

SAI CHAND MEDAPATI

Network Engineer

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As a Senior Network Engineer with a decade of experience, I architect and manage sophisticated enterprise networks, hybrid clouds, and **SD-WAN** solutions. My expertise centers on **Microsoft Azure, VMware, and Kubernetes**, delivering highly scalable and cost-efficient infrastructures. I master advanced **routing (BGP, OSPF)**, **switching (VLAN, VXLAN)**, and next-generation **Firewall** administration to secure and optimize data flows. Through automation with PowerShell and Terraform (IaC), I have consistently driven over 30% in operational efficiency gains.

My deep knowledge of network security, including **WAFs, Azure AD, and IAM**, provides robust defense against emerging threats. I am an expert in performance tuning with **SolarWinds and Splunk** and ensure high availability with **NGINX** and **NetScaler load balancers**. Grounded in ITIL frameworks, I oversee the full operational lifecycle, from **Helpdesk/Desktop support** and endpoints to the core infrastructure. I am a proven leader in ensuring total **IT service reliability** while spearheading continuous improvement initiatives.

Category	Skills
Networking Protocols	RIP, IGRP, EIGRP, OSPFv2/v3, IS-IS, BGP v4
Routing & WAN	HDLC, PPP, PPPOE, MPLS, IPSEC VPN, Route Redistribution, SD-WAN, Multicast
Switching & Layer Tech	VLAN, VXLAN, STP (PortFast, UplinkFast), EtherChannel
Security	Cisco ASA, Checkpoint, Port Security, DHCP Snooping, IPS/IDS, VPNs (SSTP, IPsec/SSL), IP Source Guard (IPSG), Fortinet
Switches	Cisco Catalyst/Nexus switches (9300, 3850, 4510, 6513, 9508), Arista switches (7150S, 7160, 7260QX), Juniper switches, Mikrotik, Tplink, Genesis
Load Balancing/QoS	NGINX, QoS, Traffic Shaping, Load Balancing
Monitoring Tools	SolarWinds, Wireshark, PRTG, SNMP, NetFlow, Splunk
Automation/Scripting	Python, Ansible Playbooks, Terraform, Power, GIT
Databases/Storage	Oracle 19c, Microsoft SQL Server 2019, Amazon RDS, Azure SQL Database
Cloud	Azure CLI, PowerShell, ARM Templates, and Terraform, Azure, IaaS, Azure CDN, Azure custom DNS server, Mikrotik Virtual routers, Azure Site Recovery, NAT inter routing
frameworks/Libraries	Go: net/http, Gin, Echo, Chi, Go-gRPC, Go kit Python: Twisted, NAPALM, Scapy, Paramiko
Firewalls/Security	Palo Alto (PA-220 to PA-5200 series, Panorama), Cisco ASA (5500/X), Checkpoint (R76-R80), Barracuda, Blue Coat ProxySG, IDS/IPS, GlobalProtect
Cloud & Virtualization	AWS (VPC, subnets, security groups, IAM), Azure (ExpressRoute, Firewalls), Red Hat OpenShift, Virtual Machines, NFV, Containerized Microservices, GCP, Aviatrix, F5 Load Balancers

Certifications:

Cisco Certified Network Associate (CCNA)

Cisco Certified Network Professional (CCNP)

