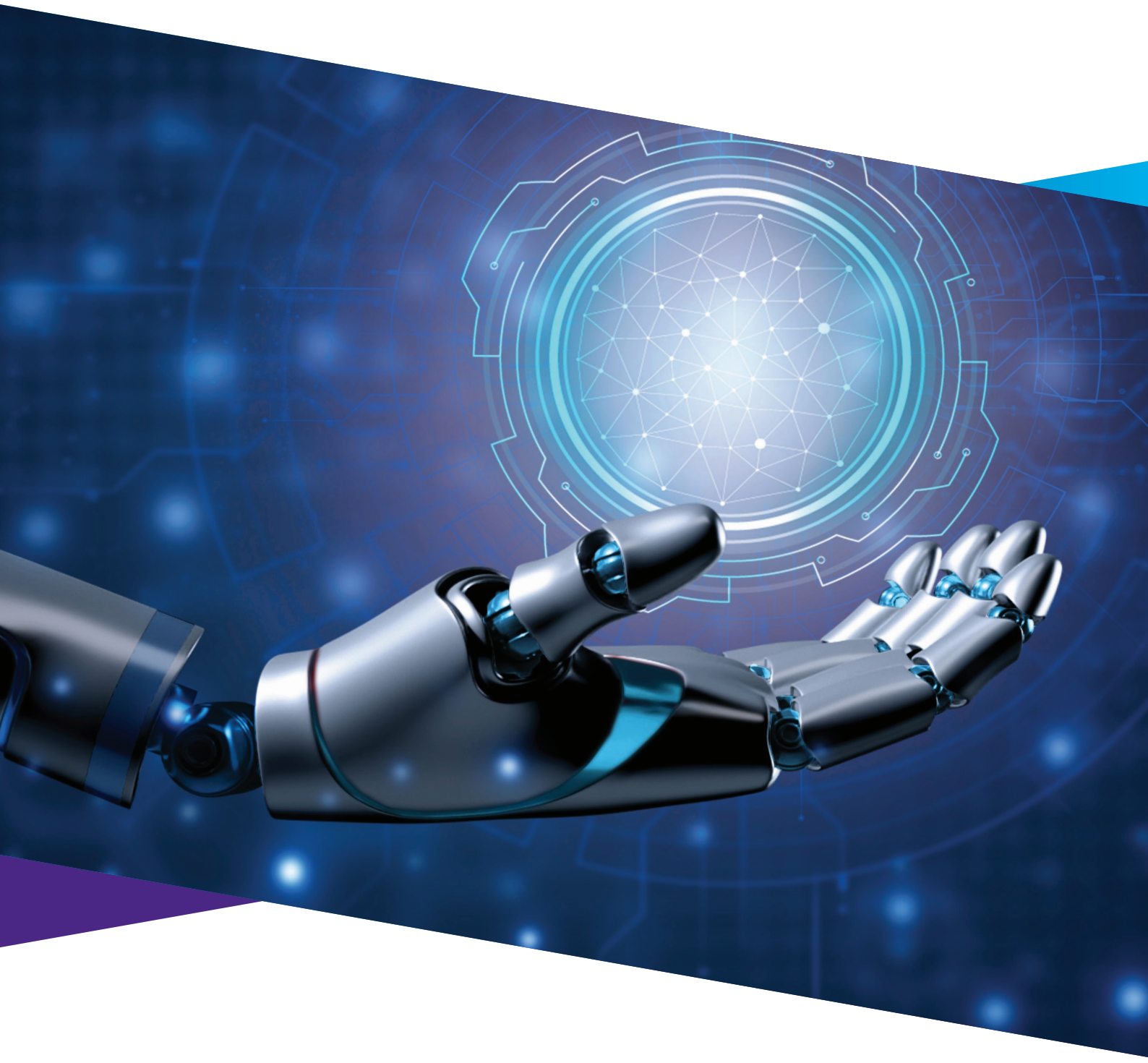
Brochure

VIAVI NITRO AIOPS

CX Optimization via AI-Driven SOC

Enabling proactive operations with real customer experience impact



NITRO® AIOps CX Optimization redefines the Service Operations Center into an intelligent, customer-centric engine. The AI-driven SOC continuously monitors service quality, correlates it with real customer experience, and launches closed-loop remediation actions all in real time.

