

TINKU GHOSH

Network & Security Engineer | LAN / WAN / SD-WAN / Wireless | Firewall Security | AI-Driven Automation
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PROFESSIONAL SUMMARY

CCNP ENCOR-certified Network & Security Engineer with 5+ years of hands-on experience across three core areas: (1) core networking — LAN, WAN, SD-WAN, wireless, routing & switching, (2) network and firewall security — Fortinet, Palo Alto, Cisco ASA, vulnerability remediation, Zero Trust, and (3) AI-driven network automation using Python, Ansible, REST APIs, and GenAI/LLM-assisted scripting. Tech Lead managing 20,000+ endpoints across Cisco, Fortinet, Palo Alto, Aruba, and Meraki platforms with 99.5% SLA compliance and 25% reduction in operational workload through automation.

CORE COMPETENCIES

Core Networking (LAN / WAN) • SD-WAN Design & Implementation • Wireless Networks (802.11ac/ax, WLC, Access Points) • Routing & Switching (BGP, OSPF, MPLS, VLAN) • Network Security • Firewall Security (Fortinet, Palo Alto) • Cybersecurity & Information Security • Vulnerability Assessment & Remediation • Threat Intelligence (IoC / EDL) • Zero Trust Architecture • AI-Powered Network Automation • GenAI / LLM-Assisted Operations • NetDevOps (Python, Ansible, REST API, CI/CD) • Incident Response & ITIL Change Management (P1/P2) • Network Design & Implementation • Root Cause Analysis & SLA Management

TECHNICAL SKILLS

Core Networking & Protocols: TCP/IP, MPLS, BGP, OSPF, EIGRP, VLAN, STP, DNS, DHCP, NAT, ACL, QoS, IPsec VPN, SSL VPN, HSRP/VRRP, EtherChannel, Routing & Switching, LAN/WAN

SD-WAN & Wireless: Cisco SD-WAN / SD-Access, Meraki SD-WAN, Wireless LAN Controllers (Cisco WLC, Aruba), Access Points (802.11ac/ax), Aruba Central, Meraki Wireless, RF & wireless health monitoring

Network Devices & Platforms: Cisco (Catalyst, Meraki, Prime, DNAC), Juniper, Aruba (Central, Wireless), HP/HPE, Cisco WLC, Infoblox (DNS/DHCP/IPAM)

Firewall & Security Platforms: Fortinet FortiGate, Palo Alto Networks (PAN-OS), Cisco ASA, Network Access Control (NAC), IDS/IPS, Zero Trust, SIEM concepts, Nessus, Qualys, ServiceNow (SecOps), SolarWinds, PRTG Network Monitor

AI & Network Automation: GenAI / LLM-assisted scripting, Prompt Engineering for NetOps/SecOps, Python, Ansible, REST API Integration, Postman, Jenkins CI/CD, NetDevOps, AI-Assisted Coding (Cursor)

Operating Systems: Cisco IOS, Junos, FortiOS, Palo Alto PAN-OS

PROFESSIONAL EXPERIENCE

Cognizant Technology Solutions India Pvt. Ltd.

