Vamsi Manthapuram

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PROFESSIONAL SUMMARY

- Experience in Network Operations and Engineering.
- Self-motivated with ability to work independently and together in a team.
- Capable of learning new technologies quickly and adapting to new environments.
- Extensive knowledge and troubleshooting data communication protocols with several industry standards and IP routing protocols RIP, OSPF, EIGRP and BGP.
- Strong hands on experience working with Cisco 2600, 2800, 2900, 3900, ASR9K routers, Juniper MX series & EX 4200, Alcatel - Lucent 7250, 7750, Cyan z33, z77 and Accedian.
- Experience in support and troubleshooting VLAN's, STP, VLAN Trunking, VPLS, MPLS and Ether channel (LACP).
- Experience in implementing traffic filters using standard and extended access-list (ACL) and route-maps.
- Extensive working knowledge in deploying Cisco ASA firewalls and network security procedures.
- Experience working on AWS VPCs and docker containers.
- Experience in providing technical support via emails and calls by troubleshooting customer issues.
- In-depth understanding of IPv4, DNS, ARP, DHCP, Ping and Trace route concepts.
- Extensive experience in Network Monitoring tool by using Netcool by IBM and Cacti.

EDUCATION / CERTIFICATION

University of Oklahoma | Tulsa, OK
Master of Science in Computer Systems and Telecom Networking | May 2016
Coursework: Telecommunication Technologies, Computer Networks lab, Cryptography & Network security, Network Design & Management, Optical Engineering, Quantum Info Theory, Cloud Networking

SRM University | Chennai, India
Bachelor of Technology in Information and Telecommunication Engineering | May 2014
Coursework: Digital Communications, Computer Networks, Wireless communication, Network security

CERTIFICATIONS

Cisco Certified Network Associate Routing and Switching (**CCNA R&S**)
- Cisco, License **CSCO12659506**

Cisco Certified Network Professional (**CCNP R&S**)
- Cisco, License **CSCO12659506**

TECHNICAL SKILLS

Networking Local Area Network (LAN) | Wide Area Network (WAN) | TCP/IP | ARP | DNS | DHCP | VLAN | ipv4 | ipv6 | OSPF | EIGRP | IS-IS | BGP | RIP | VPLS | MPLS | IPSEC | DMVPN | Cisco ASA firewall | SNMP | HSRP | VRRP | STP | ACL | SDN | AWS VPC | Mininet | Vanets

Devops CI/CD tool - Jenkins | Version Control System - Gitlab/Github | Configuration Management tool - Puppet | Container system - Docker containers | Monitoring tool - Nagios
Languages C | MATLAB | python | TCL
Operating Systems Windows | Linux | Unix | Cisco IOS | JunOS
Hardware Cisco 2900, 3900 series & Cisco ASR 9000 | Juniper MX 80, 480, 960 series & EX4200 | Alcatel-Lucent 7250, 7750 | AG7448CU Baremetal switches.
Software Wireshark | Telnet | Vmware Workstation | Packet Tracer | Ping Utilities | MATLAB | GNS3 | PuTTY | MS office | MySQL | tcpdump | Virtual box | IBM Netcool | Cacti

PUBLICATIONS

- Kam Wai Clifford Chan, Vamsi Manthapuram, Lu Zhang, "**Image Quality of Compressive Imaging with Quantum Light**", selected for *Frontiers in Optics/Laser Science Conference (FiO/LS)*, Rochester Riverside Convention Center, Rochester, New York, 17-21 October 2016.

PROFESSIONAL EXPERIENCE

IP/Ethernet Operations Support Engineer – Zayo Group – Tulsa, OK | August 2016 – Present.
- Extensive experience working with different vendor equipments such as Juniper MX240, MX480, MX960, EX4200, Cisco ASR900, ASR 9k, catalyst 2960, catalyst 3750, catalyst ME3400E, Alcatel- Lucent 7250, 7750, Cyan z33, z77 and Accedian.
- Experience diagnosing BGP issues such as prefix advertisement, neighbor states,

