

FORTE

Spectrum Refarming & GSM Optimization



www.teoco.com



FORTE

Forte is a powerful 2G optimization tool delivering highly automated, measurement-based, spectrum refarming, and GSM optimization.

As operators focus on their 3G, 4G and 5G networks, the 2G network still has an important role to play. By maximizing spectrum efficiency of the 2G network, excess spectrum can be refarmed and utilized for additional capacity on newer technologies.

Additionally, in many areas, the 2G network is still the primary voice and emergency calling network. A well optimized 2G network is therefore still a critical necessity for many subscribers.

Forte delivers automated frequency planning, spectrum refarming and neighbour list optimization to maximize the quality and mobility of the GSM network.

Proposed frequency plans can be benchmarked against existing configurations in order to see potential performance improvements, or to model the performance degradation that could occur when spectrum is drastically reduced.

Optimize and refarm your multi-vendor GSM network with minimal effort



AUTOMATED

Automated data collection, parsing, analysis and provisioning scripts deliver engineering efficiency



ACCURATE

Precise Interference Matrix based on Mobile Measurements delivers accurate results



MULTI-VENDOR

Compatible with all the major GSM network equipment vendors.



FORTE



SPECTRUM REARMING

As customers adopt newer technologies, older networks become under-utilized, allowing spectrum to be reformed with no degradation of performance for users.

Forte's measurement-based approach uses advanced simulations and accurate network modeling to deliver best-in-class spectrum rearming. It delivers future proof plans by incorporating expansions into the design and is highly efficient with automated data collection, parsing, analysis, and implementation scripts.

Our experience shows that Forte's measurement-based approach achieves significantly better results than a traditional prediction-based approach. This is primarily due to discrepancies between the planning tool and the actual network which cause prediction-based approaches to produce inconsistent results.



NETWORK OPTIMIZATION

Forte delivers best-in-class optimization of complex multi-vendor GSM networks:

- **Automatic frequency planning** enables instant allocation of low interference frequencies for new sites, and automatic frequency planning for complex network architectures, such as OL/UL, dual-band and mixed-frequency allocation schemes.
- **Advanced neighbor-list optimization** identifies missing neighbor relations and removes redundant ones. This improves subscriber mobility, reducing dropped calls and handover failures.
- **Troubleshooting** capabilities include wrong azimuth, swapped sectors and overshooting sector detection.

MENTOR SUITE

Forte 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 refarming.



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