Swaroop Ravinder

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**Professional Summary**

* **8+ years** of experience in Networking, including hands-on experience in providing network support, installation and analysis for a broad range of **LAN /WAN/MAN** communication systems.
* Proficient in Cisco IOS for configuration & troubleshooting of routing protocols: **MP-BGP, OSPF, EIGRP, RIP, BGP v4, MPLS.**
* Strong knowledge on Wireless Standards and Technologies, i.e. Ethernet, WAN, LAN, **IEEE 802.11a, b, g, n** (Wi-Fi). **Cisco Wireless Management system, Cisco Meraki Products, PCI standards.** Very good knowledge on **IEEE 802.15.1** (Bluetooth), Mesh networks, etc.
* Moderate knowledge in configuring and troubleshooting Cisco Wireless networks; **LWAPP, WLC, WCS**, stand-alone apps, roaming, wireless security basis, **IEEE 802.11a/b/g**, RF spectrum characteristics.
* Experience working on Cisco **ASR 9001**&**ASR 1006**.
* F5 BIG-IP application load balancing subject matter expert with particular concentration on layer 7 load balancing using I-Rule scripting in TCL.
* Hands on experience on **windows server 2007, 2008, 2012**.
* Experience in Designing and assisting in deploying enterprise wide Network Security and High Availability Solutions for ASA.
* Experience on dealing with **VoIP information deployment** including troubleshooting protocols like Session Initiation Protocol (SIP), Real-Time Transport Protocol (RTP), Media Gateway Routing Protocol (MGRP) and Session Description Protocol (SDP)
* Installation of **IP Voice System PBX** and **Voice gateway Cisco SPA 8000**
* Involved in troubleshooting of DNS, DHCP and other IP conflict problems.
* Knowledge of implementing and troubleshooting complex layer 2 technologies such as VLAN Trunks, VTP, Ether channel, STP, RSTP and MST. Implementation of HSRP, VRRP for Default Gateway Redundancy.
* Experience on dealing with **Aruba Wireless products** including Access Points, Mobility Access Switches and Outdoor mesh routers
* Hands on experience on dealing with **Microsoft Azure cloud computing** including implementing **access lists in the Network Security Group.**
* Responsible for Check Point and Cisco ASA firewall administration across global networks.
* Experience in working with Cisco Nexus Switches and Virtual Port Channel configuration.
* Worked on **F5 LTM, GTM series like 6400, 6800, 8800** for the corporate applications and their availability.
* Experience working with **Nexus 7K, 5K, 2K** devices.
* Experience in testing Cisco routers and switches in laboratory and deploy them on site production.
* In-depth knowledge and hands-on experience in Tier II ISP Routing Policies, Network Architecture, IP Subnetting, VLSM, TCP/IP, NAT, DHCP, DNS, FT1 / T1 / FT3 / T3 SONET POS OCX / GigE circuits, Firewalls.
* Strong knowledge of **TACACS+, RADIUS** implementation in Access Control Network.
* Worked extensively in Configuring, Monitoring and Troubleshooting **Cisco's ASA 5500/PIX security appliance**, Failover DMZ zoning & configuring VLANs/routing/NAT with the firewalls as per the design.
* Hands on experience in configuring and supporting site-to-site and remote access Cisco, IPsec, VPN solutions using ASA/PIX firewalls, Cisco and VPN client.
* Excellent customer management/resolution, problem solving, debugging skills and capable of quickly learning, effectively analyzes results and implement and delivering solutions as an individual and as part of a team.
* Experience in designing MPLS VPN and QoS for architecture using Cisco multi-layer switches.
* Hands on experience in configuring Cisco Catalyst **2960, 3750, 4500, 6500 and Nexus 3000, 5000, 6000, 7000** series switches and Cisco **2600, 2800, 3600, 3800, 7200, 7600** series routers,**Load Balancers**& Cisco Firewalls.
* Configuring BGP/OSPF routing policies and designs, worked on implementation strategies for the expansion of the MPLS VPN networks.
* Experience on dealing with **Silver Peak** WAN optimization
* Expertise in **creating groups and pruning traffic flow using VLAN, VTP, ISL, 802.1Q.**
* Excellent in documentation and updating client’s network documentation using **VISIO.**
* Performed switching technology administration includingVlans,inter-Vlan routing, trucking, port aggregation and link negotiation.

