Nokia AVA
Cognitive Radio Frequency Analytics

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Nokia Cognitive Radio Frequency Analytics **(cRFA)** geo-analyzes and improves the RF Coverage, Capacity, Spectral Efficiency & User Throughput of 4G/5G RAN with continuous closed-loop & traffic-awareness options. **cRFA's ML driven** auto-discovery of coverage-limited and capacity-limited clusters within the network drives the geo-analytics and optimization focus of each sub-cluster accordingly.

- The RAN segmentation into different RF performance target areas can be either for all user traffic or for a specific traffic type (ex: Fixed Wireless Traffic, 5G EN-DC User Traffic, Roamers Traffic, ..). **For maximal RF performance, cRFA detects antenna anomalies, faulty cell neighbor relations, interferences, traffic hotspots, low throughput areas, coverage gaps and provides top improvement recommendations.**

- **Optimal CAPEX ROI** by maximizing the use of existing spectrum carriers, RAN capacity and managing investments in additional Bands/HW/SW for more capacity.

- **Achieve OPEX reduction** by minimizing of Drive Test, geolocation costs and manual analysis for coverage & capacity performance optimization.

- **Grow Revenue** by increased Spectral Efficiency, RAN spare capacity and user throughputs allowing operators to minimize untapped revenues and improve customer experience.

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