

# NITRO Location Intelligence

The Industry Standard Solution for RAN Excellence



# UNLOCKING THE POWER OF GEOLOCATION IN THE 5G ERA

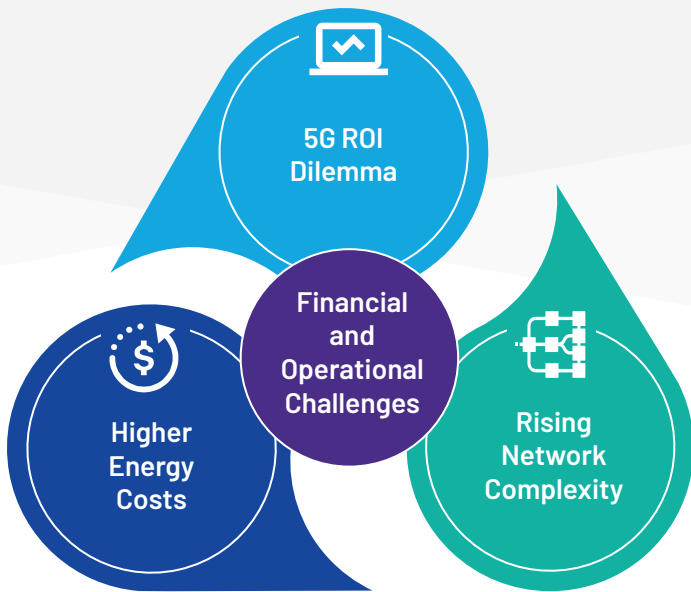
Despite significant investments in 5G infrastructure, the lack of monetizable use cases and a compelling killer app has left mobile network operators struggling to recoup their expenditures. This financial strain is exacerbated by surging energy costs, forcing operators to tighten their budgets and slow down 5G rollout plans.

The shift towards RAN virtualization and network disaggregation introduces additional complexities and costs in testing, operating and optimizing. However, this challenging environment also presents unique opportunities.

By harnessing precise geolocation intelligence, MNOs can unlock the hidden potential of their network data, leading to enhanced operational efficiencies and smarter business decisions.

The strategic use of geolocated data is key to navigating the current geopolitical and macroeconomic landscape, ultimately driving the successful monetization of 5G.

**In today's 5G-driven world, leveraging geolocation intelligence becomes a strong asset for mobile network operators aiming to reduce costs, secure high quality of experience, and boost revenues.**



1858.900.0824

“While 5G generates even more data, precise location intelligence can help MNOs to leverage the hidden value of their network data to drastically improve operational efficiencies, secure best customer experience and enable fast and improved business decision making to monetize 5G.”

Stéphane Téral – Chief Analyst & Founder of TÉRAL RESEARCH, LLC



# LOCATION INTELLIGENCE SOLUTION OVERVIEW

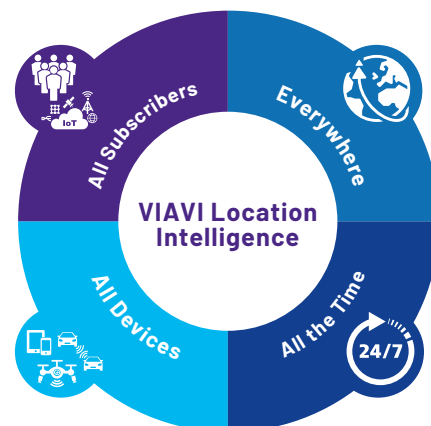
The era of switch data and extensive drive test measurements for network performance and optimization is over. The advent of 5G drives the shift from cell-based to sophisticated subscriber location-based approaches.

VIAMI NITRO™ Location Intelligence flagship solution continuously **captures, locates, and analyzes** data from **all subscriber events**, giving operators a rich source of location aware, subscriber-centric insights to significantly **improve network performance** and ensure the **best experience** for mobile customers.

The solution is designed for exceptional scalability, delivering reliable performance across networks of all sizes. From small-scale deployments to large nationwide systems, our geolocation technology has consistently proven its value.