With AI driven SOC, CSPs gain full end-to-end visibility and control into customer experience, minimizing MTTR, reducing operational costs while improving overall customer network perception and user satisfaction.

VIAVI NITRO AIOPS

CX Optimization via AI-Driven SOC

Overview

Today's Communication Service Providers are requested to support an increasing number of different service types, each of them with specific requirements and SLAs. Services are often deployed on top of different technologies, across several domains, vendors and clouds leading to increased complexity, siloed fragmented data and lack of end-to-end visibility. Regulatory Bodies are also increasingly adopting crowdsourced data solutions to independently benchmark service quality and bring CX into their regulatory standards.

In such an environment standard approach results in inefficient, costly, slow issues resolutions making CSPs struggle to fulfill the right level of service agreement. The degradation of the overall customer experience increases churning, negatively affects the Net Promoter Scores and could incur into unexpected regulatory penalties. To remain compliant and competitive a fundamental change in network management should be introduced, moving from manual reactive to an automated proactive solution prioritizing customer experience, enhancing visibility and driving efficiency.

KEY ISSUES

LACK OF END-TO-END VISIBILITY

KPI – CX Disconnection: technical KPI only reports network metrics which do not necessary reflect the real customer experience.

Siloed Data: data analysis and issue identification across several domains and platforms may be very complex and cumbersome requiring significant time and efforts.

SERVICE DEGRADATION

Delayed Issue Detection: network complexity, data fragmentation and manual analysis leads to delayed issue detection and resolution badly affecting the service down times.

Increase Churning: reactive issues remediation increases MTTR leading to a degraded perceived CX and NPS score.

REDUCED OPERATIONAL EFFICIENCY

Manual Processes: increases chances for errors, delays, and labor costs, reducing productivity and leading to inefficient asset utilization.

Inaccurate Data Analysis: interdomain data correlation requires expert knowledge. Inaccuracy in anomaly/fault detection leads to wrong investments, and higher CapEx/OpEx.

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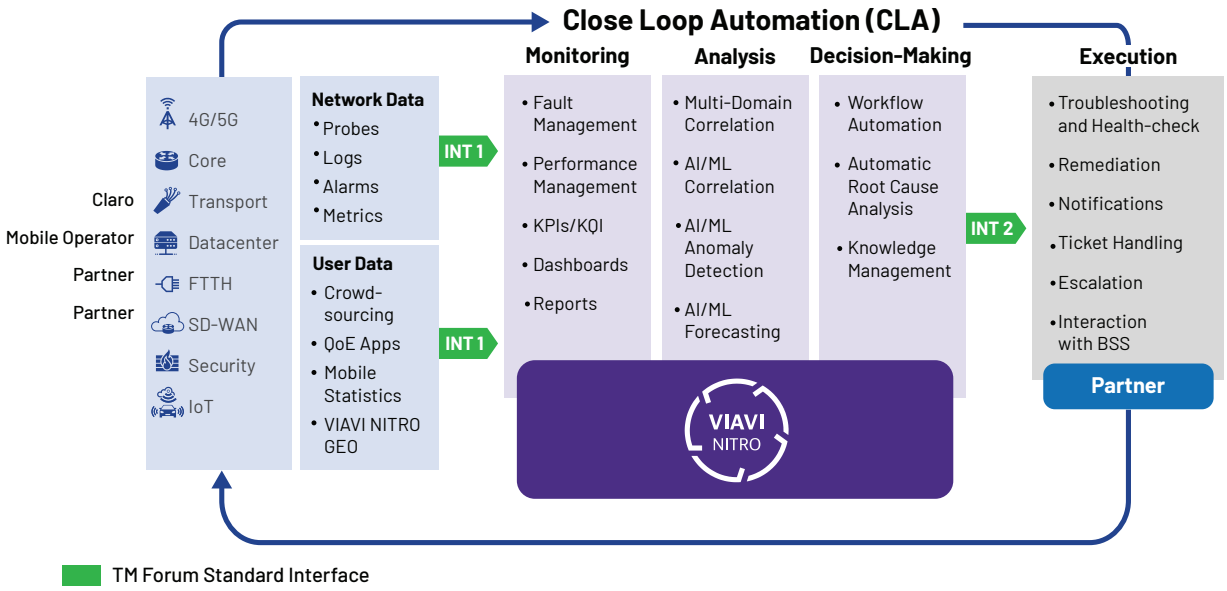
SOLUTION OVERVIEW

