teams to narrow down security loopholes, rogue IPs, suspicious activities, and quickly identify the attacker with evidence.
- **Out-of-Box Dashboard:** With built-in analytics that perform metadata-based analysis for KPIs such as top applications and protocols, latency measurements, TCP sessions, and UDP/RTP analysis for voice and data communications. A built-in packet analyzer helps with progressive drill-down all the way to the individual IP packet level.

[Learn More](#)



PacketFalcon Series Packet Capture

Up to 10 or 25Gbps Full Packet Capture in Portable Form Factor
Analysis & Forensics | Compliance | Out-of-Box Dashboards



Lossless Full
Packet Capture



Sustained Capture
up to 10/25Gbps



High-Speed FPGA
Capture Cards



Intelligent &
Compression-
based Capture



Storage up to
32TB



Portable, Compact
and Robust



Fanless Design



Flexible Connectivity
through
SFP/SFP+/SFP28



FPGA-based
10 Nanosecond
Timestamping

Key Benefits

- ✓ **Accelerated Incident Response:** Instantly retrieve and play back historical network data like a DVR for rapid forensic analysis and evidence collection in post-breach situations.
- ✓ **Reduced Troubleshooting Time:** Reduce MTTR and finger-pointing for NetOps & AppOps teams by recreating data streams for session analysis.
- ✓ **Compliance & Audit Trail:** Accurate timestamping and long-term archiving of packet data supports audits, investigations, and regulatory requirements.
- **High-Performance Architecture:** The PacketFalcon uses a high-performance FPGA-based hyper-converged architecture to capture packets up to 10Gbps (PacketFalcon Mini) or up to 25Gbps (PacketFalcon Mini X) without loss and permanently store packet data on built-in SSD storage from 8TB to 32TB.
- **Sustained Full Packet Capture:** Captures before, during, and after the event packet data, allowing SecOps teams to narrow down security loopholes, rogue IPs, suspicious activities, and quickly identify the attacker with evidence.
- **Out-of-Box Dashboard:** With built-in analytics that perform metadata-based analysis for KPIs such as top applications and protocols, latency measurements, Berkeley Packet Filters TCP sessions, and UDP/RTP analysis for voice and data communications. A built-in packet analyzer helps with progressive drill-down all the way to the individual IP packet level.

[Learn More](#)



PacketGrizzly Series Packet Capture

Up to 100Gbps Full Packet Capture in Extensible Form Factor
Analysis & Forensics | Compliance | Out-of-Box Dashboards



Lossless Full
Packet Capture



Sustained Capture
up to 100Gbps



High-Speed FPGA
Capture Cards



Intelligent &
Compression-
based Capture



External Storage
up to 8PB



HW Encrypted
(SED) Storage



Hardware RAID
0,5,6,10,50,60
& ADAPT



IEEE 1588v2
Precision Time
Protocol



Rackmountable

Key Benefits

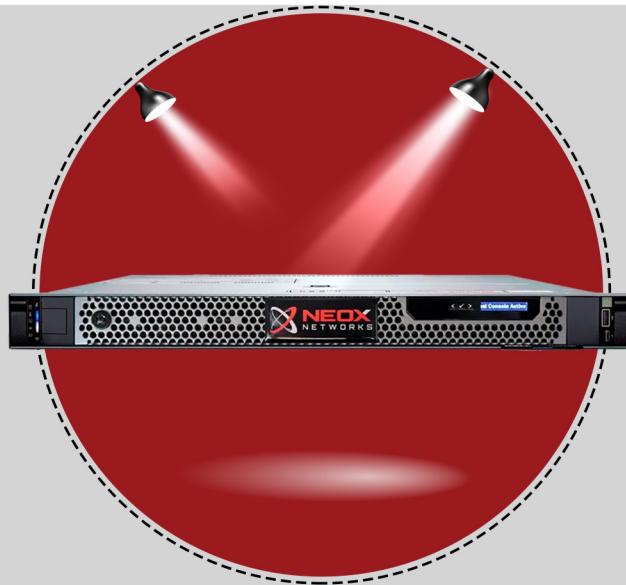
- ✓ **Accelerated Incident Response:** Instantly retrieve and play back historical network data like a DVR for rapid forensic analysis and evidence collection in post-breach situations.
- ✓ **Reduced Troubleshooting Time:** Reduce MTTR and finger-pointing for NetOps & AppOps teams by recreating data streams for session analysis.
- ✓ **Compliance & Audit Trail:** Accurate timestamping and long-term archiving of packet data supports audits, investigations, and regulatory requirements.
- **High-Performance Architecture:** The PacketGrizzly uses a high-performance FPGA-based hyper-converged architecture to capture packets from 1 to 100Gbps without loss and permanently stores packet data on built-in SSD storage from 38TB to 307TB (PacketGrizzly Lite) or to 720TB (PacketGrizzly Heavy), extensible from 2PB to 9PB through external storage units.
- **Sustained Full Packet Capture:** Captures before, during, and after the event packet data, allowing SecOps teams to narrow down security loopholes, rogue IPs, suspicious activities, and quickly identify the attacker with evidence.
- **Out-of-Box Dashboard:** With built-in analytics that perform metadata-based analysis for KPIs such as top applications and protocols, latency measurements, TCP sessions, and UDP/RTP analysis for voice and data communications.