Employment History

Senior Network Engineer | T-Mobile, Chicago, IL

November 2023 – Current

- Designed and deployed optical systems utilizing **PON modules, CWDM/DWDM technologies, and optical splicing techniques** to support 5G RAN integration, working with **Ericsson, Anritsu, and T-Mobile custom switches**. Leveraged **RF transmission analysis** and **802.11e protocol optimization** for efficient wireless deployments.
- Configured and managed complex network infrastructures with **Cisco, Fortinet, and T-Mobile custom switches**, implementing **LACP (Link Aggregation Control Protocol)** and **NGINX** for **Layer 7 load balancing** to optimize application performance and ensure high availability.
- Deployed and managed **Palo Alto (including Panorama for centralized management), Fortinet (Forti Manager for centralized management), and Cisco ASA firewalls**, designing robust **security policies (ACLs, NAT, VPN tunnels - IPsec/SSL VPN)** and enforcing **Zero-Day attack prevention** strategies.
- Automated cloud infrastructure provisioning and management using **Terraform (for IaC), PowerShell, and ARM (Azure Resource Manager) templates** to deploy scalable solutions in **Azure (VNET, NSG, VPN Gateways)** and **AWS (VPC, Route 53, ELB)**.
- Implemented **SD-WAN (Software-Defined Wide Area Network)** solutions, advanced **wireless technologies**, and data center optimizations using **Cisco ACI (Application Centric Infrastructure), Arista EOS, and Juniper** platforms to ensure high availability and reliability for critical services.
- Efficiently managed server and network assets within multiple data center racks using remote management tools like **KVM-over-IP, serial consoles, and intelligent PDUs**, streamlining provisioning and decommissioning including **BIOS/UEFI configuration and OS installation**.
- Configured and managed **NGINX** for high-availability **Layer 7 reverse proxy and load balancing** in multi-tiered web applications across hybrid environments.
- Administered **F5 BIG-IP (Local Traffic Manager - LTM)** for internal/external Virtual IPs (VIPs), implementing **SSL offloading, iRules, and health monitors** to reduce service latency and downtime for critical business services.
- Migrated virtual infrastructure to **Nutanix AHV** and supported existing **VMware vSphere (ESXi, vCenter)** and **NSX-T (for micro-segmentation and distributed firewalling)** environments with **Palo Alto integration** for secure east-west traffic inspection.
- Integrated **Prisma Access and Proofpoint with CrowdStrike** for unified threat intelligence and advanced persistent threat (APT) prevention.
- Automated network configurations and deployment tasks using **Python scripting (Netmiko, Paramiko), Ansible (for configuration management and orchestration), and Terraform (for infrastructure provisioning)**, resulting in over 100 man-hours saved annually.
- Monitored and analyzed over 300 devices using **NetScout nGenius, SolarWinds (NPM, NCM), Splunk (for SIEM and log analysis), and Wireshark (for deep packet inspection)** to reduce **MTTR (Mean Time To Resolution)** by 40% and ensure **SLA (Service Level Agreement)** compliance

Network Architect | Los Angeles Housing Department, Los Angeles, CA

April 2021 – September 2023

- Delivered end-to-end lifecycle management of enterprise IT infrastructure across hybrid cloud (AWS, Azure, GCP) and on-prem environments.
- Provided advanced **L2/L3 enterprise support** for 2,000+ heterogeneous endpoints (Windows 7–11, thin clients, Raspberry Pi) using **SCCM (System Center Configuration Manager)**, **WSUS (Windows Server Update Services)**, and **PowerShell scripting**.
- Executed structured patch and vulnerability management cycles using **Qualys** and **Nessus vulnerability scanners**, improving endpoint compliance by **30%** through systematic remediation.
- Automated application deployment pipelines and endpoint configuration management using **Ansible Playbooks** and **GPO-based policies (Group Policy Objects)** for consistent and rapid rollout.
- Managed full **Active Directory lifecycle**: user/group provisioning, nested OU architecture, **GPO enforcement**, and **Kerberos-based authentication control**. Conducted periodic **RBAC (Role-Based Access Control)** audits, privilege escalation reviews, and automated stale account cleanup.
- Performed hands-on rack & stack operations: rack-mounting servers, structured cabling (**CAT6/Fiber optics**), and cable management documentation using **NetBox (IPAM/DCIM)**.
- Provisioned bare-metal servers and performed firmware upgrades using **iLO/iDRAC (Integrated Lights-Out/Dell Remote Access Controller)**, implementing remote diagnostics and rescue workflows.
- Assisted in network provisioning including **VLAN segmentation**, **802.1x port security (for NAC integration)**, and L2/L3 troubleshooting using **Wireshark** and **SolarWinds (Network Performance Monitor)**.
- Configured and maintained **DHCP scopes**, **DNS zones**, and **conditional forwarders** for efficient endpoint name resolution and IP address management.
- Supported Layer 1/2/3 path tracing and **MAC address table reconciliation** in coordination with **Cisco Catalyst/Nexus** and **Juniper EX/MX** platforms.
- Actively participated in **Change Advisory Board (CAB)** processes for high-risk, service-impacting changes across production environments, adhering to **ITSM (IT Service Management)** and **ITIL v4** standards.
- Managed incident, problem, and change records through **ServiceNow** and **BMC Remedy**, ensuring **RCA (Root Cause Analysis)** and known error documentation aligned with ITIL standards. Maintained accurate **CMDB (Configuration Management Database)** records.
- Authored detailed **SOPs (Standard Operating Procedures)**, **DR (Disaster Recovery)** runbooks, and **technical workflow diagrams** in alignment with **SDLC (Software Development Life Cycle)** and change management frameworks.