authentication and new turn up sessions.
- Extensive experience diagnosing different circuits such as ELINE (Point-to-Point & Point-to-Multipoint across l2circuits), ELAN (Multipoint-to-Multipoint across VPLS service), DIA, layer 3 VPN (across MPLS service), PDN's etc.
- Troubleshoot different service-affecting issues such as RFO, flapping, Hard Down, packet loss, degraded & intermittent cases.
- Dispatch company's field engineers to run RFC 2544 tests & OTDR tests.
- Assign new blocks of IPv4/IPv6 addresses to customers and make sure they are routable with no conflict with other customers.
- Update customer DNS records (A, PTR & CNAME records) on company's DNS servers.
- Configured, monitored and updated public BGP prefix-lists (Juniper and Alcatel-Lucent).
- Performance and alarm monitoring tool using Netcool and Cacti.
- Provide professional technical support on phone and via emails to customers to help troubleshoot their issues shortly and to clearly identify customer problems.
- Collaborate with other peers, subcontractors, and vendor technical support to resolve customer issues.
- Creating customer trouble tickets and resolving customer issues by providing 24/7 support.

Graduate Research Assistant | **University of Oklahoma-**Tulsa, OK **|** May 2015 – June 2016
- Maintenance of University's TCOM website (tcom.ou.edu)
- Reconfiguring lab with cisco 2900 & extreme switches, Baremetal switches for SDN.
- Worked on several network topologies in GNS3.
- Worked on Omninodes of free space optics which do communicate through line of sight.
- Implemented SSH based Honeypot project in LAN based environment in OU's Interoperability lab.
- Comparative analysis of Compressive Imaging with various Optimization Techniques.
- Quantum Compressive Imaging with addition of noise in low photon regime by considering photon statistics.

Intern | **Bharat Sanchar Nigam Limited (BSNL)**-Hyderabad, India | May 2012 – August 2012
- Presented a report on usage of multiplexing in telephonic communications along with latest telecom services such as leased lines, WiMAX, Hotspots, and VPN.

L E A D E R S H I P E X P E R I E N C E

Head of Media, Communication and Documentation in The Green Nest | Chennai, India 2012-2014
- Documenting event reports, maintaining spreadsheets of the active volunteers and Minutes of meeting.
- Taught English to under-privileged children in schools during after-hours of college.

Committee Head in Konvolve'12 **|** SRM University | Chennai, India | 2012 -2013
- Worked as an Interdisciplinary project head, responsibilities include – recruit students for the Research presentation who are good with technical skills.

H O N O R S

- Awarded **Graduate Research Assistantship (GRA position)** for Master's study at The University of Oklahoma.
- Awarded **Sooner Heritage Scholarship** for the academic excellence in undergraduate.

P R O J E C T E X P E R I E N C E

Master's Thesis on Comparative Analysis of Quantum Compressive Imaging in Low Photon regime by Considering Photon Statistics | Summer 2016
- Used Modified CS single pixel camera setup (Rademacher distribution (± 1)) so that no photons are wasted.
- Considered two different objects (gray scale object and a binary object) for the detection of an object in low photon case.
- The objects are reconstructed with 25% of 16384 samples (less than Nyquist rate).
- Implemented several photon statistics in the Compressive sensing reconstruction algorithms to see how photon statistics are effected.

Compressed Sensing with GPSR and IST algorithms | Spring 2015
- Considered 1D (Gaussian, step signal) and 2D (binary rectangle object) noiseless signal.
- Used gradient projection (GPSR) and Bayesian wavelet tree (BCS) approach for the reconstruction algorithms
- Implemented these CS optimization algorithms in MATLAB for my research analysis on best suitable algorithm considering the sparsity of the signal.

Analysis of packet flow between two hosts with Software Defined-Networking | Fall 2014
- A brief survey on Software-defined Networking.
- Application development of SDN using Python socket programming.
- Created several network topologies using mininet commands.
- Worked on mininet and implemented a code in python to analyze the packet flow between two hosts.

Business proposal solution to ITERA case study | Fall 2014
- Proposed a business solution for a company that have to create Telecommunications Network to support their staff.
- Considered the MPLS backbone for connecting the remote sites to the headquarters which also gives access to cloud.
- Provided smart disaster backup solution.