VIAVI Insights

API Gateway Service

COMPLEXITY IN ACCESSING GEO LOCATION DATA

With the increased adoption of **Network APIs**, organizations are leveraging them to enhance service delivery, automate processes, and enable new business models. However, despite their potential, the complexity of integrating and managing these APIs remains a significant challenge.

Omdia's Telco Network API Revenue Forecast* expects telco network API revenue to grow to **$8.7 bn** by 2029.

Many network APIs require advanced expertise, as they involve intricate data parsing, authentication mechanisms, and compliance with regulatory standards. Additionally, real-time geo-location data is often siloed across different systems, making seamless retrieval and utilization difficult. The demand for user-friendly, standardized APIs that simplify access to actionable insights is higher than ever, but existing solutions frequently fall short in accessibility, usability, and integration ease.

Network operators and enterprises struggle with efficiently retrieving and utilizing geo-location data due to:

- **Cumbersome data retrieval processes:** Existing methods to fetch location information involve multiple steps, manual configurations, and inefficient workflows that slow down operations
- **Specialized skillset requirements:** Extracting and interpreting network geo-data requires expertise in complex protocols and systems, creating dependencies on highly skilled personnel
- **Limited accessibility and fragmented data:** Many systems do not provide real-time, unified location data, requiring extensive integration efforts and custom development
- **Lack of user-friendly interfaces:** Traditional geo-data solutions are difficult to navigate, requiring manual query construction and offering minimal visualization support

*Source: Omdia (Informa TechTarget), "The Fast-Developing Network API Landscape and the Role of the Hyperscalers," April 2025

VIAVI Insights

VIAVI Insights is an API Gateway service offered by VIAVI which simplifies complex API calls and allows users to have quick and easy access to their customized use cases.
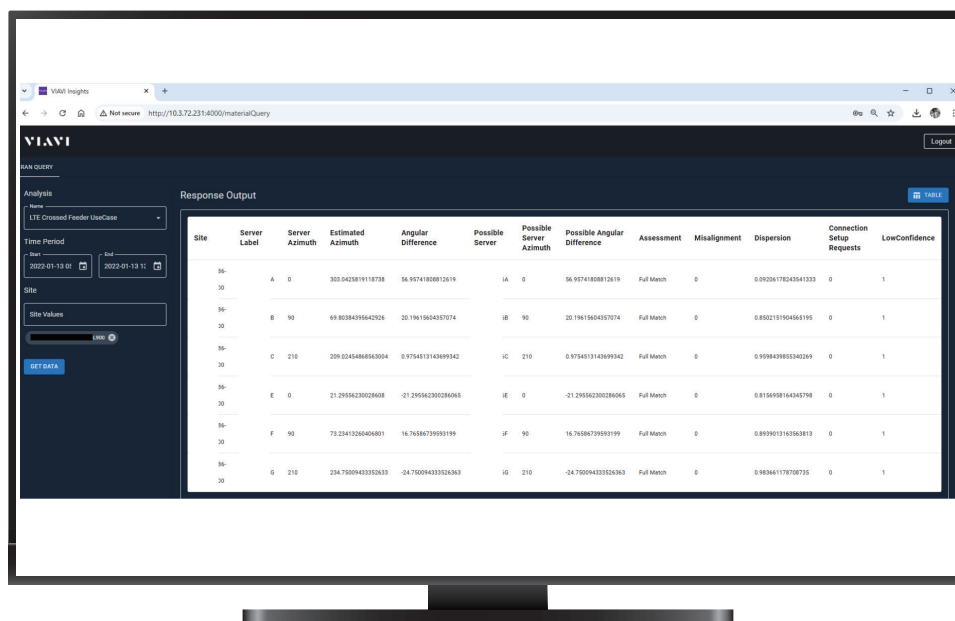
VIAVI Insights interface streamlines queries by leveraging special API development from VIAVI's NITRO platform to accelerate development, reduce complexity while allowing CSPs to focus on the core tasks. VIAVI Insights offers flexibility, scalability, and a simple approach that helps you make informed decisions on Network Performance, quality of service.

VIAVI Insights also transforms geo-location data into actionable insights, enabling organizations to streamline operations, drive revenue, and accelerate innovation. Our Network APIs for Geo Location simplify access to location intelligence through an intuitive, user-friendly platform.