Network Engineer | Goldman Sachs, Chicago, IL

December 2018 – February 2021

- Managed the lifecycle of 120+ **Cisco switches (Nexus 9508, Catalyst 9300/3850)** and 60+ **Juniper routers (MX204, MX480)** across 15 global sites, ensuring optimal network performance and high availability.
- Migrated 60+ on-premises applications to **AWS**, leveraging **Juniper vSRX firewalls**, **Cisco CSR 1000v routers (virtual routers)**, and **Palo Alto Networks firewalls** to ensure scalability, security, and network integrity in the cloud infrastructure.
- Implemented **Terraform** and **CloudFormation templates** as **Infrastructure as Code (IaC)** for consistent and automated deployments on **GCP (Google Cloud Platform)**.
- Designed and implemented a robust **AWS hybrid architecture** integrating **Transit Gateway**, **VPC (Virtual Private Cloud) peering**, and **1 Gbps Direct Connect** for seamless on-premise and cloud network integration.
- Automated **SNMPv3 backups for Cisco IOS-XE devices** and bulk **BGP AS prepends on Juniper MX routers** using **Python (Netmiko, Paramiko)** and **Ansible**, significantly improving operational efficiency and reducing manual intervention.
- Leveraged **Terraform integrated with Aviatrix** for efficient multi-cloud network automation, routing, and scaling.
- Strengthened network security by implementing **NSX-T micro-segmentation**, **Juniper vSRX firewall policies**, **Palo Alto Networks policies**, and **PVLANS (Private VLANs)** for trader workstations, ensuring compliance with best security practices.
- Authored detailed troubleshooting guides for **Nexus 9000 VXLAN (Virtual Extensible LAN) configurations** and maintained **NetBox diagrams** to support **PCI (Payment Card Industry)** compliance audits.

- Extensive experience with networking protocols including **VXLAN/EVPN (Ethernet VPN)**, **BGP**, **OSPF**, **GRE (Generic Routing Encapsulation)**, **TCP**, **FTP**, **DNS**, **DHCP**, and cloud security technologies such as **Azure AD (Active Directory)**, **IAM (Identity and Access Management)**, and **Web Application Firewalls (WAFs)**.
- Configured user roles and policies for authentication using **Cisco NAC (Network Access Control)** and monitored logged-in users' statuses via **Cisco ISE (Identity Services Engine)**, ensuring secure access control.
- Enhanced security posture using **Aviatrix Secure Networking platform**, including advanced encryption and audit controls for multi-cloud deployments.
- Implemented **Aviatrix Transit Gateway** for high-performance, encrypted inter-region communication and advanced **multi-cloud routing policies** to ensure auto failover and load balancing across AWS, Azure, and GCP.

Junior Network Engineer | CSS CROP

March 2016 – September 2018

- Configured **Inter-VLAN routing (Router-on-a-Stick, SVIs)**, **access-lists (ACLs)**, dynamic routing protocols (**RIPv2**, **EIGRP**, **OSPF**), and **redistribution** to optimize network traffic flow.
- Installed and maintained **Cisco backbone routers (7500, 7200, 12000 series)** with **HSRP (Hot Standby Router Protocol)** for first-hop redundancy.
- Deployed **RIP**, **OSPF**, **EIGRP**, and **BGP** on Cisco routers and tuned routing updates using **route-maps** and **distributed lists** for on-demand infrastructure.
- Designed and implemented **VPN tunnels with IPsec (Internet Protocol Security)** and **GRE (Generic Routing Encapsulation)** on **Cisco ASA (Adaptive Security Appliance)** firewalls, ensuring secure network connectivity.
- Configured and managed **Cisco ASA firewalls** and **Juniper NetScreen firewalls**, ensuring robust perimeter security for enterprise networks.
- Implemented **AAA (Authentication, Authorization, and Accounting) services** using **Cisco Secure ACS (Access Control Server)** for user authentication and access control.
- Designed and configured security policies with **F5 LTM (Local Traffic Manager)** for application layer security, **SSL offloading**, and traffic optimization.
- Deployed **VPN solutions with Pulse Secure** for secure remote access and **Single Sign-On (SSO)** across production environments.
- Troubleshooting and optimized security devices, including **Juniper firewalls**, **Blue Coat proxies**, and **F5 load balancers**, analyzing logs and traffic flows.
- Implemented WAN IP infrastructure using **Frame Relay**, **T1/T3**, and **DSL technologies**, ensuring reliable site-to-site communication.
- Configured **OSPF redistribution** and **LSA filtering** to prevent routing loops and optimize routing across WAN links.
- Led WAN network architecture expansion, integrating new users and applications to ensure scalability.
- Worked with multi-cloud platforms (**AWS**, **Azure**) to integrate cloud connectivity and ensure secure hybrid environments, configuring **VPN gateways** and **peering connections**.
- Used tools like **Wireshark (for deep packet analysis)** and network sniffers for packet capture and analysis, identifying and troubleshooting network performance issues.
- Managed and troubleshot network components including **Cisco Nexus 5K/2K (data center switches)**, **ASA5595**, **ACE 4710 (Application Control Engine)**, and MPLS configurations.

Education:

2012 - 2016

Amrita School of Engineering
(Bachelor of technology)
-- Coimbatore