******Akhila Shetty A**

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**PROFESSIONAL SUMMARY:**

* Over 9+ years of experience in design, development, implementation, troubleshooting, and maintenance of complex Networks & Security.
* Experience with Troubleshooting tools for example protocol analyzers, load generators & network traces.
* Working knowledge of MPLS services, OSPF, BGP and EIGRP routing protocols, NAT, sub-netting, also including DNS, WINS, LDAP, DHCP, HTTP, HTML, HTTPS, TCP/IP, UDP, SNMP, RIP, IPSEC, PPTP, VLAN, STP (Spanning tree Protocol), RSTP & Multicasting protocols.
* Designing, Implementing, and Troubleshooting Cisco 3750, 3550, 3560, 2924, (6509, 6513, 6506) 6500 series catalyst switches.
* Proficient in configuring and managing Aruba networking equipment, including access points, controllers, and switches.
* Highly proficient and hands-on experience in the following inter-networking technologies IPv4/IPv6, BGP/MBGP, MPLS, L3VPN, L2 switching, VXLAN.
* Strong knowledge of Cisco and Juniper software (IOS, IOS-XR, NX-OS, and Jun OS) and hardware.
* Proficient in utilizing the Cisco Meraki dashboard for real-time network monitoring, troubleshooting, and reporting.
* Competent in setting up and maintaining site-to-site and client VPNs using Cisco Meraki technology.
* Experienced in working with Palo Alto Next-Generation firewall with security, networking, and management features such as URL filtering, Anti-virus, IPsec VPN, SSL VPN, IPS, and Log Management.
* Configured application-centric policies in Cisco ACI to align with business requirements and ensure consistent network segmentation.
* Collaborated with cross-functional teams to integrate Cisco ACI with existing data center infrastructure, including routers, switches, and firewalls.
* Implemented Cisco ISE for network access control and policy enforcement, enhancing security posture and compliance with regulatory requirements.
* Proficient in working with various SD-WAN vendors, including Cisco, VMware, Fortinet, and others, to meet specific business needs.
* Configured ISE policies to enforce authentication and access control for wireless clients, including device registration, MAC authentication bypass (MAB), and 802.1X authentication.
* Leveraged ISE's troubleshooting tools and logs to diagnose wireless connectivity issues, analyze authentication failures, and troubleshoot Layer 1 connectivity problems.
* Utilized ISE's device profiling capabilities to automatically identify and classify wireless endpoints based on their attributes, such as device type, operating system, and vendor.
* Implemented ISE posture assessment policies to evaluate the security posture of wireless devices and enforce compliance with corporate security policies before granting network access.
* Experienced in creating scalable and secure SD-WAN network architectures that improve application performance and reduce costs.
* Proficient in working with the OpenFlow protocol, a key component of SDN, to centralize network control.
* Developed automation scripts using Infoblox API (RESTful API) to streamline routine tasks and improve operational efficiency.
* Installed, Configuration and managed Cisco Meraki Switch Series MS220-48LP, MS225-48LP, MS250-48FP and Meraki AP.
* Firmware upgrade for Meraki MS, Meraki MR, Meraki MV, and Meraki MX for better performance.
* Hands-on experience in configuring and supporting site-to-site and remote access Cisco, IPsec, and VPN solutions using ASA/PIX firewalls, Cisco, and VPN clients in addition to providing TACACS+ and RADIUS services.

