**Murali krishna**

**Network Administrator**

**SUMMARY:**

* 5+ years of experience working as a Network Security Engineer.
* Working knowledge of L2/L3 network switches, MDFs, IDFs and Vlans.
* Analyze technical, business process, and data processing problems, and coordinate resolution
* Experienced as a project lead with emphasis in business and technical analysis.
* Conduct business and systems process analysis and design at a complex level to standardize manual processes and automate when applicable.
* Deep knowledge on WAN optimization (Cisco WAAS products)
* Strong knowledge of routing and switch to include SDWAN, DMVPN, BGP, and OSPF routing protocols.
* Configure, deploy, and troubleshoot L2/L3 and WLAN networks
* Experience in configuring routing protocols and other network technologies such as **BGP**, **OSPF**, **EIGRP**, **VRF**, **SSL VPN, IPSEC, GRE, L2TPv3, NAT/PAT, PrF, NBAR, MPLS, QoS, STP, HSRP, VTP, VPC ETC**
* Office 365 / Hosted Exchange email migration experience.
* Configured Security policies including **NAT**, **PAT**, **VPN’s** and Access Control Lists.
* Analyze existing voice and data networks and recommend solutions.
* Implement and maintain logical design models (L2/L3, spanning tree, VTP, VLANs, physical cabling), remote VPN software, network control protocols (QOS, PoE, NTP, DHCP), network management protocols (CDP, FTP, TFTP, SNMP), and security protocols (SSH, HTTPS, AAA)
* Hands on Experience working in IPSEC tunneling, DMVPN, and NHRP
* Worked extensively with Firewalls/routers, L2/L3 switches and AP's
* Installed high availability **Big IP F5 LTM** 6900 and 7250 and **GTM** 6400 and 6800 **load balancers** to provide uninterrupted service to customers.
* Hands on Experience in Configuring and troubleshooting HA [High Availability] with PVST+ and 802.1w with 802.1s for rapid Spanning Tree, and Etherchannel using LACP [Link Aggregation Control Protocol] or PAgP [Port Aggregation Protocol]
* Understanding of server virtualization technologies like VMware or KVM.
* Proven ability of designing and developing the complex networks.
* Strong knowledge of VoIP, Multicast, STP, DMVPN, VXLAN, TrustSec, SDN, Anyconnect, FirePower, Wireless technology/WLC, Virtual LAN's and Trunking (VLANs); Network Security (ACL's, IPSec Tunnels), Netflow.
* Understanding of how to configure Netflow/Sflow across all network platforms using various tools.
* Strong knowledge optimizing and troubleshooting network issues that impact user’s productivity, using QoS/CoS, SNMP, NetFlow, SFlow technologies.
* Good understanding of ECMP, Multi-Path Networking, TCP/IP networking, socket programming.
* Experience with Arista switch configuration
* Experience testing Networking technologies such as L2/L3, Vxlan. Preferably understanding of OAM, Telemetry, Data Center Spine/Leaf architecture, Programmability (REST/NETCONF/OC).
* Proven ability to troubleshoot complex issues related to hardware, L2/L3 deployment, application behaviors and TCP stack.
* Good knowledge of IP Addressing, Subnetting, **VLSM**, **ARP**, **OSI** and **TCP/IP** models.
* Advanced Outlook & Microsoft Office Troubleshooting experience
* Experience in Configuration and Support of **LAN** protocols on Cisco Switches such as (**Layer2**, **Layer3** and **Multi**-**Layer**).
* Worked with network analysis tools such for network analysis, penetration and testing (Wireshark and Snort).
* Understanding of end-to-end data flows and traffic patterns with various network monitoring tools (Wireshark).
* Excellent knowledge and experience on different vendor’s like **Cisco, Juniper, Brocade, HP, Aruba, Palo Alto,** **Checkpoint, F5 And VMware.**
* Having Experience in Implementation, Administration and Maintenance in multi-vendor platform environments (Cisco, Juniper, Checkpoint, F5, Palo Alto)
* Experience with **Bluecoat Proxy** servers, **LAN & WAN** management.
* Installed and Configured **F5 BIG-IP** to provide **load balancing** for servers across multiple **Data centers**.
* Upgrade Cisco 6500, 3750, 2960s, **Nexus** 5000, **Nexus** 2000, **Nexus** 7000 switch IOS software
* Experience adding Policies in **Palo Alto firewall** PA-500, PA-3020 using GUI 6.1.
* Exhibit strong communication, critical thinking, multitasking, and customer service skills
* Involved in the redistribution into **OSPF** on the core **Palo Alto firewall**.
* To secure configurations of load **balancing** in **F5**, **SSL/VPN** connections, Troubleshooting CISCO **ASA firewalls**, and related network security measures
* Experience with **F5 load balancers** and Cisco load balancers **ACE**
* Advanced knowledge of **Checkpoint**, **Juniper**, **Cisco**, **Unix**, and **Linux** platforms. Day to day activity includes Change Implementation on firewalls, log analysis and troubleshooting of network access issues.
* Well experienced in configuring protocols **HSRP, GLBP, VRRP, ICMP, IGMP, PPP, HDLC, PAP, CHAP, and SNMP**.
* Strong hands on experience in RSTP, BPDUGuard, UDLD, DHCP Snooping, Port Security, DAI and 802.1X
* Knowledge of Voice over Internet Protocol (VoIP) integration into a converged network.
* Strong hands on experience on **PIX Firewalls, ASA (5540/5550) Firewalls**. Implemented Security Policies using **ACL, Firewall IPSec, SSL, VPN, IPS/IDS, AAA (TACACS+ & RADIUS).**
* Manage and support all **F5 LTM’s** in pre-production and production environments.
* Troubleshooting the **VPN** tunnels by analyzing the debug logs and packet captures. Advanced knowledge in Design, Installation & configuration of **Palo Alto** and Checkpoint Provide Environment.
* Experience in creating **load balancing** implementation plans and configurations, ensure network interoperability, and document existing and propose **load balancing** infrastructure.
* Hands on Knowledge/experience on **F5** and **NetScaler load balancer**.
* Knowledge of **Linux/Windows** based systems including hardware, software and applications.
* In-depth expertise in the implementation of analysis, optimization, troubleshooting and documentation of **LAN/WAN** networking systems.
* Implemented new ultra-secure networks in multiple data centers that included Cisco and **Juniper security** devices.
* Convert Checkpoint **VPN** rules over to the **Cisco** **ASA** solution, Migration with both Checkpoint and **Cisco ASA VPN.**
* Experience designing, deploying and supporting **Citrix NetScaler VPN** solution
* Experience with **Cisco load balancers (CSM, ACE and GSS).**
* Basic and advance **F5 load balancer** configurations, including migrating configurations from Cisco ACE to F5 and general troubleshooting of the **F5 load balancers**
* Ability in troubleshooting and performing root cause discovery during incidents which may involve storage, networking, or server-side investigation.
* Hands on Experience with blocking of IP's on Checkpoint that are suspicious. Responsible for **Checkpoint** firewall management and operations across our global networks. Implementing security Solutions using **Palo Alto** PA-5000 and Checkpoint Firewalls R75, R77.

