**Peddy Uday Kiran Reddy**

Network Engineer

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# Summary

* Led the design and deployment of secure, high-performance LAN, WAN, and wireless infrastructures, utilizing routers, switches, firewalls, and VLANs for optimized connectivity across global networks.
* Configured and managed Cisco ISR, ASR, Catalyst, Nexus 9000 Series, ensuring efficient Layer 2 and Layer 3 configurations with advanced routing protocols (OSPF, EIGRP, BGP).
* Automated routine network tasks using Python reducing manual efforts and enhancing operational efficiency.
* Proficient in monitoring network performance with SolarWinds, Nagios, and PRTG.
* Configured and maintained VoIP solutions, including QoS, VLAN prioritization, and troubleshooting with Cisco Call Manager and UC solutions.
* Deployed and managed wireless networks using Cisco Aironet and Catalyst Series Access Points and Controllers.
* Led IPv4 to IPv6 migration projects, ensuring seamless integration of dual-stack environments and modern application support.
* Contributed to disaster recovery planning, optimizing network performance through capacity planning, resource allocation, and load balancing to meet growing business demands.
* Developed and maintained comprehensive network documentation, including configurations, topology diagrams, and troubleshooting guides.

# Professional Experience

**Network Engineer,**

**FSSA, Indianapolis, IN Feb 2022- Present**

* Designed, deployed, and optimized LAN, WAN, wireless, and VoIP networks, including routers, switches, firewalls, and VLAN configurations, ensuring reliable and secure connectivity across the enterprise.
* Developed comprehensive project plans, reviewed network designs, and recommended architecture, hardware, and software solutions to meet organizational needs.
* Configured and maintained network hardware and software components, ensuring seamless compatibility, high availability, and robust security within network environments.
* Conducted performance monitoring, identifying connectivity issues and implementing proactive troubleshooting to minimize downtime and optimize network performance.
* Utilized advanced network diagnostic tools Wireshark, SolarWinds, PRTG for traffic analysis, resolving performance bottlenecks, and providing detailed troubleshooting for complex network issues.
* Implemented and managed security controls such as proxies, SSL VPNs, Network Access Control (NAC), and firewall solutions, ensuring compliance with security policies.
* Proficient with Cisco routers ISR, ASR, and Catalyst Series and the latest Cisco Nexus 9000 and 3000 Series
* Skilled in configuring and managing Cisco switches Catalyst, Nexus, and Meraki Series, Juniper EX and QFX switches, ensuring effective layer 2 and layer 3 switching with VLAN segmentation and traffic optimization.
* Extensive experience working with Palo Alto PA Series, Cisco ASA, Firepower, Fortinet FortiGate, and Check Point firewalls to secure enterprise network perimeters and internal communications.
* Expert in deploying and configuring wireless networks with Cisco Aironet and Catalyst Series Access Points and Controllers, ensuring robust wireless coverage and seamless roaming across environments.
* Proficient in implementing VoIP solutions, configuring QoS, VLAN prioritization, and troubleshooting voice traffic using tools like Cisco Call Manager and Cisco UC solutions.
* Developed Python automation scripts to enhance network efficiency, automate troubleshooting, and reduce manual intervention, improving operational workflows and response time.
* Skilled in configuring and managing load balancers such as F5 BIG-IP Series, Citrix ADC, and VPN solutions including Cisco ASA with AnyConnect, Palo Alto Global Protect for secure, scalable access.
* Managed and monitored network infrastructure using tools like Cisco Prime Infrastructure, SolarWinds, and Nagios, ensuring network health and optimal performance.
* Integrated cloud-based solutions, including AWS, Azure, and Google Cloud Platform GCP, to provide scalable, flexible, and resilient network architectures that meet evolving business requirements.

**Network Engineer**

**PetSmart, Phoenix, Arizona April 2021 – Jan 2022**

* Installed, configured, and supported a variety of network equipment, routers, proxy servers, switches, WAN accelerators, DNS servers, and DHCP servers.
* Designed and deployed LAN infrastructures for diverse environments including data centers, and remote sites, ensuring robust connectivity and optimal performance.
* Led a cross-functional team in Palo Alto, driving the successful launch of a cutting-edge cybersecurity solution that increased client retention by 20%
* Configured firewalls, routing, and switching to maximize network efficiency and security.
* Implemented and maintained Layer 2 and Layer 3 protocols (OSPF, EIGRP, BGP, spanning-tree) for efficient data transmission.
* Actively participated in daily stand-ups, sprint planning, sprint reviews, and retrospectives.
* Developed and managed Power over Ethernet (PoE) infrastructure, optimizing budget allocation for efficient device powering.
* Deployed Network Access Control (NAC) solutions to ensure only authorized devices and users access network resources.
* Implemented Access Control Lists (ACLs) to control network traffic and enforce security policies.
* Configured and integrated NAC solutions seamlessly into existing network infrastructures.
* Troubleshoot network issues using Cisco IOS/CLI and Wireshark to minimize downtime.
* Designed and implemented scalable cloud-based solutions on AWS reducing infrastructure costs by 30% while enhancing system reliability and performance.
* Proficient in advanced cloud networking concepts, including hybrid cloud solutions, VPN gateways, and cloud-native networking strategies, with hands-on experience in AWS and Azure environments.
* Skilled in modern network automation frameworks, such as Terraform for infrastructure as code, and proficient in using Python and Ansible for configuration management and orchestration.
* Experienced with SDN technologies, including VMware NSX, Cisco ACI, and SD-WAN, to enhance network flexibility and scalability.
* Well-versed in implementing zero-trust security frameworks and network segmentation strategies, alongside traditional tools like firewalls, IDS/IPS, and VPNs, to ensure robust network security.
* Currently learning Python for network automation to enhance network management efficiency and reduce manual interventions.
* Developed scripts using Python to automate routine network tasks such as configuration backups, device provisioning, and network monitoring. Participated in daily network operations, handling change control processes and applying necessary patches.

