

# Manthan P

## Sr. Network Engineer - QSS Inc

Columbia, MD - Email me on Indeed: [indeed.com/r/Manthan-P/1b28102c6f7d9ad3](https://www.indeed.com/r/Manthan-P/1b28102c6f7d9ad3)

- CCNP certified Network Engineer around 7 Years' experience in design, implementation, configuration of Cisco Routers, Switches and Firewalls, troubleshooting & fine-tuning of Firewalls, VPN configuration, troubleshooting network related problems in Enterprise & Data Center Networks.
- Around 6 years of experience in implementing and configuring protocols such as HSRP, GLBP, VRRP, ICMP, IGMP, PPP, HDLC, PAP, CHAP, and SNMP.
- Around 6 plus years of experience in working with Cisco routers and switches implementing protocols such as EIGRP, OSPF, IS-IS BGP and MPLS on edge routers and so.
- Around 6 plus years of experience in handling Network Monitoring tools and Packet capture tools (NAM, New Relic, OPNET, NetFlow, Wireshark, Sniffer).
- Hands-on experience configuring and troubleshooting of routing protocols RIP v1/v2,
- Worked with Red Hat Enterprise Linux with virtual servers using VMware.
- Experience with Windows server products and Linux server products.
- Adept understanding of the JUNOS platform and worked with IOS upgrade of Juniper devices.
- Worked on network topologies and configurations, TCP/IP, UDP, Frame Relay, bridges, routers, hubs and switches.
- Responsible for switching tasks such as VTP, ISL/ 802.1Q, IPsec and GRE Tunneling, VLAN, Ether Channel, STP RSTP, PVST+.
- Strong hands on experience in installing, configuring, and troubleshooting of Cisco 7600, 7200, 3800, 3600, 2800, 2600, 2500, and 1800 series routers, Cisco Catalyst 6500, 4500, 3750, 2950, and 3500XL series switches.
- Experience with Cisco IOS XR on ASR9000, 12000 series routers.
- Worked on Cisco UCM administration and Cisco UCCX call system
- Hands on experience in configuring and supporting site-to-site and remote access Cisco, IPsec, VPN solutions using ASA/PIX firewalls, Cisco, VPN client in addition to providing TACACS+ and RADIUS services.
- Expertise in implementation of IP addressing schemes (includes VLSM) and IP services to meet medium level enterprise level network requirement
- Experience in configuring and installing Brocade routers and switches.
- Experienced in Troubleshooting layer 2 and 3 issues on Brocade Campus routers and switches
- Experience working with Nexus 7K, 5K, 2K devices.
- Experience with configuration of Nexus 2000 Fabric Extender (FEX), which acts as a remote line card (module) for the Nexus 5000.
- Implemented traffic filters using Standard and Extended access-lists, Distribute-Lists, and Route Maps.
- Experience on migration and troubleshooting problems with level 2, level 3 and level 4 and applications as well.
- Experience in installing and configuring DNS, DHCP server.
- Designing experience with MS Visio, Whiteboard, etc.,
- Moderate knowledge in configuring and troubleshooting Cisco Wireless Networks: LWAPP, WLC, WCS, Standalone Aps, Roaming, Wireless Security Basics, IEEE 802.11 a/b/g, RF spectrum characteristics.
- Experience working with Microsoft, VMware, Citrix, SolarWinds, Active Directory, Share point, SAN/NAS and related technology
- Adept Knowledge on F5 LTM, GTM series like 6400, 6800, 8800 for the corporate applications and their availability.
- Good knowledge and experience in installation, configuration, and Administration of Windows [...] HTTP, FTP, DNS, NTP, DHCP servers under various LAN and WAN environments.

- Adept knowledge in preparing technical documentation and presentations using Microsoft Visio/ Office.
- Provides technical leadership for problem escalation and resolution.
- Highly motivated with the ability to work independently or as an integral part of a team and committed to highest levels of professionalism.

