Sumit Kumar Sinha

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Over 13 years of proven experience in installation, maintenance, monitoring, Operation, design and support of a range of networking technologies of a large-scale infrastructure including firewalls, LAN, WANand Wireless devices. Proven organizational and problem-solving capabilities, ability to work under high pressure and in demanding environments while delivering high quality results in short timeframes.

* Extensive work experience with Network Firewalls, Cisco Routers, Cisco Switches, Load Balancers and wireless.
* Experience in Palo Alto Firewalls and the Panorama Network Security Management Box.
* Worked extensively on Cisco ASA 5500(5510/5540) Series. Experience with Palo Alto 5K series. Migration from ASA to PA.
* Configuring Juniper Firewalls SRX-210
* Navigated through Algosec, Palo Alto, Checkpoint to find risky ports and unused firewall rules to help with firewall audit.
* Experience in Designing and assisting in deploying enterprise-wide Network Security and High Availability Solutions for ASA.
* Experience with SSL decryption, APP ID, Threat ID, URL filtering in PA firewalls.
* Responsible for Check Point (Secure Platform R80 and R81) and Cisco ASA firewall administration across global networks.
* Experience on Fortinet FortiGate Appliances including 3200D, 1500D, 1200D running Latest 5.2 FortiOS.
* Software upgrade of various Network Firewalls – Cisco ASA, Palo Alto, Checkpoint.
* Experience in upgrading IOS in the Data center switches and routers.
* Hardware refresh of various Network devices.
* Configuring the Cisco ISE and ForescoutNetwork Admission Control (NAC).
* Experienced on F5, A10 and Citrix load balancer
* Working experience on F5 LTM, GTM and APM.
* Hands on Experience testing iRules using Browser (IE), HTTP watch on F5 load balancers.
* Experience on WAN Optimization Technology, Riverbed.
* Configuring Cisco Wireless Controllers and AP’s.
* Worked on upgrading Aruba controllers and Access points in troubleshooting the onboarding devices with the networks.
* Involved in troubleshooting of DNS, DHCP and other IP conflict problems.
* Experience in IPAM techniques – Infoblox and BT Diamond Control.
* Managing certificates on different devices including Infoblox.
* Software upgrade on Infoblox devices.
* Experience with Cisco DNA solutions ISE, NGFW, Prime, ESA, WSA, VPN and CWS implementations.
* Experience with Spine Leaf Architecture, EVPN, VXLAN, VTEPS, VNI, BGP.
* Experience withArista Cloud Vision on a POC. Working on Spine leaf Architecture in Data center. Worked on EVPN, VXLAN, VTEPS, Bridge Domains
* Experience with Overlay and underlay technologies.
* Basic Knowledge on scripting in Python and Ansible.
* Experience in working with Cisco Nexus Switches and Virtual Port Channel configuration.
* Datacenter experience create new cable run list (L1), document runbook and Solution planning and upgrading, architect VXLAN, ACI.
* Experience working with Cisco Nexus 2148 Fabric Extender and Nexus 9K, 7010, 5000 series to provide a Flexible Access Solution for a Datacentre access architecture.
* Experience with configuring Nexus 2000 Fabric Extender (FEX) which acts as a remote line card (module) for the Nexus 5000.
* Taking care of the Data Center Equipment including Nexus Switches, servers thru remotely and in-person visits.
* Knowledge of IoT (Internet of Things) specially with Arbor vendor.
* Knowledge on Arbor IoT - Mobile/Cellular IoT Connectivity, Wi-Fi IoT Connectivity, Bootstrap IoT Connectivity for OEM and Bootstrap IoT Connectivity for OEM.
* Experience in configuring VPC, VDC and ISSU software upgrade in Nexus 7010.
* Implemented and maintained Sourcefire intrusion detection/ prevention (IDS/IPS) system and hardened protection standards, IDS/IPS signatures on Firewall for Fine-tuning of TCP and UDP services.
* Implemented traffic filters using standard and extended access-lists, distribute-lists and route maps.
* Implemented and troubleshooting skill of complex layer 2 technologies such as VLAN Trunks, VTP, Ether channel, STP, RSTP and MST.
* Implementation of HSRP, VRRP for Default Gateway Redundancy.
* Strong knowledge of TACACS+, RADIUS implementation in Access Control Network.
* Strong knowledge of Network OSI model and TCP model.
* Proficiency in HP Switches, Cisco Meraki, Aruba Network.
* Acquired knowledge in working with Meraki Wireless access points MR 16, MR 18, MR 32, MR 42, MR 72 etc.
* Knowledge on Bluecoat Proxy, Cloud Squid proxy.
* Worked on AWS Route 53.
* Experienced in cloud management systems and integrated with Azure for AD.
* Experience working on cloud-based infrastructure e.g Google Cloud Platform (GCP)
* Participated in troubleshooting SDN/SD-WAN deployments.
* Experience in VMware VeloCloud device configuration.
* Provide consultation regarding segmentation, security and policy of the SDN network.
* Experience with setting up MPLS Layer 3 VPN cloud in data centerand also working with BGP WAN towards customer.
* Experience with building Ultra Low Latency Data Center Design End-to-end design approach.
* Configuring Cisco WAAS.
* Excellent customer management/resolution, problem solving, debugging skills and capable of quick learning, effectively analyze results, and implement and delivering solutions as an individual and as part of a team.
* Good understanding of SNMP, IP SLA and Network Monitoring with experience in tools like PRTG.