VIAVI Solutions together with its partners implemented an innovative fully automated AI-driven SOC. The platform is modular, scalable and built according to the TM Forum standards offering a reusable blueprint for the telecom industry. It demonstrates how CSPs can align autonomous network operations with real customer experience by deploying an AI-driven service operations center across live, complex environments.

Solution Architecture



NITRO AIOps CX optimization via AI-driven SOC combines both Network Data and User Data (Crowdsource and Mobile Statistics), allowing the shift from traditional network-centric to a customer-centric operational model and addresses the disconnect between technical KPIs and customer perception. Additionally, by using AIOps GUI trend analysis tools, operations team gain a customer service quality perspective without relying solely on network performance.

This approach together with AI/ML-based network automation provides real-time end-to-end CX visibility and enables full closed loop automation including proactive network analysis, automatic root cause detection and remediation.

Key Technical Capabilities

Real-Time End-To-End Visibility

Combines data from all network layers with QoE metrics, app performance, feedback, and BSS with crowd-sourced data for unified observability and deeper insight.

TM Forum CLA Framework

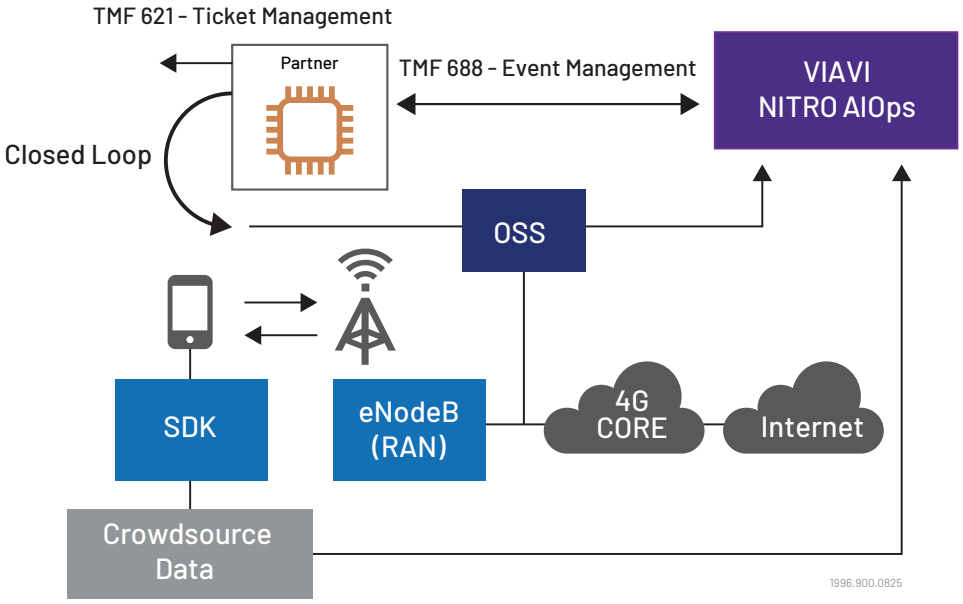
The solution implements all the components of the TM Forum Close-Loop-Automation Framework spanning from data collection, monitoring, analyzing, decision-making, execution, identifying all potential optimization opportunities.