The platform can be deployed both on cloud as well as on-premises.
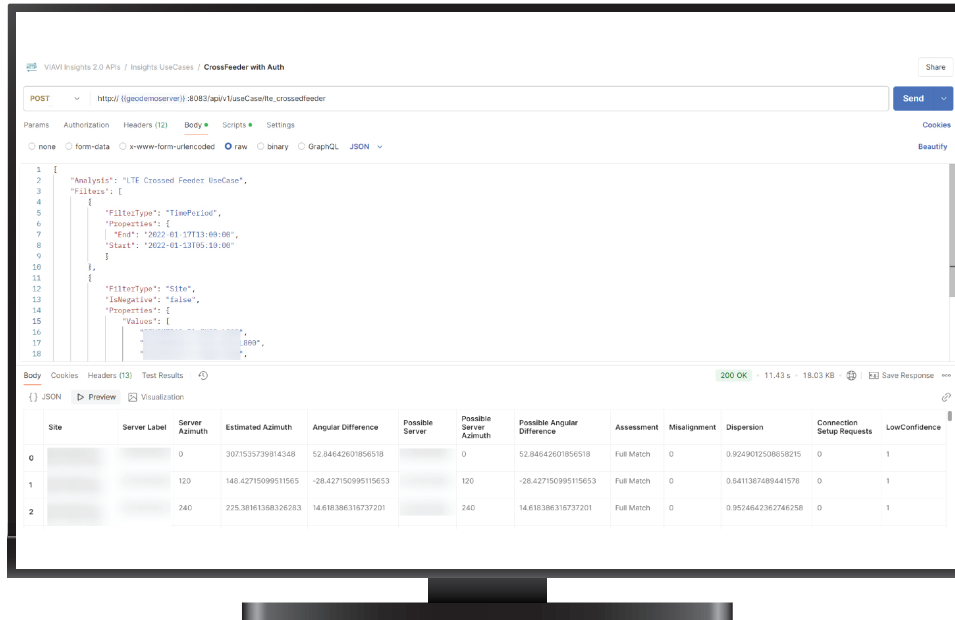
Key Features