**TECHNICAL EXPERTISE:**

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| --- | --- |
| **Routing**  **Routers**  **LAN Switching**  **Protocols** | Static, Dynamic – RIP, IGRP, EIGRP, OSPF, IS-IS, BGP-V4  Cisco (9000,7600,7200, 3800, 3600, 2800, 2600, 2500, 1800 series)  VLAN, VTP, STP, RSTP, MST, ETHERCHANNEL, HSRP, VRRP, GLBP, Port Security  FTP, TFTP, STP, MSTP, VTP, VRRP, DHCP, SNMP, NAT, RIP, OSPF |
| **Switches**  **Networking Concepts** | Cisco (6500, 4500, 3750, 3500, 2900, series), Nexus 5k and 7k  Access-lists, Routing, Switching, Subnetting, Designing, CSU/DSU, IPsec, VLAN, VPN, WEP, WAP, MPLS, VoIP, Bluetooth, Frame Relay, Wi-Fi |
| **TCP/IP Services** | DNS, DHCP, SNMP, NAT, FTP, TFTP |
| **Load Balancers**  **Security** | F5  Checkpoint, Juniper, Nortel, Cisco PIX & ASA Firewalls, Access lists and Policy based routing, Firewall Design, VPN Configuration and troubleshooting, Internet Content Filtering, Load Balancing, IDS/IPS |
| **Firewall** | Checkpoint Console R75.40 & R77.10, Cisco PIX - 506, 515, 525 Series |
| **Wireless Controllers** | Cisco 4400, 5500 |
| **Access Points**  **Infrastructure services** | Cisco 1242, 2400 & 3500.  DHCP, DNS, SMTP, FTP, TFTP |
| **Platforms**  **Languages** | LINUX, UNIX, Windows, Mac  C, C++, SQL, HTML/CSS, JAVA SCRIPT |

