**Basharat Hussain**

**RNPO Regulatory Compliance, Site Design & Performance Expert**

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## SUMMARY

Telecom Professional with of experience in **Regulatory Compliance, Site Design, Radio Network Planning Optimization, Network Performance,** and **ICT Manage Services.**

Hands on experience for Voice, Data and Internet Services over **5G NR, 4G (FDD/TDD), VoLTE, WiMAX 3G, 2G** with **Roll out**, **Delivery** and **Manage services** for **Fixed**/**Mobile** Networks.

**Skills** and **Qualifications** equipped within **Telecommunication** and **Management** fields to handle **Roll out**, **Delivery** and **Manage services** projects to implement corporate strategy, ensuring consistency within the group and across the organization

## CAREER PROFILE

* + **Multi-Vendor** experience on **Ericsson, NSN, Huawei, ZTE, Alcatel Lucent**, and **Motorola.**
  + **Multi-Domain** experience in **RF** **NPO, Performance, Regulatory Compliance, ICT, Core and RAN.**
  + International Experience in countries **Bahrain, UAE, Yemen** and **Iraq**
  + RF **Planning Optimization, Performance** for **NR, VoLTE, LTE FDD+TDD** Multilayers**/ WiMAX /UMTS/GSM** Including Lead Skills for **Managed services** Projects
  + **Level 3 LTE RNPO exam Passed** Huawei Exam ID: **TUW68UI1MEHP6IKMCS**
  + **RF Optimization** ondaily, weekly, and monthly KPI/KQIs highlight degradation factors to maintaincontractual KPIs**.**
  + **Change Request Management** approvals for all domains on **OWS** for **CRs** and **RFCs** approvals and engage stc teams.
  + **Masters in Telecommunication Systems** and **MBA (Telecom Merger and Acquisition Management)**

## WORK EXPERIENCE

**Project:** Korek Telecom Iraq Radio Networks **(Oct 2024 – Nov 2024)**

**RNPO & Performance Engineer – Korek Telecom Iraq Manage Services**

Employer: **MSELECT International (Iraq Erbil)**

Worked with **mselect** International on Korek Iraq Project.

**Networks Optimization and Performance Team:**

* Korek CMC Regulatory, special Complains, all regions for 2G,3G and 4G Voice, Data, Throughput and coverage issue
* 4G Capacity analysis for PRB and CCE Utilization, Overlapping analysis for different layers, Call muting issues.
* NBR audit, ANR, VOLTE, DL/UL 256 QAM, MLB, 4G Superior UL Coverage, LTE Intelligent UL Retransmission Trail
* Cluster benchmark optimization for all regions, coordination with all subcontractors for optimization actions.

**Project:** Zain Iraq Radio Networks **(July 2024 – Nov 2024)**

**RNPO & Performance Engineer – Zain Iraq Manage Services**

Employer: **MSELECT International (Iraq Baghdad)**

Worked with **mselect** International on Zain Iraq MS Project.

**Ericsson Networks Optimization and Performance Professional:**

* Daily Dashboard for LTE, UMTS and GSM for related regions (Center, East-West, South Arabic North, Mid Euphrates)
* FTK sites, RRU Swap, Modernization, Sector Addition, 4T4R, neighbor, TA, Frequency audits, Sites PAC/FAC queries/verification/acceptance related to Swap/Neighbor sites for 2G, 3G and 4G for all Ericsson Subcontractors
* Event Monitoring(1446Hijri) New Year, Moharram, Arabian 4G Ericsson (Najaf, Karbala, Kufa, Baghdad and Samarra)
* Formula Definition and Mapping queries for Multi-Vendor SmartCare/Discovery, CRs for Ericsson 4G requirements
* Co-ordination with all subcontractors (IPT, SimTelco, Metco, ATC-TNS for issues, resolution and final approvals
* CMC regulatory authority and Zain VIP complain queries
* KPIs queries for Zain Consultant MSI UK, also raise Ticket and follow-up with Ericsson support team.

**stc_bhProject:** stc Radio Network Bahrain **(June 2023 – Till June 2024)**

**RNPO & Performance Engineer – stc Radio Networks)** Bahrain

Employer: **Wajda International** Bahrain

Working with Wajda international on stc Bahrain project.