**Junior Network Engineer**

**Hucon Tech, Hyderabad, India June 2019- Nov 2021**

* Designed and deployed LAN networks, including routers, switches, firewalls, and VLAN.
* Developed project plans, reviewed designs, prepared integration plans, and recommended architecture and hardware/software selections.
* Configured and maintained network hardware and software components for compatibility, reliability, and security.
* Monitored network performance, troubleshot connectivity issues, and implemented solutions to minimize downtime.
* Utilized network diagnostic and analytics tools to monitor and analyze network traffic.
* Implemented and managed security controls such as proxies, SSL VPN, and Network Access Control (NAC).
* Proficient with Cisco routers (ISR, ASR Series), Juniper routers (MX, SRX Series), and Arista routers.
* Experienced with Cisco switches (Catalyst, Nexus Series), Juniper switches (EX, QFX Series), and HP/Aruba switches (Aruba 2930M, 3810M Series).
* Configured firewalls, routing, and switching to maximize network efficiency and security. Implemented and maintained Layer 2 and Layer 3 protocols (OSPF, EIGRP, BGP, spanning-tree) for efficient data transmission
* Proficient in advanced BGP features, EVPN (Ethernet VPN), MPLS, and knowledgeable in data center fabrics, including VXLAN, to optimize network performance.
* Integrated cloud-based solutions, including AWS and Azure services, to enhance network scalability and flexibility in hybrid cloud environments.
* Implemented and managed IDS/IPS systems to detect and prevent network threats, ensuring a secure network environment.
* Provided support for IP networking tasks, including IP addressing, subnetting, DHCP, and DNS configuration.
* Conducted network troubleshooting and diagnostics, identifying and resolving connectivity and performance issues.
* Participated in the implementation of routing protocols OSPF and EIGRP and contributed to the stability of the network.
* Expertise in managing the transition from IPv4 to IPv6, with a strong focus on dual-stack environments to ensure seamless connectivity.

# Certificates

[**Cisco Certified Network Associate (CCNA)** – (ID Number: 886238c5625a4abc8431aa652a8901b8)](https://www.credly.com/badges/fd76cd1f-6b1f-4b3d-b99f-5ed3ff76d568/linked_in_profile) Valid Thru | June 7, 2027

# Education

**Master of Science**, Cleveland State University01/2022 – 12/2023 | Cleveland, USA

Information Systems

**Bachelor of Engineering**, Geethanjali College of Engineering and Technology 08/2016 – 04/2020 | Hyderabad, India

Mechanical Engineering

# Technical Skills

**Routing Protocols:** OSPF, EIGRP, BGP, IS-IS, MPLS, RIP

**Switching:** VLANs, STP, RSTP, VTP, EtherChannel, Port Security

**Network Design:** Layer 2 and Layer 3 network design, High Availability (HA) design, QoS configuration, IPv4 and IPv6 addressing

**Hardware:** Cisco, Juniper, Arista switches/routers, Fortinet, F5 load balancers, Cisco ASA, Palo Alto firewalls

**Firewall Management:** Cisco ASA, Palo Alto, Fortinet, Check Point firewalls

**VPN Solutions:** SSL VPN, IPsec VPN, Site-to-Site VPN, Remote Access VPN

**Network Access Control (NAC):** Cisco ISE, Aruba ClearPass

**Cloud Solutions**: AWS, Azure, GCP – network integration, VPN, VPC, hybrid environments

**Network Virtualization:** Virtual LANs (VLAN), VXLAN, Virtual Routing and Forwarding (VRF), Virtual Private Cloud (VPC)

**Cloud Automation & Infrastructure as Code (IaC):** AWS CloudFormation

**Hybrid Cloud Networking:** Direct Connect, ExpressRoute, VPNs, Cloud-to-On-premises connectivity

**Scripting Languages:** Python (netmiko, paramiko), Ansible, Terraform

**Network Automation:** Configuration management, network provisioning, error handling, troubleshooting automation

**Automation Platforms:** Ansible Tower, SaltStack, Cisco DNA Center, HP Intelligent Management Center (IMC)

**Diagnostic Tools:** Wireshark, tcpdump, SolarWinds, Nagios, PRTG, NetFlow, sFlow

**Network Monitoring:** Cisco Prime Infrastructure, NetFlow Analyzer, Nagios, PRTG, SolarWinds, Zabbix

**Troubleshooting Tools:** Ping, Traceroute, MTR, iperf, BGP/OSPF debug tools

**VoIP Protocols:** SIP, H.323, RTP, RTCP, QoS for VoIP

**Call Managers:** Cisco CallManager (CUCM), Avaya, Microsoft Teams Direct Routing

**Wireless:** Cisco Wireless LAN Controllers (WLC), Aruba, 802.11 standards, RF planning, Roaming, WLC HA

**Media Gateways:** Cisco UCM, SBCs (Session Border Controllers)

**Load Balancers:** F5 BIG-IP, Citrix NetScaler, HAProxy, Cisco ACE

**High Availability Design**: HSRP, VRRP, GLBP, LACP, Clustering, redundancy in cloud and on-prem solutions

**IPv6 Design & Configuration:** Stateless Address Auto Configuration (SLAAC), DHCPv6, routing for IPv6

**Documentation Tools:** Microsoft Visio, Excel, Google Docs, Confluence, SharePoint

**Collaboration Tools**: ServiceNow (Incident/Change/Problem Management), Microsoft Teams

**Backup Solutions:** Cisco ASA, FortiGate, Palo Alto – HA, failover strategies