RAN Design Planning

Defines the process of proposing locations, configurations and settings, of either new network nodes or network expansion, to be rolled out in a wireless network. It provides a full capacity and coverage analysis including also special design approaches (i.e. paging, RACH, Tracking Area, PCI etc)

Consulting Service Details

Radio Network Design is one of the major MCNS consultancy services including:

- excel tool calculators for quick and at a glance RAN and MW backhaul/fronthaul capacity/coverage analysis,
- Commercial planning sw tool support to provide a comprehensive and complete RAN coverage geographical analysis.
- Commercial planning sw tool support to provide a complete MW transmission backhaul and fronthaul coverage/capacity analysis

Our RAN Design consulting services comprise a full technical report with all necessary parameters and requirements/restrictions to facilitate the network deployment and minimize the network implementation and deployment cost.

For further info please refer to projects

Based on customer requirements and HW/SW restrictions we provide ::

RAN Coverage Analysis:
Full coverage geographical analysis and planning report exports, mapped to Google Earth for better service provisioning.

- Reports include also paging coverage, control channels and signals coverage and RACH coverage and pre-ample selection harmonized to the expected cell range

RAN Capacity Analysis:
Excel automated files with full capacity (throughput) estimations including also paging capacity, PCI planning, RACH capacity and RACH root sequence planning
MCNS is also well known globally for best fitted mathematical models for outage probabilities and throughput estimations

Pathloss model fitting:

MCNS provides a full path-loss model fitted into real drive test measurements for LTE as well as 5G sub-6 GHz band and mmW bands

Vendor RAN technology dimensioning:

Based on specific vendor HW and SW optional features (i.e. NOKIA, Ericsson or Huawei) MCNS can propose optional feature configurations and HW equipment selection