

VIAVI NITRO LOCATION INTELLIGENCE

# Decommission Sites Without Any Impact

Leveraging Geo-Analytics and Virtual Simulation to Identify  
Redundant Sites Without Compromising Network Experience



NITRO® Location Intelligence enables site decommissioning without powering off, using geo-located user data and virtual filters to simulate site removal.

By analyzing impacts on coverage, traffic, and user experience before any physical action, operators can identify redundant sites with confidence.

Proven across multiple markets, the approach delivers significant CapEx and OpEx savings while maintaining service quality.

# VIAVI NITRO LOCATION INTELLIGENCE

## Site Decommissioning Without Power Off

### Overview

Network expansions and shifting demand have led to redundant sites, raising costs without improving service. Operators need a safe, data-driven way to identify and decommission unnecessary sites—preserving coverage and performance while reducing operational and capital expenses.

### Business Challenges

Operators face rising site rents, energy costs, and hardware constraints while managing legacy infrastructure. Decommissioning underused sites without clear insights risks service degradation. The challenge is balancing cost savings with network quality, requiring precise, risk-free methods to assess site relevance and impact before shutdown—especially across dense, evolving urban and suburban environments.

### KEY ISSUES

#### RISING OPERATIONAL COST



Increased site rents, utility expenses, and transport fees strain budgets.

Legacy sites may no longer justify their costs due to shifting traffic patterns.

#### LACK OF VISIBILITY INTO SITE IMPACT



Operators risk degrading service when removing sites without full context.

Traditional methods lack precision in predicting user and neighbor cell impact.

#### INEFFICIENT RESOURCE ALLOCATION



Equipment is often locked in low-value sites instead of redeployed for growth areas.

Inability to confidently decommission limits CapEx optimization and delays strategic investments.

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## Introducing NITRO Location Intelligence – Site Decommissioning without Power Off

VIAVI NITRO Location Intelligence introduces a data-driven approach to optimize mobile network infrastructure by identifying sites that can be safely decommissioned without powering them off. Using geo-located user data and virtual site removal filters, it simulates the impact of decommissioning on coverage, quality, and traffic.

This enables operators to make confident decisions without risking service disruption. Proven across multiple markets, the solution helps reduce operational and capital expenses while improving efficiency, freeing up resources for more strategic deployments.

# SOLUTION OVERVIEW

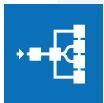
The solution enables operators to simulate site removal using geo-located user data without impacting live service. By analyzing coverage, quality, and traffic before decommissioning, it identifies redundant sites with precision. The solution reduces risk, accelerates decision-making, and unlocks significant OpEx and CapEx savings—supporting smarter infrastructure planning and efficient resource reallocation across dynamic network environments.

## Key Technical Capabilities



### Virtual Site Removal Simulation

Simulates site deactivation using geo-located data, enabling impact analysis without affecting live network operations or requiring physical site shutdown.



### Multi-KPI Impact Analysis

Evaluates pre- and post-removal metrics like RSRP, RSRQ, traffic, and user counts to ensure coverage and performance remain unaffected.



### Traffic Redistribution Mapping

Identifies how traffic shifts to neighboring cells after site removal, helping validate network resilience and optimize resource reallocation strategies.

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# BUSINESS BENEFITS

This solution delivers clear business benefits by enabling safe, data-backed site decommissioning without service disruption. Operators reduce OpEx through lower rent, energy, and maintenance costs, while reclaiming valuable equipment for redeployment. This improves network efficiency, accelerates ROI, and supports smarter, leaner infrastructure investments in high-demand areas.

## Operational Cost Reduction (OpEx Reduction)

Eliminates recurring expenses like rent, energy, and transport by identifying and removing low-value sites without impacting network quality.

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## Optimized CapEx Relocation

Frees up radios and baseband units for redeployment in growth areas, maximizing infrastructure ROI and reducing the need for new hardware.

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## Risk-Free Decision Making

Enables confident decommissioning using virtual simulations, avoiding service disruptions and unnecessary field trials or costly on-site evaluations.

# PROVEN SUCCESS STORY

## Customer

Tier-1 Operator

## Problem

Use Case: **Smart Site Decommissioning**

Tier-1 Operator in USA was incurring high recurring costs from **underutilized legacy sites**—tower rent, utilities, and transport—without corresponding traffic demand. A scalable, low-risk strategy was needed to retire these sites without impacting service.

## Solution

VIAVI conducted a comprehensive data analysis across dozens of candidate sites. Leveraging advanced analytics and real-world performance metrics, VIAVI helped:

- Identify sites where traffic could be absorbed by surrounding cells without degrading service
- Validate the network stability post-decommissioning
- Ensure seamless migration of traffic to adjacent or new built sites (NBS)
- Enable hardware redeployment planning for cost-effective equipment reuse

## Benefit

As a representative example among many, the decommissioning of one single Site demonstrated the following benefits:

- **\$500K in CapEx savings** by redeploying base station equipment to a new build site
- **\$150K+ in annual OpEx reductions**, including:
  - \$3,000/month in tower rent
  - \$1,500/month in utilities
  - \$1,000/month in transport/interconnect
- **No impact on service quality or traffic levels** in the surrounding area

When scaled across the network, these targeted decommissioning actions enable multi-million-dollar savings in both CapEx and OpEx—proving the power of data-driven decisions backed by NITRO Location Intelligence.

## WHY VIAVI?



**Proven Expertise in Geo-Analytics:** VIAVI

brings years of experience in location intelligence, leveraging advanced geo-located data analysis to drive accurate, risk-free decisions across diverse network environments and market conditions.



**Scalable, Operator-Validated Solutions:**

Deployed across multiple major operators, VIAVI's methodology has demonstrated consistent value—enabling repeatable cost savings and smooth integration into operational workflows without disrupting live service.



**End-to-End Visibility and Support:** From data collection to decision validation, VIAVI provides comprehensive tools and expert guidance, ensuring transparency, actionable insights, and alignment with both technical teams and business objectives.



**Accelerated Time-to-Value:** VIAVI's ready-to-use templates and proven workflows allow fast deployment and impact assessment, helping operators achieve measurable savings and network optimization in days—not weeks or months.



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