**Technical Skills:**

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| **Routers** | Cisco 1800, 2600, 2800, 3700, 3800, 3900, 7200, 7600 series, ASR 9k,  juniper ACX series routers |
| **Switches** | Cisco Catalyst 3550, 3650, 3750, 4500, 6500 series & nexus 7k, 5k, 2k, 1000v, juniper Ex4200, Ex9208, ACX 1000 |
| **Load Balancer** | Cisco CSS, F5 Networks (BIG-IP), Citrix NetScaler |
| **WAN Optimization** | Cisco WAAS, PPP Multilink, Riverbed |
| **Routing Fundamentals and Protocols** | Routed and Routing protocols RIP, EIGRP, IS-IS, OSPF, BGP, IPX;  MPLS, IPv4, and IPv6 addressing, subnetting, VLSM, Static routing, ICMP, ARP, HSRP, VRRP, Route Filtering, Multicast, 802.11, Policy  Based on Routing, Redistribution, Port forwarding |
| **Switching** | VLAN, VTP, STP, RPVST+, Inter VLAN routing & Multi-layer  Switching Layer 3 Switches, EtherChannel, Transparent Bridging |
| **WAN** | Fiber Optic Circuits, Frame Relay, MPLS, DMVPN |
| **Wireless Technologies** | Canopy Wireless Devices, D-Link Point-to-point Wireless, D-Link APs, CISCO 1200 series APs, Aruba wireless and APs, Cisco Meraki, Linksys  Wireless/Wi-Fi Routers |
| **Firewalls** | Cisco ASA, Juniper Net screen & SRX, Palo Alto, Checkpoint FW’s |
| **Protocol Analyzer** | Wireshark, NetFlow |
| **Network Management and Monitoring** | Wireshark, Infoblox, Cisco Prime Infrastructure, Security Device  Manager (SDM), Cisco Works; TCP Dump and Sniffer, SolarWinds  NetFlow Traffic Analyzer, Network Performance Monitor (NPM), Network Configuration Manager (NCM) |

**CERTIFICATION:**

**CCNA** - Cisco Certified Network Associate

**CCNP** – Cisco Certified Network Professional

**PCNS**- Palo Alto Certified Network Security Engineer

**Client: NBC Universal, Chicago, IL Jul’23 - Till**

**Sr. Network Engineer**

# Responsibilities:

* Design, configure, deploy, maintain, and support the company’s enterprise network infrastructure including Firewalls, VPN, SIEM, SD-WAN devices, Switches, Routers, and Wireless.
* Hand-on experience in designing & implementing Palo Alto's next-gen firewall & its features like IPS, URL Filtering, Wildfire, User ID, IPSec VPN Tunnel, Global Protect, Antispyware, DLP & SSL inspection.
* Collaborate with colleagues on SD-WAN requirements to create templates and standards for router configurations and deployments and update the documentation accordingly.
* Responsible for implementing Layer 3 static routes, BGP, and OSPF for internal and external traffic to the data network over MPLS cloud, and this may include influencing route maps, communities, policies, and access lists for customer traffic.
* Experience in configuring Palo Alto Panorama for firewall configuration management.
* Expert knowledge and proven experience with Cisco routing (ISR, ASR, NCS), Cisco/Arista/Aruba data center switching (NX-OS, AOS, Aruba OS-CX) and routing protocols (BGP, EIGRP, OSPF).
* Implemented and managed Infoblox DDI solutions for DNS, DHCP, and IP Address Management in enterprise environments.
* Designed and deployed Infoblox Grid architecture to ensure high availability and fault tolerance.
* Configured DNS zones, records, and DHCP scopes to support dynamic IP address assignment for both IPv4 and IPv6 networks.
* Configured Terraform to architect and deploy scalable and secure network infrastructure components, including Virtual Private Clouds (VPCs), subnets, route tables, security groups, Palo Alto Networks (PAN) firewalls, and load balancers.
* Designed, implemented, and maintained Cisco ACI fabric to streamline network provisioning and improve application performance.
* Conducted network assessments and performance tuning to optimize Cisco ACI fabric for scalability, reliability, and security.
* Developed and implemented Ansible scripts for network automation, including configuration deployment, network device provisioning, and troubleshooting, resulting in improved operational efficiency, reduced manual errors, and streamlined network management processes.
* Creating detailed, accurate, and polished system/network diagrams using Microsoft Visio and Lucid Charts.
* Resolve complex networking issues utilizing protocol analysis tools, including SolarWinds, Fluke, Sniffer, or Wireshark.
* Professional level of familiarity implementing and troubleshooting Cisco ASA firewalls, F5 & A10 Load Balancers, and Nexus 9k, 7k, 6k, 5k, and 2k, switches.
* Implemented dynamic authorization policies in ISE to enforce role-based access control (RBAC) and apply differentiated network access policies based on user roles, device types, and security posture.
* Established secure guest access solutions using Cisco ISE, providing temporary network access for visitors while enforcing guest policy compliance and monitoring guest activities.
* Designed and implemented BYOD solutions with Cisco ISE, enabling employees to securely connect personal devices to the corporate network while enforcing policy-based controls and compliance checks.
* Integrated Cisco ISE with Active Directory and other identity repositories to centralize user authentication and simplify access management processes.
* Provided technical support and troubleshooting expertise for Cisco ISE and Cisco ACE deployments resolving issues promptly to minimize downtime and ensure uninterrupted network operations.