[Learn More](#)



PacketWolf Series Packet Broker

Up to 400Gbps High-Performance & Low-Latency Packet Processing
FPGA-based | Timestamping | Deduplication | NetFlow & IPFIX Export



 **PACKETWOLF**

-  Up to 400Gbps Performance
-  4 x 100G
-  Up to 4 x 100Gbps SFP28/QSFP28
-  FPGA Low Latency
-  nSec Timestamping
-  Deduplication
-  Packet Slicing
-  Header Stripping
-  VLAN Tagging
-  NetFlow & IPFIX Export
-  Data Masking
-  Granular Filtering
-  Tunnel Encap & Decap

Key Benefits

- ✓ **Accelerated Business Operations:** Process network data up to 400Gbps through FPGA-based fast architecture, significantly accelerating observability and security operations.
- ✓ **Improved Security Posture:** Offload security tools while prolonging investment ROI through advanced functions such as packet deduplication and slicing.
- ✓ **Built-in Compliance & Privacy:** Ensure regulatory compliance through advanced privacy features such as filtering and data masking to remove or hide personal and sensitive user data.
- **Comprehensive Processing:** Offers a wide range of advanced packet services, including deduplication, packet slicing, advanced filtering, flow export, data masking, tunnel termination, VLAN tagging, and header-stripping.
- **Scalable Visibility:** Build a scalable visibility architecture based on a two-tier design with PacketWolf for advanced packet processing alongside PacketLion Packet Broker for high-density aggregation.
- **Forensic Utility:** Includes built-in utility functions such as PCAP view, replay, and edit, enabling deeper analysis of processed packet data before forwarding it to security or monitoring tools.

[Learn More](#)



PacketLion Series Packet Broker

Up to 12.8Tbps High-Performance & High-Density Packet Processing
ASIC-based | Timestamping | Load Balancing | Masking | Stacking



Up to 12.8Tbps


 Up to 32 x 400Gbps
QSFP-DD


Stacking


 Port Splitting &
Port Labeling


Timestamping



Load Balancing


 Aggregation &
Regeneration


Header Stripping



VLAN Tagging



Data Masking



Granular Filtering


 Tunnel
Encap & Decap

Key Benefits

- ✓ **Simplified Business Operations:** Process aggregated network data up to 12.8Tbps through ASIC-based high-density architecture, consolidating and feeding the right data to the right tools.
- ✓ **Improved Security Posture:** Offload security tools from noise while prolonging investment ROI through advanced functions such as advanced packet filtering.
- ✓ **Built-in Compliance & Privacy:** Ensure regulatory compliance through advanced privacy features such as filtering and data masking to remove or hide personal and sensitive user data.
- **Scalable Deployment:** Acts as a high-density aggregation layer and bridge between all network data access points (TAPs) and the tool rail (SIEM, NIDS, NDR, Packet Capture, APM/NPM). Scalable to large-scale visibility architectures through a stackable spine-leaf architecture.
- **Comprehensive Processing:** Offers a wide range of advanced packet services, including advanced filtering, load balancing, data masking, tunnel termination, VLAN tagging, and header-stripping.
- **Speed Brokering:** Acts as a gateway to seamlessly interface network speeds of up to 400Gbps with the lower-speed requirements of monitoring and security tools to prolong investments. 8GB deep buffers and flexible port assignment aggregate traffic without packet loss, even during microbursts.