**Huawei Radio Networks Planning/Optimization and Performance Expert:**

* RF Planning, Optimization, **Dashboard**/**Contractual** KPIs Management, Automation, Network Strategy Parameters Implementation and Refarming for **GULNR**.
* WCL (Daily, Weekly monthly) NR, LTE(TDD-FDD) MIMO, VoLTE, SRVCC, CSFB for **Macro**, **Micro, Pico** & **IBS**
* **CTO, CTDO, CDR, Network Operations, NR performance, Network Cluster Utilization, Network Experience Evaluation,** **Network information Collection** (Gulf North), **Strategy, Performance/Throughput**, **QoS** **regulatory, application related issues, NPO Network Governance** Weekly, Monthly,Quarterlyreport for all technologies.
* **Special Events** Parameters Implementation/ GULNR KPIs Automation /License Planning/ Live monitoring for Events
* Network Parameters audit, TAC/LAC Re-Planning, discrepancy removal, VIP complaints analysis/optimization.

**stc_bhProject: MSI** stc Bahrain **(April 2022 – April2023)**

**Consultant MSI (RNPO – Regulatory Compliance Site Design)** Bahrain

Employer: **MSI** (**Mobile System International Consultancy Limited**)

Worked with MSI (Mobile system international) on stc Bahrain project.

**Radio Networks:**

* TDD-5G and TDD-LTE Massive MIMO sites (5G **Band N78, N1, N41, N75, LTE Band 42** 3.5GHz, LTE **Band 41**, 2.6GHz)
* FDD-LTE Sites (LTE **Band 1** 2.1GHz, **Band 3** 1.8GHz, **Band 20** L800 MHz, **Band8** L900)
* LTE-3G **Macro**, **Micro & Pico, IBS** Sites (LTE **1.8/2.1** GHz, **UMTS** U900MHz/U2.1GHz), **GSM** G900, G1800
* Trace Analysis for 5G-4G throughput with and without Split, 4T4R, 256QAM & 3CC/4CC Carrier Aggregation in LTE.
* Network Neighbor audit, KPI’s Monitoring, Top Cell, Worst cell analysis/interference to improve degraded KPI’s
* Cluster Optimization for Coverage, Throughput, and Quality Improvement using Discovery plots.
* **New, Expansion, Relocation, Modernization, ROT** Sites acceptance after physical and parameter optimization
* Device Performance analysis before commercial launch related to **Firmware, 5G Split/Without Split performance, CA combinations, Latency, 2.4/5Mhz Wi-Fi functionality.**
* Device Trace analysis for failures related mobility, accessibility, retainability, Modulation schemes verification, Intra-**NR/ Inter-RAT mobility, Addition/ Release/ Modification/Change** of **SN**
* **IDU/ODU CPEs, MiFi’s, Tablets** and **Mobiles** 2G/3G/4G/NR technical functionality/trace analysis before stc commercial launch for following vendors like **Samsung, Apple**, Nokia, **Huawei** and **Xiaomi**

**Regulatory Compliance and Site Design:**

* Sites Application Submission to **TRA, BDF, CD-MOI, SCE, CAA, GDCD,** and **EWA** (TRA Online RIMS Portal)
* Weekly meetings with **TRA** (Telecom regulatory Authority) **Engineers/Consultants** for Design, Structures issues.
* Co-Ordinate/Manage all Telecom subcontractors to rectify issues for **Guyed Mast, Palm Tree, GRD, Wall Mount, COW, Self-Support, Rectification,** **Pico, Macro** and **Camouflage** towers**.**
* PRS **Tracker Updates** for **Remedial/Rectification** **Application** to **Share**, **Add**/**Remove/Extend** and **Replace** sites.
* Verification of **Radio** or **MW Antennas** Counts**,** Types**,** Heights**, Bands, Frequencies, EIR Power, Polarization, Horizontal** or **Vertical Beam Width,** **Antenna Gains, Agreements, Design** and **TSSRs** based on OLO response.

**stc_bhProject: STC Bahrain (3.5 years: June 2018 – Till Mar 2022)**

**Radio, Core and RAN ICT MS Engineer**

Employer: (Hayat Communications & Wajda Group International Bahrain)

* **Change Request Management** for all domains on **OWS** for CRs and RFCs approvals and engage stc teams.
* Interface with **Operator, Vendor Management, Product/Support teams** for final solution.
* Radio, Core weekly, monthly Backups/Reports for Calls, Data and SMS.
* **CBS Services/products** Issues (Balance, Transfers/Validity/Recharge Fraud Cases
* **VAS Cloud, NGIN Cloud** and **SDP Cloud (Service Delivery Platform)**, SMSC, USSD, VM, **SP Account Management**
* **Bulk SMS, IR** (**International Roaming** definition on SMSC for (**Direct, AMEX** and **BICS**
* **Smart Care, Teklec Oracle** and **CN Nastar GENEX** signaling traces for **subscribers Throughput** analysis**.**
* 5G BB devices on **Tr069** Related **XML** modifications for VoBB, FBB devices, **Codec**, **Calls/CLI/Route** setup issues and VOBB Services on Tr069 and IMS, **Multi-**Vendor ODU/IDU (**More than 50 types**) Firmware on Tr069.
* **IDU**/**ODU CPEs**, **MiFi’s, Wi-Fis, SIP services, KZs, PABX related issues, VPNs** and **CLI issues** for **2.5G** and **5G**

stc_bh**Project: STC Bahrain/Menatelecom Bahrain (6.5 years: Dec 2011 –June 2018)**

