

Unlock Agility & Performance with Precise Timestamping

In today's fast-paced digital landscape, efficient Network Visibility is no longer a luxury—it's a necessity. At [NEOX Networks](#), we specialize in delivering cutting-edge [Network Traffic Brokering](#) solutions that empower businesses to handle, analyze, and route network traffic with unparalleled precision. One of the cornerstones of our technology? Precise Timestamping. Let's explore how NEOX is revolutionizing this critical process to help you stay ahead in the game.

What is Timestamping?

Timestamping is the process of recording the exact moment a network frame or packet is captured or processed. By appending this timestamp to the packet's metadata, NEOX ensures that every piece of data is anchored to a precise chronological reference point. This foundational step is essential for accurate network analysis, forensics, troubleshooting, and compliance.

Why Timestamping Matters in Network Traffic Brokering

At NEOX we understand that timestamping is more than just a technical detail—it's a game-changer for your network's performance and reliability. Here's why:

1. Accurate Network Analysis

- **Correlate Events:** Pinpoint the exact sequence of events across your network, enabling faster issue resolution and deeper insights into network behavior.
- **Measure Latency:** Identify bottlenecks and optimize performance by tracking packet travel times with precision.
- **Detect Anomalies:** Spot delayed packets, out-of-order delivery, and potential security threats before they escalate.

2. Enhanced Troubleshooting

When network issues arise, NEOX timestamped packets provide a clear timeline of events, simplifying root cause analysis—even in the most complex network environments.

3. Regulatory Compliance

For industries like finance, healthcare, and telecommunications, compliance is non-negotiable. Our time-stamping solutions ensure that your network traffic logs meet stringent regulatory requirements, providing audit-ready trails and reports.

4. Forensic Analysis

In the event of a security breach, our time-stamped data becomes your most powerful tool for forensic analysis. Reconstruct attack sequences, identify sources, and understand attack vectors with confidence.

How NEOX Delivers Precision Timestamping

At NEOX we've engineered our solutions such as [PacketWolf](#), [PacketLion](#), and [PacketTiger](#), to address the challenges of modern networks. Here's how we do it:

1. Advanced Clock Synchronization

Using industry-leading protocols like Network Time Protocol (NTP) and Precision Time Protocol (PTP), we ensure that all devices in your network are perfectly synchronized. This eliminates discrepancies and guarantees the accuracy of your timestamps.

2. High-Resolution Timestamp Granularity

Whether your network operates at millisecond, microsecond, or nanosecond levels, NEOX delivers the granularity you need for precise analysis.

3. Hardware-Based Time Stamping

Our Packet Brokers provide high-precision, low-latency time stamping—ideal for high-speed, high-volume networks.

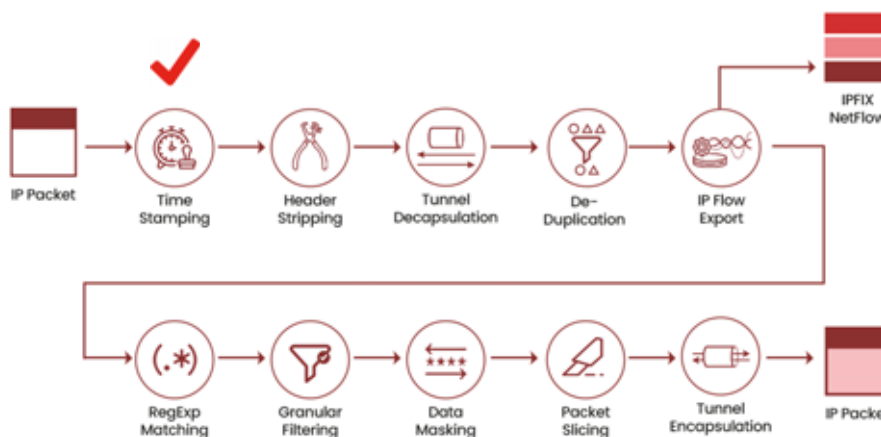
4. Resource Optimization

We understand that resource constraints can be a challenge. That's why our solutions are designed to balance precision with efficiency, ensuring optimal performance without overburdening your systems.

Best Practices for Timestamping with NEOX

To help you get the most out of your network, we recommend the following best practices:

- Synchronize Clocks: Use NTP or PTP to keep all devices in sync.
- Optimize Granularity: Match timestamp granularity to your network's needs—whether it's milliseconds or nanoseconds.
- Leverage Hardware Acceleration: Utilize our hardware-based solutions for high-speed environments.
- Regular Calibration: Maintain clock accuracy through regular calibration and monitoring.



The Future of Network Traffic Brokering Starts Here

As networks grow in complexity and speed, the importance of time stamping 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 time-stamping technology. [Contact us](#) today 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