

Traffic Storage Agent (TSA)

For NITRO Core

Network Data Traffic Analyzer with Accessories



Advanced Traffic Analysis

Traffic Storage Agent (TSA) is a data access agent for **NITRO® Core** that passively monitors control and user-plane IP traffic and TDM to generate metrics on network, service, and customer KPIs (SMARTmetrics™). These metrics can feed into NITRO Core or third-party KPI applications. TSA also captures and indexes control-plane traffic for rapid retrieval in transaction-tracing troubleshooting applications.

NITRO Core TSA uses VIAVI-patented innovation to:

- Capture, store and retrieve control-plane messages in near-real time to enable on-demand transaction tracing
- Generate CP/UP KPIs and third party SMARTmetrics feeds
- Identify the user plane applications in use and determine end-user quality of experience (QoE)
- Deliver performance and QoE metrics up to 15x faster and at a lower cost than traditional assurance solutions

Key Benefits

- Gain near real-time visibility into network performance, subscriber application experience, voice quality experience and QoS
- Significantly lower cost than traditional monitoring solutions for the same visibility and throughput levels
- Significantly lower cost than traditional protocol analysis tools without reducing diagnostic insight

Key Features

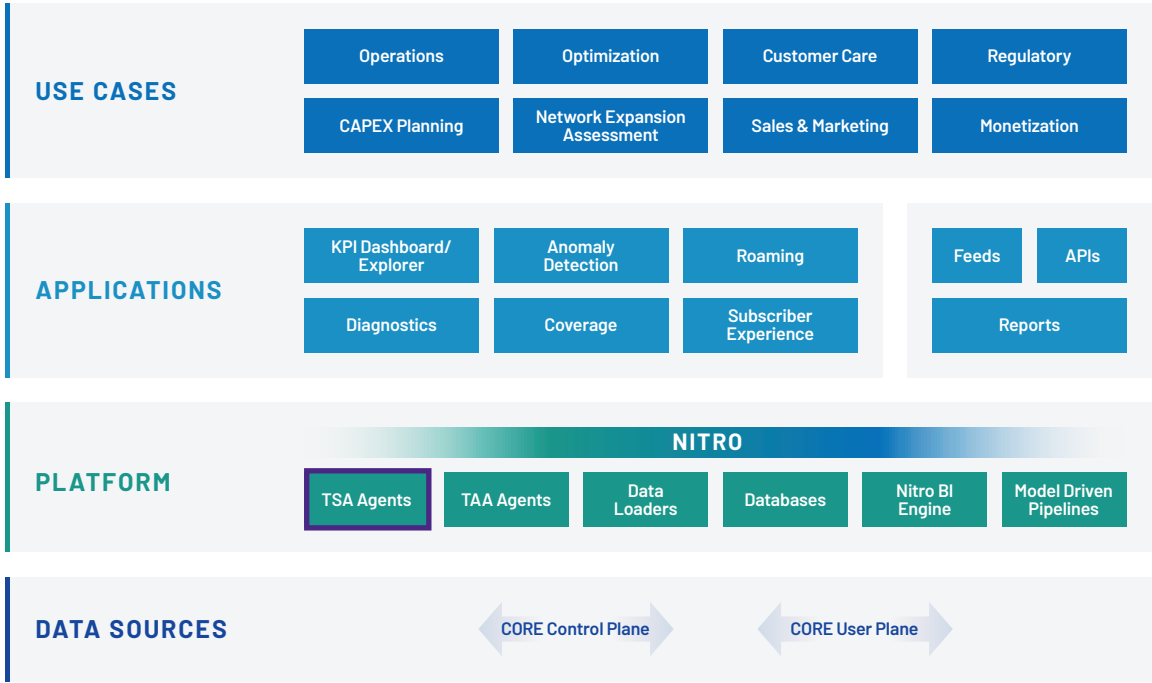
- High-performance, compact form factor (stores packets/records locally)
- VIAVI-patented indexing method that captures, stores, and quickly searches and retrieves packet data
- Fast response and high granularity user-plane visibility engine provides application and voice quality metrics
- VIAVI-patented service, app, and URL categorization process with very broad coverage (5,000+ applications)
- CP/UP KPI generation to drive network performance metrics
- SMARTmetrics feed for third-party applications or customer data lake

Use Cases

- Real Time Monitoring of Network, Service and Customer KPIs
- Fault Troubleshooting of Mobile Network, Service, and Customer Performance Faults

NITRO Core Portfolio

TSA, when leveraged in NITRO Core, addresses mobile service provider challenges with an innovative approach to delivering analytics and assurance for modern mobile networks. NITRO Core focuses on a subscriber-centric approach, providing service-focused, proactive, and unified workflows that deliver correlated, app-aware insights.



NITRO Core Portfolio Overview

Efficient Traffic Processing

NITRO Core TSA captures control-plane traffic frames, writes them to disk and indexes them in real time. The VIAVI-patented indexing method, which includes indexing by: IMSI, IMEI, MSISDN, enables lightning-fast data search and retrieval.

- 1. Selective Retrieval:** Rather than processing all captured traffic, the system supplies traffic associated with end-user data sessions or calls to troubleshooting apps “on demand.” This selective retrieval eliminates the need to process all traffic continuously.
- 2. Cost Savings:** Since typically less than 0.01% of end-user sessions or calls require analysis by packet-based troubleshooting apps, the ability to process traffic on demand significantly reduces the overall cost of the solution.