- **User-friendly Query to Geo API:** Access data seamlessly with an intuitive query interface
- **Use-case Based Applications:** Subscription-based services tailored to your specific needs
- **Multiple Access Options:** Query APIs directly or utilize a UI-based dashboard with map visualizations
- **Unified API Gateway:** A flexible and scalable solution deployable on any platform
- **Customizable Functionality:** Supports user authentication, health monitoring, and energy-saving applications
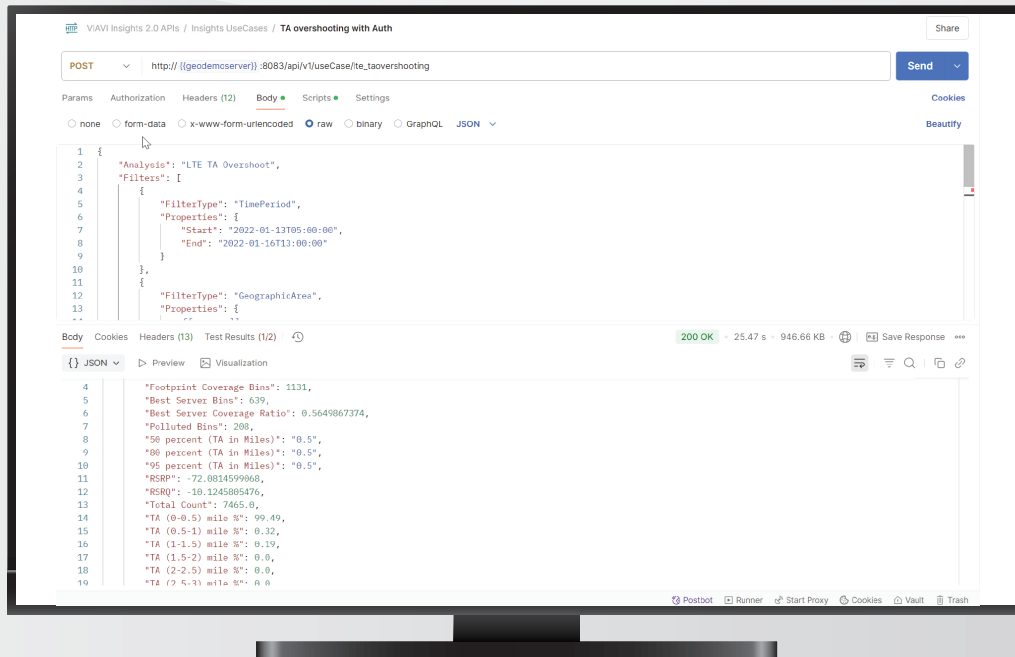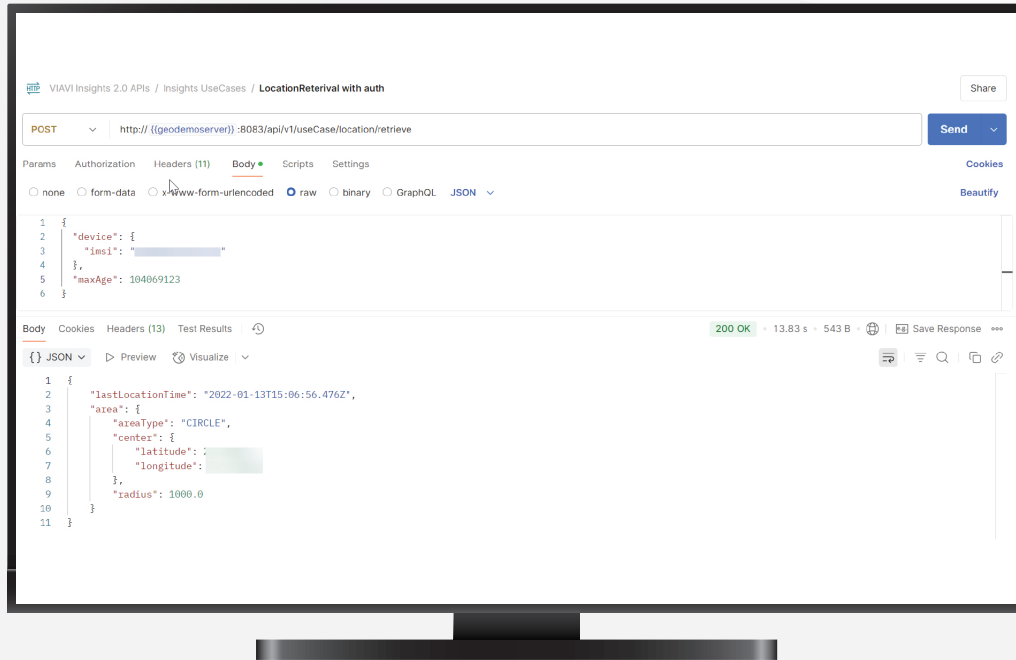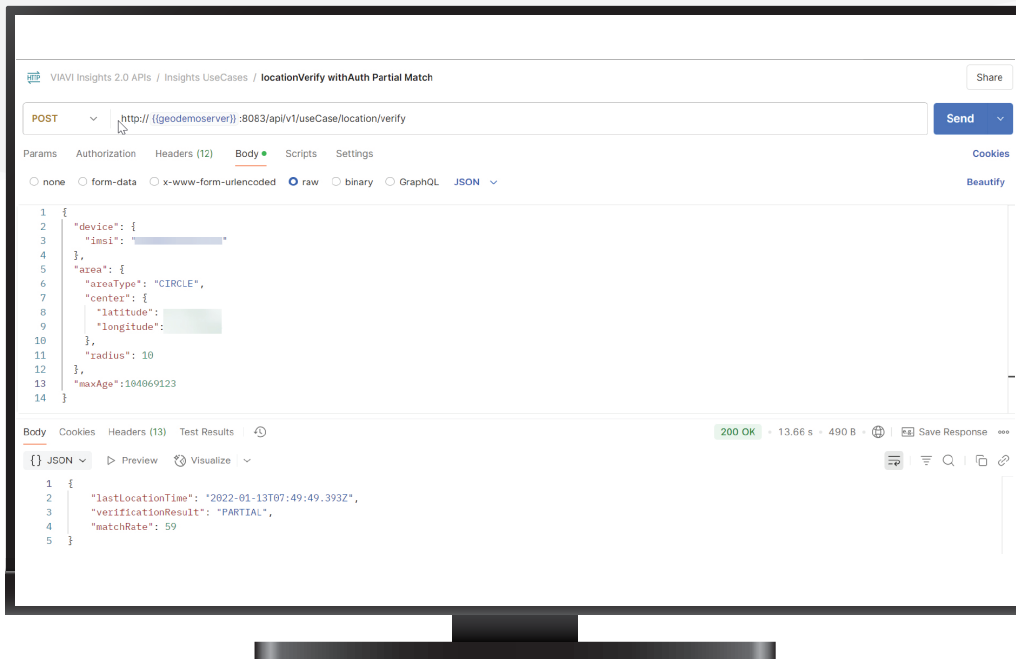
Typical Use Cases Supported

