

# FATHY FAROUK

## 5G Solution architecture

5G Solution Architecture || MS-Azure AI & Data Analyst & Visualization Implementer

ML & Big-Data Diploma.  
L-4 Technical Level || NCSP LTE.  
NCSA/NCSS VoLTE e2e Certificates.  
L-4 Technical Level || NCSS 5G-NR Certificate.

### Personnel Info

Telephone +2010 123333 56  
Birth Day 22\_July\_1985  
Email fathy.sayed.farouk@gmail.com  
Address Nasr City, Cairo

### My Profile Definition

I am 5G solution Architecture with high capabilities in team leading & development . I have +12 Years in RF optimization with multiple vendor experience (HUAWEI & Nokia) vendor. I have different project scope experience \*manages-service, Swap,...). Now i am studying AI & Big-data diploma to be on track for modern methodology for Data visualization and automation.

### Technical Skills

MS Excel ● ● ● ● ●  
MS Power Point ● ● ● ● ●  
MS Access ● ● ● ● ●  
Python ● ● ● ● ●  
Tableau ● ● ● ● ●



LinkedIn <https://www.linkedin.com/in/fathy-farouk-a3511835/>



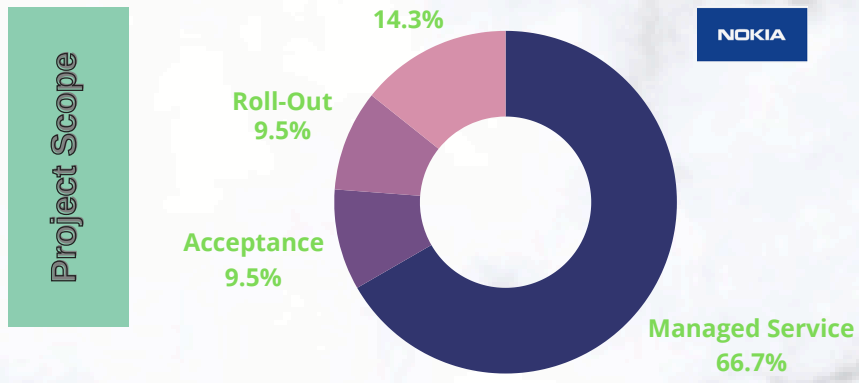
YouTube channel  
<https://www.youtube.com/channel/UCx4vbJQIm08vlyS5ed049KQ>

### Achievement

- Getting Certification of appreciation from GM for SPID strategy massive rollout and Oakla Speed Improvement.
- Propose & innovate suitable parameter tuning/feature for any show stopper for acceptance purpose between different vendors.
- Massive MIMO optimization experience.
- Puplicshing techincal expert articles & Post in LinkedIn & YouTube channel .

### Working Positions History

YEAR	
2011	Site Engineer   Ericsson
2012	Post-Processing Engineer    Huawei    Orange
2014	2G/LTE RNO Engineer   Huawei    Orange
2018	LTE Senior RNO/RNP   Nokia    Etisalat
2022	LTE/5G Technical Lead    Huawei    TE
2024 - till present	5G Solution Architure    Huawei    STC AI Services & Data analyst Implementation Tasks



### RF Optimization & DT Tools :

- U2020 (Huawei), GenexOMStar(Huawei)
- PRS Manager Huawei
- U-NET Planning Tool Huawei
- Net-Act 17.5 (NSN), BTS Site Manager (NSN) and Web-Element SRAN
- Net-Act Plan Editor 4.9 & RADAR and Emilv4.9 Tool.
- MUSA Planning Tool NSN.
- TEMS Discovery, TEMS Investigation, Genex Probe, and MAPinfo tools.

### Education

- Banha University, Faculty of Enginnering  
Telecommunications Engineering, 2002 - 2007

### Language

- Very Good English speaking, very good English Writing.
- Fair in french speaking and wiriting.

# MS-Azure AI and Data Analyst & Visualization Implementer

## Tasks:

- ChatGPT usage for main daily tasks in Data processing and Pattern generation for MML commands using Prompt-engineering.
- Performing Data processing and manipulation using python most common libraries like as pandas and numpy.
- Implementing Data visualization using python libraries like as Matplotlib, Seaborn and plotly-Dash combinations for interactive charts.
- Implementing Microsoft Azure platform AI services like as AML (Azure Machine Learning , AI Search service, AI open generative models, Image classification and so on.
- Studying theoretical principles for Machine learning and deep learning (neural networks) in Diploma in Nile university.

# Experience

Huawei || STC || Working From Dec 2023 Till Present

5G Solution Architecture || Since Dec 2023 - Till Present

- Working on new 5G feature understanding principle, preparation script, implementation and report assessment
- 5G troubleshooting and analysis for any KPIs abnormalities during/after feature activation.
- recommendation proper action and needed tuning to main feature principle to show feature gain.
- Customer meeting to discuss feature working principle in detail.
- Interface R&D and Technical ticket for any needed queries from customer side till getting customer satisfaction.
- Tableau active presentation preparation showing to our customer weekly meeting.
- Usage python programming as manipulation for data preparation during feature action implementation.
- Working on PCI, PRACH Huawei planning tool.



