ASSET Radio

ASSET
Radio

ASSET Radio is a radio planning tool, providing RF coverage, capacity, cell parameter, and neighbor planning for wireless and mobile cellular networks.

A network plan is never static. As traffic grows and moves, a network's design needs tweaking; plugging coverage holes and adding capacity where required. Additionally, new technologies such as 5G need to be deployed on top of existing networks in the most efficient and cost-effective manner possible. This requires careful planning, especially when technology layers are expected to work together as a seamless network.

> "TEOCO is able to offer the kind of large-footprint solutions for assurance and network planning and optimization that CSPs increasingly desire." - Analysys Mason

ASSET is a 3GPP compliant software product for planning multi-technology wireless networks across GSM, UMTS, LTE, 5G and more, all within a single project. It supports traditional, vRAN, C-RAN and Open RAN architectures from all equipment vendors. ASSET Radio can be customized through a range of productivity packs, enabling customers to add additional functionality to meet their needs.

Along with 2G, 3G and 4G support, ASSET has been a fully capable 5G radio planning tool since 2018. 5G NR modeling with advanced propagation models, complex antenna arrays and full multi-technology 3D coverage and capacity simulations are all supported.

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.

Deliver a cost effective, high performance network

The migration to new technologies and architectures such as Open RAN presents considerable challenges for operators across their radio, transmission and core networks. ASSET Radio provides comprehensive coverage, capacity, cell parameter and neighbor planning capabilities for 2G, 3G, 4G and 5G networks. 3GPP compliant modeling of carriers, bearers, services and terminal types is supported as are TDD and FDD network modes. Technologies such as VoLTE and NB-IoT are supported too. Finally, automation such as the automatic RSI and PCI planners ensures maximum efficiency.

Integrate to 3rd party tools and automate business processes

Radio network planning is no longer a standalone business activity; a planning tool needs to connect to the wider business to leverage the vast amounts of valuable data available to deliver better plans, as well as to enable the move towards an orchestrated architecture. A suite of robust APIs allow ASSET to seamlessly and reliably integrate with other systems including inventory, site acquisition, site rollout, configuration management, and performance management. This integration approach delivers business process automation, significantly improves radio network planning accuracy and ultimately network performance.

Validate 5G business cases and plan 5G networks

ASSET delivers all the radio planning capabilities you need to design the best 5G network possible. Maximize CAPEX efficiency by validating 5G business cases and technology decisions. Reduce time-to-market and maximize revenue potential with sound roll-out plans. Reduce pressure on design teams with highly efficient planning and design optimization capabilities. Validate propagation models by importing 5G measurements and model Dynamic Spectrum Sharing to ensure a successful deployment. Last but not least, maintain customer QoS by successfully integrating 5G and your existing network technologies.

ASSET Suite

ASSET Radio is a part of TEOCO's ASSET Suite, a comprehensive planning portfolio designed to deliver cost-effective high performance networks. The ASSET Suite consists of the following products:

ASSET Radio

Radio network planning. Coverage, capacity, cell parameter and neighbor planning for wireless networks.

ASSET Backhaul

Wireless backhaul planning. Microwave link planning, path profiling and frequency interference analysis.

ASSET Design

Automated network design. Automated optimization of existing cell configurations, as well as the placement of new sites.

ASSET Web

Web UI for planning tasks. A lightweight and fast workflow-based UI for common planning tasks.

ASSET Update

Planning tool update. Update ASSET with actual network configuration settings to enable planning from a valid baseline.

ASSET Geo

Geolocated usage maps. Enables more accurate radio network planning and network design optimization.

Hyper accurate coverage predictions are becoming critical for network planning, especially at higher frequencies where cell sizes are small. ASSET Radio has a number of components to ensure accurate predictions.

Landscan Population Maps

LandScan™ is the finest resolution global population distribution data available and is well suited to the needs of CSPs due to the smart modeling approach employed to disaggregate census data. TEOCO processes LandScan™ data to make it usable in ASSET Radio. This data is invaluable for network expansion budgeting and planning and ensures accurate population-covered statistics for regulatory and marketing purposes.

3D Building Vector Data

Building vector data is a useful addition for more accurate LTE planning but is mandatory for 5G, especially where millimetre wave frequencies are concerned. TEOCO's innovative approach to 3D building data creation results in a dataset with exceptional accuracy. ASSET's support for 3D predictions, 3D traffic spreading and 3D simulations ensure highly accurate network modelling.

Advanced Propagation Modeling

Advanced propagation models improve the accuracy of predictions, providing support for 3D building vector data support, mmWave frequency support and multipath and reflection modeling. This is critical for 5G planning. ASSET supports both the MYRIAD and Volcano models.

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

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