Khagen Patel

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Summary

A dedicated Network Engineer with over eight years of hands-on experience in designing, troubleshooting, and optimizing complex network infrastructures. Specializing in both Layer 2 and Layer 3 technologies, my expertise spans across configuring and supporting advanced network solutions, including Cisco's SD-WAN, Viptela, and Velo Cloud, with a strong emphasis on security through Cisco ISE and site-to-site VPNs. A proactive problemsolver with certifications in CCNA, CCNP, PCNSA, VCP-DCV, and JNCIA, I am committed to leveraging my skills in Python scripting, cloud infrastructure, and ITIL processes to enhance network functionality and reliability.

SKILLS

- **Networking Hardware:**
  - Switches: Cisco Catalyst (2900, 3700, 3500, 3850, 4500, 4900, 6500, c9300, c9400, c9500, c9600), Cisco Nexus (5k, 7k, 9k, 2k FEX), Arista (7200, 7800 Series).
  - Routers: Cisco (2600, 2800, 3600, 3800, 7200, ISR4k, C8000).
  - Firewalls: Cisco ASA 5500 Series, Palo Alto (Virtual).
- **Networking Technologies**:
  - Switching: dot1q, VTP, STP, GLBP, HSRP, VRRP, Port Security, Inter-VLAN Routing.
  - Routing: RIPv2, OSPF, EIGRP, BGP, IPSec, QoS.
  - Architectures: Spine and Leaf, 3-Tier (Core, Distribution, Access), Collapsed Core.
- **Security & Access Control**:
  - Firewall Technologies: ACL, IPS/IDS, Antivirus/Anti-Malware, Deep-Packet Inspection, User-ID, App-ID.
  - NAC Solutions: ISE 2.x, ACS, NPS, FortiAuthenticator, Clearpass.
- **Software-Defined Networking**:
  - Technologies: SDN - Cisco ACI, SD-WAN – Cisco Viptela.
  - VPN & Load Balancing:
  - VPN Services: Site-to-Site VPN, GlobalProtect, AnyConnect.

- Load Balancer: F5.
- **Network Services:**
  - DHCP, DNS: Infoblox.
  - Authentication Services: TACACS+, Radius, Active Directory.
- **Monitoring & Cloud:**
  - Monitoring Tools: PRTG, SolarWinds, netMRI.
  - Cloud Platforms: GCP, AWS.
- **Virtualization & OS:**
  - Virtualization: VMware ESXi, HyperV.
  - Networking OS: IOS, IOS XE, NX-OS, Junos, PanOS.
  - Desktop OS: Windows, Linux/Unix Distro, Macintosh.
- **Productivity & Management Tools**:
  - Office Tools: MS Visio, MS Word, MS Excel, MS PowerPoint.
  - Change Management: Ivanti Cloud, Service-Now.
  - Upgrade & File Transfer Tools: TFTP, FTP, SSH.
- **Automation & Scripting:**
  - Tools: Python/netmiko, PowerShell, Linux Shell, Ansible.
- **Servers & Management**:
  - Servers: Dell PowerEdge, Cisco UCS, HP ProLiant.
  - Server Management Tools: iDRAC, iLO, Dell OpenManage Enterprise.

Experience

Network Engineer
NYU Langone Health

Mar 2021 - Present (3 years 1 month)

- Spearheaded the design and implementation of complex network infrastructures, focusing onadvanced Layer 2 technologies such as VLANs, Trunks, and EtherChannels. Ensured robust troubleshooting of inter-VLAN routing and Layer 3 connectivity issues to maintain high network performance and reliability.
- Demonstrated expertise in IP addressing and subnetting, utilizing FLSM & VLSM methodologies tooptimize network address allocation, alongside configuring and supporting essential network protocols such as TCP/IP and DNS.
- Played a pivotal role in configuring, managing, and troubleshooting dynamic routing protocolsincluding EIGRP, OSPF, and BGP, which enhanced network efficiency and resilience.
- Led the integration of next-generation networking solutions, including Cisco SD-WAN Viptela andVeloCloud SD-WAN, to modernize the network

infrastructure, improve bandwidth utilization, and ensure secure, scalable connectivity across diverse locations.

