

SALVADOR IBARRA LUNA

RAN / SON Architect | Network Automation & SMO | Multivendor 4G/5G

Mexico (Remote) | English (Fluent) | Spanish (Native)

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EXECUTIVE SUMMARY

Senior SON Architect enabling operators and vendors to deploy and scale multivendor 4G/5G networks through production-grade cSON architectures, SMO-driven automation, and KPI-accountable execution. Architecture-first approach centered on design decisions, trade-offs, scalability, and risk mitigation in live environments, backed by FOA/FFA delivery across multivendor production networks.

Expertise in CU/DU/O-RU integration, NETCONF/YANG-based configuration management, FM/PM analytics, and rApp enablement within SMO ecosystems, industrializing SON outcomes through compliance controls, centralized observability, and repeatable assurance workflows.

Strategically expanding into AI-driven telecom operations, Private 5G enterprise architectures, and Non-Terrestrial Network (NTN) integration, bridging deep engineering execution with scalable automation frameworks and business-aligned network evolution.

CORE COMPETENCIES

SON / cSON Architecture (Backbone)

- SON/cSON solution design, validation strategy, rollout governance, and production risk control
- FOA/FFA delivery in multivendor production environments with KPI-accountable execution
- SON functions: DPO-L, RACO-L, CICO-L, ANE-L, DSH-L, DLB-L, VFBO, CAT-M1
- Multivendor interworking across Samsung, Nokia/ALU, Ericsson (operability constraints and readiness gates)

KPI Accountability & Performance Governance

- KPI-driven optimization decisioning for LTE and 5G RAN, balancing coverage/capacity/interference trade-offs

- KPI integrity and operational visibility through defensible reporting and classification governance
- Risk-aware change validation to protect stability while driving measurable outcomes

SMO & Network Automation Enablement (Enablers)

- SMO as an operations automation platform for assurance and compliance (controlled automation, not black-box)
- CM/PM/FM integration for centralized observability and automated assurance workflows
- Network Consistency Check and Parameter Enforcement design input for proactive configuration compliance
- O1 enablement aligned with O-RAN and 3GPP NRM intent; NETCONF/YANG operational modeling

Multivendor Delivery & Production Readiness

- Requirements analysis, test planning, execution, defect management, UAT, production rollout, and market adoption
- Vendor and R&D collaboration to resolve interworking risks before large-scale deployment

PROFESSIONAL EXPERIENCE

AWTG Ltd | UK (Remote)

R&D Network Operations Automation SME | 2024–2025

- Supported CM/PM/FM integration of Capgemini O-CU/O-DU into an SMO, enabling centralized observability and automated assurance workflows
- Contributed to design specification of Network Consistency Check and Parameter Enforcement automation, enabling proactive configuration compliance via SMO
- Improved KPI measurement accuracy and CU/DU operational visibility by resolving **1,200+ KPI classification inconsistencies** within an SMO-enabled assurance context

HCL Technologies | Mexico / USA (Remote)

RAN Senior Technical Architect | 2021–2024

- Provided SON/cSON architecture support for a Verizon program across multiple markets, aligning optimization decisions to KPI priorities and stability constraints
- Designed and delivered **~55% of new CX delivery reports and operational insights**, improving visibility of network health and operational issues
- Translated cSON behavior and performance signals into repeatable decision support, improving identification of optimization opportunities and operational risks

Iberica Industries / Tata Consultancy Services | Mexico / USA (Remote)

SON Senior RF Consultant, Customer Experience | 2019–2021

- Led Samsung USM cSON First Office Application (FOA) for intra- and inter-vendor operability (Samsung and NSN), from requirements through market adoption
- Owned test planning, execution, defect management, UAT, and production rollout governance to ensure safe automation behavior in live networks

Cisco Systems | Mexico / USA (Remote)

Radio Software Engineer, R&D | 2017–2019

- Executed LTE cSON First Feature Applications on Nokia AirScale FSM4 under a single SAM OSS, including inter Nokia–ALU actions (neighbor add/delete, mandatory X2 creation, traffic balancing) with inter-vendor coordination
- Completed CAT-M1 First Feature Application (FFA) on AT&T collaborating with SW developers in Israel, **accelerating the delivery timeline** and enabling readiness for SW Release 19A
- Identified critical VFBO issues prior to large-scale deployment across multivendor combinations (Ericsson, Nokia, ALU, Samsung), preventing customer-impact incidents and complaints

Cisco Systems | Mexico / USA (Remote)

