Avinash Dakey

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Senior Network Engineer | Cloud Networking | Security | SD-WAN | Automation

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Professional Summary

- Senior Network Engineer with **6+ years of experience** designing, deploying, and managing **enterprise and hybrid cloud network infrastructures** across data centers, WAN, and multi-cloud environments. Skilled in delivering high-performance, secure, and automated network solutions for **financial, insurance, and telecom clients**.

- Specialized in **Software-Defined Networking (SDN)** technologies including **Cisco SD-WAN (Viptela, Versa, Silver Peak)** and **Cisco ACI**, improving scalability, agility, and reducing manual configuration by 40%.

- Implemented **Cisco SD-Access with DNA Center**, automating endpoint segmentation and policy-based identity management that enhanced network efficiency and visibility by 25%.

- Managed **enterprise-grade security platforms** such as **Palo Alto (Panorama, GlobalProtect, WildFire)**, **Fortinet (FortiManager/FortiAnalyzer)**, **Cisco ASA**, and **Juniper SRX**, significantly reducing incident response time and ensuring compliance with SOX and ISO 27001 standards.

- Delivered **Zero Trust and SASE architectures** using **Zscaler ZIA/ZPA**, providing secure remote and SaaS access across hybrid and multi-cloud environments with centralized visibility.

- Designed and deployed **multi-cloud network architectures** across **AWS, Azure, and GCP**, integrating **TGW, ExpressRoute, Cloud NAT, and Aviatrix** to ensure seamless and secure hybrid connectivity.

- Developed and implemented **Infrastructure-as-Code (IaC)** solutions using **Terraform, Ansible, and Python (Netmiko, REST APIs)**, automating firewall provisioning, route updates, and WAN orchestration to cut deployment time by 60%.

- Hands-on experience with **load balancing and ADC platforms** such as **F5 BIG-IP (LTM/GTM)**, **Citrix ADC (NetScaler)**, and **A10 ADC**, optimizing application delivery, enabling SSL offload, and ensuring 99.99% uptime for critical enterprise workloads.

- Integrated automation pipelines into **GitLab CI/CD and Jenkins**, standardizing configurations across environments, reducing configuration drift, and improving version control.

- Strong foundation in **routing and switching**, configuring **OSPF, BGP, EIGRP, MPLS, VXLAN, and DMVPN/IPSec VPNs** to optimize branch-to-cloud connectivity and data center failover.

- Proficient in **QoS and DSCP-based traffic engineering**, ensuring consistent SLA performance for latency-sensitive applications such as VoIP, video conferencing, and financial transactions.

- Expertise in **network visibility and monitoring tools** such as **SolarWinds, Splunk, FortiAnalyzer, and NetBox**, enabling proactive performance tracking, anomaly detection, and audit readiness.

- Skilled in **identity and access management (IAM)** and **DDI platforms** like **Cisco ISE, Infoblox, and BlueCat**, automating DNS/DHCP provisioning and implementing posture-based NAC.

- Experience in **wireless and mobility networks**, deploying **Cisco 9800 WLC, Meraki, and Aruba Wi-Fi 6** infrastructures. Conducted **Ekahau site surveys** and optimized RF designs for high-density office and branch environments.

- Delivered **policy-based network segmentation** and **micro-segmentation** through Cisco ACI and SD-Access, ensuring secure isolation of financial and regulated workloads.

- Supported **Operational Technology (OT)** and **Microwave Radio Communication systems**, ensuring reliable field

connectivity and integration with core enterprise WAN networks.

- Adept in **Windows Server and Linux administration**, configuring DNS/DHCP, NTP, and Active Directory Federation Services for hybrid identity integration.

- Collaborated closely with **DevOps and security teams** to build automation frameworks, Zero Trust architectures, and continuous network compliance checks using CI/CD pipelines.

- Proven experience in **multi-vendor network integration** involving F5, FortiGate, Palo Alto, Zscaler, and Cisco platforms, ensuring consistent security posture and policy enforcement.

- Demonstrated excellence in **documentation and change management** using **Visio, ServiceNow, Jira, and Confluence**, ensuring traceability and governance for all network operations.

- Recognized for **mentoring junior engineers**, driving automation adoption, and delivering network solutions that improved uptime, reduced incidents, and enhanced enterprise agility.

- Ensured consistent alignment with **ISO 27001, SOX, GDPR, and NERC** regulatory standards across global network deployments and operational procedures.