# Experience

Huawei || TE || Working From Feb2022 -To Dec2023

## 5G Deployment Lead || Since Feb2022 - Till Dec-2023

- Preparing initial planning config parameter needed to launch 5G NSR sites.
- Attending 5G workshop with our customer involving with customer queries.
- Satisfying and answering on customer deep technical 5G queries.
- Preparing 5G-NR\_LTE interoperation working strategies like anchoring, Data split,.....
- Deep understanding for mMIMO & Beamforming working mechanisms.
- 5G NSA deployment with needed configuration in 5G-NR & LTE side.
- 5G NSA problem troubleshooting such as SGNB addition failure cause, low throughput complain, missing NBRs,.....
- 5G NSA mobility strategy configuration.
- 5G technical-content creator for tutorial guideline.
- Handling main feature testing and activation in 5G NR

In addition to below role...

## Technical Manager || Since Feb2022 - Till Present

- Lead optimization engineers area owners to achieve project target .
- Making regular knowledge share session with all team member to develop their capabilities and encourage to enable in excellent feature understanding and implementation.
- Working in excellent new implementing features like as Massive MIMO and optimization to agree on best baseline with our customer.
- Leading VoLTE flash launching activities in RF issues & e2e failure demarcation.
- Dealing with VIP complains and capturing needed trace , analysis and troubleshooting.
- Have 5G NCSS Nokia certificate with excellent knowledge for 5G system.
- Participating in multiple 5G trials that aims to achieve higher throughput record.



# Experience

Nokia || Orange || Working From Feb2018 To Feb2022

**Position: LTE Expert RNO in Orange Mali || 12 Month**

Main Responsibility:

- Support in analysis DT log files to detect Radio problem that have bad effect on QoS of User perception.
- Recommend suitable optimization actions that enhance and solve field detection problems.
- Review dump baseline and check for other proposal or advance tuning for more enhancement in user perception.
- Proposal needed features that will help in detection conflict -confusion issues PCIs or RSIs.

**Position: LTE Expert RNO in OPTUS AUstralia || 6 Month**

Main Responsibility:

- Support in analysis DT log files to detect Radio problem that have bad effect on QoS of User perception.
- Recommend suitable optimization actions that enhance and solve field detection problems.
- Review dump baseline and check for other proposal or advance tuning for more enhancement in user perception.
- Proposal needed features that will help in detection conflict -confusion issues PCIs or RSIs.

# Experience

## **Position : LTE Expert RNO in Etisalat Misr ||12 Month Project**

### Main Responsibility:

- Preparing and introducing to the customer Nokia vendor optimization algorithm definition comparing to other vendors.
- the main advantage of Nokia vendor swap that only unique and more optimized than another vendor.
- working with parameter/kpis mapping between vendors.
- dealing with any Kpis degradation after swapping by tuning not one-to-one mapping parameters.
- troubleshooting & investigation of any problem facing after swap like bad UL/DI throughput.
- working with a customer request to gain swap project on feature activation with new record comparing to swapping vendor like 4x4 MiMO, MIMO tuning window,DSP,.....and others.

## **Position : LTE Technical support in Telecom Egypt||18 Month**

### Main Responsibility:

- VoLTE planning & Deployment in some clusters with e2e troubleshooting and proceeding with suitable tuning/trial to achieve & enhance main VoLTE KPIs
- Working with Rollout team to solve main SSV acceptance problems like throughput DL/UL Problem and bad SINR-CQI.
- Proposal of tuning parameter actions to enhance acceptance KPIs on Closed TAC cluster like CSSR -HO E-RAB Drop
- .- working to validate and tuning new FL20B features
- Junior Team members knowledge ramp-up by introducing knowledge share sessions
- ability to prepare Technical session to our customer with solid plan scheduling during a team meeting
- . Radio problem troubleshooting and investigation using TTI MAC trace and L3 message trace.



# Experience

Huawei || Orange|| Working from Feb 2014 To Feb 2018

## **An LTE RF Optimization Engineer || Huawei || Managed Service Project**

[from Aug 2016 to Feb 2018]

### Main Responsibility:

- Analyze Cluster and give Optimization proposals and Recommendations..
- Queries formulation for smoothing Optimization (Failures/Drops formulation) by studying counters in Huawei for Worst cell identification.
- GUL Idle/Connected mode parameters adaptation to increase LTE penetration with maintaining main KPIs trend.
- CELLRESEL Parameter Analysis, with customer for Cluster Approval Report. Improve coverage by Physical audit and as well soft parameter. Resolving the customer complaints.
- KPI ANALYSIS like Service Drop Rate, Average CQI, DL PRB Used Rate, UL PRB Used Rate, Max number of Active DL Users, Max number of Active UL Users, DL Data Rate, UL Data Rate, RRC Congestion and Etc.
- LTE L1800, L2100 interworking strategy (Idle, Connected Mode),
- DT log analyzing for LTE KPIs and Give Recommendations.
- Performing PCI & RSI planning using UNET Tool.
- Performing inter-operational strategies between LTE and other Latency networks in Idle/Connected Mode.
- Using OMstar tool for making (Parameters Audit, NBRs audit, Uu,S1,X2 traces problem diagnose,... ).
- Dealing with PRS tool to extract main KPIs of network and making graphically reports.