# Client: Gainwell Technologies, Reston, VA Feb’21 – Jun ’23 Role: Sr. Network System Engineer

**Responsibilities:**

* Experience with Cisco ACI on VXLANs, VTEPS, VNIDs, EVPN, Bridge Domains, Tenants, Application profiles, Contracts, etc. on ACI. Thorough understanding of Spine Leaf Architecture.
* Configured and maintained VPCs with 7010/7018 and 5548 in the network and maintained VDCs in 7k switches, maintained VRFs in those separate VDCs.
* Creating or Modifying Firewall rules on Cisco 5555, 5520, Juniper SRX, and Palo Alto VM-300 devices.
* Worked on BGP and OSPF Protocols to work on Service Provider Network
* Intensively working on ACI Migrations for VMs and Bare Metal Servers from Traditional to ACI infrastructure using L2 extension between Distribution switches and Broder Leaf’s.
* Worked on finding the failover status of each firewall after logging through Putty to the firewall.
* Performed analysis and worked on firewall Automation process based on firewall Analyzer and Fire flow.
* Deployed Palo Alto firewalls using Confidential NSX through L2 and L3 interfaces on models such as VM-300, VM-500, and VM-1000-HV.
* Trained new employees on how to bring up the ACI fabric and Basic configurations of Tenants/BDs/EPGs Networking and OOB Management configurations of Leaf/Spine Switches.
* Deployed new Leaf switches of N93180 and N9504 in ACI as part of DC expansion.
* Recognized and worked on high-risk rules, suspected high-risk rules, medium-risk rules, and low-risk rules to increase regulatory compliance with the firewall.
* Successfully finished working on applying hardening standards to all firewalls verified by CISCO.
* Working troubleshooting on the central manager as well on the remote agents like EPOC and KMDC for sys logging.
* Upgrading the IOS on Network Devices including Cisco 6800, 6500, and Palo Alto VM-300 devices
* Worked on updating the Ciphers Suits to the VIPs in A10 and worked on enabling and disabling the Backend servers.
* Experience consisting of Global load balancing, Local load balancing, SSL acceleration, and HTTP compression.
* Proficient in configuring and managing Arista networking equipment, including switches and routers.
* Experienced in designing and implementing data center networks using Arista solutions for high performance and reliability.
* Skilled in leveraging Arista's cloud networking technologies for scalable and efficient cloud infrastructure.
* Proficient in implementing SDN solutions with Arista switches to improve network agility and automation.
* Skilled in implementing security policies and firewall rules on Cisco Meraki security appliances to protect against threats.
* Familiar with implementing network segmentation strategies using Cisco Meraki devices to enhance security.
* Successfully designed and deployed secure guest Wi-Fi networks with Cisco Meraki access points.
* Proficient in implementing traffic engineering and load balancing through SDN controllers for optimal resource utilization.
* Familiar with SDN-based network virtualization technologies, such as network overlays and micro-segmentation.
* Experienced in defining and enforcing security policies within SDN environments to enhance network security.
* Configured Infoblox Threat Intelligence Data Exchange (TIDE) integration to leverage threat intelligence feeds for proactive threat detection and mitigation.
* Provided troubleshooting and resolution of DNS, DHCP, and IPAM-related issues, including DNS resolution failures, DHCP lease allocation problems, and IP address conflicts.
* Involved in the modification and removal (wherever necessary) of BGP from the MPLS routers.
* Involved in complete LAN, and WAN development (including IP address planning, designing, installation, configuration, testing, and maintenance).
* Deployed Impulse network access controller and designed policies to prevent unknown devices from connecting to the internal network.
* Manage project tasks to migrate from Cisco ASA firewalls to Check Point firewalls. Deploying of Cisco ISE on Nexus 5000/7000 routers, Cisco switches, and Cisco ASA and Firepower firewalls. Executing RADIUS pre-deployment tasks like ISE setup, loading templates into Cisco Prime
* Involved in Switching Technology Administration including creating and managing VLANs, Port security, Trunk, Inter- VLAN routing, LAN security, etc.
* Configured HSRP and VLAN trunk 802.1Q, VLAN routing on catalyst 6500 switches.
* Implementing and Maintaining Network Management tools (Solar Winds, Zenoss, Infoblox, IPAM)
* Experienced in assigning the IP address dynamically to the end devices and involved in the migration of the DHCP server.
* Designed, validated, and implemented LAN, WLAN & WAN solutions to suit client’s needs.
* Configured and designed LAN networks with Access layer switches such as Cisco 4510, 4948, and 4507 switches.
* Capable of integrating IoT devices into Aruba networks for efficient connectivity.
* Familiar with Aruba's Meridian platform for enhancing user experiences.
* Effective project management skills in Aruba technology deployments.
* Worked on Packer filtering and Analyzation using Wireshark and Riverbed in the Corporate Network
* Configured and maintained Cisco-Meraki to manage Remote Branch office networks and Internet connectivity.

