

Ernesto Murillo Esquivel

Telecommunication enthusiast professional with interest in cellular network deployment, maintenance optimization, fully bilingual specialist in Radio Access Network Technologies.

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Education

Master of Science in Electronics and Telecommunications 2009-2012

Centro de Investigación y de Educación Superior de Ensenada, Baja California, México. (CICESE)

Bachelor of Science in Computer Engineering 2003-2008

Universidad Autónoma de Zacatecas, México

Languages

Spanish

Native speaker.

English

Advanced professional proficiency
TOEIC: 915/990 score
TOEFL: 627/670 score

References

Project Team Leader

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Huawei, Mexico
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Quality of Service and Optimization Manager Region 8

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Experience Summary

8 years of hands on experience as RF engineer. Currently employed as LTE/VoLTE Optimization engineer for Sprint in New England and Upstate New York market; my current tasks involve Network Worst Offenders optimization, Traffic Management, LTE/VoLTE handover performance optimization, as well as general VoLTE performance optimization; in my previous position I was employed as LTE optimization engineer for Telcel Mexico working on LTE multiband deployment as well as 4.5G capabilities deployment and tuning. I've held positions as 2G/3G/4G optimization engineer for Telcel in 2 different regions in the country (Region 8 and Region 5) as well as part of a 2G/3G swap project from Nokia and Ericsson vendor equipment to Huawei hardware/software. I've also had a job role for 2G/3G deployment and optimization in Argentina (Telecom Personal) and Integration Engineer Brazil (Claro/Vivo). Multivendor experience (Huawei/Ericsson/Nokia), multitechnology optimization (2G/3G/4G) and multiband optimization (up to four carriers in UMTS and four carriers in 4G).

Optimization Skills

- Neighbor optimization.
- Parameter tuning and optimization.
- DL and UL Interference analysis 3G and 4G.
- Transport network Issues troubleshooting.
- Call/Data trace and Layer 3 messaging analysis and troubleshoot.
- KPI based optimization and analysis.
- Drive Test Optimization, fine tuning adjustment based on post analysis of Drive Test data.
- UL parameters adjustments to reduce UL interference and improve throughput and drop calls.
- Evaluate coverage changes and troubleshooting for coverage based issues.
- Parameter Audit and Optimization.
- Elaborate executive reports and presentation material.
- Neighbor optimization for improving the network quality and mobility.
- Paging analysis and LAC splitting in accordance to paging loss rate.
- 4.5G feature and parameter deployment and optimization.
- Optimization of Antenna height, azimuth and Tilt based on drive test and network configuration.
- Good technical and communication skills.

Planning Skills

- Skilled in the use of planning tools U-Net (Huawei), QGIS, MapInfo, Arieso.
- PSC planning, PCI planning.
- Neighbor planning.
- LTE/UMTS coverage planning based on different channel models and rural/urban/suburban environments.

Software and Tools

- GIS Tools: MapInfo, QGIS, ArcGIS
- RF Planning tools: Atoll, Unet, SMART RNO.
- RF Optimization tools: Omstar, FMA.
- Drive Testing Analysis Tool: Windcatcher, Nemo, Swissqual, Assistant, Probe, Actix.
- Signalling and Packet Trace Analysis: TrueCall, Wireshark, Arieso, ANRITSU, Huawei's Trace Management.
- Reporting Tools: FTT PI Works reporting suite, NetAct PM manager, PRS, ENIQ.
- OSS tools: Nokia NetAct, Ericsson AMOS/Moshell, Huawei U2000.
- Microsoft office: Access advanced, Excel advanced, Power Point, etc.
- Keysight Technologies Spectrum Analyzer.
- MySQL query and tables management.

Training and Courses

- 5G RAN Overview
- 5G Opportunities and Challenges
- LTE Overview
- LTE Optimization
- LTE Capacity
- LTE Signalling and tracing
- LTE Equipment
- CCNA 1&2 IP Networking
- WCDMA overview.
- WCDMA Air interfaces
- WCDMA Protocols and Procedures
- WCDMA Operations
- WCDMA IP Troubleshooting
- WCDMA Overview
- WCDMA Optimization
- WCDMA Capacity
- WCDMA Signalling and tracing
- WCDMA Equipment
- RBS 6000 Overview
- CPP Nodes and Features
- Soft Skills

Employment History

August 2019 – Current

Sprint USA (GTA Contractor) / Wallingford, Connecticut, USA

LTE/VoLTE Optimization Consultant

- **LTE DL Usage** optimization, traffic distribution through coverage optimization and traffic management adjustments.
- Evaluate **Intra and Inter eNodeB handover** through X2/S1 handover failures, perform handover parameters adjustments to improve HO success rate.
- Analyze **Call Drop Rate** reasons and fix CDR worst offenders in the market.
- Audit **Traffic Management** configuration, evaluate carriers load balance and handoff performance and fix misconfigurations.
- Analyze and fix **KPI failures** with the help of signaling tools like **TrueCall and IRIS**.
- **Massive MIMO** performance analysis and optimization.