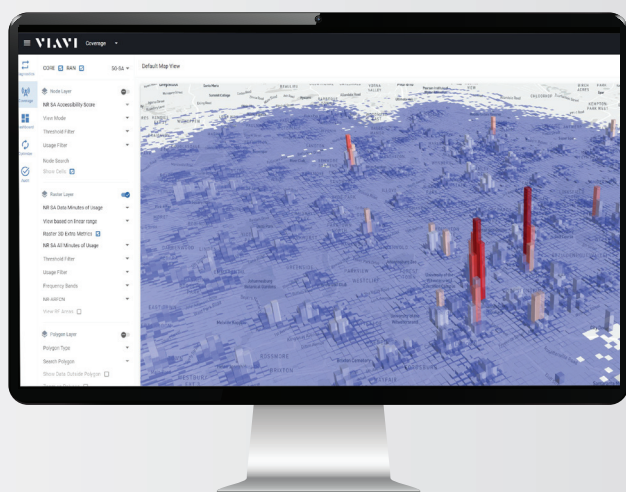
Leveraging VIAMI's proprietary TCO optimization technology, operators can deploy the solution with minimal hardware footprint to optimize network efficiency and enhance subscriber experiences regardless of the network's scale.

It also integrates with planning systems and configuration databases to synchronize precisely to network configuration for all cellular technologies, from 2G to 5G.

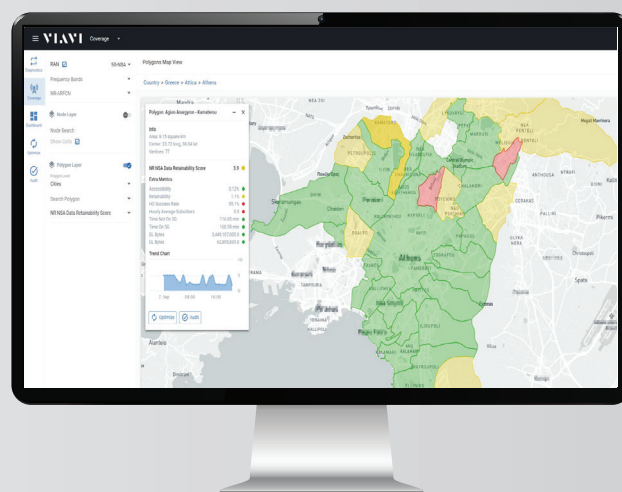


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Geolocating Every Interaction of All Mobile Devices on the Network



By continuously geolocating call records down to building accuracy, true customer experience and how 2G to 5G networks perform is revealed anytime, anywhere.



The solution collects event data directly from 2G to 5G network equipment OSSs supporting all major RAN vendors, including NOKIA, ERICSSON, HUAWEI and SAMSUNG.





# DIFFERENTIATED AND PROVEN GEOLOCATION TECHNOLOGY



Deployed on **100+ million**  
subscribers networks



Currently supporting **~1 billion**  
of mobile customers worldwide



Geolocating **6 million** events per min  
on our largest country wide deployment



