AI-Ready Network Observability

Complete Control, Half the Cost, Built to Last!

Data Insights and Tool Compatibility with Vendor-Agnostic Packet Broker and Service Nodes

About Aviz Networks

On a mission to deliver networks for AI and AI for networks, Aviz Networks was founded to modernize and transform the networking software stack, addressing the evolving demands of data centers, edge, and GPU networks as they scale and integrate AI. Enterprises rely on Aviz for deploying vendor-agnostic Community SONiC solutions, enhancing network observability, and introducing AI-driven management capabilities. These solutions empower customers with hardware choices, operational control, and substantial cost savings. Aviz's innovations have been successfully deployed by leading e-commerce platforms, telecommunications providers, retailers, GPU-as-a-service providers, cloud service providers, and diverse enterprise networks.

Why Now is the Right Time to Consider a New Network Observability Solution?

The networking landscape is rapidly evolving, driven by commoditization, open standards, and the rise of AI-driven operations. Adopting an open approach to Network Observability empowers businesses with a holistic, AI-driven solution that integrates Network Copilot™, Open Packet Broker (OPB), and Aviz Service Nodes. This unified approach enables businesses to capture, process, and analyze network traffic in real time, providing deep observability into network behavior, optimizing operations, and enhancing security. OPB efficiently aggregates and distributes traffic, Service Nodes perform advanced packet processing and analytics, and Network Copilot leverages AI to deliver actionable insights—all working together to provide full-stack observability.

Choices

Control

Long-Term Savings

ROI

Benefits you get

Enhanced Network observability with AI

Our Network Copilot elevates observability across your networks, integrating AI to analyze and manage network performance more effectively. This ensures that you can not only monitor but also analyze network behavior, optimizing operations and enhancing security.

Choices

Select hardware based on your needs, or better reuse your old hardware. No more putting all your eggs in one basket of hardware vendors.

Control

Break free from single-vendor lock-ins with our flexible software driven solutions, which is agnostic of hardware. This software driven approach makes your infrastructure robust and future-proof, giving you the freedom to choose without the hassle of over paying for hardware refresh even when you are not adding more functionalities.

Cost Savings

Reduce network observability costs by leveraging an open, vendor-neutral approach. Avoid expensive proprietary solutions and extend the lifecycle of existing hardware while optimizing network monitoring expenses with AI-driven efficiencies.

Technical Overview

The Unified Fabric Manager enables AI-driven network observability by capturing TAP & SPAN traffic from data centers and 4G/5G networks, processing it through Open Packet Brokers (OPB) for aggregation and distribution, and analyzing it via Service Nodes for packet deduplication, DPI, application identification, GTP correlation, and KPI analysis. The extracted metadata is then fed into Network Copilot and customer tools for real-time insights, troubleshooting, and optimization. This scalable solution enhances network performance, reduces operational costs, and automates observability, making it ideal for modern AI-driven network operations.

