**Amit Raut**

69 Countryside Dr, Basking Ridge, NJ 07920

Phone: 9736415480

Status: Permanent Resident (Green Card)

e-mail: [amitbuet97@gmail.com](mailto:amitbuet97@gmail.com)

**Summary :**

* Overall 12 years in RF Planning and Optimization with focus on LTE design, Site Turn Up for T-Mobile (New York and Long Island market)
* Experience in design, optimization, performing extensive testing and identifying and resolving any technical issues while participating in the site planning and implementation of systems solutions to meet the targeted objectives.
* Excellent technical support as per client’s requirement.
* Quick learner, multi-tasker, proven ability to complete assigned tasks on schedule , proficient contributor in a fast pace environment .
* Leading the integration support and performance team to bring overlay sites on air.

**Education:**

* Bangladesh university of Engineering and technology (1999-2004)

Bachelor of Science in Electrical and Electronic Engineering.

* Rutgers Data Science Bootcamp (Feb 2019 –Aug 2019)

**Employment History:**

1) Senior RF Engineer,

Telecom Technology Service Inc (November 2014-Cont)

**Project: L700/L600/L1900/ Turn up (From September’2016- cont)**

Duties:

* Responsible to work through End to End RF Cycle on L600/L1900 turnup in T-Mobile North East.
* Responsible to lead integration support team consisting of 3 engineers, existing technology monitoring team consists of 3 engineers and new technology monitoring team with 2 engineers.
* Managing and tracking activities in the design and site turn up phase to ensure deadlines are met.
* Assign daily task to the team and updating the client about the project

Design:

* Create RFDS, review the CD and sweeps and COP as a part of design process.
* Create CIQ for new site using ACIQ tool.
* Make sure the new technology is provisioned in RioT.

Turnup:

* Coordinate with Ericsson team during integration time and monitor OneData alert for KPI issue for existing sites.
* After Ericsson releasing the site, check alarm, VSWR and RSSI values from OSS. Ensure RET motors are operational. Need to run the market required script. Request to the Drive team to do E911 call test and prepare drive route.
* Complete post drive test by analyzing drive test data, monitor the site, prepare site on air
* PCI/RSI retuning as per market requirement using SON tool
* Monitor the new technology for 72 hours.

Post-performance:

* Provide an Audit (Site plus First and Second order Neighbors) for Traffic steering parameters:
  + IFLB-All Settings (HO Prep Attempts, Failures, Execution Phase failures included)
  + cellReselectionPriority and dependent parameters
  + Event A5 Criterion (Entering and Leaving)
  + Event A3 Criterion (Entering and Leaving) & any individual offsets to EUTRAN and dependencies thereof
  + qoffsetCellEutran and dependencies
  + crsGain and dependencies
* Provide Day level and BH changes in Traffic, AFR, PRB Behavior, Symbol usage, PDSCH and PUSCH behavior of neighboring cells after turn-up
* Provide layer specific congestion and traffic profile report including expected behavior after pending integrations in the cluster
* Provide a detailed report of traffic and capacity profile in cluster and mitigating actions taken

**Project: o-DAS and MetroKeep NSD turn up (From November 2014- cont):**

Duties

·         Working as an RF engineer to plan and optimize the T-Mobile’s LTE/UMTS/GSM network.

·         Involved in a project to deploy the LTE network in Outdoor DAS system. Scope includes scoping, RFDS/CIQ creation, turning up the sites and initial optimization.

·         Stats monitoring/improvement and alarm monitoring for LTE/UMTS/GSM using T-PIM.

·         Identification of operational issues in the sites and sending to the concerned for rectification.

·         Verification and implementation of site commissioning data, parameters, HO relations, power etc.