# Client: Lumen Technologies, Frisco, TX Jul ’19 - Dec’20 Role: Network Engineer

**Responsibilities:**

* Monitored the stability of the network and wireless services to ensure comprehensive stability.
* Monitored network performance and provided network performance statistical reports for both real-time and historical measurements.
* Experienced in supporting Nexus 5k, Nexus 7k, catalyst 6800, 3850, 3650, ASR 1001-x, and 1002-x routers and switches.
* Proficient in implementing multicast routing solutions on Arista switches for efficient data distribution.
* Skilled in utilizing Arista's Cloud Vision for network monitoring, analytics, and visibility.
* Installed patches and performed backups, system builds, and image updates.
* Managed and ensured the stability of all network and wireless services throughout the enterprise.
* Configured and performed troubleshooting with routing and switching protocols, including BGP, OSPF, MPLS, and HSRP.
* Coordinated with various teams for disaster planning performed network backup and monitored recovery processes.
* Experienced in configuring and optimizing BGP and OSPF routing protocols on Arista equipment.
* Managed firewall, network monitoring, and server monitoring both on- and off-site.
* Migrating Cisco ASA firewall policy to new Checkpoint appliance with support of vendor-specific tool.
* Deployed, configured, and managed 802.1x solutions to include Cisco Identity Services Engine (ISE), ACS (Radius and TACACS+), and Cisco Prime Infrastructure.
* Firewall technologies including general configuration, optimization, security policy, rules creation, and modification of Palo Alto. Experience with working on Palo Alto centralized management GUI PANORAMA.
* Experience with working on Palo Alto Next-Generation firewall security profiles and Cisco ASA VPN. Exposure to wildfire advanced malware detection using the IPS feature of Palo Alto.
* Configure all Palo Alto Networks Firewall models (PA-2k, PA-3k, PA-5k, etc.) as well as a centralized management system (Panorama) to manage large-scale firewall deployments.
* Palo Alto design and installation, which includes Application and URL filtering Threat Prevention, and Data Filtering.
* Designing and maintaining a high availability WAN infrastructure using BGP to peer with multiple providers.
* Utilized knowledge of STP, BGP, MPLS, and OSI model layers 1-2 to create network layouts and configure and troubleshoot Routing protocols such as OSPF and EIGRP for routing internally and BGP for external routing.
* Configured and maintained IPSEC and SSL VPNs on Palo Alto, ASA, and FortiGate Firewalls and implemented Zone- Zone-based firewall and Security Rules on the Firewalls.
* Configure and troubleshoot Routing protocols such as OSPF and EIGRP for routing internally and BGP for external routing.
* Experience in migration of VLANS & Configured VLANs with 802.1q tagging, Ether channels, and Spanning tree for creating Access/distribution and core layer switching.
* Experienced in providing Tier-3 support by solving service now tickets generated by the staff, and end users regarding their network/Wi-Fi issues.
* Monitored Network Management tools such as Cisco Prime infrastructure and Cisco APIC to update New/Old wireless access points and various network-related issues.
* Demonstrated outstanding customer service and problem-solving skills by assisting end users - guests and staff; with computer, smart device, and Microsoft Office-related issues.