## Deep Observability Solution with AI

Open Packet Broker

FlowVision (Fabric Management & Visibility)
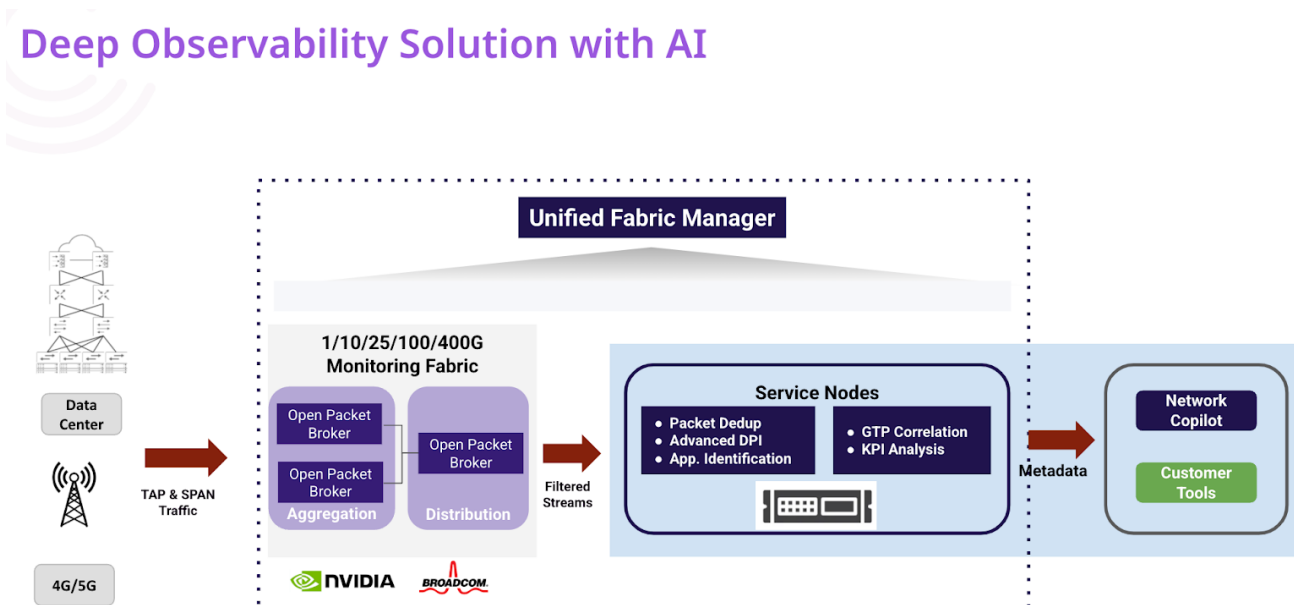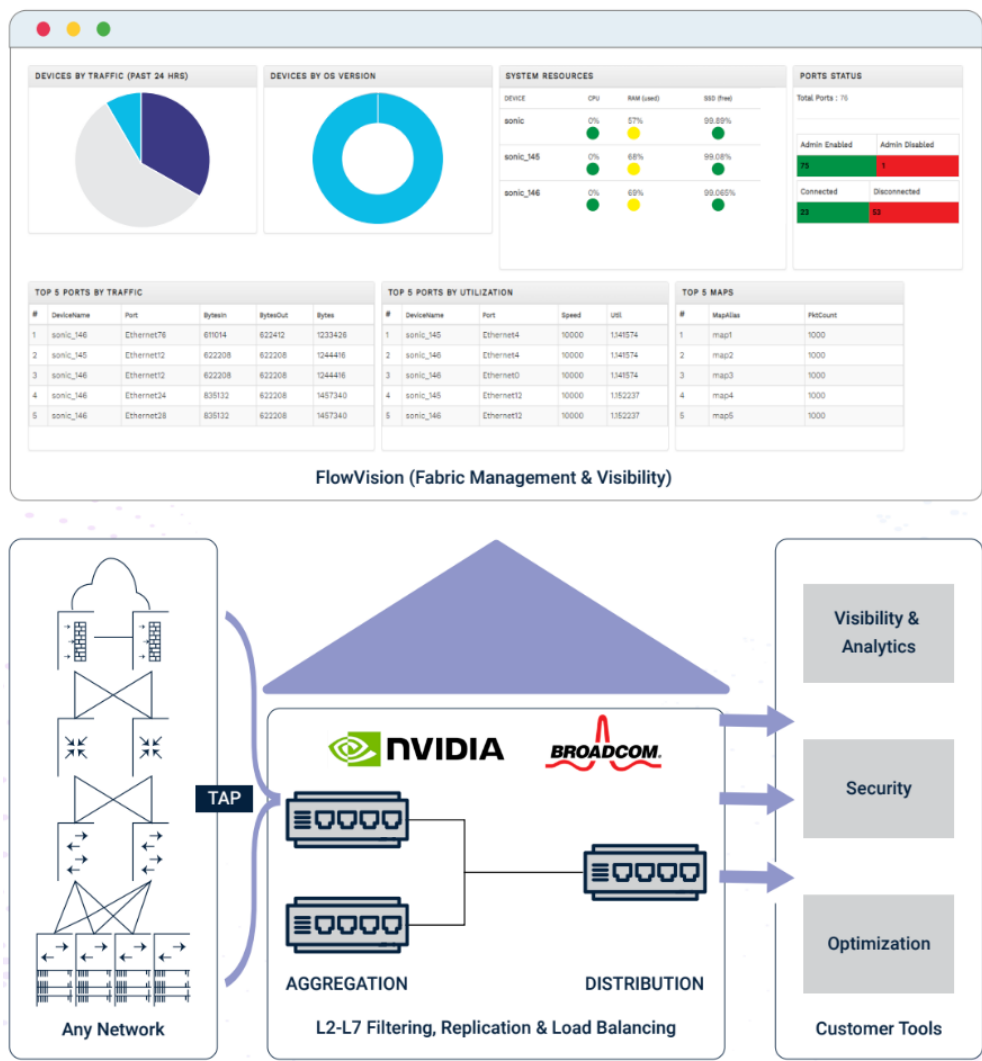
Aviz's Open Packet Broker (OPB) is the core of its Network observability Stack, designed to future-proof network monitoring through disaggregation, which separates the data plane from the control plane for greater flexibility and scalability. This approach reduces costs by enabling upgrades without a complete system overhaul. OPB offers advanced features such as multi-layer filtering (Layer 2–7, including GTP headers), traffic aggregation and replication, optimized load balancing, packet labeling and slicing, VXLAN tunneling for efficient traffic transport, and an analytics node for deep session and packet insights. These capabilities enhance network observability, performance monitoring, and data management while ensuring seamless integration with next-generation hardware and software.