[Learn More](#)


PacketTiger Series Packet Broker

Up to 800Gbps High-Density & Feature-Rich Deep Packet Processing
Filtering | GTP Correlation | NetFlow & IPFIX Export | Hybrid-Cloud Option



Key Benefits

- ✓ **Flexible Business Operations:** Process centralized network data up to 800Gbps through CPU-based feature-rich architecture, ideally suited for cost-effective distributed deployments.
- ✓ **Security and Compliance:** Offload security tools from noise while prolonging investment ROI through advanced functions such as packet filtering and data masking, while assuring data privacy.
- ✓ **Cloud-Smart Visibility:** Enable smooth cloud migrations, operations, and security through consistent visibility and workflows across the hybrid-cloud environments.
- **Full Service-Chain Processing:** Perform all packet brokering services in a single unit, including timestamping, filtering, deduplication, data masking, VLAN tagging, header stripping, packet slicing, load balancing, tunnel ecap/decap, GTP correlation, NetFlow and IPFIX export, RegExp matching, and application classification.
- **Deepest Granular Insight:** Enable observability with full flexibility in parsing headers and processing payloads using advanced DPI features like RegExp and application-based metadata extraction.
- **Hybrid-Cloud Visibility:** Eliminate blind spots in virtual and cloud environments by monitoring east-west and north-south traffic through PacketTigerVirtual. Deployable as a Docker container or virtual appliance, aggregate and process traffic from multiple vTAPs (such as PacketRavenVirtual) within cloud VPCs or VMware.

[Learn More](#)



- Up to 800Gbps
- 8 x 100G
- Timestamping
- Deduplication
- Load Balancing
- Header Stripping
- VLAN Tagging
- GTP Correlation
- Data Masking
- Granular Filtering
- Packet Slicing
- Tunnel Encap/Decap
- Apps Classification
- NetFlow & IPFIX

PacketDirector Packet Broker Manager

Single-Pane-of-Glass Management of up to 100 Packet Broker Devices

Bulk Provisioning & Policy Rules | Auto-Discovery | Network Statistics



Key Benefits

- ✓ **Simplified Business Operations:** Centralize the provisioning, configuration, and management of all NEOX physical and virtual packet broker devices in a unified fashion.
- ✓ **Reduced Operational Workload:** Reduce network and security operations workload via automation, such as an auto-discovery and scheduling of bulk operations across hundreds of devices.
- ✓ **Cloud-Smart Visibility:** Enable smooth cloud migrations, operations, and security through consistent visibility and manageability across the hybrid-cloud environments.
- **Real-Time Visualization and Alerts:** Utilize Kibana/Grafana dashboards for real-time graphic visualization of network telemetry, while defining custom event-triggered email notifications and alerts.
- **Automation and Bulk Operations:** Leverage the built-in scheduler for bulk tasks like configuration, backups, software upgrades, device reboots, and scripting across multiple clustered devices.
- **Cross-Device Policy Control:** Manage the centralized filters and rules definitions on per-device or across the devices via clustering of up to 100 NEOX packet broker devices. Deploys as a VM, cloud container, or on-premises manager, and offers a single tool for centralized management.



[Learn More](#)



PacketHawk Series Inline-Bypass TAP

Up to 100Gbps Inline or Out-of-Band Visibility, Service & Tool Chaining
Tapping | Filtering | Load Balancing | High Availability



