**Subhash Network Engineer**

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**SUMMARY:**

* I possess 9 years of professional experience in network planning, implementation, configuration, troubleshooting, and testing of Cisco and Juniper networking systems. My expertise extends to various networking technologies, including TCP/IP, IPv4/v6, RIP, EIGRP, OSPF, BGP, Frame Relay, ACL, VPN, and Wireless LAN, as well as VLAN configuration.
* Proficient in Cisco (IOS, IOS-XR, IOS-XE), Juniper (JunOS), and Arista’s EOS for routing and switching platforms. Familiar with ASA and Checkpoint for IP-based firewalls.
* Expertise in VLANs, VTP, STP, RSTP, PVST, and MST.
* Extensive experience with RIP, OSPF, EIGRP, ODR, BGP, MP-BGP, VRF-LITE, and Redundancy Protocols like VRRP and HSRP.
* Proficient in IS-IS, MPLS, MPLS L3VPN, L2VPN, Ethernet over HFC, BGP PE-CE routing, and Inter-AS MPLS L3VPN.
* Skilled in configuring and troubleshooting DNS, DHCP, FTP, and NFS.
* Experience in Tier 3 and Tier 4 architecture solutions, including Nexus 7K, 5K, and 2K for blade server connectivity.
* Conducted lab testing and validation for Nexus and service provider hardware, including Cisco ASR9k, NCS6K, Juniper MX routers, and EX4200 series routers.
* Worked in a global call center environment with over 300 sites, providing network deployment and troubleshooting support.
* Proficient in NOC operations, including hotline calls, Telco circuit issues, and network performance monitoring.
* Experience with Cisco ASR9K, CRS-8, and NCS6000 in the service provider environment, particularly with Comcast.
* Strong background in Change Control Process, including adherence to ITIL/ITSM processes.
* Collaborated with carriers for circuit MODs, circuit upgrades, and carrier-related incidents across global sites and data centers.
* Worked in the Design and Deploy Group on migration from END OF ROW to TOP OF RACK using Nexus family devices (Nexus 7K, 5K, 2K).
* Deployed IPS and IDS (Sourcefire) along with GIGAMON SPANER in datacenter environments. Proficient in configuring and troubleshooting Cisco's ASA 5500/PIX security appliances.
* Implementation of traffic filters on Cisco routers using Standard and extended Access lists.
* Experience in IP addressing, subnetting, VLSM, ARP, reverse ARP, and Ping concepts.
* Installation, configuration, deployment, and management of firewalls such as Check Point, Palo Alto, and FortiGate.
* Experience in Network Security that includes perimeter security for Internet, Extranet, DMZ, Internal Server farms, Web-traffic security with Proxies, Web Application firewalls.
* Worked and migrated multi-vendor equipment and Next generation firewall technologies. Worked on ASA, Firepower, Checkpoint and Palo Alto firewalls.
* Configured Load Balancers, including F5 LTM and GTM.
* Conducted performance testing with OpenStack using Spirent Test Center.
* Technical knowledge of Cisco ASA 5500 series routers.
* Implemented VRRP and GLBP for Default Gateway Redundancy.
* Expertise in cable connectors and replacements, including RJ-11, RJ-45, GBICS, Xenpacks, ONS optics, SFPs, QSFPs, XFPs, and CPACK.

**TECHNICAL SKILLS:**

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| **Category** | **Skills** |
| **Routers** | Cisco: 1800, 2600, ISR 2801, 3600, ISR 3845, ISR 4435, 3900 series, 7206 series, ASR 9001, ASR 9010, Cisco NCS6000.  Juniper: MX10, MX40. |
| **Switches** | Cisco: 3550, 3750, 2950, 2960 series, NX Family.  AVAYA: 4550T.  Juniper: ESX. |
| **Data Center Switches** | Cisco: Catalyst 4500, 6500, 6800, Nexus 7K, 5K, 2K, NX 6K, 9K.  Juniper: EX series. |
| **Load Balancer** | Cisco: CSS, ACE. F5 Networks: Big-IP LTM and GTM. |
| **Routing** | Protocols: OSPF, EIGRP, BGP, RIP-2, PBR, Route Filtering, Redistribution, Summarization, Static Routing, ISIS. |
| **Switching Technologies** | VLAN, VTP, STP, PVST+, RPVST+, Inter-VLAN Routing & Multi-Layer Switching, Multicast Operations, Layer 3 Switches, Etherchannels. |
| **LAN** | Ethernet, Fast Ethernet, Gigabit Ethernet, FDDI, CDDI, Token Ring, ATM LAN Emulation. |
| **WAN** | Leased Lines, Channelized Links (E1/T1/E3/T3), Fiber Optic Circuits, Frame Relay, ISDN, SD-WAN, Load Balancing. |
| **Security** | ASA 5500 series, PIX, FW Netscreen SSG, Juniper SRX. |
| **Monitoring** | SolarWinds, Riverbed, Wireshark, Microsoft Network Monitor, Azure, NetScout. |
| **Scripting** | Python, TCL scripting on IOS, Network Automation. |