Processing **950 billion**  
mobile events per day



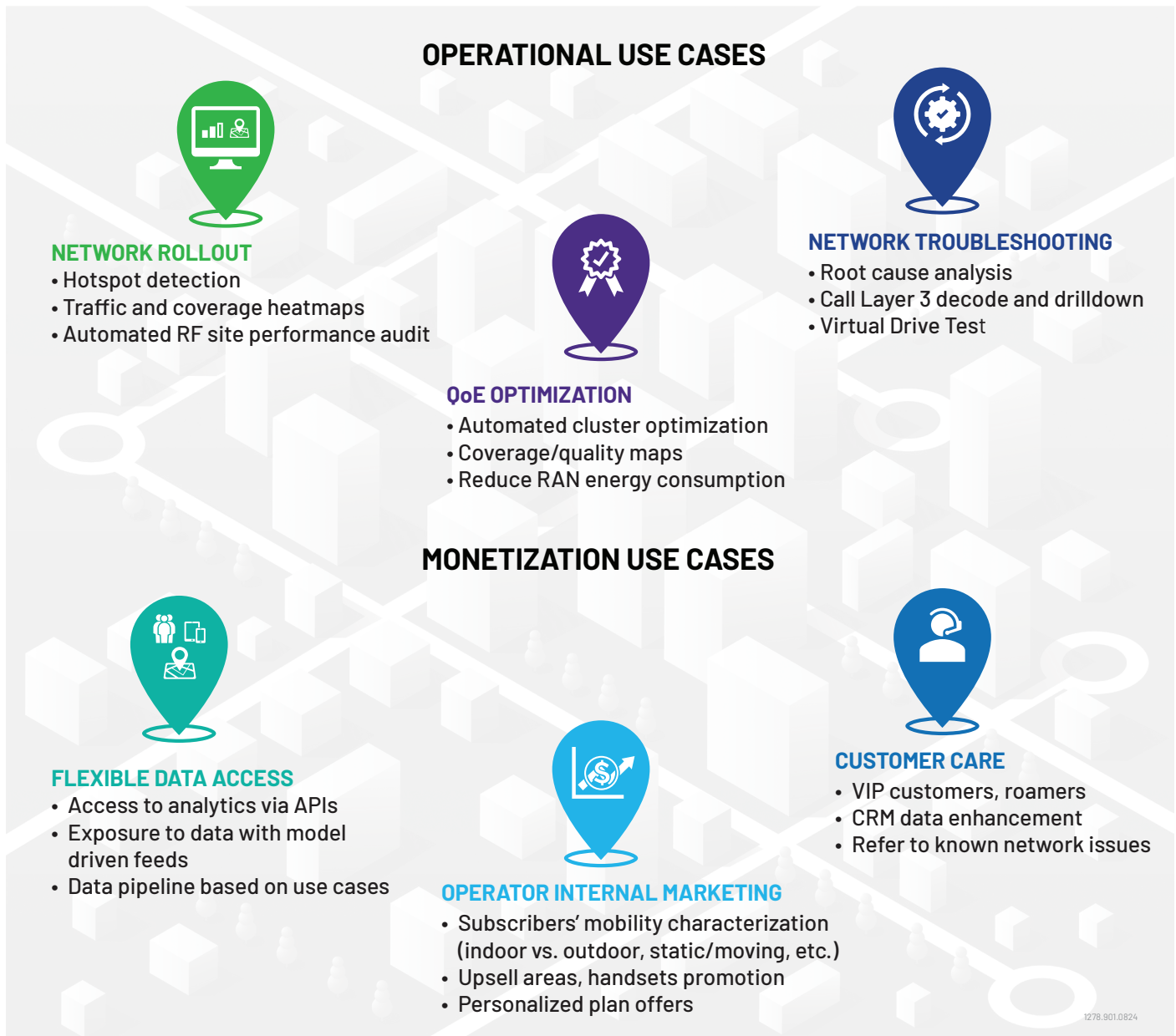
More than **20 Years**  
of geolocation expertise

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# COMPREHENSIVE GEOLOCATION USE CASES

VIAVI scalable geolocation solution is designed to support a wide range of operational and monetization use cases. It enhances network rollout, optimizes quality of experience, and streamlines network troubleshooting.

Additionally, it offers robust capabilities for data monetization, marketing, and customer care use cases, ensuring comprehensive support for mobile network operators.



# TYPICAL OPERATIONAL USE CASES

VIAVI NITRO Location Intelligence solution supports several critical operational use cases.

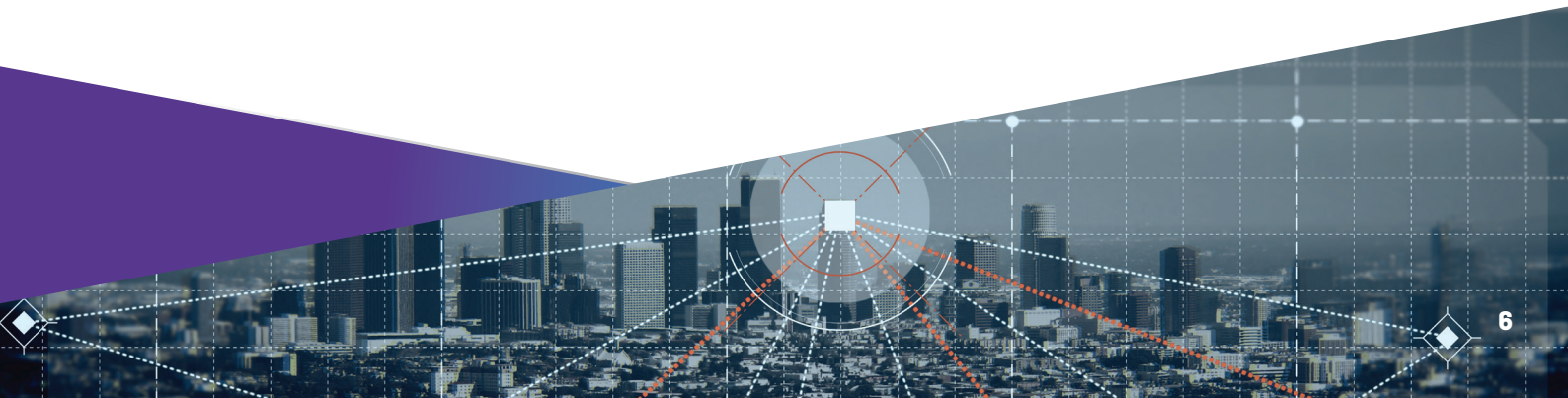
It performs **Automated Radio Site performance audits**, ensuring optimal network functionality with fully automate reporting and minimal manual intervention.