Cross Feeder Optimization: Enhance network efficiency by analyzing and optimizing network handovers, reducing dropped connections, and ensuring seamless service continuity for mobile users. Get better coverage mapping and planning for improved resource management.
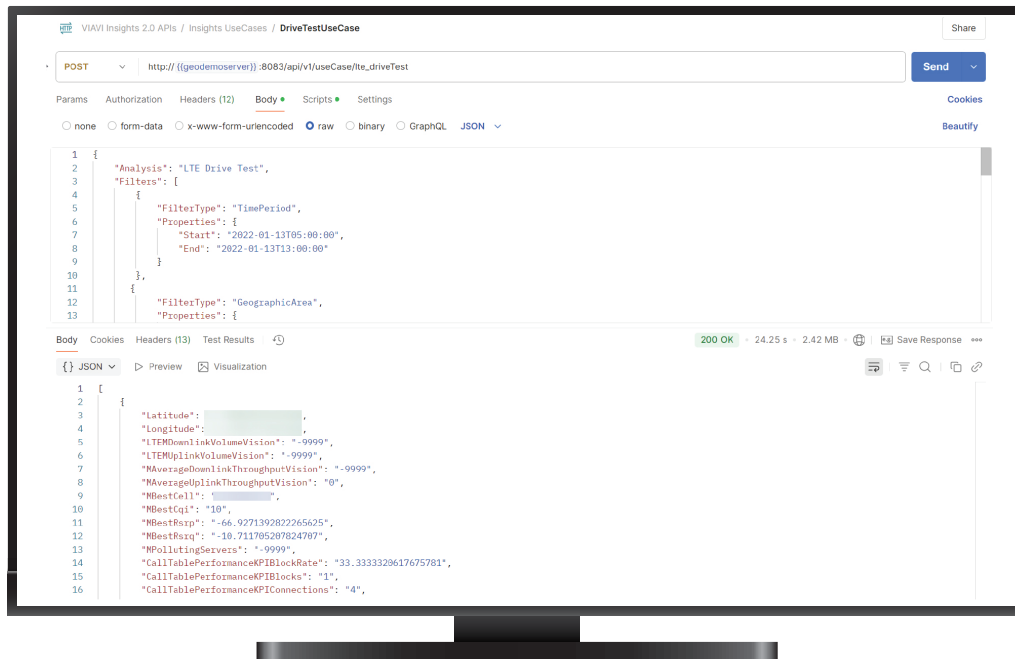

Timing Advance (TA) Overshooting: Improve radio network coverage by getting information on cells which have higher TA values than expected. Prevent sticky handovers and potential cross-border linkage to reduce operational costs and improve user experience.

Location Retrieval and Tracking: Obtain precise, real-time device or subscriber location for applications like emergency response, service provisioning, and network performance analysis.

Location Verification and Compliance: Strengthen security and regulatory compliance by verifying user locations, preventing fraud, and ensuring adherence to location-based policies.

Drive Test: Leverage network data to simulate or replicate drive-test results without the need for physical intervention. The continuous and real-time monitoring provides cost savings, improved troubleshooting, AI/ML automation and SLA benchmarking.

VIAVI Insights leverages open APIs, enabling rapid integration with the different systems and allows customization based on operators' specific needs. These can also be trained on diverse datasets, making it adaptable to a wide range of operational use cases. This flexibility allows you to create new use cases aligned to evolving network conditions, business goals, and customer experience priorities.
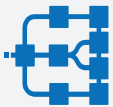
Key Benefits

- **Innovation and Agility:** Spin up different use cases quickly to tailor network behavior to specific business needs

- **Enhanced Efficiency:** Reduces the number of steps required to retrieve critical geo-data, streamlining workflows for faster results

- **Agile and Responsive:** Provides real-time insights, improving network decision-making and responsiveness

- **Reduced Skill Dependency:** Eliminates the need for specialized personnel to interpret complex data, enabling broader accessibility

- **Improved Visualization:** Built-in dashboard and map integration provide clear, actionable insights without requiring manual data parsing

- **Cost Optimization:** Reduces operational costs by automating location data retrieval and minimizing reliance on third-party services

- **Customizable:** Supports different use-cases, with ability to extend to different network APIs

Why VIAVI Insights

Monetize Your Network Data
Turn raw geo-location data into valuable business insights

Seamless Integration
Deploy on any cloud or on-premises platform with ease

Industry-Compliant Solution
Built on global standards like the CAMARA Project

Use Case Automation
Deploying different use cases virtually with a click of button

VIAVI brings years of expertise in network intelligence, leveraging the latest AI-driven technologies to advent the next phase of digital transformation for network operators.

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