

# MENTOR

## RAN Analytics and Optimization



# MENTOR



**Mentor is a GIS-based solution leveraging network measurements and geo-location algorithms to deliver advanced network troubleshooting, optimization, and subscriber experience analytics across 2G, 3G, 4G, and 5G networks.**

With multiple technologies, vendors, and layers within a mobile network, engineers need an end-to-end solution that can analyze, troubleshoot and optimize both RAN network performance and subscriber experience.

Mentor provides advanced user-driven analysis and troubleshooting of RAN performance. It also delivers cluster-wide optimization thanks to its powerful network measurement-based optimization engine.

Extensive analytics capabilities provide insights across devices, subscribers, and locations; underpinned by our geolocation engine, which delivers market-leading accuracy by leveraging innovative machine learning positioning algorithms based on topographical maps and enrichments such as transportation infrastructure and 3D building data.

When it comes to subscriber analysis, Mentor is fully GDPR compliant, with built-in functionality for securely protecting the privacy of your customers.

## Optimize your network



**GEOLOCATED COVERAGE MAPS**  
Understand indoor/outdoor, coverage, throughput, problems in network deployments



**CLASSIFICATION OF TRAFFIC**  
Where is the most important traffic? Where are issues observed?



**VIRTUAL DRIVE TESTS**  
Reduce drive tests costs, measure real-life subscriber experience, 50% OPEX saving



**MAXIMIZE THROUGHPUT**  
Maximize CAPEX effectiveness, analysis and optimization to maximize throughput



# 5G



## GEO-ANALYTICS AND TROUBLESHOOTING

By leveraging geolocated call trace data, Mentor allows engineers to conduct advanced, ad-hoc and dynamic investigations into network performance issues across multiple technologies from 2G to 5G. Ad-hoc filtering for map queries and the ability to apply mathematical functions to multiple map layers enables engineers to customize maps on the fly thereby showing only the most pertinent information to their investigation.



## CLUSTER-WIDE OPTIMIZATION

To compliment its geo-analytics capabilities, Mentor provides automated cluster-wide optimization underpinned by traffic-oriented algorithms. Capabilities include load balancing, RSI optimization, VoLTE SRVCC optimization, scrambling code / PCI conflict resolution, neighbor list optimization, antenna parameter optimization (power, tilt and over-undershooting), paging area optimization, swapped sector analysis and more. Optimization workflows are wizard driven and provide current vs. optimized plan analysis.



## AUTOMATION, SCALABILITY AND INTEGRATION

Automatic Problem Detection highlights geographical polygons where performance KPIs have not been met. The detected problems are assigned a severity level, enabling engineers to focus on the most severe service-impacting ones first. Hadoop support ensures the scalability and application performance required to support the largest and most complex networks. A collection of APIs stream data to 3rd party applications and customer data lakes.

# MENTOR SUITE

Mentor is part of TEOCO's Mentor Suite, a comprehensive portfolio of products delivering advanced subscriber geolocation analytics and network optimization by leveraging network measurements and geolocation algorithms.

The products within the Mentor Suite are each tailored to meet the needs of specific groups of users. They are multi-technology, covering 2G, 3G, 4G and 5G, and support all the major network equipment vendors. Our best-in-class geolocation algorithms employ innovative machine learning based positioning techniques. Automation and closed-loop capabilities deliver improved operational efficiencies and the Mentor Suite is fully GDPR compliant.



## CogniSense

Multi-technology network monitoring, analytics, structured troubleshooting and reporting.



## Mentor

Multi-technology user-driven troubleshooting and automated cluster-wide optimization.



## Forte

Automated GSM frequency planning, neighbor list optimization and spectrum rearming.



## Mentor Server

Single common backend for data collection, system monitoring, administration and APIs.



## TEOCO is a network engineering tools market leader

For over 5 years, Analysys Mason has ranked TEOCO as a leading vendor of network engineering software tools.

# ABOUT TEOCO

**TEOCO is a leading provider of analytics, assurance and optimization solutions to over 300 communication service providers (CSPs) worldwide.**

Our solutions enable the digital transformation of CSPs while enhancing their network QoS, improving their customer experience and reducing their operational costs.

Through advanced analytics, TEOCO products provide actionable and measurable insights into network and customer behavior. This includes the optimization, effective monetization, and delivery of new and existing services, such as 5G.

Our commitment to network flexibility and agility makes TEOCO the obvious choice for CSPs looking to maximize the revenue potential of 5G investments and capitalize on new opportunities tied to the emerging Internet of Things (IoT).



**Global  
Footprint**



**Extensive  
Portfolio**



**Proven  
Solutions**



“TEOCO’s market leading position in Engineering Systems reflects the success of its extensive network planning and optimization solution set, built by some very cohesive acquisitions and integrated effectively to form a leading portfolio”

- Analysys Mason