Key Benefits

- ✓ **Guaranteed Business Continuity:** Ensures uninterrupted data flow and smooth operation by acting as a fail-safe mechanism when inline security devices or network nodes fail.
- ✓ **Zero-Downtime Maintenance:** Allows security operations to perform security tool maintenance, upgrades, or replacements without impacting the production network or causing downtime.
- ✓ **Strengthened Security Posture:** Offload security teams from panic and manual maintenance burdens while focusing on keeping the cybersecurity posture up to date.
- **Flexible Operations:** Supports both Bypass and TAP modes for uninterrupted security monitoring, and includes advanced filtering (IP, port: include or exclude) and mirror mode for versatile network analysis.
- **Robust High-Availability:** Sends periodic heartbeat pulses to all inline security appliances and visibility tools (firewall, NIDS, NIPS, NDR) to instantly detect failure and reroute traffic. Provides actual wire-level physical rerouting of traffic, automatically bypassing non-functional appliances based on missed heartbeats.
- **Uninterrupted Visibility:** Offers 6 bypass modes, Link Loss Detection (LLD), and redundant bypass behavior (Active/Passive) to ensure data continues to flow even if the Bypass TAP itself fails.



Up to 100Gbps Performance



Up to 4 x 100Gbps QSFP+/QSFP28



100% Network Data



Modular Chassis



Service Chaining



Filtering



Breakout & Aggregation TAP Modes



User Specific Heartbeat



Invisible for Hackers



Flexible to Use



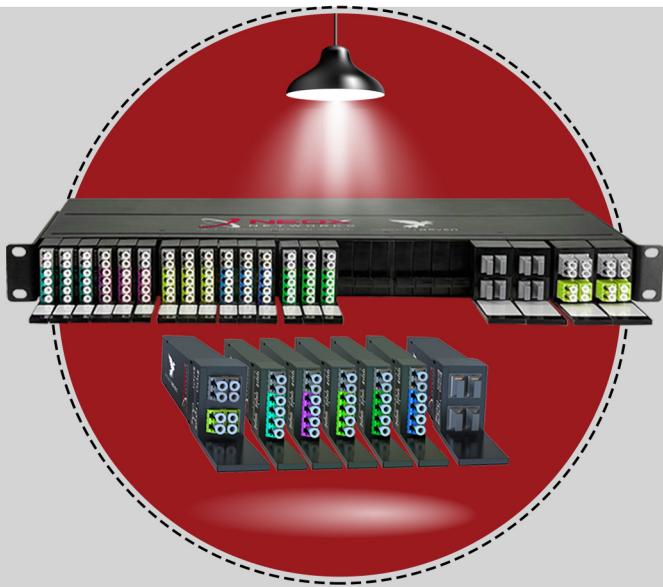
Failure Protection on Power Loss

[Learn More](#)



PacketRaven Series Network TAP

Up to 400Gbps Highest Density, Modular & Passive Fiber TAP
100% Passive | Secure Models | Data Diode Air-Gap | CRITIS Certified



Up to 400Gbps Performance



Full Network Transparency



No Impairment of Data Traffic



100% Network Data



Invisible for Attackers



No Network Access via Monitoring Port



Unidirectional Data Flow



Plug-n-Play



Scalable and Modular



Various Split Ratios



No Power Necessary



Extra Secure Models Available

Key Benefits

- ✓ **Permanent Lossless Visibility:** Gain 100% reliable network intelligence and data up to 400Gbps without interruption or loss, essential for monitoring, threat detection, forensics, and incident response.
- ✓ **Fool-Proof Security:** Feed real-time wire-speed network data to security tools such as NIDS, NIPS, NDR, NSM, and PCAP, which depend on a reliable and lossless data stream as their lifeline.
- ✓ **Better Business Continuity:** Feed real-time data for analysis for key network performance KPIs to maintain healthy connectivity and customer experiences with business applications.

- **High-Density Visibility:** PacketRaven Modular TAPs allow up to 30 tapped segments in 1U rack space, with the highest port density. TAPs are protocol agnostic and compatible with all monitoring systems from leading vendors, supporting various connector types (LC/MTP) and BiDi technology.
- **Invisible Passive Operation:** Modular TAPs are passive, require no power, and are untraceable by attackers as they operate at the OSI Layer-1 with no MAC/IP address.
- **Ultimate Data Security:** PacketRaven Secure Fiber TAPs provide an extra layer of protection by featuring an optical isolator (Data Diode) to allow only one-way operation between IT and OT. Secure TAPs are designed for high-security areas and CRITIS (Critical Infrastructure), meeting standards like IEC 62443.

