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A CommScope Company

Radio Frequency Design Planning

Comsearch has a unique combination of engineering staff, tools, and regulatory expertise to effectively design your mobile or fixed wireless access network. Our four decades of experience with RF design, field testing, and model tuning along with expert knowledge of signal propagation theory will help you achieve your goals.

Site Selection

Evaluate areas and identify potential site candidates for macro sites, small cells / metro cells, or rural broadband base stations. Prioritize site candidates to meet desired engineering and cost objectives while avoiding any regulatory hurdles.

Site Acquisition

Full Site Acquisition services available to take your project from initial site identification through final construction. Our services include lease negotiation, document preparation, zoning filings, and permitting.

RF Coverage Planning

Perform RF coverage simulation to determine gaps throughout the service area and identify new sites. Recommend appropriate RF propagation model based on frequency band, local terrain, and clutter.

Capacity Planning

Ensure a quality user experience by planning sufficient traffic capacity in areas of congestion. Identify specific areas where new sites should be added based on network statistics and predicted demand.

Radio Parameter Planning

As new sites are added for coverage and capacity, perform frequency or physical cell ID (PCI) planning to mitigate intra-system interference in the uplink or downlink bands.

Drive Testing

Collect field measurement data to verify coverage simulations and document areas with poor coverage. Post-process data and perform statistical comparison with predicted coverage plots.

Propagation Model Tuning

Adjust RF propagation model parameters based on measured data to increase accuracy of network coverage and interference predictions. Update coverage and interference plots accordingly.

Learn more at comsearch.com

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