# Client: Cardinal Health, Louisville, KY Dec’17 - Jul’19 Role: Network Security Engineer

**Responsibilities:**

* Worked on Cisco routers 2600, 2800, 3700, and 7200 and Cisco switches 3550,4500, 2900, and 4900.
* Created engineering configuration, Security Standards, documenting processes, and Network documentation using Microsoft Visio.
* Work on different connection mediums like Fiber and Copper Connectivity.
* Deployed the switches in high availability configuration with HSRP.
* Assisted in troubleshooting LAN connectivity and hardware issues in the network of 100 hosts.
* Maintained redundancy on Cisco 2600, 2800, and 3600 routers with HSRP.
* Creating groups, users, and policies in Active Directory.
* Key contributions include troubleshooting of complex LAN/WAN infrastructure that include.
* Configured firewall logging, DMZs, related security policies, and monitoring.
* Installed and configured four PIX 525 and two ASA 5520 in customer locations. In addition to that, two PIX firewalls were configured for the Guest access.
* Deployment of Cisco 6500 switches in standalone and VSS modes with SSO and NSF.
* Supporting EIGRP, OSPF, and BGP-based networks by resolving level 1 &2 problems of internal Sites.
* Providing daily network support for a Global wide area network consisting of MPLS, VPN, and point-to-point sites.
* Experience working with Network management software NSM.
* Design and configuring of OSPF, and BGP on Juniper Routers and SRX Firewalls.
* Experience in migration of Frame-relay-based branches to MPLS-based technology using multi-layer stackable switches like 6500 series and 2951, 2800 series routers.
* Troubleshoot and support Cisco Core, Distribution, and Access layer routers and switches.
* Built IPsec-based Site-to-Site VPN tunnels between various client locations.
* Participate in all technical aspects of LAN, WAN, VPN, and security Internet Service projects including, short- and long-term planning, implementation, project management, and operations support as required.
* Configuration and troubleshooting link state protocols like OSPF in a single area and multiple areas.
* Creating private VLANs & preventing VLAN hopping attacks and mitigating spoofing with snooping & IP source guard.
* Enabled STP enhancements to speed up the network convergence that includes Port-fast, Uplink-fast, and backbone-fast.
* Coordinated with the network operations center (NOC) for change notifications, alerts, and escalation of security incidents.
* Managed the large security, risk, and compliance initiatives of SOX-404 IT, PCI DSS and HIPAA/HITECH, Privacy Act, FFIEC, and FTC including security policies, procedures, and controls.
* Providing support to the help desk for complex/major network problems. Build the rules for the application access across the IPSEC VPN tunnel.
* Implemented the security architecture for highly complex transport and application architectures addressing well. known vulnerabilities and using access control lists that would serve as their primary security on their core & failover firewalls.
* Installation & configuration of Cisco VPN concentrator 3060 for VPN tunnel with Cisco VPN hardware & software client and PIX firewall.
* Involved in troubleshooting DNS, DHCP, and other IP conflict problems.
* Used various scanning and sniffing tools like Wireshark.
* Hands-on experience working with security issues like applying ACLs, and configuring NAT and VPN.
* Perform daily maintenance, troubleshooting, configuration, and installation of all network components.
* Maintenance and troubleshooting of connectivity problems using the Ping, Trace route.
* Managed the IP address space using subnets and variable length subnet masks (VLSM).