**Certifications:**CCNA - Routing and Switching

**Education Details:**

Master’s in CalUMS, Arlington in Computer Information Systems Security. 2017

Bachelor’s in JNTU, Hyderabad in Computer Science. 2014

**PROFESSIONAL EXPERIENCE**:

**Anthem, Richmond, VA Nov 2018 – Present**

**Network Administrator**/**F5 Engineer**

**Responsibilities:**

* Taking care of day to day service tickets which includes modifying existing virtual servers or creating new virtual servers to support applications.
* Configuring **Big-IP F5 LTMs** (virtual servers, pools, SNATs, health monitors, iRules) and **GTM’s** for managing the traffic and tuning the load on the network servers.
* On-boarding of applications in the **F5** and **NetScaler** load balancer equipment’s, this includes design, planning, implementation and support.
* Designed and implemented **F5 Big IP** load balancers that resulted in improving application performance.
* Configure **F5 Big-IP** and **NetScaler’s** local traffic management **LTM** to create **VIPs.**
* Design and implementation of multiple Cisco technologies. **Cisco ISE, ISR/ASR Routers, Nexus/Catalyst** Switches, **Firepower**, **S2S**, **ASA** **Firewalls**, **VMware/vSphere**.
* Planed, evaluated, and coordinated installation and/or reconfiguration of hardware and software elements of data and/or voice communication networks.
* Performed migrations of applications in between **F5 devices.**
* Expertise with CISCO Routers, Switches, WAN Protocols (EIGRP), QOS, LAN and Data Center Protocols (Spanning -Tree, Fabric-enabled technologies, VoIP to support Data, Voice
* Worked on multiple cleanup projects on Production and Non-production **F5 devices**.
* Provided primary On-call support on the weekends for Network, F5, DNS and wirewall issues.
* Migration of load balancers from **NetScaler** to **F5**.
* Worked with deployment and maintenance of SIP trunks, voice PRI, multicasting, unified communications.
* Administerd, engineered and supported Cisco Unified Communications infrastructure including but not limited to Telepresence, Tandberg, Polycom, CUIC, CVP, UCCE, SME, CUSP, and CUC.
* Provided L1/L2 support and performs escalations to required teams for more support.
* Installed various network hardware including concentrators, bridges, and hubs to establish communication connections with remote locations.
* Worked on **Infoblox** for managing core network services like **DNS, DHCP** and IP address.
* Identified new use cases and opportunity to expand the benefit of SD-WAN to SP offering
* Hands on experience working with  Viptela and/or Velocloud SD-WAN elements vManage, vBond, vSmart
* Administerd, engineered and supported Cisco voice gateways.
* Perform planning, testing, & evaluate new devices and troubleshooting.
* Install and configure Voice Gateways and Gatekeepers as part of the IP telephony system.
* Designed, implemented and supported Cisco wireless deployments.
* Supporting legacy Meru wireless network.
* Built SD-WAN integration plan by working with the SP architect and product manager
* Responsible for Installation, configuration, Maintenance, Deployments, Update, Monitoring, performance tuning on **Linux**
* Hands on experience in Versa, Viptela SDWAN product deployment, provisioning
* Engineering, configuration, installation, maintenance and upgrade of SD-WAN
* Experience on **Bit9, BigFix, ASA, Palo Alto, Juniper SRX, Checkpoint, PIX** and Symantec Endpoint protection
* Performed the **juniper** **SRX** 5800 deployment to replace the Net Screen 5200/5400 **firewalls** in the **Data Center**.
* Establishing and maintaining relationships with outside vendors to assist with installation and/or maintenance of **Citrix/NetScaler** infrastructure
* Lead large and complex projects for the delivery of Software Defined WAN (SD-WAN) services to customers
* Troubleshoot, diagnosed, and upgraded various network hardware technologies to Cisco platforms including routers, switches, and hubs.
* Supported **Infoblox** appliances grid environment for DNS, DHCP and IP Address Management IPAM tools (IPv4).
* Working configuration of new **VLANs** and extension of existing **VLANs** on/to the necessary equipment to have connectivity between two different **data centers.**
* Developed standards and best practices to onboard and deploy new VNFs and SD-WAN vendors
* Responsible for lab evaluation of equipment engaged in the end-to-end development, engineering, certification, field verification, and deployment of platforms supporting various networks and products, including LAN/WAN, internet, TCP/IP, IPX, routing (RIP, OSPF), PPP.
* Designed, installed, and maintained various WAN technologies and applications connecting remote sites to corporate headquarters.
* Configured, implemented, and troubleshoot routers and switches with various account settings, permissions, and parameters including security firewalls.
* Involved in deployments of new F5 LTM for multiple Datacenters.
* Experience working on Amazon Web Services (AWS) or Microsoft Azure services
* Experience working with a variety of vendor APIs including physical and logical infrastructure devices (e.g., Cisco, Palo Alto, F5, etc.), cloud (e.g., Azure, AWS, Google, etc.) and/or virtualization providers (VMWare, Hyper-v, etc.)
* Extensive experience with Layer 3 routing protocols including IPsec Tunnel, EIGRP, BGP, and OSPF
* Developed approaches to monitor and validate service functionality of Load Balancer and DDI (DNS/DHCP/IP address management) services
* Working configuration of new **VLANs** and extension of existing **VLANs** on/to the necessary equipment to have connectivity between two different **data centers.**
* Configured multiple domain name services (DNS), email services (Exchange Server), web, and file transfer protocol services (FTP) for various platforms including line leasing through DHCP servers.
* Configured and maintained **IPSEC** and **SSL VPN's** on **Palo Alto Firewalls**.
* Documented technical requirements supporting business/RFP needs.
* Experience in deploying and maintain **Cisco PIX and ASA firewalls**