Sr. RF Planning & Performance Engineer

Employer: (Mobitel & FCCI Bahrain)

**Radio Network Planning & Optimization:**

* LTE RF Planning and Optimization of **PCC** & **SCC** for **Carrier aggregation, PRACH/RSI, PCI, Mod3,** and **EARFCN**.
* 5G NR issues related to addition SR, modification SR, abnormal releases, HO, and Throughput.
* Activation/manage **features** and **parameters** of eRANVersions**.** Define KPI’s **formulas** and **counters activation**
* Spectrum Refarming and activate **SON** Features **MLB, MRO, Beam forming, ICIC, VoLTE, Dynamic DRX** and **ANR**.
* **Signaling** **trace** **management** at Cell level and traces on SMSC, E2E, UU, S1, Cell DT Signaling traces
* **Top N** Utilization **Sectors** and **IMSIs** by **applications/protocols** from **PRS** and take actions accordingly.
* Generating **Coverage/ Capacity** prediction Plots (**RSRP, SINR, CA /HO Zones, DL/UL MAC Peak Throughput**)
* **Worst cell analysis** by monitor RRC & ERAB, access/setup failures and HO for Intra/Inter Frequency, Interference.
* **Interference** and cross border **overspill control** optimization for **(Bahrain, KSA, Qatar,** and **Iran)**, on the basis of **Scanner Logs** and “**Anritsu Spectrum Analyzer**” and prepare reports for **TRA** (Telecom Regulatory Authority)

**Network Performance Monitoring:**

* Raise **TT/CR/SR/RFC** with **R&D**, identify risk involved, Coordination with teams, implement schedule plans and filter Corporate, Business, Individuals and take end to end responsibilities for final solution.
* **KPI Analysis**, **Manage dashboards**, **Report management**, data analysis by **Applications**, **Protocols usage**.
* Ensure contractual **KPIs/KQIs** for **EPC, PS, CS, TXN, Datacom,** and **RF** based on **daily, weekly** and **monthly** stats.
* **Investigating** and **escalating** NW issues to concerned department in weekly, monthly, quarterly Reports.
* KPI’s related to **Accessibility, Retain ability** & **Mobility** of **Pre** & **Post-activity**and impact for any degradation.
* **Identification** and **suggestions** for internal and external issues in the Networks.
* **Performance Reports** CBS performance report, MMS, SMS, VM report, Change Request/RFC activities
* Report, Network Trouble tickets, Customer complaint/Change Request Report, ISMS and 124 calling stats report.

**Project:**  **MTN – ALU to NSN Swap Project Yemen (1+ year: Sep 2010 – Nov 2011)**

Planning and Optimization Engineer Team Lead

Employer: NSN (Optimus UAE-Star Zone Yemen)

* **Nominal Cell Plans** and conducting initial site surveys for NSN.
* Retuning of **BCCH, BSIC, MA LIST, MAIO** and **HSN** based on stats, performance.
* **Pre** and **Post processing** of Clusters, analysis of areas for **Dropped calls, Blocked calls** and **Handover failures.**
* **Analyze** test results, troubleshooting hardware issues, fine tuning appropriate physical and parameter changes.
* Handling and rectifying the Issue based on KPIs (**DCR, CSSR, HOSR, SDCCH/TCH Drop** and **Blocking**.
* **Traffic dimensioning** for 2G networks, recommended Additions/Removals and pointing out one-way definition.
* Rectify discrepancies based on Audit report of Planning and Optimization.

**Project: DU UAE & Zain Projects Bahrain (9 months: Jan 2010 – Sep 2010)**

Planning and Optimization Engineer Team Lead

Employer: FNCC Bahrain-FCCI UAE

* Resolving **RRC/RAB, HSPA** setup failures and identifying the main failure contributor (**Radio, Iu, NodeB, Iur, RNC**).
* Monitoring KPI’s mainly **CSSR, CDR, HOSR, HSPA Accessibility, Retain ability, CQI, Modulation Usage** etc.
* Monitoring Handover KPI’s: **HOSR, SHO/IFHO/IRAT Attempts, Success rates** and **Failures.**
* **Resolving Handover related issues**, by Adding/Removal of neighbors, pointing out one-way defined neighbors and tuning the threshold parameters as per requirement. Cluster Optimization, SSV/KPIs, Throughput Reports.
* Site and Cluster basis optimization using **PCTEL, Actix**, **Nemo Analyze**, and **Qualcomm** (HSDPA, HSUPA).
* Recommended Additions/Removals and pointing out one-way defined Neighbors.
* Resolved Poor Coverage RSCP/Pilot pollution issues in clusters/major highways for appropriate changes.

