

Experience Summary

- 5+ years of experience in RF Design and Optimization, Network Planning and Network Testing.
- Multi-Vendors experience in the area of Radio Network Optimization for cellular networks
- Extensive knowledge on design, build-out, performance and optimization of LTE/UMTS/GSM.
- Good understanding of the Network KPIs and parameters
- Designed LTE network for ATT and T-Mobile.
- Well versed with LTE network architecture, Link budget and layer-3 messaging.
- Sound knowledge of UMTS Multi-carrier Design and Optimization

Skills

Technologies: GSM, GPRS, EDGE, CDMA, UMTS and LTE

Vendors: NSN, ERICSSON

Operators: AT&T, T-Mobile, Sprint.

Planning Tool: Atoll, Asset, Capesso.

Optimization Tools: MapInfo, Actix Analyzer, TEMS Discovery, TEMS Investigation, XCAL, ActixONE, Insite, Agilent and Pocket TEMS.

Education

Master of Science in Electrical Engineering

Dec 2010

Bachelor of Engineering in Electronic and Communication

Jul 2007

Employment Record

Period	Employer	Position	Profile of Work
Mar 2014- Present	T.T.S. USA AT&T / Charlotte, T-Mobile / Miami, t-Mobile / Philadelphia	RF Engineer	Design & Optimization Engineer
May 2011- Feb 2014	Aircom International USA AT&T / Dallas, T-Mobile / Miami	RF Engineer	Design Engineer
Mar 2011- May 2011	Valtech AT&T / Dallas	RF Technician	UMTS Network Optimization using drive test tools

Projects Undertaken:

T.T.S. USA

Aug 2014 - Present

LTE Design & Optimization Engineer

Jan 2016 – Present

**Client: T-Mobile,
Philadelphia, PA USA**

Responsible for new site developments both capacity driven and coverage driven in Philadelphia region and central PA region.

Highlights and Responsibilities:

- Preparing justification packages for LTE 700 sites and presenting it to client with considerable coverage improvements

- Seamless induction of LTE 700 into existing legacy technologies viz. AWS LTE, PCS UMTS, GSM
- Update existing RFDS to include LTE 700 equipment and antenna
- Prepare RFCIQ and Antenna Port Matrix for L700 sites
- Proctor sites for any discrepancies upon L700 integration
- Shutdown AWS UMTS and increase AWS LTE bandwidth to increase capacity and data rate
- Add 3rd and 4th carrier in OSS for PCS UMTS in South Florida region
- Create E911 PSAP coverage files for E911 call verification
- Approve construction drawings and zoning documents
- Create Closeout packages

LTE Design & Optimization Engineer

Aug 2014 – Dec 2015

**Client: T-Mobile,
Miami, FL, USA**

Integral member of team responsible for design and launch of LTE 700 in South Florida region. Also involved in carrier addition and capacity planning of AWS LTE and PCS UMTS for South Florida region.

Highlights and Responsibilities:

- Preparing justification packages for LTE 700 sites and presenting it to client with considerable coverage improvements
- Seamless induction of LTE 700 into existing legacy technologies viz. AWS LTE, PCS UMTS, GSM
- Update existing RFDS to include LTE 700 equipment and antenna
- Prepare RFCIQ and Antenna Port Matrix for L700 sites
- Proctor sites for any discrepancies upon L700 integration
- Shutdown AWS UMTS and increase AWS LTE bandwidth to increase capacity and data rate
- Add 3rd and 4th carrier in OSS for PCS UMTS in South Florida region
- Create E911 PSAP coverage files for E911 call verification
- Approve construction drawings and zoning documents
- Create Closeout packages

T.T.S. USA

Mar 2014 – Jul 2014

LTE Design Engineer

Mar 2014 – Jul 2014

**Client: AT&T,
Charlotte, NC, USA**

Integral member of Carolinas design team responsible for design of LTE 700, AWS LTE and UMTS.

Highlights and Responsibilities:

- Managing different phases of Network deployment - Adding new nodes to the network, upgrading network, merging one network with another and cell site planning and optimization
- Optimize sites and run simulations in Atoll to ensure KPIs don't degrade
- Approve or reject candidate based on extensive candidate evaluations
- Creating traffic maps, running simulations, generating coverage and quality predictions and generating KPIs
- Update Autoforms to reflect changes in RFDS
- Create zoning documents and support C&E during zoning hearings
- Creation and Presentation of E-911 and RF Propagation Plots
- Prepare LTE and UMTS RNDCIQ for new site builds and LTE upgrades
- Verification of drive data for LTE, UMTS and GSM Network Design
- Create Closeout packages

LTE Design & Optimization Engineer**Jan 2014 – Feb 2014****Client: Sprint,
Dallas, TX, USA**

Integral member of optimization team for Sprint 4G/CDMA network. Lead a team of four for optimization of Dallas, Fort Worth and San Antonio markets.

Highlights and Responsibilities:

- Identify poor coverage areas using drive test data and TEMS Discovery
- Problem identification using layer 3 messages
- Carrying out benchmark activity, processing the data, preparing report & giving feedback on new sites required based on the Benchmark report
- Cluster Optimization for the whole network, involves defining the cluster, monitoring the stats, optimizing on the basis of stats, defining drive test routes, neighbor analysis etc
- Detailed Coverage Analysis for RF Plots such as Coverage, Interference, Best Server, coverage based Pass/Fail, Interference based Pass/Fail Composite Coverage Area Reliability etc
- Analyse site performance for dropped calls
- Monitor existing alarms in OSS
- Proctor data throughput speed for both Uplink and downlink
- Identify areas that have dominant server issues and HO failures using drive test data.