CX Monitoring

Dedicated GUI offers KPI and User Experience trend analysis tools enabling operations team gain increased visibility and prioritize issues based on real user impact.

Scalable API-based Architecture

Seamless interoperability between vendors' equipment, management systems, and orchestration platforms providing access to a collaborative industry ecosystem and defining a replicable scalable blueprint for SOC automation.



Solution Architecture Design

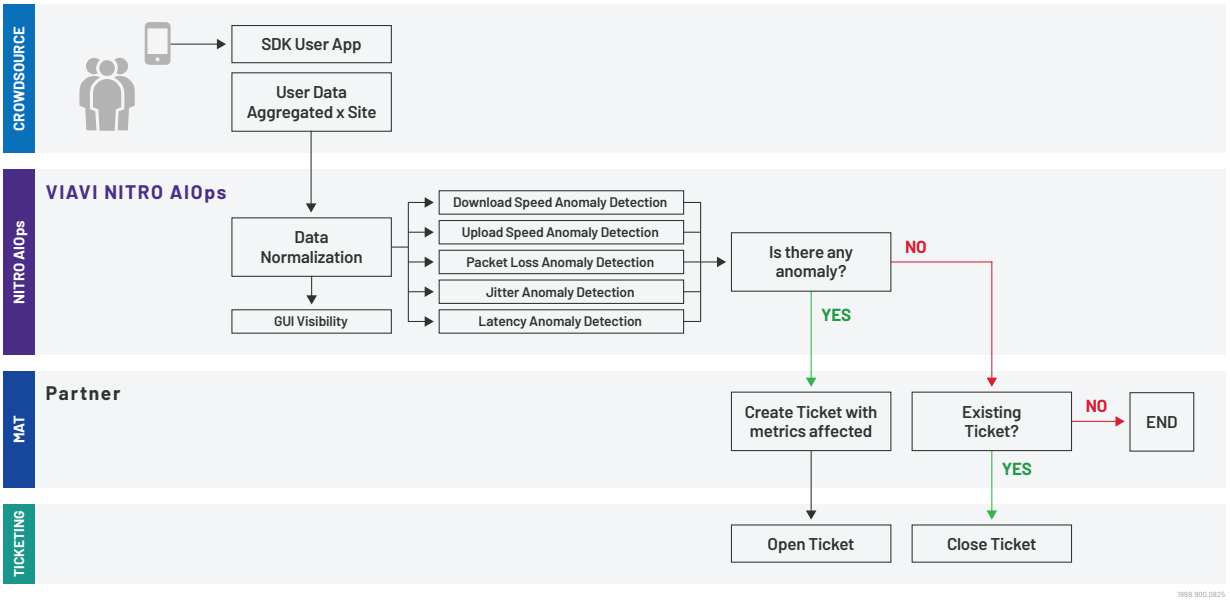
USE CASE OVERVIEW

The use case was implemented with the collaboration of Claro Colombia, offering a wide range of services including mobile voice, data, broadband, and digital solutions to millions of subscribers.

As a licensed operator, it is subjected to strict regulatory standards aimed at ensuring high levels of service quality across the country. Regulatory bodies having adopted crowdsourced data solutions to independently measure and benchmark service quality from the end-user perspective, brings several challenges for operators: limited e2e visibility, data interpretation, discrepancy between CX and network KPIs, inefficient issue resolutions. Some of the key applications used in the solution are listed below.