**Project:** **Zong, Warid, Ufone Projects Pakistan (1.5 years: Mar 2008 – Sep 2009)**

Planning & Optimization Engineer Team Lead

Employer: Huaxin Consulting

* **CW** (**Continue Wave**) **Test**, **Model tuning** of the complete city and conduct **Planning/Design Surveys.**
* **Site Design**, **Sites Auditing,** and **Drive Testing logs Analysis** of newly integrated sites and Frequency Scanning Analysis.
* Performed **Bench Marking** for Zong in central region and south region.
* 1200 CQT Hotspots audit & comparison between different operators (**Zong, Ufone, Warid, Moblink, Telenor**).
* **BSC Cutover** and Handle RF Site Audit for Zong in Sahiwal region.
* **Site acquisition** and **TSSR** (Technical Site Surveys) reports for Macro, IBS, Pico Sites.

## TRAININGS AND COURSES

**Huawei Technologies LTE (FDD & TDD)** Middle East Head Office **Bahrain**

* Advance SmartCare and Discovery training stc Bahrain Dec, 2023
* Stc 5G RNPO Advance training for consultants (stc HQ Bahrain) and Ookla Jan, 2023
* SS7 Training for SINCH Firewall (M3UA, SCCP, Signaling Filters and SCTP) June, 2020
* VAS Cloud, NGIN Cloud, SDP Cloud, and CBS September,2017
* **Antenna Modernization** for **4.5/5G** Network evolution. Active (AAU), Passive (Multi-band-beam,

TDD Antenna, Digital Antenna System (RET & IM, Antenna Line Products (TMA, Combiner, Filters) August, 2017

* OMStar\_V500R012C00 LTE Training, VOLTE Optimization Training March, 2016
* **LTE** FMA/ENodeB/M2000/U2000/SDM/iManager/PRS/SPU/CPE Manager Training April, 2014
* **LTE Training** for **TDD& FDD** (Idle Mode, HO, Power Control, DL/UL Throughput, CS Fallback). May, 2013
* **LTE** Air Interface/Parameter Planning for PCI & PRACH, U-Net/Probe/Assistant/Signaling Analysis February, 2013
* Green Packet, Gemteck, Huawei, NSN Falcon, CelaLink & B2 IDU/ODU devices Mena, Bahrain January, 2013
* NSN **LTE** Training sessions, Sana Yemen October, 2010
* RF Planning Optimization, **Continuous Wave test & Model Tuning** Huaxin consulting, Pakistan February, 2008
* **Internee Huawei Technologies** RF, BSS and Microwave (RTN 600 and RTN 620) September 2007
* Corvet Lahore **CCNA, CCNP, Wireless and ONT** (Optimized Converged Networks) June, 2007

## EDUCATION

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| **Master’s** in **Telecommunication Systems** | **Bahauddin Zakriya University Multan, Pakistan (2007**) |
| **Master’s** in **Business Administration** | **The Virtual University of Pakistan**  (**2018**)  **(Telecom Merger and Acquisition Management)** |
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## SKILLS AND INTERESTS

**ICT MS Operations Tools, RF Network Optimization and Planning Tools**

* **ENM, BO/BI, AMOS, Cell Sense, Secure CRT, CN Naster**, **Smartcare**, and **Teklec**, **U-Net**, **OMStar**, **SmartRNO,** HiDS LTE Advance**,** Atoll, Asset, Actix , CME, FMA, OMStar and NSN Netact Planner, NetNumen, and Smart care. OmStar 9.1.0, Genex Cloud, QGIS 3.28.5
* **U2000, PRS**, **LTE CPE Manager**, NSN Reporting Suite, Anritsu Spectrum Analyzer **MS2724C**, GIS, MapInfo, MCOM, Global Mapper, Python, VsCode, ATOM, and Git hub
* Ericsson NMS & TEMS Investigation Data Collection Route Analysis, GENEX Probe & GENEX Assistant for analysis.
* NEMO Outdoor, NEMO Analyzer, "XCAL-M, XCAP-M","XCAL-X, XCAP-X" (DRT 4301 Scanner) & COUIE
* PCTEL (Seagull **EX mini-Scanner & Seagull EX flex Scanner**), Qualcomm for HSDPA+, Google Earth
* **OWS, iCare,** MOS7100, SDM, Crestel, PRTG, PCRF, UGW, U2000, U2520 (NEU10P)