**Area of Expertise – Technical Skills**

* **Network Analyst** – Wireshark
* **LAN/WAN** –
* Firewall – Cisco ASA,Checkpoint, Palo Alto, F5 WAF
* Routers - Cisco(ISR 2900, 1900, ASR), HP (Aruba)
* Protocols – EIGRP, OSPF, BGP, MP-BGP, PIM, IGMP, HSRP, WCCP, GRE, PBR, OTV, Static Routing
* Services – DNS, NTP, DHCP, WSUS, AD, AAA Authentication, RADIUS, TACACS+ Authentication
* **Security** – VPN (Cisco AnyConnect, Site-to-Site), MPLS VPN, GRE, Web Proxy(Bluecoat, Squid proxy), ACL, L2TP/IPSec)
* **Load Balancing** – F5, A10, Citrix
* **Remote Gateways** – Global Protect, VDI (Citrix)
* **Wi-Fi** – 802.11a/b/g/n, Wi-Fi
* **Scripting** – Ansible
* **Monitoring Tools** – Splunk, Cisco DCNM
* **Network Operation Tools**-ServiceNow(SNOW), CMDB+, SolarWinds, Infoblox NetMRI, Statseeker, ThosandEyes
* **Network Analytical Tools-** Titration
* **Virtualization** – VMWare, vSphere, Hypervisor
* **Security Software** – Kali Linux,Nmap, John the Ripper,Wpscan,Aircrack-ng
* **Operating Systems** – Windows (Workstation and Servers), Linux, Unix, Cisco iOS
* **Office** – AutoCAD, Microsoft Visio, Office suite
* **Cloud** – Microsoft Azure, AWS (Route 53), GCP

**Certifications**

* **Palo Alto Networks Certified Network Security Engineer(PCNSE)**
* **Checkpoint Certified Security Administrator (CCSA)**
* **Microsoft Certified: Azure Fundamentals(AZ 900)**
* **Cisco Certified Network Associate (CCNA)**
* **Cisco Certified Network Professional – Routing and Switching (CCNP)**
* **F5 Load Balancer Training (F5-CA)**
* **Microsoft MCP – Windows XP, 2009**
* **Microsoft MCP – SQL, 2007**