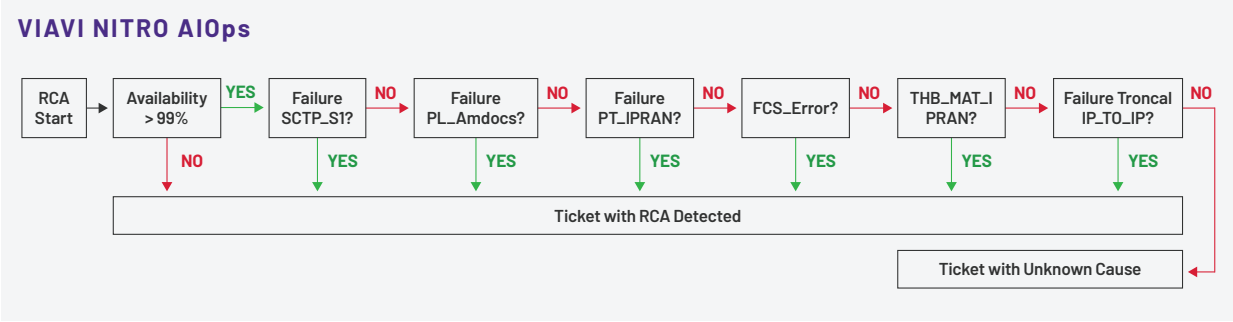
1. User Service Degradation Detection and Ticket Management

The solution collects five key service quality metrics from Crowdsourcing User Data: download speed, upload speed, packet loss, jitter and latency. It then performs AI/ML based anomaly detection and correlates it with network data. When anomalies are detected, it generates an event notification enabling automated creation, updating or closing of trouble tickets.



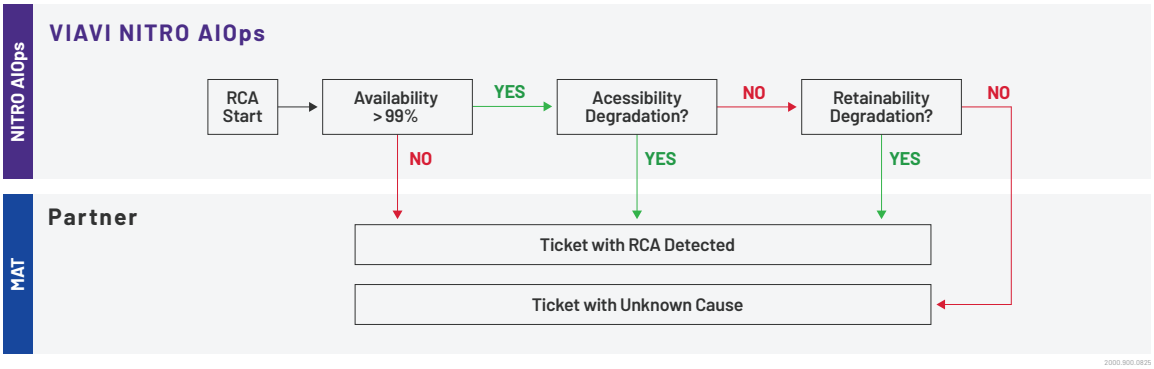
2. User Service Degradation Detection, Tx Network RCA and Actions

Transport network failures remain a leading cause for service outages with traditional transport network operations being manual, fragmented and reactive. The solution monitors all the relevant service metrics in real-time. Once an anomaly is detected, a comprehensive root cause analysis is performed within the transport network. Based on the findings, a trouble ticket is automatically generated and enriched with the identified root cause, ensuring effective issue resolution.



3. User service Degradation Detection, Accessibility and Retainability RCA, Remediation

Two of the most common issues in mobile networks are poor Accessibility and/or poor Retainability which can be a result of software malfunctions. When a decline in any user service metric is identified, an automated root cause analysis is performed to detect a potential accessibility or retainability issue, and a reset is performed on the related logical and physical components.



The solution shows how **NITRO AIOps CX optimization** delivers a measurable impact. Teams can focus on CX impacting events significantly relieving operational strain:

- ~ 31,300 isolated events generated each month
- Average of 87 minutes manual MTTR
- ~ 256 estimated full-time personnel to manage the workload

With NITRO® AIOps CX optimization:

- ~ 15 full-time personnel required
- Estimated MTTR reduced to ~51 minutes

BUSINESS BENEFITS

NITRO AIOps CX Optimization empowers CSPs with a fully automated service assurance model with an experience-centric operation using real-time data and contextual intelligence.