Willing to relocate: Anywhere

Authorized to work in the US for any employer

## WORK EXPERIENCE

### **Sr. Network Engineer**

QSS Inc - Columbia, MD - March 2014 to Present

#### Responsibilities:

- Responsible for configuration, maintenance, and troubleshooting of dynamic routing protocols: BGP, OSPF & EIGRP (route redistribution, distribute lists, route-maps, offset-lists, prefix lists, route summarization, route-feedback, BGP attributes) on Cisco Routers 7613, 7201, and 3945E.
- Working knowledge of frame relay, MPLS services, OSPF, BGP and EIGRP routing protocols, NAT'ing, NAC product sub-netting, also including DNS, LDAP, DHCP, http, HTML, HTTPS, TCP/IP, UDP, SNMP, OSPF, RIP, IPSEC, PPTP, VLAN, STP (Spanning tree Protocol), RTSP & Multicasting protocols
- Experience with design and implementation of Virtual Switching System (VSS) for both User segment and server segment using 6509-V-E catalyst switches
- Experience with managing the completed end to end site solutions
- Experience with design and implementation of Data center migration.
- Designed, Implemented and Troubleshot Cisco 3750, 3550, 3560, 2924, 6509-V-E, 6513, 6504, 6503, 6506, 6500 series switches, GSR, ASR routers with Cisco IOS and IOS-XR and NX
- Installed, configured and managed Cisco routers such as 7200 series, 3800 series, 3700 series, 2800 series and Cisco Catalyst switch series 6500, 4500, 3500, and 2900.
- Upgraded the data center network environment with Cisco ASA 5520. Configured ACL's on Cisco Switches as well as configured routers as terminal servers.
- Experience with Server Administration using Linux
- Implementing 3750 Stackable switches using Cisco Stack Wise technology. Experience to review, evaluate current and future design issues as required maintaining network integrity, efficient data flow.
- Worked on Layer 2 protocols such as STP, VTP, STP, RSTP, PVSTP+, MST and other VLAN troubleshooting issues and configuring switches from scratch and deployment
- Involved in designing and implementing QOS and policy map to 2800 series routers for all the branches
- Experience with Branch Relocation: Connect workstation, servers, etc. Rack and stack Pre-configured new hardware and connect the circuits. Worked with Carrier to test and turn-up circuits.
- Performed IP address planning, designing, installation, configuration, testing, maintenance, and troubleshooting in complete LAN, WAN development.
- Involved in operations and administration of WAN consisting Ethernet Handoffs, T1, DS3, and Optic Fiber Handoffs.
- Supported EIGRP and BGP based on the network by resolving level 2 & 3 problems of internal teams & external customers of all locations
- Installed & Troubleshot layer 2 and 3 issues on Brocade routers and switches
- Experience with Racking, Stacking, configuring, Nexus 5K and 2K and 7K.
- Installed wireless access points (WAP) at various locations in the company.
- Actively involved in switching technology Administration including creating and managing VLANs, Port security - 802.1x, Trunking 802.1Q, RPVST+, Inter-VLAN routing, and LAN security on Cisco Catalyst Switches 4507R+E, 6509-E and Cisco Nexus Switches 2232, 5596, 7009.
- Created dedicated VLANs for Voice & Data with QOS for prioritizing VOICE over DATA.