TECHNICAL SKILLS

Routing & Switching: Cisco ACI, Cisco Nexus, Catalyst 9000, OSPF, BGP, EIGRP, MPLS, VXLAN-EVPN, DMVPN, Cisco DNA Center.
SD-WAN & SDN: Cisco SD-WAN (Viptela), Versa Networks, Silver Peak, Cisco SDAccess, Meraki, Aviatrix.
Firewalls & Security: Palo Alto NGFW (Panorama, WildFire), FortiGate, Cisco ASA/FMC, Juniper SRX, Checkpoint, SSL Decryption, IPS/IDS, VPN.
Zero Trust & NAC: Zscaler ZIA/ZPA, Cisco ISE, Aruba ClearPass, PKI, Layer-7 Policies, Identity Segmentation.
Load Balancing & ADC: F5 BIG-IP (LTM/GTM/APM/ASM), Citrix ADC (NetScaler), A10 Thunder TPS.
Cloud & Virtualization: AWS (VPC, TGW, Direct Connect), Azure (VNet, NSG, ExpressRoute), GCP (VPC, Cloud NAT), VMware (vSphere, NSX), Citrix ADC.
Automation & IaC: Python, Ansible, Terraform, Jenkins, GitLab CI/CD, Puppet, REST APIs.
Monitoring & Tools: SolarWinds NPM/NCM, FortiAnalyzer, Splunk, Infoblox, BlueCat, NetBox, Wireshark, SNMP, PRTG, Nagios.
Wireless & Mobility: Cisco 9800 WLC, Aruba Wi-Fi 6, Meraki MR, Ekahau Site Survey, Cisco Prime, Aruba Mobility Master.
Operating Systems: Windows Server, Linux (Bash, SSH, SELinux), Cisco IOS, IOS-XE, NX-OS.
Proxy & Security: Zscaler, Blue Coat, ProxySG, DNS RPZ, DHCP/DNS Mgmt.
ITSM & Collaboration: ServiceNow, Jira, Confluence, Change Management, Agile/Scrum.

PROFESSIONAL EXPERIENCE
Client: Liberty Mutual, Remote, USA   **Jan 2024 – Till date**
Role: Senior Network Engineer
Responsibilities:
- **Redesigned Liberty Mutual's global enterprise WAN** using **Cisco SD-WAN (Viptela and Versa)** with dual transport (MPLS/DIA) and AppQoE routing, improving network resiliency and reducing latency by 40% across 100+ sites.
- Integrated **Cisco ACI fabric** in the on-prem data center with **AWS Transit Gateway** and **Azure ExpressRoute** via BGP/IPSec tunnels, enabling seamless multi-cloud routing and secure traffic segmentation.
- **Implemented Cisco SD-Access** with **DNA Center**, automating endpoint segmentation, VLAN provisioning, and user-based policies through **Cisco ISE** integration, which improved endpoint mobility and visibility by 25%.
- **Centralized firewall governance** using **Palo Alto NGFWs (3200, 3400, and 5400 series)** via **Panorama**, integrating **GlobalProtect VPN (SAML-based)** for remote workforce, optimizing App-ID and threat prevention aligned with **SOX/GDPR** compliance.
- **Administered Fortinet FortiGate firewalls** through **FortiManager and FortiAnalyzer**, enabling SSL inspection, NAT, and deep packet inspection for OT/branch environments, reducing potential attack surfaces.

- **Configured F5 BIG-IP LTM/GTM appliances** for SSL offload, GSLB, and high availability of claims applications; and **Citrix NetScaler ADC** for DMZ load balancing, ensuring sub-second failover for customer-facing portals.
- Integrated **Zscaler ZIA/ZPA** for Zero Trust remote access and SASE enforcement, implementing SSL inspection and DNS tunneling prevention with Azure AD-based identity controls.
- **Developed Infrastructure-as-Code (IaC)** pipelines using **Terraform, Ansible, and Python (Netmiko, REST APIs)** for multi-cloud provisioning, firewall policy deployment, and routing configuration, reducing manual workload by 60%.
- Automated configuration validation and policy push through **CI/CD integration with GitLab and Jenkins**, standardizing deployments across AWS, Azure, and GCP.
- Managed **Infoblox DDI** for automated DNS/DHCP provisioning, RPZ threat feed updates, and ServiceNow CMDB synchronization for IP address tracking and compliance visibility.
- Implemented **SolarWinds NPM/NCM dashboards** and integrated with ServiceNow APIs for automatic incident generation, bandwidth analysis, and proactive anomaly detection.
- Deployed and maintained **Aruba Wi-Fi 6 infrastructure** with Ekahau-based RF optimization and **Cisco Meraki** for branch sites, ensuring seamless mobility and WPA3-secured wireless access.
- Designed and implemented **Zero Trust NAC policies** using **Cisco ISE** integrated with Azure AD and ClearPass, enforcing posture validation and dynamic VLAN assignment for corporate and guest users.
- Configured and optimized **routing protocols (BGP, OSPF, EIGRP)** across WAN and data centers, fine-tuning route redistribution and failover timers for SLA-based convergence and fast reroute.
- Managed **multi-cloud environments (AWS, Azure, GCP)** by provisioning VPCs, subnets, and transit routes, implementing IAM least-privilege models and log retention policies via S3 lifecycle management for audit compliance.
- Designed **Python-driven compliance scripts** to validate ACLs, QoS, and routing configurations across network devices, improving change traceability and reducing drift.
- Deployed **F5 GTM/DNS** for geographic load balancing across data centers, ensuring high availability and optimal routing based on client proximity.
- Integrated **Juniper and Arista switches** for data center uplink routing, performed firmware upgrades and implemented STP enhancements for improved backbone stability.
- Supported **VoIP and unified communications** deployment by implementing QoS (DSCP, LLQ) and bandwidth prioritization across WAN, ensuring consistent call quality under peak load.
- Authored comprehensive **HLD and LLD design documentation** for all network modernization and automation initiatives using Visio, Confluence, and ServiceNow for change tracking.

