KHAGEN PATEL

Senior Network Engineer - SD-WAN - 2x CCNP - Security - Automation

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Work Authorization: U.S. Citizen

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PROFESSIONAL SUMMARY

- Senior Network Engineer with 9+ years of experience designing, deploying, and supporting enterprise Layer 2/3 networks in regulated environments.
- SD-WAN and branch/campus expertise across Cisco Meraki, Cisco Viptela, and VMware VeloCloud with routing (BGP, OSPF, EIGRP) and segmentation (VRFs).
- Security-focused background with Cisco ISE (802.1X), Palo Alto firewalls, and VPNs; automates operations using Python, Netmiko, Ansible, and REST APIs.

CORE SKILLS

- Layer 2: VLANs, trunking, STP (PVST+, RSTP), EtherChannel/port-channel, Nexus vPC/VDC
- Layer 3: BGP, OSPF, EIGRP, HSRP/VRRP/GLBP, VRFs, route redistribution, QoS fundamentals
- SD-WAN: Meraki Auto VPN, hub-and-spoke, HA and dual uplinks; Cisco Viptela; VMware VeloCloud
- Security: Palo Alto (policy, NAT, VPN), Cisco ISE (802.1X), IPsec (IKEv1/IKEv2), GRE, ACLs
- DDI: Infoblox DNS/DHCP/IPAM - DNS zones/records and DHCP scopes (basic)
- Load Balancing: F5 BIG-IP LTM - virtual servers, pools, monitors (basic)
- Cloud: AWS (VPC, EC2), Palo Alto VM-Series (AWS)
- Automation: Python, Netmiko, Ansible, REST APIs (Meraki Dashboard API), JSON/YAML, Git, Flask, Tkinter
- Operations: Wireshark, tcpdump, SNMP/Syslog, monitoring (SolarWinds, PRTG, netMRI, NetBrain), change control, MOPs/runbooks

EXPERIENCE

SENIOR NETWORK ENGINEER 03/2021 to Current

NYU Langone Health - New York, NY

- Designed and deployed enterprise Layer 2/3 networks across campus and WAN environments.
- Migrated distribution layer from Catalyst 6800 VSS/HSRP to Catalyst 9500 StackWise Virtual to improve resiliency and simplify operations.
- Performed switch and router OS upgrades and trained newly onboarded Cognizant team on execution and validation.
- Implemented VRF-based segmentation for firewall-bound traffic to support compliance requirements.
- Built Meraki networks from scratch and standardized configurations across 6 Meraki platforms (MX67, MX68, MX75, MX95, MX450, MS150).
- Designed hub-and-spoke Meraki Auto VPN/SD-WAN with HA and dual uplinks; validated failover and application reachability.
- Delivered SD-WAN connectivity across 3 platforms (Meraki, Viptela, VeloCloud) based on site requirements.
- Automated configuration audits and reporting using Python and Meraki Dashboard API; reduced repetitive manual effort by approximately 30 percent.

- Supported Infoblox DDI administration including DNS record updates and DHCP scope changes for cutovers and endpoint onboarding.
- Authored MOPs and deployment runbooks for site turnups, cutovers, and firmware upgrades with rollback and validation steps.
- Deployed Cisco ISE 802.1X for role-based access control and improved endpoint posture enforcement.
- Administered Palo Alto firewalls including NAT and VPN (site-to-site and GlobalProtect).
- Created site-to-site VPNs and migrated IKEv1 to IKEv2 across approximately 100 sites.

NETWORK ENGINEER 05/2017 to 01/2021
Altice Group - New York, NY

- Executed network changes and troubleshooting to improve reliability and service delivery for enterprise customers.
- Led migration from Catalyst 6500 to Nexus switching using vPC/VDC patterns to improve scalability and reduce maintenance downtime.
- Configured and supported OSPF and BGP in production including neighbor setup, routing policy, and incident troubleshooting.
- Provided light support for F5 BIG-IP LTM including virtual servers, pools, health monitors, and basic troubleshooting during incidents and changes.
- Deployed and maintained firewalls (Cisco ASA/Firepower, Palo Alto) and managed site-to-site and remote-access VPNs.
- Created AWS VPCs and launched EC2 instances to support network and security services.
- Deployed Palo Alto VM-Series in AWS and integrated connectivity with on-premises Palo Alto firewalls.
- Created and migrated AWS-to-on-premises site-to-site VPN from IKEv1 to IKEv2.
- Performed packet analysis using Wireshark and captures to isolate latency, MTU, and routing issues.

NETWORK ENGINEER 03/2015 to 02/2017
Tech Astha - Ahmedabad, India

- Planned and executed multi-site network deployments and integrations.
- Implemented VLAN and redundancy designs using PVST/RSTP and HSRP/VRRP/GLBP; supported VTP environments.
- Configured routing protocols (RIP, EIGRP, OSPF, BGP) and built GRE tunnels and IPsec site-to-site VPNs.
- Performed packet analysis with Wireshark to diagnose and resolve connectivity and performance issues.

CERTIFICATIONS

Certificate	Status	Cert #
CCNP Security (Cisco)	Active	F5WPKC3L540LPTXJ
CCNP Enterprise (Cisco)	Active	MMV01SHHMP4Q1SWY
CCIE R&S Written (Passed, 2019) - Qualified for CCIE Lab (pre-2020)	Legacy	-
Cisco Meraki Solutions Specialist	Active	0a7b78fdc86a47ceb73e1ccf6903923b
CCNA (Cisco)	Active	GM77ESVHECVEQQ9C
VCP-DCV 6.7 (VMware)	Active	VMW-02477413Q-02455801
PCNSA (Palo Alto Networks)	Inactive	THHEL6H112V113SX
JNCIA-Junos (Juniper Networks)	Inactive	MMYDP6R58BQ1153F
CCDP (Cisco)	Legacy	PR6EPHYDSQK0NF5J

CCNA Data Center (Cisco)	Legacy	438164170118GQZI
CCNA Security (Cisco)	Legacy	438393066772FNCH

EDUCATION

Bachelor of Science (B.S.), Physics - Mewar University - India (2012 - 2015)

ACHIEVEMENTS

- Cisco Live 2025 - 2nd place, CCIE Techtorial
- Languages - English, Hindi, Gujarati