It also generates CP/UP KPIs to drive the NITRO CORE applications and provides SMARTmetrics feeds can be used to provide third party feeds or feed a data lake.

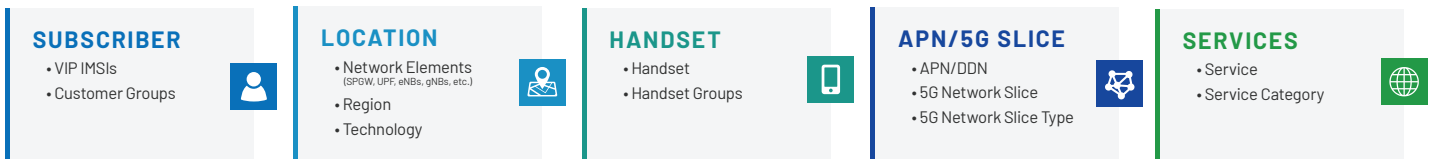
Third-Party Application Feeds

In addition to supporting NITRO Core applications, NITRO Core TSA can supply SMARTmetrics insights to non-VIAMI third-party applications or data lakes. Operators can tailor the feed content to output only the data required by third-party applications, minimizing processing burden and reducing overall solution costs. TSA feeds cover both control-plane and user-plane data, delivered at timed intervals. This seamless integration enhances collaboration and efficiency across applications.

Service/Application Classification

NITRO Core TSA employs various methods to identify end-user services/applications including an industry leading DPI engine with support for 5,000+ applications.

User plane records play a vital role in mobile assurance. To enhance their effectiveness, these records are enriched with additional information. Precise identification is crucial for optimizing network performance and ensuring a seamless experience for subscribers. By leveraging this enriched data, operators can proactively address issues and deliver exceptional service quality.



User plane enrichment examples

Use Cases

Real Time Monitoring of Network, Service and Customer KPIs

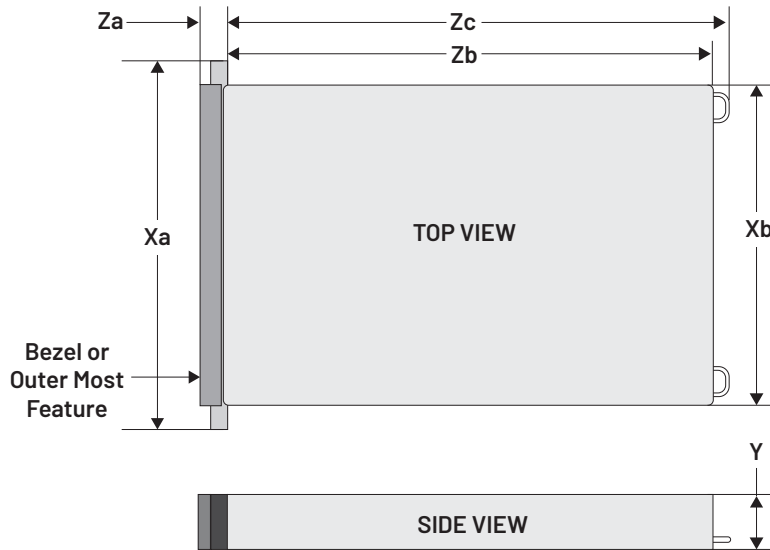
NITRO Core TSA generates mobile KPIs for NITRO Core and third-party apps to detect potential or recent customer-impacting issues. With quick SMARTmetrics, including user-app analysis and KPI insights, the NITRO Core TSA is both **more effective and cost-efficient** than similar solutions.

Fault Troubleshooting of Mobile Network, Service, and Customer Performance Faults

NITRO Core TSA can capture and store line-rate control-plane traffic for traditional transaction tracing such as NITRO Core Session Trace app at a lower cost than alternatives. TSA’s SMARTmetrics, supported by the CEA and Performance Explorer apps, offers a **quicker, easier KPI-based troubleshooting method**. For cases requiring transaction tracing to diagnose issues, pre-using the **KPI metric drill-down speeds up this process** significantly.

NITRO Core TSA Specification

Physical Parameters		
Appliance information	Size	2U (dimensions below)
	Weight (maximum)	36.1 kg (79.58 lbs)
	Power	2 AC PSU (1100 W) / 4100 BTU/hr 2 DC -48 V (1100 W) / 4625 BTU/hr
Interface configuration		J9052B - 2x10/1 Gbps ports
		J9053B - 4x10/1 Gbps ports
		J9054C - 2x40/100 Gbps or 8x10 Gbps ports
Product Numbers/Capacity		J9003D - 1AC/1DC (12 x 4TB) Base Config
		J9004D - 1AC/1DC (12 x 8TB) Base Config
		J9009A - 1AC/1DC (12 x 4TB) Premium Config
		J9021A - 1AC/1DC (12 x 8TB) Premium Config
Technology Support		2G, 3G, 4G (LTE), 5G, VoLTE/IMS, VoNR



Xa	Xb	Y	Za with bezel	Za without bezel	Zb	Zc
482 mm	434 mm	86.8 mm	35.84 mm	22 mm	700.7 mm	736.29 mm

Ordering Information

Please contact your VIAVI representative for more information or for ordering assistance.



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