**Certifications:**

* Cisco Certified Network Associate (CCNA)
* Cisco Certified Network Professional (CCNP)

**Core Competencies**

**Network Configuration**: Advanced switch/router configuration (Cisco IOS access list, Route redistribution/propagation).

**Routing Protocols**: IGRP, EIGRP, OSPF, BGPv4, MP-BGP, IS-IS, RIP

**WAN Protocols**: HDLC, PPP, MLPPP

**Circuit switched WAN**: T1/E1 – T3/E3/OCX (Channelized, Fractional & full).

**Packet Switched WAN**: ATM, FRAME RELAY, MPLS VPNs

**Security Technologies:** Cisco FWSM/PIX/ASDM, Juniper SRX, Palo Alto,

Checkpoint, F5 Load Balancer, ASA firewall

**Cisco Routers:** Cisco GSR 12416, 12418, Cisco 7200vxr, Cisco 3640, Cisco 3600

**Security Firewalls** Checkpoint, Palo Alto, Citrix NetScaler App, Fortinet 6TD,FortiGate 3000, 5000,

3815, 900, 800, 600 series, Imperva, Bluecoat

**Redundancy and management**: HSRP, VRRP, GLBP, RPR, NSF/NSR, Wireshark, Solarwinds, SNMP.

**Physical interfaces**: Fast Ethernet, Gigabit Ethernet, Serial, HSSI, Sonet (POS)

**Layer 2 technology**: VLAN, HSRP, VRRP,GLBP,STP, RSTP, PVST+, MST, PVLAN, Optimizing STP (Port Fast, Uplink Fast, Backbone Fast, Root Guard, BPDU Guard)

**Layer 3 Switching**: CEF, MLS, Ether channel (PAGP & LACP, Load Balancing)

**Switches**: Cisco Catalyst 6500, MSFC, MSFC2, 7600, 3700, 3500, Arista 7500, 7050,7300 series ,Cisco2948/3560/4500/3560/3750/3550/3500/2960

**Operating Systems**: Microsoft XP/Vista/7, UNIX, Linux (Red hat, Opens use, Fedora), Windows Servers 2003/2008Windows MS-Office, VMware ESX 5.1, VMware Vsphere client, Microsoft Azure, office 365, Python