- Perform various scheduled maintenance tasks across numerous platforms and datacenters such as building VLANs and configuring switch ports on Cisco, Brocade,
- Setup and configure network monitoring and management systems like Whatsup and BNA (brocade).
- Configured Voice ports and Dial peers on the call manager for the VOIP call to reach remote destination.
- Worked on configuration and commissioning of the MPLS circuits for various branch offices.
- Provided Daily network support for national wide area network consisting of MPLS, VPN and point-to-point site.
- Performed Network Security Assessment and implemented security improvements such as network filtering, SSH, AAA, SNMP access lists, VTY access lists, EIGRP MD5 authentication, and HSRP authentication.
- Handled Network capacity planning, modeling, and traffic optimization and experience in using tools (OPnet, Netflow, etc.).
- Experience in monitoring, alerting, preventive action framework for Brocade SAN switches
- Configured ACL's in Cisco 5520 ASA firewall for internet Access requests for servers, Protocol Handling, Object Grouping and NAT
- Responsible for Data Center Migrations and its operations including the change from 6500 switches to nexus series switches, configured VPC/VDC on nexus 2k, 5k and 7k.
- Implemented antivirus and web filtering on Juniper SRX 240 at the web server as well as configuration of F5 Big-IP LTM-6400 load balancers and experience working with F5 technologies (LTM, GTM, APM, V9, V10, V11)
- Experience in deploying, configuring & maintaining F5 3DNS(Global traffic Manager) Controller and BigIP -LTM(local traffic manager) for wide area load balancing and global redirection using VPN and Proxy load balancing techniques.
- Worked in an Agile Scrum environment and with HPSM Change Control System
- Documented workflow process, managing and implementing standard policy and procedures.

Environment: Cisco Routers, Cisco Switches, Nexus 7k/5k/2k Routing protocols, Brocade, F5, Load Balancer HSRP, VRRP, IPSEC VPN, VPN, QOS, ASA firewall, Load balancer, MPLS, VLANS, VTP, RSTP, ACL, NAT, IDS/IPS, SIP, RTP, RADIUS, TACACS+, Juniper SRX, ASR 9000, Catalyst 6500, CRS, Cisco ASR Firewall.

### **Sr. Network Engineer**

PG&E - San Francisco, CA - June 2013 to February 2014

#### **Responsibilities:**

- Worked as part of a team to manage Enterprise Network Infrastructure as a Tier 3 Support Engineer.
- Involved in configuring and implementing of Composite Network models consists of Cisco 7600, 7200, 3800 series routers and Cisco 2950, 3500, 5000, 6500 Series switches.
- Worked on conversions to BGP WAN routing, which will be to convert WAN routing from OSPF to BGP (OSPF is used for local routing only) that involves new wan links.
- Replaced branch hardware with new 3900 routers and 2960 switches.
- Configured firewall switch module on Cisco 6506 distribution layer switches, configuring VTPs, trunking, NAC product, inter-vlan routing, port fast, uplink fast, backbone fast on access layer switches.
- Enabled STP attack mitigation (BPDU Guard, Root Guard), Using MD5 authentication for VTP
- Planned and installed Frame Relay WAN links to the branch offices.
- Maintained wireless access points at various locations in the company.
- Great understanding of WLAN including 802.11 standards, Lightweight and Autonomous systems, WPA, PEAP.
- Assisted in MPLS migrations, implemented a backup for the existing WAN connection using site-to-site IP sec VPN tunnels.
- Configured Voice VLAN's (VOIP), prioritizing the voice traffic over the data traffic.
- Configured and troubleshot OSPF routing protocol on the corporate network.

- Tested and implemented various BGP attributes such as Local Preference, MED, AS-PATH, Community, Extended community using route-maps.
- Worked on migration of Frame Relay based branches to MPLS based VPN for customer's WAN infrastructure.
- Worked on migration of existing PIX firewall to ASA firewall, PIX OS upgrade from 6.3 to 7.0, also configured on BIG IP (F5) Load balancers and also monitored the Packet Flow in the load balancers.
- Experience working with CLI F5 Bgi-Pipe, TMSH
- Worked with Blue coat and handled the Trouble Tickets on F5 Load Balancers.
- Switching experience includes Cisco Catalyst switches: Cisco 3750, 4500, 6500 series switches.
- Managing enterprise BGP setup by configuring and troubleshooting BGP related issues.
- Knowledge on Scaling of BGP and IGP in the core, dealt with implementation of deployment related to Cisco devices and applying security policies on it.
- Troubleshot issues related to VLAN, VLAN Trunking, HSRP failovers, related issues.
- Maintained effective communications with vendors, peers and clients in resolution of trouble-tickets, equipment RMAs, and support requests.
- Implemented VLAN, LAGs, and Port-channels on Brocade switches
- Planned for upgrade of IOS on devices and performing the upgrade.
- Assisted in the architecture, evaluation and recommendations related to purchasing and installing hardware, software related to IP Networking.