LTE Design & Optimization Engineer**Apr 2012 – Dec 2013****Client: T-Mobile,
Miami, FL, USA**

Integral part of a team responsible for 4G implementation on existing network comprising of Network consolidation and modernization.

Highlights and Responsibilities:

- Optimize network parameters to get optimum efficiency on all 3 technologies using ACP tool (Capesso)
- Execute parameter changes in NSN OSS by using XML editor and running plans on CM operations manager
- Validate parameter changes via CM editor
- Create neighbour plans in NSN OSS to accommodate inter-technology HOs along with inter-frequency HOs
- Create clusters in Asset and run simulations which in-turn will be used in Capesso to generate new tilts that will ensure KPIs are not degraded
- Set-up Asset3G Network from importing maps, site database, equipments, filters, polygon and Bulk uploads.
- Validate and ensure that Parameters are set to default settings.
- Run predictions, spread live traffic scenarios.
- Monte Carlo Simulation for analysis of Statistics, Coverage, pollutions.
- Prepare RFDS to accommodate LTE within the existing RF spectrum
- Prepare RFCIQs for new site builds and LTE upgrades
- Prepare Antenna Port Matrix to accommodate PCS UMTS and LTE along with existing GSM and AWS UMTS
- Perform parameter audits and neighbour audits to accommodate new site builds in NSN OSS
- Work in tandem with Construction managers to finalize BOM
- Perform configuration changes to ensure KPIs don't degrade
- Proctor new site builds on NSN OSS for any alarms, intelligent shutdown failure, MHA configuration, antenna tilts via RET control

- Worked as a team player in optimizing the network by using the ACP tool CAPESSO and provide the tilts for all RNC's in Miami for both technologies U1900 and GSM
- Responsible to make presentation and show the before and after scenario coverage plots for the selected area, graphs, tilt distribution. By using current tilts and by using tilts provided by CAPESSO
- Running path loss, Updating ASSET with Antenna patterns, Azimuths, Height, Power with help of XML editor

Aircom International USA

Dec 2011 – Mar 2012

RF Optimization Engineer

Dec 2011 – Mar 2012

**Client: T-Mobile,
Miami, FL, USA**

Integral part of UMTS design and optimization team working on network upgrade of South Florida region, Miami Market; responsible for bringing up and optimizing New Site builds and Infill sites.

Highlights and Responsibilities:

- Create neighbour plans using XML editor and execute created plans in CM operations manager.
- Validate neighbour updates using CM editor
- Create custom views in CM editor to expedite NSN OSS parameter updates
- Integrate additional carriers into UMTS network
- Commissioning and proctoring new site builds
- Using TPIM reports to optimize performance of network and include missing neighbours
- Process log-files, frequency planning and post processing by analysing layer 3 messages, scanner plots, dropped calls and neighbour relations using ActixOne
- Generate reports in ActixOne to analyse and improve KPIs using RSCP plots, EcIo plots and dominance of new site builds
- Create optimization packages for detailed analysis of new site builds using coverage and dominance plots from ActixOne
- Create new CDD for GSM sites for any hardware upgrade
- Manage neighbours in Ericsson OSS to accommodate new sites
- Allocating scrambling codes and preparing RFDS/RFCIQ
- Creating new site and neighbour allocation using ASSET
- Understanding 2G – 2G, 2G – 3G, 3G- 2G and 3G – 3G neighbours specifically related to Nokia hardware
- Support zoning team with technical expertise during zoning hearings
- Involved in creating Site Candidate Information Package and Justification Package

Aircom International USA

May 2011 – Nov 2011

LTE Design Engineer

May 2011 – Nov 2011

**Client: AT&T,
Dallas, TX, USA**

Worked as an LTE Design and optimization engineer, involved in neighbour cell allocation and cluster planning using Atoll.

Highlights and Responsibilities:

- Part of the LTE DFCD-ICD RF Design Project for the Atlanta and the Oklahoma Market.
- Co-ordinate with the client for any issues in data received.
- Prepare Data Validation report and check for data sanity.
- Optimized Super Clusters by using antenna down tilt techniques.
- Perform KPI improvements (both area based KPIs and throughput KPIs)
- Prepare the PCI, TAC and the Neighbour Plan for the markets.
- Completed the cluster certificates based on the DRP's.
- Prepare the market reviews and the final DFCD-ICD Presentations for the approved markets.

- Generate RFDS based on results of Atoll simulation.

Valtech

Mar 2011 – May 2011

RF Technician

Mar 2011 – May 2011

Client: AT&T

Louisiana, Mississippi, Alabama

Analysis and optimization of UMTS network for voice and data using drive test tools like TEMS Investigation, Agilent and Map info.

Highlights and Responsibilities:

- Worked on 3G network for AT&T Wireless UMTS market in Southern United States
- Data Analysis support for AT&T Wireless.
- Determine parameter changes to improve KPI.
- Tested and optimized HSPA sites.
- WCDMA performance tests include static tests, field tests and platform tests, soft and softer handover, uplink and downlink data rates, mobility 2G-3G / 3G-2G (IRAT testing).
- Tested for congestion, drops, blocks, RACH errors and monitored set, missing neighbour's scrambling codes, signal strength (CPICH-Ec/Io & CPICH RSCP) TCH and general quality for UMTS network.