**Professional Experience**

**Kaiser Permanente, Gaithersburg, MD August 2014 – Present**

**Sr. Network Engineer**

**Key Responsibilities:**

* Working with Network Design and implementation teams on various projects across North America and South America.
* Experience with manipulating various BGP attributes such as Local Preference, MED, Extended Communities, Route-Reflector clusters, Route-maps and route policy implementation.
* Experience with design and implementation of Data center migration.
* Involved in migration of network from cisco catalyst switches/ASA firewalls to Palo Alto.
* Install, upgrade and configure Next-Gen Palo Alto Firewall series PA-200,PA-500
* Implemented and configured **Fortinet Firewall FortiGate 600, 800 series.**
* Configuration of **Silver Peak WAN optimization** software
* Perform multiple debugs on the routers and able to analyze them to determine the problems with the VOIP configurations.
* Brief knowledge on implementing **Rapid 7** vulnerability management **Nexpose**software management suite
* Experience on dealing with Cisco Application Centric Infrastructure (ACI) by integration hardware and software products as per network layout
* Experience on dealing with **office 365** including hosting Lync web Conferencing and assisting in installing office applications.
* Configured and troubleshooting River bed WAN optimization software to improve the network acceleration at the user end.
* Experience on coordinating and monitoring entire organizations Authentication, Authorization and Accounting (AAA) systems
* Installed Riverbed WAN optimizer software to run applications via WAN’s to multiple branches across east coast.
* Assisted campus for VOIP network management and troubleshoot.
* Installed and configured Cisco IP Phone 7941, 7965, 7937's.
* Integrated a multisided IP Telephony Network with Cisco Unified Communications Manager (CUCM 10.5.2, 9.1.2), and Unity Connections (CUC 10.5, 9.1.)
* Strong experience in designing, implementing and supporting Cisco VOIP technologies.
* Configuration of Cisco ILS, Directory, SIP URI and service profile
* **Fortinet Firewall** administration configuration of FortiGate 3000, 3815 series as per network diagram
* Deploying and decommission of VLANs on core **ASR 9K, Nexus 7K, 5K** and its downstream devices.
* Performed OSPF, BGP, DHCP Profile, HSRP, IPV6, Bundle Ethernet implementation on ASR 9K redundant pair.
* Assisted in MPLS migrations, implemented a backup for the existing WAN connection using site-to-site IP sec VPN tunnels.
* Implementation of Juniper Firewall, SSG Series, NetScreen Series ISG 1000, SRX Series.
* Worked on Juniper NetScreen Firewalls like, NS50, SSG 550M, SSG520M, ISG 1000, and ISG 200.
* Extensive knowledge of firewall Checkpoint, McAfee, Juniper Net Screen on SRX 550, 650 Series and IPS/WAF(Tipping Point, Imperva, and Citrix NetScaler) Technologies.
* Implemented SNMP on Cisco and Juniper devices and managed the nodes using SolarWinds, Entuity, and JunosSpace.
* Extensive experience in Installation, Configuration and Administration of FIREWALLS i.e. CISCO, Cisco ASA 5510, 5520, 5540, 5550, 5580, Juniper SRX, JUNOS ,Fortinet, Checkpoint Firewall.
* Installation and troubleshooting **IP Voice System PBX (Private Branch Exchange).** Deployed voice gateway **Cisco SPA8000 per LAN network**
* Experience on **cisco wireless management systems** which includes **cisco 8540 Wireless controller, cisco 5520 Wireless LAN controller, and virtual wireless controllers.**
* Configured and troubleshooting Aruba Wireless products like Access Points and Mobility Access Switches.
* Hands on experience on Cisco ISE and various network security concepts like SSH, IPsec, firewall polices and 802.1x
* Configured Cisco ISE secure Network Server 3595 which supports 20,000 endpoints in an ISE deployment
* Experienced and configured firewall administration including **Bluecoat, F5, Checkpoint, Citrix NetScaler App and Fortinet.**
* Hands-on experience on Citrix  Provisioning Services,XenApp, App-V, Metaframe PS, XenDesktop and VMware ESX/ESXi.
* Experience in Installation, Configuration Maintenance and Troubleshooting of Citrix  Presentation Server on Windows Server and expert in Citrix Load Balancing.
* Joined Go To Assist to manage 2 web application teams – Service Desk and Monitoring. Service Desk is ticketing application acquired by Citrix Systems and Monitoring is device management application acquired by Citrix.
* Brief knowledge on real time monitoring of cloud computing by installing Nimsoft Monitoring tool.
* Worked on CA Nimsoft tool to monitor and control desired environments of the organization.
* Worked on python scripting language.
* Experience with Design, Develop, Debug Operations, Reporting, and Web applications utilizing Python.
* Written some coding for automation purpose and correcting the commands on router, by using Pycharm.
* Developed and implemented Python scripts to automate retrieval, parsing and reporting of configuration parameters from Network Devices connected to customer networks.
* Automated different workflows, which are initiated manually with Python scripts and Unix shell scripting.