# Experience

- suggestion suitable trials on specific cluster based on cluster traffic, number of users, area geographically,....
- performing SON features like ANR, FSS, Adaptive CQI, UL Comp, MLB, PCI conflict detection, .....
- Troubleshooting kpis degradation root cause (rach failure, ho failure, cssr failure, sdr,...) using FMA and Signaling traces.
- Event preparation ,monitoring and performing necessary actions and dealing with customers VIP
- complains (low throughput , cssr problem , high ul interference ,csfb problem , ....)
- lte suggested root sequence planning using Unet tool
- Familiar with Huawei Tools PRS, U2000, FMA and Genex OMstar in monitoring LTE network KPIs and extracting configuration template, running MML script and making parameters audit using Genex OMstar.
- clearing any parameter mismatch using OMstar like (Cell Radius, NBR relation cell check, PCI conflict/confusion check, TAC/TAL check, ZC root Sequence check,.....)

## 2G/3G Radio Network Optimization Orange Project

**[from Dec 2014 - Aug 2016]**

Main Responsibility:

2G Technology

- Working with Main KPIs enhancement in Alcatel and Huawei equipment.
  - Excellent experience with DT and Log files analysis tools (Tems Investigation 13.2.2, Tems Discovery 10).
- Excellent knowledge with Alcatel tools (NPO, OMC files).
- Working with Huawei tools (U2000, PRS, NASTAR & OMSTAR) to make multiples tasks such as frequency optimization, neighbor optimization, geographic MRs analysis, location chronic drops identification.
  - Experience with Automatic frequency Plan (AFP) & Re-farming for U900 3G carrier in from preparation to execution for large cluster.
  - Monitor & analyze the GSM radio network statistics on daily basis
  - Perform regular audits on network configurations and clear any relevant inconsistencies.
  - Troubleshoot GPRS / EDGE performance problems and propose and implement corrective actions.



# Experience

- Maintain BSC main KPIs (Accessibility, Mobility, Retainability and QOS).
- KPIs enhancement by working on worst degraded cell.
- Trial Proposal and implementation in suitable BSC area.
- Capacity study to all 2G cell resources (Time slots, Abis, Ater, Gb) utilization.

## 3G Technology:

- Monitoring RNC main KPIs and reporting the degradation and take necessary optimization action to recover the degradation.
- following sites KPIs in terms of resources congestions, AMR CDR, R99 & HSDPA/HSUPA CDR,
- investigation RTWP causes and working on solving it.
- Performing Cell/NodeB/RNC resource utilization and processing load.
- Performing Cell/NodeB/RNC parameters audit and clear the parameters inconsistency.
- Investigate customer complain concerning with low throughput complains.
- Dealing with upcoming events preparation (needed soft upgrades, handling any problems during the event (high RTWP, Traffic Increase, CSSR degradation,...))
- Working on Huawei Tools (U2000, PRS, NASTAR & OMSTAR) to performing general studies on any degraded KPI to enhance.

## RF Post Processing || Working From Jan 2012 To Feb2014

- Performing DT log investigation
- Log analysis and troubleshooting for major RF problem, like drop, HO failure,...
- Handling Teme investigation and Teme discovery for extracting need RF parameters
- Preparing PPT analysis report .
- suggestion proper Optimization action tuning to solve detected problems.
- Following RF problem status after needed action optimization action tuning.

## Ericsson || Working From Jan 2011 To Jan2012

### **Installation and commissioning Site engineer**

[DEC 2010 – Dec 2011]

#### Main responsibility:-

Working in HUB VFE site to make E1\_krone cutover by SIAE rack in addition to DXX 8150 offload.

- Install and commissioning 2G and 3G Ericsson cabinet with required rf configuration working with integration engineer to make the site to be on air.
- Implementing Ethernet over PDH cross-connection from Tellabs 8630 Access Switch Ethernet port to 3G cabinet with HSDPA technology capability.
- Install and commission RBS 6000 Ericsson cabinet and troubleshooting cabinet alarms.- SW upgrade to RAU and indoor magazine for R4 TN MW link.
- Diagnose Routing problems in DCN management network for Ericsson MW links.- SIU commissioning to work with 2G and 3G Ericsson cabinet in Abis over IP Ericsson trial.s working with antenna feeder and site master to measure VSWR accepted value after site construction and antenna holding.