



INDUSTRY EXPERTISE

With more than 20 years of modeling experience as NETSCOUT®, we offer an innovative approach to model calibration practices to provide superior results:

- Path Loss Database contains premium quality continuous wave (CW) drive data
- Proprietary software, TruePath®, automatically tunes RF models efficiently and accurately
- Data collection and processing completed by RF engineers, not technicians

Propagation Model Calibration Services

Efficiently Plan Your Network Investments

Accurate Planning Based on Calibrated Models

Calibrated or “tuned” Radio Frequency (RF) propagation models characterize the path loss from a transmitter to any given location. These models are a key requirement for RF planning tools used to design and optimize wireless networks. Inaccuracies in propagation models compromise network planning and optimization activities and result in money and time costs. By using calibrated models as a basis for developing a new site plan or optimizing an existing cluster of sites, an RF engineer will be able to determine site settings that accurately model the real world once implemented.

Quality Collection and Post-processing

In order to more accurately represent the network, RF engineers collect CW data using calibrated receivers, range-tested antennas and consistent equipment configurations at the ideal time of year. All calibrations are made against observed and measured values such as drive-test data.

Our quality assurance practices include power setting validation, interference measurements, antennae leveling and location verification. These practices, paired with discrete systems, are used to identify errors quickly and accelerate turnaround of calibrated models.

Comparison drives between collection teams ensure that errors within a single equipment setup are quickly caught and corrected. This results in a highly accurate path-loss representation in every morphology.

Shorten the Time to Market

With an extensive Path Loss Database, our CW data represents more than 20,000 unique drive tests allowing us to create valid models from 700MHz to 2.5GHz. Our field engineers collect data with back-up documentation, photos and film footage to meet your specific requirements.

Unique Tuning Capabilities

Used in conjunction with premium quality CW data, our proprietary TruePath software improves RF modeling accuracy for better propagation models.

- Automatically determine morphology boundaries (areas of similar building type/ density, terrain and path loss characteristics).
- Create models with zero mean error by distance from the transmitter.
- Correct for receiver measurement bias with dynamic range compensation.

All model calibrations begin without any assumptions on morphology boundaries and reference thousands of iterations with a round-robin algorithm. Extensive model calibration statistics, as well as model error versus distance are measured in 500-meter intervals.

The patented Dynamic Range Compensation (DRC) algorithm corrects for any failures to measure signals near and below the receiver sensitivity limit as it moves farther away from transmitting sources.

Without DRC, calibrated models typically over propagate. At cell edges, this practice leads to inaccurate simulations and incorrect decisions during design and optimization.

Planning for Advanced Technologies

Improved drive testing and calibration of the RF prediction models by morphology for simulation-based planning and optimization more accurately reflects the on-air network.



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NETSCOUT offers sales, support, and services in over 32 countries. Global addresses, and international numbers are listed on the NETSCOUT website at: www.netscout.com/company/contact-us