* Work with ONOS to break free from the operational complexities of proprietary interfaces and protocols.
* Implemented a framework for testing ONOS scale-out effect which was based on topology discovery throughput and latency for Southbound and Intent latency and throughput for northbound traffic.
* Involved in extensive testing and Worked as a part of the QA Team, which of ONOS (Open Network Operating System) Controller, this is a distributed SDN Controller.
* Worked on maintaining carrier grade features to SDN control plane with ONOS Distributed Core, thus providing scalability, high availability and sharp performance
* Convert Branch WAN links from TDM circuits to MPLS and to convert encryption from **IPSec/GRE to GetVPN**.
* Configuring HSRP between VLANs, Configuring Ether-Channels, Port Channel on 6500 catalyst
* Build Logical design and Implementation of Wireless Solution.
* Configured **CIDR IP RIP, PPP, BGP, MPLS and OSPF** routing.
* Worked on **F5 LTM, GTM series like 6400, 6800, 8800** for the corporate applications and their availability
* Knowledge on dealing with Cisco SAFE through Cisco Security Control Framework (SCF). Considering this technology, adapted various security features for smooth flow of traffic and prevent any risk occurring instances.
* Involved in setting up NetScaler MPX andNetScaler SDX hardware based appliances.
* Configured and involved in Citrix NetScaler responder policy configuration and Citrix NetScaler Access gateway configurations.
* Configured and troubleshooting Cisco unified UC560 manager VoIP systems
* Work on F5 LTM, GTM series like 6400, 6800, 8800 for the corporate applications and their availability
* Secure configurations of load balancing in F5, SSL/VPN connections, Troubleshooting CISCO ASA firewalls, and related network security measures.
* Worked on dealing with Cisco Collaboration system 10.x Solution Reference Network Design (SRND) considering the network layout.
* Configuring and Troubleshooting the Juniper SRX100 and 110 series, Juniper Net Screen routers.
* Deploying and decommissioning **Cisco switches**, **Cisco Meraki Products** and their respective software upgrades.
* Administration of Telecom and networks switches, access points through telnet, ssh and rukus wireless.
* Configured customer WiFi and Rukus Hotspot 2.0/Passpoint.
* Installation of enterprise Wi-Fi systems- Access points, Cat 5 cable terminations- and quality testing.   
  Laying of cables, crimping, terminating and linking with switches and routers.
* Involved in Business Services over DOCSIS (BSOD) testing certifying: CASA 10G CMTS, 100G CMTS, CISCO 10K CMTS along with Spirent Test Center validations involving RFC2544 and 802.1q (Double-Tag) features.
* Monitored system's HFC plant for any hardware related issues within the Comcast RAN such as CMTS devices, Cisco and Juniper devices, and implemented scheduled maintenances as needed for IOS upgrades or patches
* Deployed, maintain and monitor enterprise Wi-Fi (Staff Wi-Fi and guest Wi-Fi).
* Experienced in planning and development of designs for Migrating to **AWS** cloud.
* Experienced in designing and developing automation and other IT Process Automation capabilities with the AWS platform.
* Hands on experience in migrating Business from a on-premise infrastructure environment to AWS.
* Configured, supported and maintained all network, firewall, storage, load balancers, operating systems, and software in AWS.
* Test, verify, and check that QRadar SIEM appliances, Flow Processor, Event Processor, QFlow Collector, VFlow Collector, Data Nodes, and network objects.
* Started as a Security Systems Engineer and was promoted to the Security SIEM Systems Engineer to take over as the lead SIEM Engineer.
* Architected and designed mobile voice application based on Blackberry MVS integrated with CUCM.
* Responsible for engineering and testing the integration of MS Lync with CUCM.
* Performing the ACL requests change for various clients by collecting source and destination information from them.
* Worked extensively on **Cisco ASA 5500(5510/5540)**Series,**Nexus 7000 Series** experience in converting PIX rules over to the Cisco ASA solution.
* Supporting EIGRP and BGP based on the network by resolving level 2 & 3 problems of internal teams & external customers of all locations
* Extensively used **Infoblox** for IP address management. Created and added IPv4 Network, Reserved IP addresses for various devices, Defined DHCP Scope as per the requirements, Created DHCP scopeoptions for setting up Voice VLANs and PXE Clients etc.
* Involved in Configuration of Access lists (ACL) on ASA firewall for the proper network routing for the B2Bnetwork connectivity.
* To secure configurations of **load balancing in F5, SSL/VPN connections, Troubleshooting CISCO ASA firewalls, and related network security measures.**
* Provided proactive threat defense with ASA that stops attacks before they spread through the network.
* Designed and implemented DMZ for Web servers, Mail servers & FTP Servers using Cisco ASA5500 Firewalls.
* Created **Visio Dean / Visio Documentation** to give complete picture of network design for each building.
* Experience in Configuring, upgrading and verifying the NX-OS operation system.