Network Consulting Engineer, Customer Experience | 2014–2017

- Delivered SON deployment, tuning, and operational support for Claro Central America across Ericsson and Huawei networks, balancing KPI gains with stability and operational constraints
- Created value-added reports enabling resolution of rehomeing issues, cross feeders, and PSC conflicts; later adopted as a reference model across other AS operations
- Delivered consulting outcomes through controlled execution and quality governance in customer-facing environments

Ericsson (GSC) | Mexico

Senior Network Engineer, RAN Design | 2011–2014

- Designed 2G/3G/4G radio networks balancing coverage, quality, and capacity trade-offs for multiple operators across North America and LatAm
- Selected for critical AT&T USA projects due to consistently high performance requiring rapid execution and high-quality delivery

Nokia Siemens Networks | Mexico

Senior RF Optimization Engineer (Managed Services – Nextel Mexico) | 2010–2011

- RF Engineer responsible for Matamoros, Tamaulipas region and on-demand support to additional markets, ensuring best user experience through RF performance monitoring and optimization
- Improved key radio KPIs including **Drop Call Rate (DCR/Retainability), DHO, Accessibility, PCCH utilization, DCCH blocking, and RF utilization** through systematic optimization actions and governance
- Collaborated with a complex market, providing recommendations that improved retainability and enabled achievement of **one of the lowest Drop Call Rates in its history** (market-level milestone)

Nextel | Mexico

RF Optimization Engineer | 2005–2010

- Developed and executed a network optimization strategy improving KPIs such as **DCR/Retainability, DHO, Accessibility, PCCH utilization, DCCH blocking, and RF utilization**
- Achieved **RF World Cup (2008)** recognition as **best-ranked region**, driven by KPI improvements and operational excellence

Earlier Experience (condensed)

- Bordercomm — Project Manager (2005)
- SCINTELSA — Microwave Consultant and Co-Owner (2003–2004)
- SECOMSA — Microwave Engineering Manager / Interference Engineer (1999–2003)

SELECTED KEY ACHIEVEMENTS

- Enabled SMO-based observability and assurance by supporting CM/PM/FM integration of Capgemini O-CU/O-DU into an SMO environment
 - Improved KPI measurement accuracy and CU/DU visibility by resolving **1,200+ KPI classification inconsistencies** in an SMO assurance context
 - Delivered **~55% of CX delivery reports/insights** for a Verizon program to strengthen operational visibility and decision-making
 - Led Samsung USM cSON FOA for intra/inter-vendor operability (Samsung and NSN), owning requirements through production rollout and adoption
 - Executed Nokia AirScale FSM4 LTE cSON FFA with inter Nokia–ALU actions to enable multivendor SON operation
 - Prevented customer-impact incidents by identifying VFBO issues before large-scale multivendor deployment
 - Earned **RF World Cup (2008)** recognition as best-ranked region via KPI improvements (DCR/retainability, DHO, accessibility, utilization KPIs)
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TOOLS & TECHNOLOGIES

SON / cSON: Self-Organizing Networks, cSON, DPO-L, RACO-L, CICO-L, ANE-L, DSH-L, DLB-L, VFBO, CAT-M1, FOA/FFA

SMO / Automation: SMO architecture, CM/PM/FM integration, network consistency, parameter enforcement, O1 interface, O-RAN alignment, 3GPP NRM alignment

RAN / Optimization: LTE / 5G RAN, KPI optimization, coverage & capacity, interference management, PCI/PSC management, ANR, load balancing, self-healing

Multivendor & Delivery: Samsung, Nokia/ALU, Ericsson, Huawei, Capgemini O-CU/O-DU; test planning, defect management, UAT, production rollout

Engineering Tools: Atoll, Mentum Planet, Actix, ANA/Cisco SON suite, Capesso, xAFP Optimi, Pathloss, MapInfo, Agilent/Nitro, Rohde Schwarz FSH3, Anritsu SiteMaster

EDUCATION & CERTIFICATIONS

Education

Communications and Electronics Engineering, Instituto Politecnico Nacional, 1995–2000

Certifications and Training (selected)

Master in SQL Server: From Zero to Professional (2026)
5G NTN: Total Overview of Satellite Integration into 5G (2026)
Private 5G Networks / 5G Non-Public Networks (NPNs) (2026)
MongoDB: From Zero to Expert (2026)
AI in 5G Networks: Deployment Aspects, Risk and Telecom LLM (2026)
Swagger and OpenAPI Fundamentals (2025)
Generative AI and Midjourney (2025)
5G KPIs and Optimization (2025)
5G O-RAN Architecture and Use Cases (2024)
Fundamentals of DevOps, APIs, and Microservices Architecture (2024)
Python Fundamentals (2024)
Leadership and Teams Management (2024)
Professional Scrum Master I (2020)
SON v5 Certification, Cisco Intucell (2015)