[Learn More](#)



PacketRaven Series Network TAP

Up to 400Gbps Portable & Virtual Hybrid-Cloud TAP

FPGA-based | Secure & Hardened Models | Data Diode | CRITIS Certified



PACKETRAVEN

-  Up to 400Gbps Performance
-  Full Network Transparency
-  100% Network Data
-  Invisible for Attackers
-  No Network Access via Monitoring Port
-  Unidirectional Data Flow
-  Flexible to Use
-  Plug-n-Play
-  Failure Protection on Power Loss
-  PoE+ Power over Ethernet
-  Virtual/Cloud Model
-  Secure & Hardened Models Available

Key Benefits

- ✓ **Permanent Lossless Visibility:** Gain 100% reliable network intelligence and data up to 400Gbps without interruption or loss, essential for monitoring, threat detection, forensics, and incident response.
- ✓ **Fool-Proof Security:** Feed real-time wire-speed network data to security tools such as NIDS, NIPS, NDR, NSM, and PCAP, which depend on a reliable and lossless data stream as their lifeline.
- ✓ **Better Business Continuity:** Feed real-time data for analysis for key network performance KPIs to maintain healthy connectivity and customer experiences with business applications.

- **Permanent Flexible Visibility:** PacketRaven Portable TAPs allow flexible remote or local deployment to replace inefficient SPAN/mirror ports by offering N:1 aggregation or 1:N regeneration and the ability to mirror traffic per direction.
- **Ultimate Data Security:** PacketRaven Secure TAPs provide an extra layer of protection through a Data Diode air-gap to allow only one-way operation, and CRITIS (Critical Infrastructure) and IEC 62443 compliant. TAPs are untraceable by attackers as they have no MAC/IP address.
- **Hybrid-Cloud Visibility:** Instantly gain cloud and VM environment visibility by PacketRavenVirtual vTAP as a Debian package or Docker. Save on data transfer bills by using stateful filtering to forward only relevant data across VPCs or to on-prem tools over GRE/VXLAN.

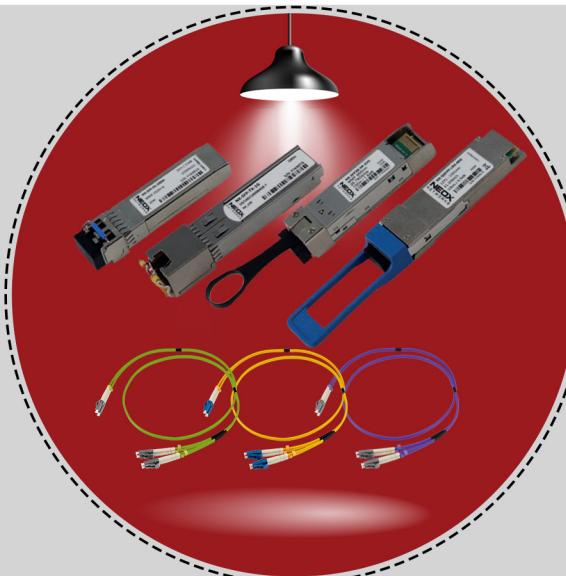
[Learn More](#)



