Sunil Kumar

Network Engineer · AI Automation

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SUMMARY

Network technician with 6+ years at an ISP on FWA and FTTH networks: fast troubleshooting, wireless link maintenance and customer infrastructure documentation that speeds up interventions. Self-taught in AI automation (RAG, local LLMs, Python).

CORE CAPABILITIES

- **Network troubleshooting:** first diagnosis in under 5 minutes and most incidents resolved in about 10, checking end-to-end reachability (CPE/antenna, ONT, router), misconfigurations, DNS and firewall rules.
- **Wireless & access networks:** RF interference analysis, frequency re-planning and firmware upgrades to improve performance and throughput.
- **Technical documentation:** network topology, devices, configurations and every intervention, building a traceable history that speeds up troubleshooting.
- **Automation & AI:** self-study of RAG, embeddings, vector databases, local LLMs (Ollama) and Python, with AI-assisted development.

EXPERIENCE

Network Technician · Fidoka S.r.l. Società Benefit, Marche & Umbria, Italy — Jan 2020 – Present

- Tier 1–2 and on-site support for business and residential customers on FWA and FTTH networks: ~50 tickets per week, ~80% resolved remotely without an on-site visit.
- Investigate customer-reported issues on the radio infrastructure, identifying interference and re-planning frequencies on MikroTik and RADWIN sectors, in some cases more than doubling sector throughput (e.g. from ~30 to ~70 Mbps).
- Automated overnight speed tests (RouterOS scheduler and scripts) and SNMP monitoring for customers reporting night-time slowdowns, separating network issues from saturation of the customer's subscribed bandwidth.
- Deploy and configure MikroTik and RADWIN sector links, Ubiquiti PtP links and TP-Link routers; manage Omada routers, access points and radio links and UniFi access points through their controllers; monitor the network with The Dude.
- Built and maintain ~50 customer network maps in Draw.io, using a custom library of the actual installed devices.
- Indoor Wi-Fi coverage tests, detection of network loops in customers' LANs, IP camera integration with alarm systems and first-line VoIP troubleshooting on 3CX and FreePBX.

Telecom Consultant (Fastweb) · OF Team, Gruppo Arco, Civitanova Marche, Italy — Jul 2017 – Jul 2018

- Technical support and service advisory for Fastweb residential customers.

Customer Technical Support · Bharti Airtel, India — Jan 2010 – Dec 2010

- Inbound support for a major telecom operator: mobile data connectivity, APN configuration, plan recommendations.

TECHNICAL SKILLS

Networking: VLAN, bridging, RSTP/STP, managed switches, subnetting, DHCP (pools, static leases), static IPs and gateways, DNS, NAT/CGNAT, PPPoE

Access & wireless networks: FWA, FTTH/ONT, PtP/PtMP links, Nstreme, Nv2, Wi-Fi coverage testing

Security & remote access: MikroTik firewall (filter and NAT rules), WireGuard, IPsec, SSH, Telnet/MAC Telnet

Tools & equipment: MikroTik RouterOS (CLI, WinBox, scripting), The Dude, SNMP, Draw.io, Linux, Wireshark; Omada and UniFi Network controllers; RADWIN, Ubiquiti, TP-Link

VoIP: 3CX, FreePBX, SIP; Snom, Grandstream, Gigaset

EDUCATION

Computer Science studies · University of Camerino (UNICAM) — 2017 – 2019

Technical Diploma, Maintenance & Technical Assistance · IPSIA "Renzo Frau" · 95/100, final two years completed in one — 2017

LANGUAGES

English (fluent) · Italian (fluent) · Hindi (fluent) · Punjabi (native)