# Client: Metro Mall (Retail), Hyderabad, India Jun’15 – Jul ’17

**Role:-Network Administrator**

**Responsibilities:**

* Good level knowledge of troubleshooting, implementing, optimizing, and testing static and dynamic routing protocols such as EIGRP, OSPF, and BGP ability to interpret and resolve complex route table protocols.
* Elastic search is run on the data packets. Intrusion Detection System selects features, detects anomalies, and responds accordingly. Policies are inserted into the SDN controller based on the threat signatures. The network is monitored based on the policies.
* Firewall based on SDN controller- Implemented Floodlight Controller Firewall module. REST APIs are implemented to extend the functionalities of the module.
* Worked with LAN protocols like STP, RSTP, MST, VTP, VLAN, LACP, and PAGP.
* Trunking, VTP, Layer 2/3 switching, Ether channels, Inter-VLAN routing, log messages, high CPU utilization, and parameters that can degrade the performance of the network.
* Configured VLANS on multiple catalyst switches performed troubleshooting on TCP/IP network problems, and Administered Frame-Relay and networks.
* Responsible to Install, Configure, Manage & Monitor Network and Security Infrastructure.
* Managing the service request tickets within the phases of troubleshooting, maintenance, upgrades, fixes, patches, and providing all-around technical support.
* Monitored network performance and provided network performance statistical reports for both real-time and historical measurements
* Maintained documentation and database of customer’s environment as per security standards with monthly Excel reports. Good understanding of Designing network diagram solutions for clients using VISIO and PowerPoint.
* Installed, configured (through CLI & SDM), and managed CISCO routers and Catalyst switches.
* Providing node uptime reports to customers every month and providing 24x7 support.
* Initially did onsite analysis, diagnosis, and resolution of desktop problems for end users.
* Coordinated with senior engineers regarding BGP/OSPF routing policies and designs, and worked on implementation strategies for the expansion of the MPLS VPN networks.
* Switching tasks include VTP, ISL/802.1q, IPsec and GRE Tunnelling, VLANs, Ether Channel, Trunking, Port Security, STP, and RSTP
* Configuring, supporting, and maintaining routers, switches, network appliances, firewalls, concentrators, and other communication devices
* Involved in the maintenance and monitoring of our LANs/WANs using Cisco, Enterasys, and Extreme networks equipment, Riverbed WAN accelerators.
* Providing VPN and SSH access as per role and considering security breaches. Performing Firewall rule analysis and making decisions on risk to the customer network.
* Solar winds Administrator: Reported the daily utilization of critical sites to managers, and analyzed the network issues from the net flow.
* Experience with designing, deploying, and troubleshooting LAN, WAN, Frame-Relay, and Ether-channel.
* Has expertise in LAN/WAN technologies fast Ethernet, Layer2 3 switched/routed LAN, and Frame Relay.
* Routing Protocols, Networking Layer 1, 2, 3 Switching concepts, LAN/WAN technologies, Wireless Networking, TCP/IP concepts.
* Participate in all technical aspects of LAN, WAN, VPN, and security internetworking projects including, short- and long-term planning, implementation, project management, and operations support as required.
* Completed service requests (i.e. IP readdressing, bandwidth upgrades, IOS/platform upgrades, etc.)