**Environment:** Cisco2948/3560/4500/3560/3750/3550/3500/2960 6500 , Arista 7 K seriesswitches and Cisco 3640/12000 7200/3845/3600/2800 routers,Fortinet Firewall, **Nexus** 7K/5K, Cisco ASA 500, Checkpoint, windows server 2003/2008: F5 BIGIP LTM, RIP,OSPF,BGP,EIGRP,LAN,WAN,VPN,HSRP, F5 Load Balancers, Checkpoint

**CareFirst BCBS, Owing Mills, MD September 2011 – June 2014**

**Sr. Network Engineer**

**Key Responsibilities:**

* Involved in the configuration & troubleshooting of routing protocols: MP-BGP, OSPF, LDP, EIGRP, RIP, BGP v4. Configured IP access filter policies.
* F5 Big-IP load balancer configuration, layer 7 load balancing using [I-Rules (TCL)](http://devcentral.f5.com/Default.aspx?tabid=75)
* Windows Server Administration **(Windows 2000, 2003 & 2008)**.
* Performed installation and upgrades of **office 365** Business as per the changes recommended by the network architect.
* Performed Cisco ASA/Checkpoint Firewall troubleshooting and policy change requests for new IP segments that either come on line or that may have been altered during various planned network changes on the network.
* Configuring and deployed Netscaler VPX and Netscaler CPX hardware apliances
* ToubleshootingCitrixNetScaler content switching configurations.
* Conducted F5 Big-IP load balancer configuration, layer 7 load balancing using [I-Rules (TCL)](http://devcentral.f5.com/Default.aspx?tabid=75)
* Responsible for Checkpoint and Cisco ASA firewall administration across global networks..
* Extensive experience with F5 load balancers- LTM, GTM series like 6400, 6800, 5000 and 2000 for the corporate applications and their availability
* Experience on dealing with Cisco ISE Secure Network Server 3515 and other network security products.
* Troubleshooting the Juniper SRX100 and **a hundred and ten** series, Juniper NetScreen routers with Site-Site VPN, and firewalls for Supervalu Retail sites.
* Experience on configuring Cisco Call manager. This Cisco Call Manager uses Cisco's proprietary SCCP (also known as Skinny) protocol. The Call Manager works as part of Cisco's solution to provide IP Telephony with many of the functions of a PBX system for an enterprise.
* Identify, design and implement flexible, responsive, and secure technology services
* Experience with Firewall Administration, Rule Analysis, Rule Modification.
* Configured **FortiGate 5000 series firewall** through **FortiOS** operating System which delivers upto 1 Tbps throughput
* Implemented Positive Enforcement Model with the help of Palo Alto Networks.
* Innovated with support of Palo Alto for remote and mobile users and for analyzing files for malware in a separate (cloud-based) process that does not impact stream processing.
* Creating and provisioning Juniper SRX firewall policies.
* Created standard access lists to allow **SNMP, NTP** and logging servers.
* Documented new VPN enrollments in a database and create standard procedures for further improvement.
* Configure **VRRP & GLBP and VLAN Trunking 802.1Q & ISL, STP, Port Security on Catalyst 6500 switches.**
* Negotiate VPN tunnels using IPSec encryption standards and also configured and implemented site-to-site VPN, Remote VPN.
* Provided proactive threat defense with ASA that stops attacks before they spread through the network.
* Cisco ASA/Checkpoint Firewall troubleshooting and policy change requests for new IP segments that either come on line or that may have been altered during various planned network changes on the network.
* Modified internal infrastructure by adding switches to support server farms and added servers to existing DMZ environments to support new and existing application platforms.
* Responsible for **Checkpoint and Cisco ASA firewall administration** across global networks.
* Generating RCA (Root Cause Analysis) for critical issues of layer1/layer2/layer3 problems.
* Co-ordinated with the Data Network and Security team and came up with possible solutions.
* Experience on dealing with Infoblox traffic control products to simplify DNS load balancing operations
* Cisco ASA/Checkpoint Firewall troubleshooting and policy change requests for new IP segments that either come on line or that may have been altered during various planned network changes on the network.
* Configuration and troubleshooting of **Cisco catalyst 6509, 7613** with supervisor cards.
* Experience with implementing and maintaining network monitoring systems (Cisco works and HP Open view) and experience with developing complex network design documentation and presentations using VISIO
* Monitoring and troubleshooting **network issues between client site and 85 remote sites with legacyswitches and routers.**
* Performed and presented network analysis as a part of network migration. Involved in knowledge transfer to vendors and provided them network support as required
* Configuration and maintenance of **EIGRP and BGP** network on router 7200 and 6500 MLS.
* Configuration and maintenance of 3750 stack and **6500 VSS** for improved efficiency of the data plane.
* Configuration and management of **NEXUS** network in the existing network infrastructure.
* **Created LAB setup with 7k and 5K NEXUS switches and Arista 7K for application testing.**