Kolkata, India

Tech Lead — Network Engineering, Security & Automation

October 2022 – Present

- Lead end-to-end network operations across 20,000+ endpoints — covering core networking (LAN/WAN/SD-WAN/Wireless), firewall security, and AI-driven automation — sustaining 99.5% SLA compliance.
- Designed and implemented network segments for new branches and expansions: IP addressing, OSPF/BGP routing policies, HSRP/VRRP high availability, EtherChannel, and Cisco SD-WAN / SD-Access deployments.
- Tuned QoS, routing, and wireless parameters using NMS dashboards (latency, packet loss, interface utilization, wireless health); maintained device health (CPU/memory, log/config backups, IOS upgrades).
- Handled P1/P2 incidents on LAN/WAN/Wireless: VLAN/STP/trunk issues, OSPF/BGP neighbor failures, TCP/IP connectivity, DHCP/DNS resolution, NAT/ACL/QoS — diagnosed using Wireshark, NetFlow, syslog, SNMP, ping, and traceroute.
- Managed firewall policies on Fortinet FortiGate and Palo Alto (PAN-OS): rule reviews, IDS/IPS tuning, NAT/VPN configuration, IPsec site-to-site tunnels, SSL VPN, and remote-access VPN profiles.
- Performed vulnerability assessment and remediation against Nessus and Qualys scans — patched outdated firmware, hardened weak cipher suites, and corrected misconfigurations across multi-vendor fleet.
- Operationalized threat intelligence by implementing IoC External Dynamic Lists (EDL) across the Meraki Organization for real-time, automated threat blocking.
- Designed and deployed GenAI-assisted automation reducing manual operational workload by 25%, including LLM-driven config audits, ticket summarization, and remediation suggestions.

- Authored Python and Ansible playbooks (with AI-assisted code generation) for config backups, baseline audits, password rotation, pre/post-change verification, and bulk ACL/VLAN pushes.
- Built API-driven NetDevOps integrations (Meraki ↔ ServiceNow, Postman, REST APIs) for auto-generated alerts, ticket creation, and zero-touch configuration deployment.
- Maintained HLD/LLD diagrams, configuration baselines, change records (ITIL-aligned), and incident post-mortems; coordinated with application, security, and cloud teams on cross-functional projects.

Allied Digital Services Ltd.

Kolkata, India

Network Engineer

November 2021 – October 2022

- Managed 40+ branch offices interconnected via MPLS, BGP, and OSPF from headquarters.
- Administered complete wireless infrastructure including Wireless LAN Controllers and Access Points.
- Monitored network traffic and implemented firewall policies for security and compliance.
- Performed firmware upgrades across multi-vendor network devices and remediated network loops/vulnerabilities.
- Handled escalated P1/P2 tickets from L1 support and clients; used PRTG for proactive monitoring and resolution.

InterTouch Hospitality Technology India Pvt. Ltd.

Onsite — Hospitality Client

Onsite Network Support Engineer

January 2021 – November 2021

- Managed and monitored routers, switches, firewalls, gateways, Zone Directors, Access Points, servers, and end devices.
- Ensured maximum network uptime through proactive monitoring and preventive maintenance.
- Configured VLANs, port settings, and switch configurations; expanded network infrastructure based on client requirements.
- Resolved client and guest network issues promptly to maintain hospitality-grade SLA standards.

KEY AI & AUTOMATION PROJECTS

AI-Augmented CLI Automation

- Configuration backup and fact-gathering pipelines with GenAI-assisted log/output parsing.
- Baseline configuration audit and remediation leveraging LLM-driven anomaly detection across multi-vendor configs.
- Quarterly automated local password rotation across the network device fleet, eliminating manual touch-points.
- Pre and post-change device verification using AI-generated test playbooks for safer change windows.
- Robust configuration deployment with AI-assisted Jinja2 template generation for standardized rollouts.

API & Integration Automation

- Meraki MX uplink failure → ServiceNow auto-incident creation pipeline for zero-delay alerting.
- IoC EDL (External Dynamic List) implementation across the Meraki Organization for real-time threat-intel-driven blocking.
- Automated reporting systems for VLANs, SSIDs, and client connection inventories.
- Configuration deployment pipeline via Postman with API-driven validation and rollback safety.
- Automated firmware management system covering download, staging, deployment, and post-upgrade health checks.

CERTIFICATIONS

- **Cisco Certified Specialist – Enterprise Core (CCNP ENCOR 350-401)** — [Verify Credential](#)
- **CompTIA Network+ (N10-006)** — [Verify Credential](#)

EDUCATION

Master's in Network Administration

Jetking Infotrain Ltd.

Bachelor of Commerce (B.Com)

University of Calcutta

INTERESTS & PERSONAL PROJECTS

AI-Assisted Coding (Vibe Coding) • Ethical Hacking • Network Automation Research • Speed Cubing