It provides closed-loop end-to-end capabilities with complete situational awareness, streamlined operations, operational efficiency. It drives operational costs down while at the same time improving service quality and overall customer satisfaction, helping CSPs to remain competitive and compliant.

Operational Efficiency	Reduces manual effort, errors and inefficiencies with AI/ML based automated anomaly detection, and remediation action.
Customer Centric Assurance	Real-time customer experience data directly collected from end-user device and combined with network data to prioritize what truly matters.
Improved Network Reliability	Real-time service quality monitoring enables proactive actions, faster issue detection and resolution reducing the overall MTTR.
Enhanced Customer Satisfaction	Critical activities prioritization delivers higher service quality and service reliability, reduces churn, and enhances Net Promoter Score (NPS).
Accelerated Innovation	Alignment with TM Forum standard facilitates seamless integration among vendors' equipment, providing replicable, standards-based blueprint that can accelerate the adoption of AI-driven closed-loop operations.

READY TO DEPLOY REAL-TIME CUSTOMER-CENTRIC OPERATIONS?

VIAVI NITRO AIOps is already delivering measurable impact in live networks. Let's talk about how we can help you transform your SOC and elevate your customer experience today.

VIAVI NITRO AIOps
is shaping the future of intelligent network operations.

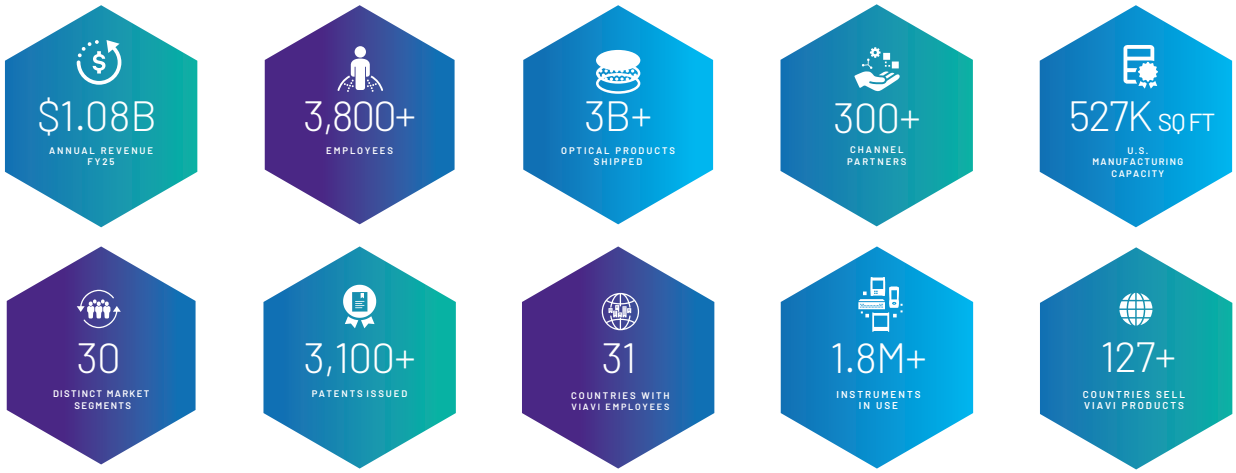
As your strategic partner, we drive continuous innovation to keep you at the forefront of the rapidly evolving telecom landscape.

Embrace the future with VIAVI NITRO AIOps.

Visit us at viavisolutions.com/solutions/nitro-aiops today.

VIAVI is a company with a diverse and rich history of technological innovations across various industries. In the past, VIAVI has been known by names such as JDSU and Acterna, but our legacy dates back to 1923 with Wandel & Goltermann.

Today, VIAVI Solutions is a global leader in communications test and measurement and optical technologies - helping enable service providers around the globe to deploy flawless fiber networks with smarter testing solutions.



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