Environment: Cisco Routers, Cisco Switches, Nexus 7k/5k/2k Routing protocols, VLAN's (VOIP), F5, Load Balancer HSRP, VRRP, IPSEC VPN, VPN, QOS, ASA firewall, Load balancer, MPLS, VLANs, VTP, RSTP, ACL, NAT, IDS/IPS, SIP, RTP, RADIUS, TACACS+, Juniper SRX, ASR 9000, Catalyst 6500, CRS, Cisco ASR Firewall.

## **Network Engineer**

Regeneron Pharmaceutical, Tarry Town - February 2012 to May 2013

### **Responsibilities:**

- Experienced in configuring Site-to-site and remote access VPN solutions.
- Installed and configured Cisco 7200 series router and Cisco 2950, 4500, 6500 Series switches.
- Configured networks using routing protocols such as RIP, OSPF, and BGP and troubleshooting L2/L3 issues.
- Provided estimated bandwidth requirements for data replication, to best determine adequate timing for migration service levels
- Configuration of Cisco 6500 (sup 720), 4500 (SUP 6) & 3750 Catalyst Switches for network access.
- Worked extensively on Cisco Firewalls, Cisco PIX (506E/515E/525/) & ASA 5500(5510/5540) Series, experience with convert PIX rules over to the Cisco ASA solution.
- Configured RIP, OSPF and Static routing on Juniper M and MX series Routers
- Configured VLAN, Spanning tree, VSTP, SNMP on EX series switches
- Helped with time-to-time upgrade network connectivity between branch office and regional office with multiple link paths and routers running HSRP, EIGRP in unequal cost load balancing to build resilient network.
- Designed and implemented Catalyst/ASA Firewall Service Module for various LAN's.
- Key contribution includes troubleshooting of complex LAN/WAN infrastructure that include routing protocols EIGRP, OSPF, & BGP.
- Configured Client VPN technologies including Cisco's VPN client via IPSEC.
- Configuring ACL to allow only authorized users to access the servers.
- Participated in on call support in troubleshooting the configuration and installation issues.
- Installation, maintenance, troubleshooting local and Wide Areas Network (ISDN, Frame relay, DDR, NAT, DHCP, TCP/IP).

- Performed Network Security Assessment and implemented security improvements such as network filtering, SSH, AAA, SNMP access lists, VTY access lists, EIGRP MD5 authentication, and HSRP authentication
- Provided technical support in terms of upgrading, improving and expanding the network.
- Providing technical security proposals, detailed RFP responses, and security presentation, installing and configuring ASA firewalls, VPN networks and redesigning customer security architectures.

Environment: Cisco Routers, Cisco Switches, Nexus 7k/5k/2k Routing protocols, VLAN's (VOIP), F5, Load Balancer HSRP, VRRP, IPSEC VPN, VPN, QOS, Cisco PIX, ASA firewall, Load balancer, MPLS, VLANs, VTP, RSTP, ACL, NAT, IDS/IPS, SIP, RTP, RADIUS, TACACS+, Juniper SRX, ASR 9000, Catalyst 6500, CRS, Cisco ASR Firewall.

## **Network Engineer**

Adept Solutions - IN - October 2009 to December 2011

Responsibilities:

- Responsible for the configuration of Cisco Routers (7000, 5300, 4000, 2500, 3000, 2600) using RIP, IGRP, OSPF, EIGRP, BGP
- Implemented Cisco IOS Firewall IDS using 2600 series router
- Configured and installed multi-protocol (IP, IPX) multi-interface Cisco routers
- Managed office network with Cisco devices with network devices including 2500 and 3600 series routers and 3500, 2900, 1900 series switches
- Analyzed and resolved a high percentage of initial customer contact in the areas of PC/LAN.
- Dealt with customer problems to management and support groups utilizing standard escalation model.
- Extensive experience in configuring and implementing OSPF and BGP.
- Supported core network consisting of Cisco 7200 series routers running multi area OSPF.
- Configured EIGRP and OSPF as interior gateway protocol with route filtering and route redistribution, installed and maintained Cisco 3600, 2600 and 7200 backbone routes with HSRP
- Implemented stub/Totally stub areas and various OSPF features like route-summarization and SPF throttling.
- Hands-on experience with WAN technologies like T1/T3, DS3, STM1 and STM4 circuit types
- Configured Security policies including NAT, PAT, VPN, Route-maps and Access Control Lists.
- Implemented Cisco Secure Access Control Server (ACS 3.0) for TACACS+/RADIUS
- Knowledge with redistribution of routing protocols and Frame-Relay configuration
- Handled Network Migration from RIP to OSPF.
- Implementation of TCP/IP and related Services-DHCP/ DNS/ WINS
- Configured, maintained and troubleshooted routing protocols such as OSPF, EIGRP and BGP.
- Engaged in office moves, helped in identifying network requirements of new building, installed new networking hardware, and coordinated with vendors for cabling/wiring
- Performed troubleshooting, while maintaining trouble ticket tracking, following both internal/external routes.
- Assisted with escalation procedures and customer notifications.
- Configured Cisco Routers for OSPF, IGRP, RIPv2, EIGRP, Static and default route.
- Implemented BNA (Brocade Network Advisor) on the migrated network for monitoring and management of the network devices
- Upgraded Cisco Routers, Switches and Firewall (PIX) IOS using TFTP
- Acted as Tier 3 support for connectivity, failures, configuration, implementation, and troubleshooting.
- Provided project management for data center cabling, documented all network drawings using Visio
- Design, test, and implement global Next Generation MPLS network (150 sites) using Cisco 3800, 2800, 2600, and 1721 routers using BGP and EIGRP protocols.
- Implementing traffic policy changes with Cisco PIX Firewall appliance switch WAP configuration and installations.

Environment: Cisco Routers, Cisco Switches, switch WAP, Nexus 7k/5k/2k Routing protocols, Cisco IOS VLAN's (VOIP), F5, Load Balancer HSRP, VRRP, IPSEC VPN, VPN, QOS, Brocade, Cisco PIX, ASA firewall, Load balancer, MPLS, VLANS, VTP, RSTP, ACL, NAT, IDS/IPS, SIP, RTP, RADIUS, TACACS+, Juniper SRX, ASR 9000, Catalyst 6500, CRS, Cisco ASR Firewall.

## EDUCATION

### **Bachelor of Technology in Electronics and Communications Engineering**

Sastra University - Thanjavur, Tamil Nadu

## SKILLS

BGP (7 years), Cisco (7 years), HSRP (7 years), INTERNET PROTOCOL SECURITY (7 years), IPSEC (7 years)

## ADDITIONAL INFORMATION

### Technical Skills

Routers: Routers (1700, 1800, 2500, 2600, 3200, 3600, 3700, 3800, and 7200),

Switches: Cisco L2 & L3 Switches (2900, 3560, 4500, 5000 & 6500), ASA, PIX, FWSM, Juniper, Netscreen

LAN Technologies: Ethernet, Fast Ethernet, and Gigabit Ethernet, VLAN, Inter-VLAN Routing, VTP, STP, RSTP

WAN Technologies: Frame Relay, ATM, ISDN, PPP, HDLC

Firewalls: Firewalls/VPNs ASA, PIX, Cisco VPN 3000 Series Concentrator

OS products/Services: DNS, DHCP, Windows [...] XP), UNIX, LINUX, Microsoft SQL Server 2000 and 2005, VMware.

Protocols/Services: Routing Protocols (RIP v1 & v2, IGRP, OSPF, EIGRP, BGP), QoS, HSRP, VRRP, TCP/IP, load balancer, Proxy servers, IPSec, MPLS, PPP, VoIP, SIP, H.323

Network Management Tools: Wireshark, Netflow Analyzer, HP OpenView, Cisco Works, Ethereal, OPNET, Solarwinds

Security Server Protocols: TACACS+, RADIUS