**Education**

* Bachelor of Technology fromWest Bengal University of Technology, India, 2009

**Professional Background**

**Senior Network Engineer**

ITMC Systems IncAug 2022 – Till Date

**End client: - Master Card**

**Responsibilities:**

* Working on various requests for any Access policy, NAT rule, Routing policy change on firewalls.
* End-to-end manage Checkpoint- R80.30, R80.40, Palo alto, Cisco firewall including Cisco FIPS compliant firewalls.
* Performing migration of firewall from Cisco to Checkpoint or to Palo alto.
* Perform the audit of access policy rules on firewall with IT Security team.
* Configure & manage 100 + existing B2B VPN tunnels with 3rd party business via Cisco ASA and Cisco FIPS compliant firewalls (Firepower).
* Creating, Manage and Troubleshoot site-to-site IPsec tunnels between Cisco FIPS compliant firewalls.
* Upgrade the system software of different firewalls including Cisco ASA, Firepower, Palo alto.
* Management of F5 Load Balancer like, creating new pools, virtual servers using different load balancing algorithm and updating virtual Ip SSL certificates.
* Managing Cisco ISEand ForeScout NAC environment.
* Discovering Checkpoint FW through NetBrain for management purpose.
* Comprehensive network and security management at the Core, Distribution and Access Layers; involving strategic consulting, architecting, designing solutions, and implementing it for the enterprise infrastructure.
* Taking care of the Data Center Equipment including Nexus Switches, servers thru remotely and in-person visits if needed.