Client: Juniper Networks, USA   **Aug 2023– Jan 2024**
Role: Network Engineer
<u>**Responsibilities:**</u>
- Engineered and supported **Cisco ACI multi-site spine-leaf fabric** across Juniper's hybrid data centers, defining VRFs, EPGs, and Bridge Domains to segment tenants and integrate **FortiGate and Palo Alto** NGFWs using L4–L7 service graphs for secure east-west traffic inspection.
- Designed and optimized **SD-WAN topologies** using **Cisco Viptela and Silver Peak**, implementing SLA-based routing, AppQoE policies, and dynamic path selection to simulate enterprise-grade multi-circuit performance.
- Managed **Palo Alto VM-Series** and **Cisco ASA** firewalls across Azure and on-prem lab networks using **Panorama** for centralized configuration bundles, App-ID tuning, and SSL inspection, validating rule performance against Junos routing platforms.
- Administered **A10 Thunder ADCs** and **F5 BIG-IP appliances**, configuring LTM and GTM for traffic distribution, SSL offload, HA clustering, and health-monitor automation to emulate real-world load balancing for application delivery testing.
- Deployed **Citrix NetScaler (ADC)** within DMZ test zones, implementing SSL bridging, rewrite/responder policies, and Layer-7 inspection for performance validation under simulated production workloads.
- Configured **VPN overlays** including Site-to-Site IPsec and **DMVPN** for multi-region connectivity between lab sites, using BGP over tunnels to verify route propagation and failover convergence times.
- Integrated **Cisco DNA Center (DNAC)** to automate switch provisioning and policy enforcement, building reusable templates linked to **Cisco ISE** for MAC-based onboarding and posture-driven segmentation.

- Implemented **BlueCat DDI** for centralized IPAM, DNS/DHCP automation, and RPZ threat filtering; integrated with **ServiceNow CMDB** to ensure audit-ready compliance and automated IP allocation.
- Configured **Blue Coat ProxySG** and **Zscaler Private Access (ZPA)** for internal Zero-Trust testing environments, applying SSL inspection and dynamic segmentation for lab management systems.
- Built **Splunk dashboards** aggregating logs from Palo Alto, Cisco ISE, and Zscaler appliances to visualize telemetry, identify anomalies, and support compliance and RCA reporting.
- Automated firewall, routing, and SDN configuration deployment using **Terraform, Ansible, and Python (REST APIs, Netmiko)** within a GitLab CI/CD pipeline enabling version-controlled testing, rollback, and automated validation across AWS, Azure, and GCP test clouds.
- Provisioned **AWS and GCP VPCs** for multi-cloud testing, validating TGW/VPC peering, transit routing, and IAM-based policy control to support Juniper's SDN validation frameworks.
- Designed **QoS and traffic prioritization policies** across MPLS and broadband circuits using DSCP marking, shaping, and LLQ mechanisms; validated throughput and jitter using iPerf, Cisco SMA, and NetFlow telemetry, improving performance accuracy by 25%.
- Supported **Aruba Wi-Fi 6** campus deployments, configuring controllers and APs with 5 GHz optimization and WPA2-Enterprise authentication via ISE, ensuring secure and reliable wireless access in lab environments.
- Enhanced monitoring visibility using **SolarWinds**, **PRTG**, and **Splunk Enterprise**, correlating syslogs and SNMP traps with performance metrics for early fault detection.
- Documented all SDN, ACI, and automation configurations in **Visio and Confluence**, producing LLDs, operational playbooks, and lab validation guides.
- Collaborated with DevOps and product teams to replicate enterprise customer topologies for **SD-WAN and MPLS interoperability testing**, ensuring Juniper solutions met real-world integration standards.
- Delivered Zero-Touch Provisioning (ZTP) templates for Junos routers and switches, integrating Python automation for image management and compliance baseline enforcement.
- Conducted periodic security audits and performance benchmarking, aligning with ISO 27001 and NIST 800-53 requirements to validate Juniper's network products.