**WORK EXPERIENCE:**

**Comcast – Philadelphia, PA Sept 2022 - Current**

**Sr. Network Engineer**

**Responsibilities:**

* Collaborated within a deployment and operations team to support various migrations involving switching, routing, firewalls, load balancers, and proxies.
* Designed and installed Palo Alto firewalls, implementing features such as Application and URL filtering, SSL decryption, and SSL Forward Proxy.
* Configured and maintained IPSEC and SSL VPNs on Palo Alto Firewalls.
* Successfully deployed PA-5000 series firewalls in the Data Center as perimeter firewalls.
* Led the migration of ASA firewalls to Palo Alto next-gen Firewalls using migration tools.
* Transferred all IPSEC tunnels, ACLs, NAT rules, and policies seamlessly.
* Proficiently worked with Cisco ASR 9K, Nexus 7K, 9K, N9K-C937, and N2K-C2248 devices.
* Designed and configured OSPF, EIGRP, and BGP at Distribution and Core layers.
* Established OTV layer 2 connections between Data Centers on Nexus devices.
* Leveraged Juniper devices including M, MX, and T routers for advanced tech... like MPLS VPNs & TE.
* Developed and configured Rest APIs with JAX-RS Jersey Implementation.
* Expertly configured BGP and OSPF in Juniper M and MX series routers, optimizing routes through attributes like MED, AS-PATH, and Local Preference.
* Installed Virtual Appliances (Palo Alto VM) in Azure Cloud and assisted in migrating Checkpoint 41k firewalls.
* Designed and developed REST APIs, including Spring MVC-based Rest Services and Spring DI for core business layers.
* Established ExpressRoute and VPN connectivity to Microsoft Azure Cloud and deployed HUB and Spoke topology.
* Utilized Terraform Cloud platform for automating configuration tasks, including VNet, Subnet, and Network Security Group setups from on-premises.
* Configured Service endpoints on VNets for optimized route connectivity to Azure services.
* Managed IPAM (IP Address Management) systems for a large WAN/LAN network, employing tools such as SolarWinds IPAM and Infoblox DNS and DHCP servers.
* Proficiently handled DHCP scopes, IP reservations, DNS host entries, pointers, delegations, Zones, and DNSSec.
* Implemented the Positive Enforcement Model with Palo Alto Networks.
* Utilized Palo Alto Panorama management tool for centralized management of Palo Alto firewalls and network devices.
* Effectively resolved connectivity issues within the enterprise environment, including load balancing connectivity issues.
* Addressed incidents related to firewall and server connectivity issues.
* Implemented Cisco Meraki wireless solutions, including the deployment of wireless access points.
* Installed and managed Meraki Wireless and Firewall systems.

**Apple - Cupertino, CA May 2020 – August 2022**

**Sr. Network Engineer**

**Responsibilities:**

* Led the design, implementation, and maintenance of the network infrastructure, encompassing switches, routers, firewalls, Riverbed devices, load balancers, and wireless components.
* Managed infrastructure security, including the use of CISCO Prime and CISCO ISE.
* Implemented WAN optimization strategies using Riverbed technology to enhance the speed of access to critical applications and information within the enterprise.
* Conducted internal network vulnerability assessments and actively contributed to the operation of advanced IP network services.
* Troubleshot routing traffic issues and vigilantly monitored WAN circuits for performance optimization.
* Demonstrated extensive expertise in both Local and Wide Area network connectivity solutions, including MPLS, IPSEC VPN, SSLVPN, Point-to-Point connections, and SD-WAN.
* Established and maintained VPN connectivity to Microsoft Azure and Amazon AWS clouds, supporting various cloud-based servers, including MS Office 365, MS SSO, and web servers.
* Proficiently installed, configured, and troubleshooted a range of Cisco routers (ASR 1K, 2901, 2911, 4200x, 2800, 2600 Series), NEXUS switches (9K/7K/5K/2K), Cisco Catalyst Switches (3750, 3950, 6500 series), and Cisco UCS Storage devices.
* Utilized ServiceNow Ticketing system for the efficient handling of Incident tickets, Changes, and Service Requests.
* Employed ClearQuest Rational to process Firewall Requests.
* Designed and constructed a new Campus network environment, encompassing the installation, racking, and configuration of routers, switches, Riverbed devices, and firewalls.
* Implemented ISE authentication configurations on switch-ports for end-user authentication and authorization.
* Ensured adherence to change control systems and processes when applying configuration changes.
* Orchestrated the seamless migration of firewall access rules, NAT, PAT policies from legacy 5585 firewalls to Next-Generation and Checkpoint Firewalls, subsequently decommissioning the old infrastructure.
* Employed advanced network troubleshooting techniques to identify and isolate common network problems.
* Provided crucial support for data center network operations, ensuring the stability and performance of critical infrastructure.
* Gained valuable experience in addressing priority 1 issues through on-call responsibilities, ensuring network reliability and rapid issue resolution.