**Capital One, Richmond, VA Jan 2017 – Oct 2018**

**Network Security Engineer**

**Responsibilities:**

* Managed day-to-day client and internal service requests and documented all services performed.
* Migration of load balancers from **NetScaler** to **F5**.
* Provided help to client on troubleshooting Routers, Switches and Cisco **VoIP** products
* Worked with **VMware** Infrastructure Client in supporting our Windows 2003 & 2008, **Linux** Enterprise 5 Server environment.
* Lead/Managed the preparation of engineering designs including DMS/VMS, CSS, CCTV, RWIS, VDS, TTS, CTSS, traffic signals, timing plans, lighting, fiber-optics, wireless and security systems.
* Configuring and installing RSTP, BPDUGuard, UDLD, DHCP Snooping, Port Security, DAI and 802.1X
* Configure and maintain Cisco **ASA** remote access **SSL** and **IPSec** Site-to-site **VPNs**.
* Experience configuring **VPC**, **VDC** and ISSU software upgrade in **Nexus** 7010,9k.
* Implementation and configuration of **Firewalls** Especially **Checkpoint** and Cisco **ASA**.
* Built and maintained email and cloud storage services via Google's g suite. Managed and administered remote **VPS** instances for word press websites and specialized cryptocurrency
* Deep knowledge on WAN optimization (Cisco WAAS products)
* Configured and installing of routing and switch to include SDWAN, DMVPN, BGP, and OSPF routing protocols.
* Involved in the activity of DATA-Center migration of regular Cisco catalyst switches with the new **Nexus** 2148, 2224T, 5548
* Configuring and troubleshooting HA [High Availability] with PVST+ and 802.1w with 802.1s for rapid Spanning Tree, and Etherchannel using LACP [Link Aggregation Control Protocol] or PAgP [Port Aggregation Protocol]
* Use of server virtualization technologies like VMware or KVM.Experience with REST APIs and PythonDeep
* Proven ability of designing and developing the complex networks.
* Worked on IPSEC tunneling, DMVPN, and NHRP
* Supported **Infoblox** appliances grid environment for DNS, DHCP and IP Address Management IPAM tools (IPv4).
* Configured Client VPN technologies including Cisco's **VPN** client via **IPSEC**.
* ALL Tier 3 routing, switching, VPN, **firewall**, **Azure**, **AWS**, **Cisco**, **Nexus**, design, configuration, implementation and tier 3 support escalations customer networks and projects
* Familiar with the upgrade paths for **ESX**\**ESXi** Host servers\Virtual Center Server & the setting up of networking on **Linux** 5 servers.
* Cisco **ASA Firewall** with Firepower Installation, Firepower Management Center, **AMP** and **IPS** with **FMC**
* Experience installation and maintenance of various **Aruba** products and extending support to Enterprise customers and partners worldwide.
* Troubleshot Cisco **PIX** 535 Firewall and upgrade to **ASA** for ensuring safe transaction of confidential information to remote sites using VPN links and DMZ.
* **Bluecoat** **Proxy** single managed deployments hand writing various change scripts and verifying peer **scripts**
* Installing the **F5 TMOS** upgrades, Hot-fix installations depending on Business need.
* Configuring **IPsec** **VPN** Site-site, **GRE** Tunneling and **SDM** along with troubleshooting.
* Build IT security infrastructure including **Checkpoint**, **Juniper** and **Palo Alto firewalls**
* Implementation and Troubleshooting of **WAN** authentication protocols**- PPP, CHAP and PAP**.
* Experience in designing and deploying enterprise-wide network security and high availability solutions for **ASA**.
* Lead the deployment Checkpoint Smart Defense, Cisco **ASA**, **Infoblox** and **Palo Alto** to prevent worms, Trojans, UDP and **TCP** protocol attacks.
* Worked in **F5 Big-IP Load Balancer** environment to manage the traffic between 2 web servers in the cloud.
* Participate in design, build, and test activities related to new **WiFi** deployments, network upgrades, and technology/platform evaluations.
* Configuring and designing **VPN** rules for Net Screen **VPN Box** and **Checkpoint** **Firewall**.
* Troubleshoot, maintain, upgrade, and provide solutions to complex **hardware/software** problems.
* Experience in creating image of **Linux system** with System Imager and automate **Linux** installs using and building **Red Hat** Network Satellite Server.
* Managing Access list on **F5s** and check for the **ACLs** on **Firewalls** such as CISCO **ASA**, **Juniper**, **Fortinet**-**Fortigate.**
* Perform other duties as assigned by leadership.
* Enhanced security posture of the DMZ, WAN, data center and research links globally with the design, deployment and tuning of Tipping Point **IPS** appliances
* Troubleshooting end user connectivity issues through the firewalls and network.
* Hands on experience with **Cisco Nexus** **7K, 5K and 2K** series equipment including configuration of protocols
* Developed and documented critical Disaster Recovery strategies.
* Involved in complete **LAN, WAN** development (including IP address planning, designing, installation, configuration, testing, and maintenance).

