

## NETWORK ENGINEER

### Highlights

- Network Switches & Routers: Worked on Cisco Catalyst 4948, 6500E switches, Juniper EX, QFX Switches & MX Routers, Alcatel-Lucent Routers 7750, Dell PowerConnect 2808, 2824, 2848 switches
- Firewall & Load Balancers: Juniper SRX 1400, Fortigate 60D, 90D, 1500D, A10 Thunder 3030S & vThunder, Netscaler MPX 11500
- Network monitoring tools: Zabbix, Zenoss
- Shell Scripting: Bash
- L3 Routing Protocols: Experience with OSPF, BGP, Route Filtering, Redistribution, Summarization & Static Routing, Working knowledge of RIP v1/v2, EIGRP
- L3/L4 Technologies: Experience with TCP/IP, UDP, VoIP, Knowledge of MPLS, ICMP, IGMP
- L2 Technologies: Ethernet, VLAN, Inter-VLAN Routing, 802.1q, STP, RSTP, LLDP, Multicast, LAG, LAN/WAN, ARP, RARP
- Network Technologies: MC-LAG, NAT, SMTP, SNMP, SYSLOG, NTP, DHCP, DNS, TFTP, FTP, SSH, SFTP
- Gateway Load Balancing: Experience with VRRP, Knowledge of HSRP, GLBP
- Security Server Protocols: Working Knowledge of RADIUS, SSL VPN, Worked on Site-to-Site IPSEC tunnel, RSA, PGP
- Network Tools: Wireshark, PuTTY, SecureCRT, RDP
- Other Tools: Service Access Manager (SAM), IPAM, JIRA, BMC Remedy, Atlassian JIRA, Confluence, Gliffy Diagrams, Microsoft Visio

### Experience

Network Engineer , 06/2014 to Current Cleveland Clinic i/kidron

- Install, configure and manage enterprise-level network devices in the company network infrastructure: switches, routers, firewalls, load-balancers etc.
- Experience with configuring and troubleshooting Enterprise routing and switching configurations and technologies such as Spanning Tree, RSTP, LLDP, 802.1q, VLAN, multicasting, OSPF, BGP, route redistribution static routes etc.
- Configured data center and branch firewalls, setup firewall policies, Site-to-Site VPN tunnels between branch offices and data centers, NAT, NAT pools, PAT , VIPs, trace & analyze traffic for troubleshooting with logs, events, packet captures and sniffers.
- Configuring and managing Load Balancers by creating virtual servers and services, setting up SNAT pools, Load Balancing algorithm and configuring health-checks for the VIP.
- Assist in the Planning of complex network infrastructure consisting of LAN/WAN, IP addressing subnetting schemes, Designing LAN/WAN according to the company requirements and complying with IT policies.
- Managed network monitoring tools like Zabbix and Zenoss for the network infrastructure, setup additional monitoring as needed using Zabbix agents, SNMP and templates.
- Investigate and troubleshoot network appliance issues and problems with vendor tech support ensuring maximum network availability and minimum downtime.
- Configure, manage and maintain VoIP network within infrastructure and troubleshoot issues related to SIP, SIP Registration and connection to VoIP service provider.
- Maintenance with software upgrades to the latest recommended release for security and stability for network appliances including switches, routers, firewalls and load balancers with minimum downtime.
- Rollback upgrades due to any failure/issues.
- Configured BGP policies for multiple ISP Peer circuits per data center, setup BGP AS Path Attributes for preferred traffic paths.
- Monitor ISP peer circuits with Network monitoring tools, communicate, escalating tickets with ISP providers for network outage reported.
- Configured and monitored Managed WLAN solutions with Cisco Meraki APs in different offices centrally.
- Assist and troubleshoot Wi-Fi related issues with customers and manage permissions and policy.
- Maintain and administer the OpenVPN access server for remote access, manage user and group permissions, troubleshoot issues experienced by users.
- Managed and administered the Proftpd SFTP server, setting up clients and log ingestion scripts for files received from data partners.
- Experience with AWS networking: Manage security groups, ACL for EC2 instances, VPG and Direct Connect between AWS and company Data centers, s3 buckets.
- Setup and configure SYSLOG, SNMP, SNMP TRAP to remote system monitoring for all network appliances, setup custom alerts.
- Managed IPAM for reserving and documenting the IP addresses for servers, network appliances and routing.
- Technical Documentation and maintain network diagrams for datacenters, branch offices, hadoop topologies, Vmware environment on company confluence.
- Knowledge of VMware networking: setup VMs from templates, attach network interfaces VLAN.
- Troubleshoot network issues.
- Installed, upgraded and configured CentOS 6, in Datacenters .This included Kickstart Installation, NIM Installation and CD media.
- Configuration of DHCP Server, DHCP relay to get the IP Addresses Dynamically.
- Troubleshoot DHCP issues.
- Linux hardware support for servers for issues with drives, memory, CPU, RAID, Ethernet daughter cards and work with vendor technical support for repair/replacement.
- Network Configurations like Ethernet, NIC bonding.
- Network Configuration, troubleshooting like adding IPs, routes, NIC Bonding and IDRAC.
- Develop bash scripts for taking network backups, log rotation, log processing, HDFS and S3 uploads, HDFS purging etc.
- Manage and Administer SSO for users, user groups, servers, server groups, sudo policies.
- Rack and configure server hardware including building RAID arrays, replace failed drives in RAID.