**Environment:** Cisco 3750/3550/3500/2960 switches and Cisco 3640/12000 /7200/3845/3600/2800 routers, Cisco ASA5510, Fortinet Firewall FortiGate 5000 series, **Nexus**7K/5K,2248**/3560/5020/6509**,ASA,Checkpoint,LAN,OSPF,BGP,RIP,EIGRP Checkpoint, Palo Alto

**Nokia, india October 2008 – June 2011**

**Jr. Network Engineer**

**Responsibilities:**

* Proficient in **OSPF**, **EIGRP**, MP-BGP.
* Providing technical assistance and support to Cisco customers on **7200, 3925, 3800** routers.
* Implemented VTP and Trunking protocols (802.1q and ISL) on 3560, 3750 and 4500 series Cisco Catalyst switches
* Worked on Cisco Layer 2 switches (**spanning tree**, **VLAN**, **QoS**).
* WAN Infrastructure running OSPF & BGP as core routing protocol.
* Experience through Hand-on Experience with configuring T1.5, Gigabit Ethernet, Channelized T3 and full T3, ATM, Frame-Relay.
* Experience in configuring **CSU/DSU** devices and also helped troubleshooting various **CSU/DSU** devices
* Tested authentication in **OSPF** and **BGP.**
* Provided technical support for intra-domain and inter-domain multicast and routing issues, IOS bugs and fault tolerance issues.
* Configured and troubleshoot **OSPF, BGP** and **EIGRP**.
* Tested BGP features such as **override**, **Local preference**, EBGP load balancing.
* Work on different connection medium like **Fibre** and **Copper** Connectivity.
* Configured and supported Multicast customers.
* Planning and configuring the entire **IP addressing** plan for the client’s network.
* Assist the certification team and perform configuration of LAN\WAN technologies such as Ethernet, Fast Ethernet, and Gigabit Ethernet.
* Configured WAN Infrastructure running OSPF as a core routing protocol.
* Streamlined **OSPF costs** in the network to account for network delay.
* Used DHCP to automatically assign reusable IP addresses to DHCP clients.
* Follow process & procedures for **change & configuration management.**
* Involved in design, implementation and configuration of **HSRP** for load balancing on L3 switches on different location of office on the switched network
* Configured **port-fast**, uplink fast and other spanning tree features.

**Environment:** Cisco 7200/3845/3600/2800 routers, Routing Protocols EIGRP, OSPF, BGP including VPN, MPLS and Ether Channels

**Education:** Bachelor of Technology in Electronics and Communications Engineering.