HARUN NDICHU

Linux & Networking Engineer
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SUMMARY

Linux and networking engineer who designs, builds and operates production infrastructure. I write systems software in C++ and Java, work close to the kernel networking stack (netlink, nftables, WireGuard), and administer live ISP networks on MikroTik. LFCS certified.

CERTIFICATION

Linux Foundation Certified System Administrator (LFCS) 2026

PROJECTS

TunlKit – WireGuard-based CGNAT bypass tunneling platform tunlkit.com

- Designed and built the full stack: a Spring Boot control plane, a C++ NodeAgent that connects outbound over gRPC with mutual TLS, and a React/TypeScript customer portal.
- Architected the platform around declarative state reconciliation, with WireGuard interfaces segmented by purpose (latency-sensitive, general, HTTP, exit node, private network).
- Wrote custom C++ libraries: wgpp (WireGuard over netlink), nftpp (nftables via libmnl/libnftnl, providing ruleset CRUD, in production use) and traefikpp (Traefik configuration generation).
- Building a cross-platform desktop client in Go with Wails.

Oversight – ISP billing and subscriber management platform oversight.co.ke

- Built a multi-tenant SaaS with MikroTik integration, M-Pesa payments (Safaricom Daraja C2B v2) and Pesapal; 3 paying ISP customers.
- Implemented hotspot captive-portal flows (DNS interception, walled garden, STK Push) and PPPoE bulk import for tenants.
- Run the production stack on Hetzner with Docker Compose, Nginx and Traefik.

Duty Allocator – duty scheduling desktop application

- Built in C++17, Qt6 and SQLite; deployed and in use at Utumishi Boys Academy.

EXPERIENCE

Customer Experience Manager, Astra Galaxy Fibre (ISP) June 2024 – Present

- Oversee 400+ PPPoE subscribers across two ISP networks with hands-on MikroTik RouterOS administration.
- Implemented multi-WAN PCC load balancing across two and three uplinks; diagnosed check-gateway failures, routing-table conflicts and queue-tree issues.
- Upgraded a MikroTik router from RouterOS v6 to v7.

Teacher (Physics & ICT) and Laboratory Technician, Utumishi Boys Academy July 2025 – Present

Research Assistant, Kenya National Highways Authority (KeNHA) June 2023 – October 2023

- Worked on AI-based object detection for road pavement defects.

SKILLS

Systems & networking: Linux (Fedora), nftables, WireGuard, netlink, MikroTik RouterOS, gRPC, mTLS
Languages: C++, Java (Spring Boot), TypeScript/React, SQL
Infrastructure: Docker, Traefik, Nginx, Hetzner, Cloudflare

EDUCATION

BSc Civil Engineering, University of Nairobi 2023