

# GEO INTELLIGENCE

& SITE SURVEY

BY NURAN WIRELESS



NuRAN Wireless is proud to introduce Insight, the new Geo Intelligence & Site Survey tool MNOs that aims to provide with comprehensive and reliable solutions improve network performance and quality of service. Insight offers several features, including Population Analysis, Location Analysis, Coverage Simulation, Revenue Capacity Dimensioning, Analysis, Site Configuration Selection, Candidate Selection, LOS Analysis and Data Collection. Each feature plays a crucial role in helping MNOs in identifying suitable opportunities for covering different localities and meeting the expected demand.

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#### **POPULATION ANALYSIS:**

#### **The Population Analysis**

feature allows MNOs to identify the areas with high population density and evaluate the addressable population for several coverage radii. Insight performs a preliminary population analysis, ensuring conservative measures of the population, and determines suitable sites configurations to satisfy the expected demand.



The Location Analysis feature helps MNOs in identifying uncovered localities and performing theoretical and macro radio planning to define the theoretical point for each locality. Insight uses different tools to identify the interest points and selects a handful of site configurations at each location for best fit.



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#### **COVERAGE SIMULATION:**

#### The Coverage Simulation

feature performs a simulation of coverage for each locality, using a standard typology and configuration of the site. Insight evaluates the coverage simulations to determine the best site configurations for meeting the expected demand and satisfying the quality of service requirements.



#### **REVENUE ANALYSIS:**

The Revenue Analysis feature performs a light revenue analysis to identify suitable opportunities for covering different localities. Insight considers different factors, such as ARPU and subscriber penetration rate, call duration, average data usage, and indoor/outdoor coverage thresholds, to determine the minimum population target for each market.

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CAPACITY DIMENSIONING +
SITE CONFIGURATION SELECTION

The Capacity
Dimensioning & Site
Configuration feature
evaluates the proposed
capacity feasibility and
revenues to determine the
suitable site configurations
for meeting the expected
demand. Insight selects the
configuration of site
considering revenues to
ensure that the proposed
capacity is feasible.



#### **CANDIDATE SELECTION:**

The Candidate Selection feature evaluates different candidates for site deployment and selects the most suitable one. Insight considers several factors, such as terrain and vegetation, population density, and coverage requirements, to identify the most suitable candidate for site deployment.



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## INTRODUCING:

ON-SITE SURVEY & DATA COLLECTION:

NuRan Wireless engineers conduct on-the-ground surveys in ultra-rural and rural African villages to gather data on the population, schools, churches, and mines in the area. The team also gathers information on the type of terrain, vegetation, and any potential obstacles that could affect signal strength, such as mountains, hills, and buildings. This data is then compiled and analyzed to determine the optimal placement for cellular towers in the area.

The LOS (Line-of-Sight)
Analysis feature evaluates the visibility of a candidate site to a cell site or a communication tower.
Insight considers different factors, such as the height of the candidate site, the distance to the cell site or communication tower, and the terrain profile, to determine the LOS between the two sites.





# GETAN TOUCH

Ready to revolutionize your network optimization? Contact us today and unlock the power of NuRAN's Insight Geo Intelligence tailored to your specific needs.

Our team is eager to craft a customized solution that maximizes your network's potential. Whether you're seeking precise population analysis, comprehensive location planning, revenue-driven insights, or seamless site configurations, NuRAN's Insight has you covered.

Contact us now to embark on a transformative journey towards unparalleled connectivity.

SALES@NURANWIRELESS.COM