**Network Consultant**

HCL Technologies Ltd, IndiaSep 2017 – Aug 2022

**End Client: - UNUM, Franklin Templeton**

**Responsibilities:**

* Responsible for all network support services related to configuration, installation, implementation.
* Maintaining end-to-end customer Network.
* Subject matter expert in multivendor Datacenter and Remote network environment.
* First escalation contact point during any escalation for clientas well as for the internal team members.
* Preparing and Maintaining MOP and SOP for network related activities.
* Supporting Major Incident calls.
* Providing on call support to the customer during non-business hours and Team members when required.
* Time to time attend meeting with clients to discuss about upcoming projects for planning, designing and implementation.
* Establish working relationship with client's lines of business and other key stakeholders to define requirements.
* Representation of all changes to the Change Advisory Board (CAB) and getting approval.
* Upgrade assistance and importing configuration to higher software version on network and security devices.
* Track and report various work streams services during and post implementation of any change.
* Provide and arrange time to time training in multiple firewall technologies within and outside of the organization.
* Worked on multiple migration projects like replacing End of Life (EOL) devices.
* Supporting Major Incident calls.
* Attending internal service review & Service improvement calls with management
* Provide guidance and leadership to the work of others in the team and serve as a technical knowledge source within the organization.
* Initiating war-room session with team members to discuss challenges facing in day-to-day activities.
* Providing knowledge transfer (KT) and training (Technical/Process) to new joiners.
* Managing entire network infrastructure LAN/WAN, spread across 40+ Locations, consisting of 5000+ Network devices (Wired as well as Wireless).
* Managing 500+ Cisco Routers via SolarWinds implementing new Access list, upgrading their IOS, troubleshooting where necessary and managing them via Solar Winds.
* Managing all Checkpoint and Palo Alto Firewalls.
* Handling the hardware refresh for the Cisco ASA devices to Palo Alto, adding them in Panorama for management purpose.
* Managing 500 + switches all over the region(Cisco, HP, and Nortel).
* Managing Data Centre network infrastructure including Nexus Fabric Switches, Nexus 9000, 7000, 5000 and 2000 Series, Catalyst Chassis 6500 and 3750 Series Switches.
* Managing and Supporting VDC and VPC in Nexus environment.
* Used 9500 as spine and 9300 as Leaf Switches.
* Worked in different modes of operations in nexus 9000 series switches and Nexus switches.
* Worked on different architectures of Nexus and ACI - CLOS architecture and Spine-Leaf Architecture.
* Worked APIC controller in ACI.
* Worked on the Layer 2 and Layer 3 fabric ACI.
* Deployed Spine, Leaf and Fex of Cisco ACI.
* Worked on a central location to administer and enforce policies and to ACI enable network teams to streamline management and operations across the network.
* Managing Tenant, Application and health monitoring of fabric and ACI devices.
* Troubleshooting the issues in ACI fabric.
* Integrates with third-party administration, virtualization, and Layer 4–7 services on ACI.
* Worked on scalable security offered for multitenant environments for ACI.
* Worked on Cisco APIC ACI that includes totally open APIs that allow users to deploy, operate, monitor, or debug the system via Representational State Transfer (REST)-based calls (using XML or JavaScript Object Notation [JSON]).
* Manage and Supporting Checkpoint R80.2 and 80.3, Cisco ASA corporate firewalls including creating rules, Access-list, Clustering, Intrusion prevention, backup of logs and config etc.
* Designed as well as implemented Layer 2/3 switching including *HSRP, inter VLAN routing, ACL, VTP, ARP snooping, VLAN segmentation, Spanning tree.*
* Managing Cisco network infrastructure routers (*2801, 3845*) and L3 services (*Layer 3 routing, QoS, OSPF, BGP*)
* Develop and maintain tools to enhance network visibility and automation for on-premise and cloud (GCP) Aid in migrating production workloads from on-premise to the cloud (GCP).
* Configure & manage 100 + existing B2B VPN tunnels with 3rd party business via Cisco ASA
* Management of firewall using tools like Algosec.
* Management of F5, A10 and Radware (Load Balancer) using tools like Apsolute Vision.
* Configured F5 WAF firewall between external users and web applications to analyze all HTTP communication.
* Managing Cisco LMS and ACS environment.
* Supported hardware refresh activity from Cisco WAN edge router to VmwareVelocloud edge.
* Install and Upgrade SD-WAN Orchestrator.
* Configure SD-WAN Orchestrator Disaster Recovery.
* Enterprise Deployment & Operations of SD-WAN.
* Manage Edge Licensing and Manage User Agreements of SD-WAN.
* Configure Non SD-WAN Destinations
* Configure SD-WAN Overlay Flow Control.
* Configure SD-WAN Branch and Hub for 40+ sites.
* Configure Routing protocols- BGP, OSPF on SD-WAN branch and Hub devices.
* Configure secure Cloud VPN between SD-WAN and Palo alto Prisma.
* Run diagnostics on Edge SD-WAN devices.
* Comprehensive network and security management at the Core, Distribution and Access Layers; involving strategic consulting, architecting, designing solutions, and implementing it for the enterprise infrastructure.
* Provide timely advice and support to customers, tracking progress of request via Incident Management tools like HPSM, Solar Winds and NNM.
* Providing 3rd level technical support for internal and external customers, extensive exposure to troubleshooting, fault management and fault-finding techniques.
* Peer review and engineering detailed design and implementation activities for the Global Network, across the US, Canada, Asia Pacefic, and UK.
* Involved in many Integration/Interconnect projects for Toll Business Units and responsible for delivering network connectivity for business related external connectivity (IPSEC VPN's) and other network, system, storage, and application-based project activities.
* DMZ Management (*Security, NAT, Isolation, Firewall policies, Access restrictions*)
* Liaise with ISP for WAN services (SingTel, Orange, AT&T, Optus)
* Supporting customer applications, Windows server, Mail server, server backups, DNS, DHCP scopes, worked on Infoblox, BT diamond control.
* Building quality relationships with customers with effective use of ICT systems
* Design and implementation of major network upgrades according to the change management procedures which does international WAN links, backbone and distribution switches, core, and edge switch.
* Configure, Support and Upgrade of Aruba controller, Aruba access point
* Configure the LMS IP address to Aruba Access point to the new local Aruba controller.
* Work on the issue related to security key, preshared key (PSK) that is used to authenticate communications between Aruba controllers.
* Troubleshoot with the Controller and do the RMA.
* Worked on Arista Cognitive WiFi and Aruba Wireless Network.
* Manage Access point discover in Aruba Wireless controller.
* Upgrading Aruba Wireless Controllers and Access Points.
* Designed and Supported Arista Wireless Network for Large Enterprise and Campus Deployments.
* Worked on Arista WLAN architecture- controller-based, controller-less and cloud.
* Configure Arista WiFi access points (APs) to support VXLAN to allow tunneling of data from WiFi APs to a central aggregation point, i.e., an Arista switch.
* Migrate existing controller-based WiFi networks to Arista’s controller-less cloud architecture without having to change the design of their underlying campus network.
* Worked on Azure Virtual to connect virtual machines to incoming VPN connections Network.
* Experienced in Azure Load BalancerBalance for inbound and outbound connections and requests to applications.
* Built Native firewall capabilities with built-in high availability and zero maintenance in Azure Firewall.
* Manage network security policy and routing centrally using Azure Firewall Manager.
* Provided Private access to services hosted on the Azure platform and configure Azure Private Link.
* Route optimization and traffic performance check using Azure Traffic Manager.
* Monitor and diagnose network issues using Network Watcher.
* Azure Network Function Manager configuration for SD-WAN Network function.
* Worked on Azure ExpressRoute for adding private network connectivity from your corporate network to cloud.
* Configure Azure Virtual WAN for Connect business offices, retail locations, and sites securely with a unified portal.
* Configure Azure VPN Gateway to Securely use the internet to access Azure Virtual Networks.
* Routing Preference configuration in Azure.
* Managing Cisco device upgrade thru automation DevOps tool, Jenkins and Cisco DNA centre.
* Supported hardware refresh activity from Cisco WAN edge router to VmwareVelocloud edge.
* **Network infrastructure management** – for Global Centre/Managed Services customers (*Cisco switches/routers, HP Switches, Nortel switches, F5 load balancers, WAN Acceleration devices*)
* **Network Security infrastructure management** – for Global Centre/Managed Services customers (*Checkpoint, ASA*)
* Escalation contacts for network security related requests (*including palo alto, Checkpoint, F5, ASA, Firepower- FIPS*)

