

MÜLLER FERNANDES DA SILVA

Solution Architect | Cloud, Mobile Core Networks & IoT

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SUMMARY

Solution Architect and Telecom Engineer with 13+ years designing and operating mission-critical mobile networks and IoT platforms for carrier-grade environments. Deep expertise in Mobile Packet Core (2G/3G/4G, 3GPP architecture), MVNO enablement, and eSIM/SGP.32 remote SIM provisioning, combined with hands-on cloud-native engineering on Linux, Kubernetes, and Docker. Customer-facing consultant leading technical pre-sales, requirements-to-architecture translation, and end-to-end delivery for service providers. Python automation practitioner and active open-source user, running a fully self-hosted infrastructure lab.

WORK EXPERIENCE

ALGAR TELECOM — Uberlândia, Brazil (regional carrier / MNO)

Technology Consultant & Solution Architect

Jan 2023 – Present

- Lead customer-facing technical consulting and pre-sales for service-provider and enterprise accounts, translating business requirements into end-to-end connectivity and IoT architectures.
- Architect the carrier's eSIM IoT strategy on GSMA SGP.32, authoring the functional specification for the eIM/eSIM management portal and integrating with vendor eIM platforms (IDEMIA).
- Designed MVNO enablement and migration architectures over the mobile core, covering wholesale connectivity, provisioning flows, and responsibility handover between operators.
- Architected scalable IoT/M2M solutions generating \$2M+ in annual recurring revenue across 400+ enterprise customers, from device connectivity to data streaming and visualization.
- Built data-driven cost and network-usage analyses (Python, Polars, Jupyter) to support commercial negotiation and multi-operator connectivity strategy.

Product Owner & IoT Specialist

Mar 2019 – Dec 2022

- Managed a nationwide IoT connectivity portfolio serving 3M+ devices over the mobile network with 99.9% availability, for both MVNOs and MNO enterprise customers.
- Designed high-throughput, event-driven IoT architectures processing 20M+ events per day (Apache Kafka, microservices, REST APIs).
- Developed connectivity management portals for large-scale SIM/device lifecycle operations, onboarding customer tenants onto the platform and supporting production adoption.

Mobile Network Engineer (Core Network)

Aug 2012 – Feb 2019

- Deployed and operated Mobile Packet Core elements, GGSN/PGW, MME/SGSN, HLR/HSS, PCR; serving 1M+ subscribers on carrier-grade (Huawei) infrastructure, including virtualized core platforms.
- Supported critical telecom services: OCS, EIR, SMSC, RADIUS/AAA, SIP, and IVR platforms, with strict availability SLAs.
- Built Python and Linux automation scripts and custom tooling for provisioning, monitoring, and troubleshooting, reducing dependency on proprietary vendor systems.

OPEN SOURCE & PERSONAL INFRASTRUCTURE

- Run a self-hosted open-source infrastructure lab (mfs.eng.br): Docker Compose, Traefik, Authelia SSO, PostgreSQL, monitoring — full Infrastructure-as-Code.

EDUCATION

Anhanguera — São Paulo, Brazil | Specialization in Software Engineering for Applied AI, 2026 – Present (in progress)

FIAP — São Paulo, Brazil | MBA in Solution Architecture, 2021 – 2022

Federal University of Uberlândia — Brazil | B.Eng. Electrical Engineering (Telecommunications & Electronics), 2008 – 2014

SKILLS, CERTIFICATIONS & LANGUAGES

- **Telco:** Mobile Packet Core (4G/EPC, 3GPP), HLR/HSS, PCRF, OCS, MVNO/MVNE, eSIM (GSMA SGP.32), SIM/device lifecycle, RADIUS, SIP, SMS, roaming and interconnection
- **Cloud & Infrastructure:** Linux (LPIC-1), Kubernetes, Docker, Infrastructure as Code (Ansible, Docker Compose), Traefik, AWS (EC2, S3, Lambda, RDS), networking, multi-tenant platform design
- **Software & Data:** Python (automation, FastAPI), Apache Kafka, event-driven architecture, microservices, REST APIs, PostgreSQL, MongoDB, InfluxDB, Grafana, Git
- **Certifications:** LPIC-1 (Linux Professional Institute), AWS Certified Cloud Practitioner
- **Languages:** Portuguese (native), English