Filtering	Filtering traffic based on select criteria (L2-L7) of interest to the tool needs	**Packet Labeling**	Track packets on ingress to identify source and mark packets at egress for tools
Aggregation & Replication	Combine data from multiple sources towards single/multiple tool	**Packet Slicing**	Discard secure or excess payload thereby reducing the disk storage utilization.
Load Balancing	Symmetric Load balancing based on IP (v4/v6) header	**Tunneling**	VXLAN Header stripping within and Encap/Decap across DCs

Aviz Service Nodes
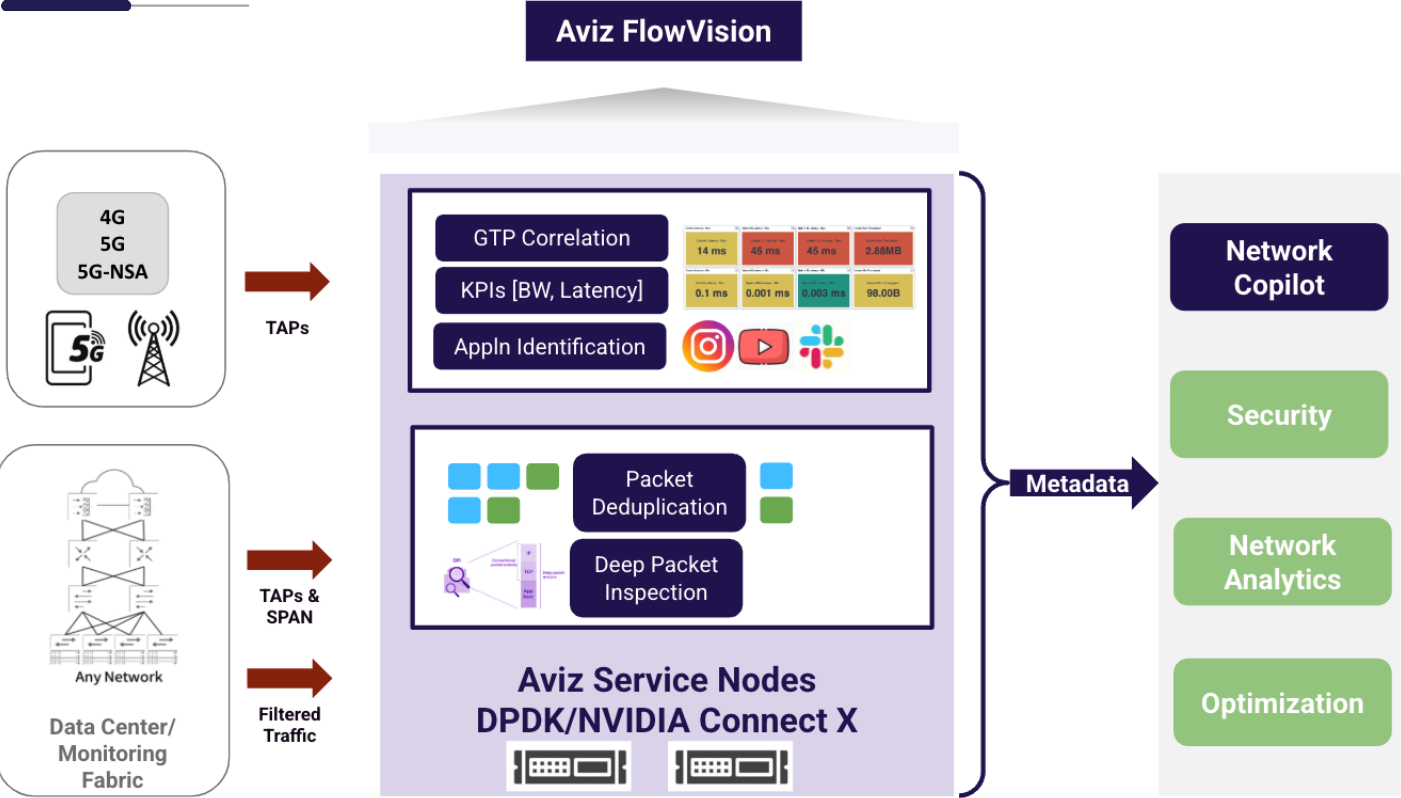
The Aviz Service Node is a comprehensive network observability and analytics platform designed to enhance real-time packet processing, optimization, and monitoring across Telco and datacenter environments. It supports packet decoding, deduplication, and modifications, ensuring efficient traffic handling by removing duplicate packets, adding timestamps, and encapsulating headers at wire speed. The platform employs symmetric inner and outer header-based load balancing to maintain session consistency for analytics and performance measurement tools. With metadata export capabilities, it integrates seamlessly with external tools via Kafka and ELK stack, enabling detailed analysis through JSON-formatted packet metadata. It also provides advanced KPI calculations, tracking bandwidth, latency, and retransmit counts to assess network health. The platform supports GTP correlation for user and control plane observability across 4G LTE, 5G NSA, and 5G SA networks, facilitating subscriber-aware load balancing that dynamically distributes traffic based on real-time user information. Additionally, it offers accurate application identification (supporting over 500 network applications) and real-time packet capture, enabling in-depth debugging, security monitoring, and performance analysis. This makes it an essential tool for network operators seeking highly efficient, scalable, and intelligent traffic management solutions.

Deep Packet Inspection	Filtering traffic based on select criteria (L2-L7) of interest to the tool needs	**KPIs**	Track packets on ingress to identify source and mark packets at egress for tools
Packet Deduplication	Combine data from multiple sources towards single/multiple tool	**Application Identification**	Discard secure or excess payload thereby reducing the disk storage utilization
Mobile Core	Line rate DPI and GTP Correlation for Telco networks supporting 4G-LTE, 5G-SA, 5G-NSA	**Tunneling**	VXLAN Header stripping within and Encap/Decap across DCs

Customer Case Study

Deep Network Observability Improves 5G Mobile Subscriber User Experience

Read More

Connect with Aviz Networks today and discover how our innovative solutions can drive your business forward.