**Senior Network Specialist**

Orange Business Services, IndiaApril 2014 – Oct 2017

**End client: - St Micro**

Responsibilities

* Managing network change and release activity.
* Managing customer IP Addressing, Routing Protocol, Network Designing, Infrastructure and Network Services such as IP-VPN, MPLS, MLFR, Frame Relay, Metro Ethernet, Direct Access, Indirect Access & DSL.
* Perform network equipment’s (Routers & Switch etc.) configurations (PE, CE etc.), activation and acceptance testing. The operational changes includes implementing protocols (MPLS, BGP, OSPF, EIGRP).
* Decommission old IPsec tunnel and setup new IPsec tunnel with ikev2 and dynamic VTI
* Performing Bandwidth upgrade of customer circuit by migrating them to one POP to another POP.
* Managing VPN Solutions and providing technical consultation to customers for the change to be implemented on their side.
* Upgrade old plane routing architecture to MPLS based architecture for internet customers.
* Prepare and activate layer 3 configuration to upgrade Orange internet access network (GIBN) from Old Cisco 75XX platform to multiservice 76XX platform Assigning Service Calls and engaging with appropriate teams as required to resolve the issue at-hand.
* Involved in traffic engineering for different customer.
* Performed constraint-based routing inside MPLS Traffic engineering.
* Involved in traffic shaping and Policing.

**Network Engineer**

HCL Infosystems Limited. IndiaMay 2010 –April 2014

End Client: - **Air India**, Delhi Metro Railway Corporation, India Railway

Responsibilities

* Resolving all IT related Level 1 and some Level 2 enquiries on a day-to-day basis
* Managing servers,including granting user access to the servers
* Solving Network related issues
* Dealing with incident and resolving incidents.
* Configuring VLAN on network Switches.
* Assigning Service Calls and engaging with appropriate teams as required to resolve the issue at-hand.
* Coordination with ISP.
* Perform LAN and WAN monitoring using Cisco Network Monitoring tool.
* Escalating next level support for any urgent issue in Network.

**Communication**

* Experienced in problem solving skills.
* Demonstrated negotiation, influencing and trouble-shooting skills to work with diverse working groups.
* Scholarship: Free study & Accommodation for 7 Years.
* Elite-A Card Holder of College.