·         Inter Frequency/Intra Frequency/IRAT Neighbor addition and deletion, considering the

·         interlayer HO strategy, by doing complete neighbor audit for UMTS using Actix One,

·         Load balancing between UMTS carrier and LTE to attain better spectrum efficiency and

·         Verification of drive test report using Actix One to find out quality and design implementation issue

2) Lead Engineer, Radio Planning and optimization

Grameenphone Ltd (Dhaka, Bangladesh) (June 2012-Nov2014)

**Project: 3G Planning and Optimization of 15 Clusters (From September’2013- cont)**

Duties

* UMTS Planning (P-SC) and neighbor plan of 300 sites under 15 clusters
* SSV report of preparation of each site and ensure basic coverage and Quality ,
* Cluster coverage KPI (RSCP, Ec/Io), Accessibility KPI (CS Call setup success rate), Retainability KPI (CS/PS call drop Mobility KPI (Soft/Softer/Inter Frequency/IRAT), MOS is performed.
* Pilot pollution areas are identified and route cause analysis is done.
* RNC Congestion analysis.
* Neighbor checking is done from Detected set (Missing neighbor analysis of TEMS)
* Optimization activities (Physical Optimization, Parameter consistency checking, Neighbor addition)
* Statistical KPI Accessibility (RRC ,RAB Setup Success Ratio), Retainability (CS/PS Drop rate),
* Mobility KPI (Soft/Softer, Inter freq, IRAT) is monitored.
* CE addition is done for critical congested cells.

3) Senior Optimization Engineer

Metro Global Telecom Service Pvt Ltd (Dhaka, Bangladesh) (April 2011-June 2012)

**Project: 4G LTE Pre and Post Launch Bharti-NSN in Pune (From January’2012-June’2012)**

Duties

* PCI planning, Neighbor planning for Bharti NSN in Pune
* TA dimensioning by calculating MME paging capacity , RBS paging capacity
* TAC planning, LAC-TAC mapping with WCDMA sites.
* Reviewing and designing LTE Radio Network Design Parameters.
* Performing site configuration checks, Power settings, Antenna configurations, implemented PCIs , PCI clashes , azimuth , Hand over parameters prior to the Drive test.
* Checking and rectify PCI swap, coverage and handover related issue, RRU faults.
* Performing LTE Pre launch and post launch network optimization for Pune with TEMS drive analysis, neighbor relation, and tilt and parameter optimization.
* LTE Network Launch & Cluster Optimization. Planning of RF parameter, Hardware configuration & field level changes.
* Single site drive test, created site acceptance report format, drive test analysis.
* Ensuring KPIs to be met RSRP, RSRP statistics, DL/UL throughput, Latency.
* Analysis of KPIs Accessibility (RACH issues, multiple RRC connection request etc.), Retainability(PS drops) , Integrity , Mobility.
* LTE network launch and cluster optimization, planning of RF parameter, making field level changes, troubleshooting with Handover problem, tuning parameters.
* Providing Drive routes to DT engineer using MAPINFO and also defining cluster boundaries.
* Actively done LTE Parameters audits- LAC/TAC, SIB6, SI/X2, INTEGRATION audits etc.

**Project: 3G Pre Launch and Optimization for Grameenphone (From April’2011-December’2011)**

Duties

* Monitor and Analyze the WCDMA/HSPA radio Network Statistics on daily basis
* Achieve & maintain the Radio Network Performance as per the contracted KPIs (Accessibility, Retain ability, and Service Integrity)
* Responsible for reducing congestion and drops, improving the IRAT Handover, Soft Handover, Pilot Pollution, Location Update, Paging, CSSR, RRC Connection and RAB Establishment Success rate in the 3G RAN network for all Voice, Video packet& High Speed.
* Issuing capacity upgrade requests whenever needed.
* Dimensioning support of CE, Iub, Iur for Capacity and resource utilization
* KPI and Parameter check for Vendor swap
* Responsible for Drive test analysis and taking necessary action to improve the performance in geographical area.
* Evaluate and adapt new methods and technologies regarding Radio Network Optimization, Features, Trials and Tuning.
* Analyze Layer 3 Messages based on SIBs on Actix Tool to find Call Drop, Blocked Call, SHO and IRAT Handover and their reasons
* Validating Single Site Verification Test (SSV) or Single Cell Functionality Test (SCFT) Reports for proper coverage like RSCP and Ec/Io, HSDPA Throughput, HSDPA Modulation scheme used plot, Ping time, scrambling code plot etc.
* Assist in marketing and sales activities, customer negotiations and handling customer complaints related to RF issues.
* Perform radio Network audit and performance improvement, statistics and processing, KPI Calculation, parameters and feature tuning, make recommendations for future network development.
* Capacity Site Planning based on Present Trend, Forecast Traffic growth provided by Customer and TA Report and to offload sites carrying heavy traffic.
* Statistical Analysis, Drive test analysis, parameters audit, features and parameters optimization, Neighbour Optimization, Worst Cell based Optimization, Single site and cluster optimization of Green Field and established networks, Acquisition of Network data and Optimization