- Set up and maintained DNS records for internal and public DNS servers, Configured failover DNS with health-checks ensuring fault tolerance.
- Setup website monitoring on site 24x7 with health checks and setup alerts.
- Responsible for the high availability of cluster systems, servers and related components and stability of the business servers.

Network Engineer I - Intern , 06/2013 to 05/2014 Harmon International Industries i¼ MI

- Configuration, installation and maintenance of network components in Service Provider and Access Networks including: routers, switches and network elements management system using Method of Procedure (MOPs) documents.
- Upgrade operating systems software on network elements to the recommended release, security updates and patching.
- Increase link capacity on network trunks based on requests from Network Planning team.
- Prepare Method of Procedure (MOPs) documents for the network maintenance team to work in the maintenance window documenting Pre-checks, Configuration changes, Post-checks and Roll-backs in case of failure/issues.
- Managed IP address management (IPAM) for reserving and documenting the IP addresses for network appliances and routing.
- Work with Change Management on scheduling maintenance windows for critical locations and clients that need advance notification per SLA.
- Participate and discuss in the weekly scrum call to understand the priorities of cases assigned and manage them accordingly.
- Technical Documentation and maintain network diagrams using Microsoft Visio for network locations and update them as necessary based on network augmentation implemented.

Field Test Engineer , 02/2013 to 05/2013

- Executed Field Testing (FT) and Internal Product Acceptance (IPA) reports for prototype mobile handsets, data-cards, Mi-Fi routers & Netbooks before they are launched commercially.
- Performed test cases related to Call Quality (2G & 3G), Data Throughput (2G & 3G), Call and Network Parameters & Feature Testing for Nokia prototype devices.
- Executed User Acceptance Testing (UAT) for Vodafone internal devices and prototype handsets of client companies launching in collaboration with Vodafone namely Blackberry, Samsung, Sony, and Huawei & ZTE.
- Detected and Reported errors to the respective companies for a fix/update and accordingly new software were released.
- Testing would repeat until critical bugs and issues were fixed for release.
- Performed 'Error Verification Testing' for launched mobile devices for reported issues and bugs seen after release.
- Logging with QXDM, Nokia proprietary Phoenix and Fasttrace and Blackberry Logging Tools Project: High Performance Switches and Routers Worked on implementing a high performance router in software with the following algorithms using C++.
- Binary & Multi-Bit Trie algorithm to perform quick IP Lookup for captured packets and forward to the Routing Table.
- Hierarchical Trie algorithm to perform fast packet classification and implement required QoS for packets.
- Deficit Round Robin algorithm to schedule packets and avoid contention while forwarding packets.

03/2011 to 06/2012 Bickford Senior Living i¼ Farmington Hills

Education

Masters of Science : Electrical Engineering , May 2014 New York University - Polytechnic School of Engineering i¼ City , U.S.A. Electrical Engineering 3.60

Bachelors : Engineering - Electronics and Telecommunication Engineering , June 2010 Xavier Institute of Engineering, University of Mumbai India Engineering - Electronics and Telecommunication Engineering 3.67

Skills

3G, APs, Bash, BGP, C++, CD, Change Management, Cisco, hardware, CPU, client, clients, Dell, Designing, DHCP, DNS, EIGRP, Ethernet, fast, firewalls, Firewall, FTP, Gateway, hardware support, ISP, IP, LAN, Linux, Logging, scheduling maintenance, managing, memory, Access, Microsoft Visio, windows, window, Enterprise, Network, networking Networks, NIC, operating systems, OSPF, policies, Protocols, Quality, quick, RAID, RIP v, router, Routers, Routing, scrum, SSH, servers, scripts, Shell Scripting, SLA, SMTP, SNMP, SSL, Switches, TCP/IP, technical support, tech support, Technical Documentation, Troubleshoot, troubleshooting, upgrades, Upgrade, VPN, VMs, VoIP, website, WAN