**CrowdStrike - Sunnyvale, CA Jan 2018 – April 2020**

**Network Engineer**

**Responsibilities:**

* Installed and configured network infrastructure, including routers, switches, and wireless access points, ensuring security measures such as TCP/IP, VPN, Content Filtering, and Access Control Lists were in place.
* Managed VLANs, routing IP addresses for both LAN/WAN, and wireless networks at the new headquarters.
* Set up a new RADIUS server to handle authentication for all IDF switches, enhancing network security.
* Configured failover and worked on SSL-VPN in active/standby failover mode on ASA (Adaptive Security Appliance).
* Successfully configured Palo-Alto 7050 and 3050 firewalls in vwire mode for advanced security.
* Deployed, implemented, and troubleshooted Aruba Mobility Controller for efficient wireless network management.
* Collaborated in a team that conducted a gap analysis during the merger of Entrust and Datacard groups.
* Assisted in replacing HP switches used by Entrust with Cisco switches to standardize the company's network infrastructure.
* Actively participated in establishing a DMVPN tunnel to facilitate traffic flow between Entrust and Datacard networks.
* Implemented VPN tunnels using IPsec encryption standards and configured site-to-site VPNs as well as Remote VPNs.
* Configured VLANs with 802.1q tagging, set up Trunk groups, LACP ether channels, and implemented Spanning Tree protocol to create a robust Access/distribution and core layer switching architecture.
* Performed the physical installation (racking and stacking) of various network devices, including Nexus 56128, 5548, 2248 FEX, 2232 FEX, Catalyst 2960-X switches, Cisco ASA 5585-X, 5545-X, 5512-X, and Palo-Alto 7050 and 3050 firewalls.
* Successfully installed and configured approximately 65 new Cisco 2960-X switches in IDF closets within the new headquarters.
* Actively participated in deploying wireless access, including separate WLANs for guest, corporate, and BYOD access.
* Replaced the older 6500 VSS architecture and WAN routers from the DR (Disaster Recovery) testing site with Nexus 5K switches and ASR 1004 routers, enhancing network performance and redundancy.
* Contributed to various technical aspects of LAN, WAN, VPN, and security Internet Service projects, including planning, implementation, project management, and ongoing operations support.

**Infinite Computer Solutions, India Sept 2015 – June 2017**

**Network Engineer**

**Responsibilities:**

* Expertly troubleshooted Cisco hardware, performing device inspections, interpreting device LEDs, addressing loose connections, conducting interior IOS upgrades, and configuring switch ports.
* Monitored port activities and implemented Flooding Control/Network port management.
* Designed and executed the redistribution of RIP and EIGRP routing protocols into OSPF, streamlining network routing and optimizing data flow.
* Defined and implemented route-maps and distribute lists, along with access-lists to resolve redistribution issues effectively.
* Implemented the company's internet and intranet security policies using Cisco IOS access lists and firewall technologies.
* Utilized security software such as Checkpoint's Firewall-1, Wingate, and IPChains to enforce security measures.
* Maintained the network's security and integrity, promptly addressing hardware and software issues within the setup.
* Created comprehensive documentation of network and telephony hardware and software configurations, including versioning and hardware specifications.
* Configured and managed an OpenVPN server to enable remote access to the laboratory environment, enhancing network accessibility.
* Implemented and maintained standard access-lists and extended access lists to ensure users' security levels were properly enforced.
* Provided technical support for complex WAN and LAN networks, troubleshooting issues to maintain network reliability and performance.
* Maintained and regularly updated network documentation and network diagrams using tools such as MS Visio, ensuring accurate and up-to-date network records.

**Orient Technologies Pvt. Ltd. – India May 2013 – August 2015**

**Network Support Engineer**

**Responsibilities:**

* Provided operational support, promptly addressing and troubleshooting issues reported by end users to ensure uninterrupted network services.
* Configured and installed Cisco routers and switches, ensuring proper network functionality and adherence to organizational requirements.
* Performed system administrative tasks, including user account management (installation and deletion), OS upgrades, server installations, and workstation maintenance.
* Successfully resolved redistribution issues by implementing access lists, distribute lists, and route-maps, optimizing routing protocols within the network.
* Designed and implemented various IP routing protocols, including RIP, EIGRP, and OSPF, on routers to enable efficient data routing.
* Proficiently troubleshooted routing protocols such as RIP, EIGRP, OSPF, and BGP to identify and resolve routing-related issues.
* Updated network diagrams and network documentation using MS Visio, ensuring accurate and up-to-date records of network configurations.
* Maintained network security by implementing Standard ACLs, Extended ACLs, and Named ACLs to control access and enhance network protection.
* Actively monitored network performance, detected network failures, and addressed connectivity issues using tools such as tcpdump, nmap, SolarWinds, and Wireshark.
* Demonstrated extensive proficiency in using the MS Office suite, including Word, PowerPoint, Excel, and Visio, for documentation and communication purposes.