- Advanced network security and access control by deploying Cisco ISE (dot1x), leveraging itscapabilities for rigorous network access management and enhancing overall security posture.
- Automated network operations and device management through the development of Python scriptsand the strategic use of Ansible for network automation. This approach significantly streamlined workflows, reduced manual errors, and improved operational efficiency.
- Conducted comprehensive network monitoring and management using industry-standard tools likenetMRI and SolarWinds, enabling proactive network health checks and performance optimization.
- Configured and managed Palo Alto firewalls, applying strict security policies, NAT configurations, andVPN setups to protect the network against advanced threats and ensure secure data flows.

Environment: Cisco Routers (7200, ISR4k, c8000), Cisco Switches (4500, 6500, 3850, c9300, c9500), Nexus Series (9K, 7K, 2K FEX), Arista Switches (7200, 7800), Palo Alto Firewalls, Dell PowerEdge Servers, Python/Netmiko, SolarWinds, Cisco SD-WAN Viptela, VeloCloud SD-WAN, Cisco ISE, Ansible.

Network Engineer

Altice Group

May 2017 - Jan 2021 (3 years 9 months)

- Conducted daily operations including gathering customer requirements and providing strategicnetwork changes, facilitating the deployment of custom solutions tailored to client needs.
- Administered and optimized key switching technologies and protocols such as VLANs, port security,STP, and HSRP/VRRP/GLBP, enhancing network integrity and redundancy.
- Directed data center migration initiatives, transitioning infrastructure from Cisco 6500 Switches toNexus Series, and implementing vPC and VDC for streamlined data center operations.
- Deployed and managed various routing protocols (BGP, EIGRP, OSPF) across Cisco and Juniperplatforms, ensuring robust, scalable network communications.
- Installed and troubleshot firewall systems, including Cisco ASA, Firepower, and Palo Alto,strengthening network security frameworks.
- Implemented and managed site-to-site and remote access VPNs, extending secure networkconnectivity across distributed environments

Environment: Cisco Routers (7200, 3800, 2800), Cisco Switches (6500, 3700, 4900, 2900), Nexus Series (9K, 7K, 5K, 2K FEX), Arista Switches, Juniper MX Routers, Cisco ASA and Palo Alto Firewalls, AWS, GCP, Cisco ACI, SD-WAN, VMware.

Network Engineer

Tech Astha

Mar 2015 - Feb 2017 (2 years)

- Executed projects from planning to implementation to connect new sites to existing networks
- Worked with Cisco Catalyst switches and routers and configured VLANs using VTP, RSTP, HSRP,

PVST, VRRP, and GLBP

- Implemented routing protocols such as RIP, EIGRP, OSPF, and BGP
- Established GRE tunneling and Site-to-Site VPNs to enable connectivity between sites
- Configured network access for employer applications and machines
- Implemented and configured ASA 5510/5520 firewalls for network protection
- Conducted packet capturing using Wireshark for analysis
- Handled router disaster recovery, investigated crash logs to determine hardware or software issues,and -implemented redundancy for routers, switches, and firewalls.

Environment: Cisco Routers (2600, 2800, 3600, 3800, 7200), Cisco Switches (6500, 4500, 3500, 2900), ASA 5500 series firewalls, Routing Protocols (RIP, EIGRP, OSPF, BGP, VPN), Switching Protocols (VTP, STP, GLBP, HSRP).

Education

Mewar University

Bachelor of Science - BS, Physics

2012 – 2015

Licenses & Certifications

Cisco Certified Network Associate Data Center (CCNA-DC) - Cisco

6M6247Y1HGEQQ2SC

Cisco Certified Network Associate Routing and Switching (CCNA-RS) - Cisco
F3RBQNM1NP441XCH

Cisco Certified Network Associate Security (CCNA-Security) - Cisco
GH3DV8MCNKE4QXKK

Cisco Certified Network Professional Routing and Switching (CCNP-RS) - Cisco
K48C4N71NKF41CGN

Cisco Certified Network Professional Security (CCNP-S) - Cisco
S770YWJP2PE4QG35

Cisco Certified Design Associate (CCDA) - Cisco
K58KRY52FDFQQK3E

Palo Alto Networks Certified Network Security Administrator - Palo Alto Networks
THHEL6H112V113SX

Juniper Networks Certified Associate - Junos (JNCIA-Junos) - Juniper Networks
MMYDP6R58BQ1153F

VMware Certified Professional 6.7- Data Center Virtualization - VMware
VMW-02477413Q-02455801