It can also enable **Cell Cluster Optimization**, improving network efficiency and coverage through precise RF parameters adjustments driven by automated algorithms.

The solution can also significantly enhance mobile operator’s ability to quickly **troubleshoot specific mobile devices issues and subscriber categories**, such as VIP customers or other key customer segments, by leveraging mobile subscribers’ locations, along with their usage and quality of service data.

These capabilities streamline network operations, enhance performance, and reduce operational costs.

Radio Site Performance Audit	Cell Cluster Optimization	Subscribers & Devices Troubleshooting
<p><b>Problem Statement:</b></p> <p>As the number of deployed cell sites increases with 5G, inefficiencies occur in verifying performance of newly deployed radios. The quantity of sites to deploy combined with drive test resource needed to verify how sites are performing result in increasing costs – in an environment of tremendous OPEX pressure.</p> <p><b>Reduce Drive Testing by 80%</b></p>	<p><b>Problem Statement:</b></p> <p>Optimization activities involve more than a single RF engineer, are reactionary, and ad-hoc. They are per-site, cell, or network focused without the clear ability to map performance and results to optimization actions and are often analyzed in isolation.</p> <p><b>5-10x Faster Optimization of Cell Clusters</b></p>	<p><b>Problem Statement:</b></p> <p>Identify poor performance patterns linked to specific mobile device types allowing to address device-related issues, whether they stem from hardware incompatibility, software bugs, or other factors affecting the perceived QoS.</p> <p><b>30-50% Faster Device-Specific Troubleshooting</b></p>









# WHY LOCATION INTELLIGENCE FROM VIAVI?

## Reducing Drive Test, Accelerating Time to Revenues and Lower OPEX

VIAVI NITRO Location Intelligence provides immediate business benefits such as reducing drive tests, accelerating time to revenue, and reducing resources necessary via automation, leading to lower OPEX.

It underscores the capability of the solution to simplify the complexities of managing next-generation networks and deliver tangible benefits to both service providers and their subscribers.

The solution stands out with its precise accuracy, cloud-native design, and reduced total cost of ownership (TCO), while also supporting data monetization for added value.

<b>01</b> FIDELITY GEOLOCATION ACCURACY 	<b>04</b> CLOUD CLOUD-NATIVE FLEXIBLE, SCALABLE, ORCHESTRABLE 
<b>02</b> OPEX PACKAGED SOLUTIONS TO AUTOMATE OPERATIONAL CASES 	<b>05</b> TCO VALUE EXTRACTED ALIGNED TO SOLUTION COST 
<b>03</b> SKILLS LOCATION INTELLIGENCE AND RAN EXPERTISE 	<b>06</b> REVENUES DATA MONETIZATION QoE EXCELLENCE 

### Immediate Business Benefits

By leveraging the VIAVI NITRO Location Intelligence solution, customers can significantly reduce operational costs and achieve higher optimization efficiency.

The solution enhances customer experience through precise network performance improvements and enables new revenue streams by utilizing geolocated data for targeted services.

 <p>Accelerating Time to Market</p>	 <p>Reducing OPEX</p>	 <p>Increasing Efficiency</p>	 <p>Improving Customer Experience</p>	 <p>Enabling New Revenue Streams</p>
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## PROVEN TRACK RECORD OF SUCCESS

With over 20 years of experience, VIAVI supports over 50 network customers worldwide in RAN troubleshooting, optimization, and monetization activities.

Our geolocation solution processes over one billion mobile subscribers daily, addressing the complexity and cost efficiency challenges of modern mobile networks, from physical to virtualized environments.

As key partner for major operators, VIAVI's location intelligence enables optimal wireless network performance, higher operational efficiency, and best subscriber satisfaction.

“Using VIAVI’s technology enables us to compete in more markets and higher up the value chain. VIAVI’s products reduce trade-offs for our end customers and moves BT to better representing real world events.”

Nathan Watt, Sales Director,  
Data & AI, BT



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