4) RF Engineer,

Orascom Telecom Bangladesh Ltd (Dhaka,Bangladesh)(June 2006-January 2011)

**Project: Optimi XAFP and XACP planning and implementation (June’2007- January’2011)**

Duties

* Frequency Plan by Optimi xAFP (automatic frequency planning tool) in different regions of Bangladesh.
* Frequency plan, HSN, MAIO, Neighbor and BSIC optimization with xAFP.
* Dummy TRX clean up proposal.
* Consistency checking of operator site databases.
* Consistency checking of network after implementation of proposed changes.
* Interference matrix creation and validation, Identifying swapped cell and boomer cell.

**Project: Enhanced EDGE Service Priority: aiming to provide 168 kbps (Statistical) (September’2009-August’2009)**

Duties

* Finding the Allowable Resource Addition Limit,
* Resource Addition (Cabinet, MRFU, Antenna System, PCM).
* Parameter Tuning (Controlling Preemption, TBF per PDCH, Static PDCH).
* Feature Activation (Multisport Class, Path loss based Data Traffic in OL).
* Traffic Balancing (Tuning of HR & Locating, Quality Balancing).

Duties

* Frequency plan for the new sites & Updating Neighbor Database of Monitoring KPI (CDR, TCH Ass fail, DL HO, UL HO) and retune frequency and parameters if necessary.
* Retuning frequencies and neighbors before site goes integration
* Checking log files from TEMS/NEMO
* Correction of inconsistencies with respect to OMC database
* Using Mentum Planet to do the coverage analysis
* Acceptance report preparation for a new sites Drive test initial functionality testing, major problem identification (Sector swap, missing HO, Frequency collision etc) and modification.
* Regular update of cell statistics from OSS to Server by using iManager and PRS
* Analyze Network, BSC, and Cell statistics and find out worst performing cells in terms of Congestion, Drop, HOSR, and CSSR, SD Establishment and prepare recommendation.
* Dimensioning resource for FR,EFR,HR,AHR,AFR to ease congestion.
* GPRS and EGPRS KPI monitoring and provide recommendation to add Abis resource for better throughput.

**Professional Training**

|  |  |  |
| --- | --- | --- |
| **Training Name** | **Time** | **Institute** |
| 5G Engineering | January 2019 | Online |
| WCDMA RAN Performance Management | September 2014 | Huawei |
| WCDMA Radio Network Optimization | September 2014 | Huawei |
| WCDMA Radio Network Design and Planning | October 2013 | Huawei |
| WCDMA Multi-Carrier Solution | October 2013 | Huawei |
| Introduction to 3G : WCDMA and HSPA | October 2013 | Telefocal |
| WCDMA RAN Principle | October 2013 | Huawei |
| Spotlight Training | 13-13 September 2007 | Actix |
| GSM Radio Network Tuning | 28 Oct-1 November 2007 | Ericsson |
| Optimi xAFP | 10-25 November 2007 | Optimi Corporation |
| GSM Evolution Towards GPRS & EDGE | 14-15 November 2007 | Ericsson |
| Basic GSM: Cell Planning | 2-6 December 2007 | Ericsson |
| Radio Network Parameters for GSM | 5-8 May 2009 | NSN |
| E-GPRS Radio network parameters | 11 - 13 May 2009 | NSN |
| Basic Optimization | 25-27 October 2009 | Telefocal |
| Mentum Planet 4.5 fore Core/W-CDMA/HSPA | 23-24 June 2010 | Mentum |
| UMTS Fundamentals | 18-20 July 2010 | Telefocal |

**Tools Expertise:**

T-Mobile Software & Use :

1. Provisioning tool ( RiOT , ElemenT, SORT)
2. OSS tool: ENM, Ericsson OSS
3. Planning tool : Asset.
4. Drive Test: TEMS, actixone.
5. KPI: OneData, IMNOS.

Software:

1. Microsoft Excel
2. Python (Pandas , Matplotlib)
3. MySQL