September 2018 – August 2019

Ericsson Mexico / Telcel. Mexico City

UMTS/LTE/VoLTE Optimization Consultant

Cluster Owner

- **LTE/VoLTE Optimization** for worst cells, evaluate and implement configuration changes to improve accessibility, SRVCC and Retainability Optimization.
- Evaluate **LTE** throughput issues and perform throughput optimization techniques.
- Implement and evaluate **LTE Multi Carrier** layer and mobility management evaluation and deployment.
- Audit **Multiband VoLTE** configuration and evaluation.
- Support implementation of **LTE features** configuration and evaluate their results.
- Implement **LTE to legacy network mobility** parameter optimization.

Massive Events Team

- Evaluate **VoLTE multiband** deployment and optimization.
- Perform **LTE** coverage optimization based on drive/walk test analysis.
- Evaluate **LTE Multi Carrier** KPI performance during high traffic and UEs events.
- Carry out **Indoor testing and troubleshooting any issues regarding throughput, accessibility, etc**
- Perform **Multiband VoLTE** configuration and evaluation.
- Deploy **LTE features configuration and evaluation**.
- Implement **UMTS High Traffic** Strategy based on peak traffic evaluation.
- Implement **LTE High Traffic** Strategy i based on peak traffic evaluation.
- **Work hand in hand with other area groups and other service providers.**

September 2016 – September 2018

Huawei Mexico / Telcel R5 Guadalajara, Mexico

RAN Optimization Project Leader Engineer

- Carry out **LTE Multi Carrier** deployment initial tuning and optimization.
- Support **4.5G Rollout**
 - **Carrier Aggregation implementation and evaluation.**
 - **256QAM configuration and activation.**
 - Carry out **Throughput Test** and troubleshooting on any throughput issues.
 - Perform **KPI monitoring**
- **LTE Layer Management** implementation and optimization.
- **VoLTE** deployment, **MOS** testing and optimization.
- Initial Tuning for **UMTS** and **LTE**.
- Configure main parameters for **UMTS MultiCarrier** Expansion.
- Carry out GSM/UMTS KPI based optimization.
- Perform **GSM/UMTS/LTE** KPI evaluation for issues regarding performance degradation.
- Propose and coordinate **UMTS/LTE** Features Rollout.
- Perform troubleshooting for **3900 Series** RAN Nodes.
- **RNPO** Team Leader.
- Direct Customer interface between **Huawei** and **Telcel** Management.

March 2015 – September 2016

Huawei Mexico / Telcel R8. Merida, Yucatan

GUL Technical Support RNO Engineer

- GSM/UMTS/LTE Optimization.
- Drive Test analysis and processing in Assistant.
- UMTS Traffic balance between 3 carriers.
- GU KPI Optimization according goals.
- GUL Parameters & Neighbors audit.
- L3 Signaling Trace analysis and optimization.
- Street Cell Deployment
 - Hot Spot identification
 - Street Cell activation and validation
 - Neighbor's parameter optimization.
 - Walk Test analysis.
- Hardware and alarm troubleshooting.
- IBS Solutions coexistence with Macro Cells.
- Indoor Walk test with **SwissQual's QualiPoc**.
- KPI and Throughput indoor testing.

March 2014 – March 2015

**Huawei Mexico / Telcel GUL Single RAN. Mexico City.
Radio Network Optimization and Planning Engineer**

- **GSM/UMTS/LTE** KPI based optimization.
- Drive Test analysis and processing in Assistant.
- Drive Test Based Optimization.
- **GUL** parameter design, plan and maintenance.
- UMTS code planning.
- GSM Frequency Planning and Refarming.
- **GSM/UMTS** Neighbor Configuration after site swap (Nokia, Ericsson, Huawei coexistence).
- Neighbor audit, analysis and planning.
- **LTE** Automatic Neighbor Relation configuration. in UNET.
- GUL KPI analysis, reporting and monitoring.
- Monitor and report network performance.
- RF team leading role for Swap, KPI analysis, RF Audit and Network Engineering Parameters.

November 2013 – March 2014

Huawei Mexico / Iusacell

GSM/UMTS RAN Radio Network Optimization and Planning Engineer

- First, second and third carrier activation.
- Neighbor planning and auditing.
- UMTS parameter planning and scripting.
- UMTS PSC planning.

May 2012- November 2013

**Ericsson Mexico /Telecom Personal
Service Engineer**

- Delivered services within site engineering, integration, configuration, and support of products and networks in accordance with clearly defined specification in the customer contract.
- Identified and isolated malfunctioning systems/nodes
- **(RBS 6000)** and if possible applied resolving processes.
- Executed programming on parts of IT-tools to enable the tools and use them to deliver services in the day-to-day operations.
- Participated in network optimization.
- Conducted limited customized integration of products/networks, including 3rd party products.

2008-2009

**4F systems. Zacatecas, Mexico
Web Application Developer**

- Developed custom web applications based on Personal Software Process (PSP).
- Developed applications on Flex (Action Script) and Java with Spring and Hibernate frameworks.
- Developed visual applications with a Model-View-Controller architecture on Adobe's Flex.
- Worked as part of a team during programming client's web app and requirement analysis.