Client: Wipro, India   **May 2018 –Jul 2022**
Role: IT Network Engineer
Responsibilities:

- Configured and maintained **dynamic routing protocols (BGP, OSPF, EIGRP)** on Cisco ISR and ASR routers to establish redundant WAN connectivity, enabling seamless inter-branch communication and optimized route redistribution across MPLS and internet uplinks.
- Designed and implemented **VLAN segmentation and Layer-2 architecture** on Cisco Catalyst switches, configuring access/trunk ports and optimizing **Spanning Tree Protocol (STP)** to prevent loops and ensure network stability across multi-floor office networks.
- Deployed and monitored **MPLS circuits** with QoS tagging and traffic prioritization for latency-sensitive applications like voice and video, improving throughput and reducing packet loss by 20%.
- Configured **Site-to-Site, IPsec, and DMVPN** tunnels between headquarters and regional branches, ensuring encrypted data transfer, redundancy, and automated spoke failover for business-critical services.
- Assisted in **Cisco SD-WAN** rollout, integrating **vManage** templates for centralized policy and QoS management across remote sites, improving visibility and reducing provisioning time by 40%.
- Supported **Cisco DNA Center (DNAC)** automation for switch configuration and **Cisco ISE** integration, enabling identity-based segmentation and zero-touch provisioning for new endpoints.
- Deployed and maintained **firewall policies** on **Palo Alto** and **Cisco ASA NGFWs**, implementing NAT, ACL, and VPN configurations, ensuring secure access for internal and remote users while maintaining compliance with corporate security standards.
- Configured **SNMPv3**, syslog, and NetFlow monitoring with **SolarWinds NPM/NCM**, tracking interface utilization, CPU, and memory metrics for proactive fault management and performance optimization.
- Integrated **DNS, DHCP, and NTP** services across Windows and Cisco platforms, aligning with enterprise time synchronization and IP address management policies.

- Utilized **Wireshark** for packet-level analysis to troubleshoot connectivity issues, identify latency sources, and validate network changes, reducing MTTR for incidents by 30%.
- Implemented **Layer-2 security features** such as DHCP Snooping, Dynamic ARP Inspection, and Port Security to protect against spoofing and rogue device access in enterprise networks.
- Developed **Python (Netmiko, Paramiko)** automation scripts for configuration audits, route verification, and interface health checks, minimizing manual CLI errors and improving operational efficiency.
- Built **Ansible playbooks** for bulk VLAN provisioning, configuration backup, and ACL deployments across hundreds of switches, achieving consistency and reducing configuration drift.
- Created **Terraform templates** to automate provisioning of AWS VPCs and Azure VNets for hybrid-cloud extensions, enabling Infrastructure-as-Code (IaC) adoption within the enterprise network team.
- Worked with **DNS/DHCP services and Infoblox integrations** for IPAM automation and consistency between on-prem and cloud workloads.
- Supported **wireless connectivity** by configuring SSIDs and authentication policies on **Cisco WLCs**, improving Wi-Fi stability and performance for campus networks.
- Collaborated with senior engineers to design **QoS and SLA-based routing** for prioritized applications, validating end-to-end performance using iPerf and SNMP analytics.
- Participated in **network modernization projects**, migrating legacy WAN circuits to hybrid SD-WAN architecture, improving agility and reducing operational costs by 25%.
- Documented all configurations, topology diagrams, and standard operating procedures (SOPs) using **Visio**, **Confluence**, and **ServiceNow** to ensure traceability and compliance readiness.

EDUCATION
- Master's Computer Science, University of Central Missouri, USA
- Bachelors in Electronics and communication Engineering, JNTUH, India

CERTIFICATIONS
- (CCNP) – Cisco Certified Network Professional
- (CCNA) – Cisco Certified Network Associate
- (AWS)- Amazon Web Services Networking Specialty
- (PCNSE)- Palo Alto Networks Certified Network Security Engineer