Optical Transceivers, Cables, & Accessories

Pre-Qualified Faster & Reliable Connectivity & Delivery

Optics & Cables | Capture Cards | Mounting Kits | Transport Cases



Key Benefits

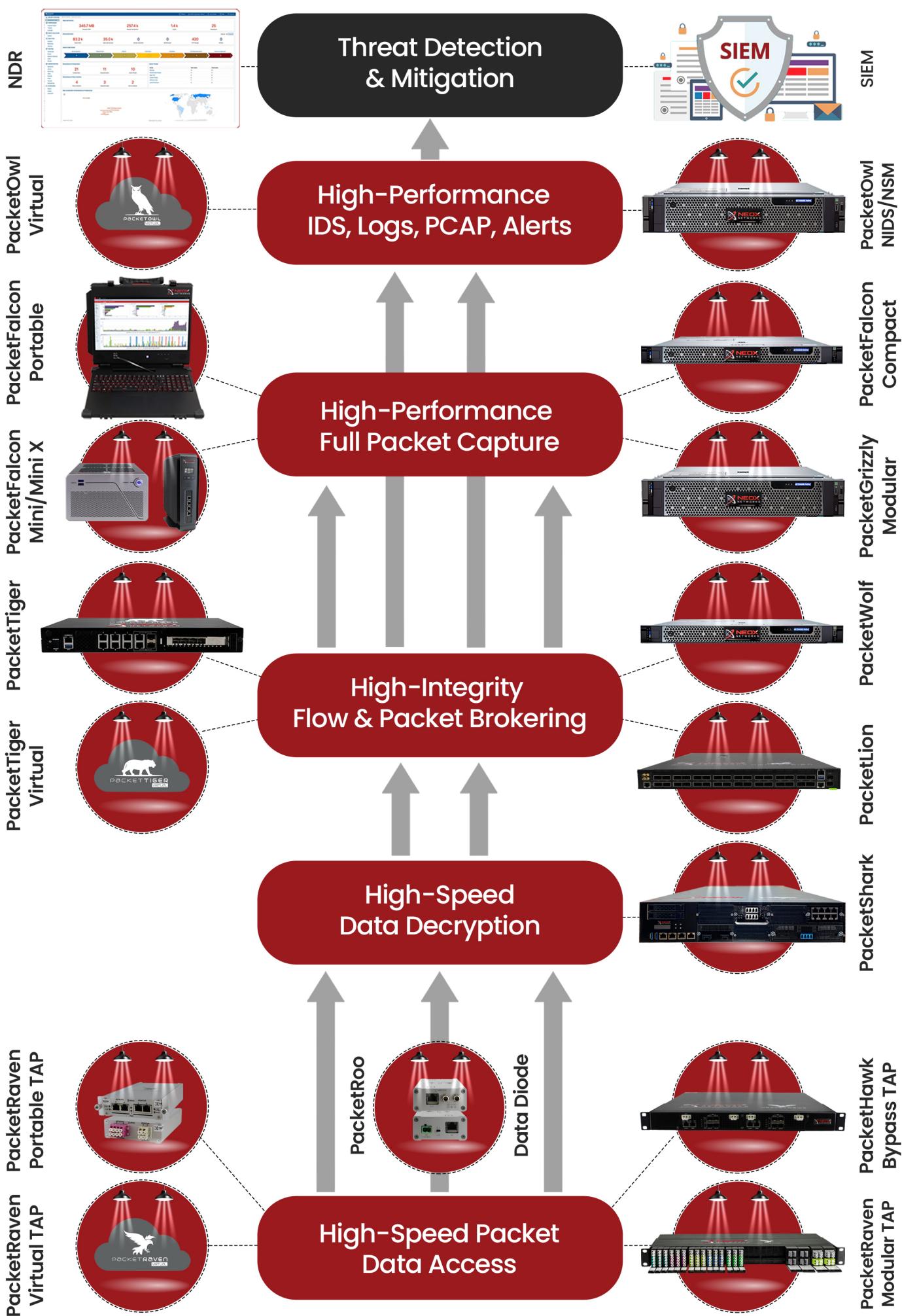
- ✓ **Risk-Free Business Continuity:** Avoid expensive customer connectivity failures and loss of revenue due to unqualified and cheap off-the-shelf optics failures.
- ✓ **Better Application Uptime:** Assure risk-free universal connectivity with pre-qualified MSA-compliant transivers with NEOX appliances and data center fabric.
- ✓ **Maximum Deployment Flexibility:** Leverage diverse mounting options to seamlessly integrate products into any data center or industrial environment.

- **Broad Connectivity Support:** Connect networks from 1 to 400Gbps using all industry-standard form factors (SFP28, QSFP-DD, QSFP+, etc.). Special Y-cables convert a single TAP duplex output into two duplex connections, ensuring bi-directional traffic is correctly received by separate transceivers. A variety of fiber optic cables, M12 cables, fanout cables, and fiber loopback adapters are available.
- **Plug-and-Play Assurance:** Repurpose products through accessories such as rack mounting kits and cover plates for server racks, and specialized DIN hat rail kits for the NEOX TAPs and smaller capture appliances.
- **Robust Protection & Care:** Ensure extra care during shipment and prolong product life by carrying or storing in robust transport cases.

[Learn More](#)



Deployment



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Enabling
Digital & AI Transformation
Ground Up Through
Network Visibility