**Volkswagen, Detroit, MI July 2015 – Nov 2016**

**Network Engineer**

**Responsibilities:**

* Implementing security Solutions using **Palo Alto** Pa-5000/3000, **Cisco ASA**, Checkpoint firewalls R75, R77.20 Gaia and Provider-1/MDM.
* Managing cabled LAN and wireless access, with switching technologies and wireless technologies
* Configuring High Availability using Cluster XL on Checkpoint as well as VRRP and monitor the Sync status for state full replication of traffic between active and standby member.
* Firewall rule base review and fine-tuning recommendation.
* Hands on experience in configuration of Cisco ASA 5000 series firewalls and experience with checkpoints and **FortiGate.**
* Worked in creation of IPSEC tunneling, DMVPN, and NHRP
* Monitoring of network with network analysis tools such for network analysis, penetration and testing (Wireshark, Snort, Metasploit)
* Involved in troubleshooting of **DNS, DHCP** and other IP conflict problems.
* Worked on **Infoblox** for managing core network services like **DNS, DHCP** and IP address.
* Extensively worked on Nexus 5k and 7k configured and troubleshoot.
* Responsible for managing network & security at the Data center.
* Configure Syslog server in the network for capturing the log from firewalls.
* Good understanding of ECMP, Multi-Path Networking, TCP/IP networking, socket programming.
* Involved in installing Arista switch configuration
* Debugging with GDB, JTAG, oscilloscopes, Wireshark and experience interfacing with hardware using any of I2C, RS232, USB.
* Understanding of end-to-end data flows and traffic patterns with various network monitoring tools (Wireshark) and making sure everything is up and running.
* Implemented storage systems consisting of fiber channel and iSCSI SAN, NAS, CAS, and Azure
* Cloud storage to meet the organizations growing capacity and archival requirements.
* Configure and install Aruba wireless controllers and access points.
* Policy Reviewing, Audit and cleanup of the un-used rule on the firewall using **Tufin** and **Splunk**.
* Configure and Monitor Cisco Sourcefire IPS for alerts.
* Experience working on Network support, implementation related internal projects for establishing connectivity in various field offices and Datacenters.
* Cisco APIC-EM (IWAN) Deployment using CSR1000v Switch and **VMware**.
* F5 Load Balancer Tool. Proficient in J2EE Technologies. Strong experience in Enterprise Application Integration project planning, architecture and platform administration
* Migration of RIP V2 to OSPF, BGP routing protocols.
* Working with different teams to gather info for the new request and troubleshoot for any connectivity issues by capturing traffic using TCPDUMP and smart view tracker.
* Load Balancing with F5 GTM and LTM across multiple data centers.
* Configuring and troubleshooting site-to- site **IPSEC VPN** tunnels using Cisco ASA 5540 for third party connectivity.
* Implemented configuration back-ups using **WinSCP, cyberfusion** to automate the back-up systems with the help of public and private keys.