

CAREER SUMMARY

Over 10 years experience in Project /Program management across OSS/BSS/VAS & IT **service assurance & customer experience monitoring** applications, helping drive profitability and service delivery in a multi-vendor multi-technology network environment for leading telecom companies. As a result driven **leader & Lean Six Sigma Certified Specialist**, I'm keen problem solver, enjoy end-to-end project delivery, whilst delivering corporate objectives for customer service excellence.

CERTIFICATIONS & EDUCATION

CERTIFICATIONS

- PMP-PMI, Lean Six Sigma, SCRUM master, ITIL certification
- NetScout certified nGeniusOne & Packet Flow Switch (PFS), NSI, NSV consultant
- IBM Certified Infosphere & Data Quality Professional
- IBM Certified Deployment Professional (Tivoli/Netcool/OMNIBus)
- Red Hat Certified Engineer
- Red Hat Linux, Ubuntu server, Fedora, Debian, Suse Linux
- Automation and Orchestration: Ansible, Docker, Kubernetes
- VM Ware ITSP
- Storage Area Networking
- IBM Tivoli Storage Manager Administration
- SAN Volume Controller Planning and Implementation
- Knowledge of other Network monitoring systems e.g. Dynatrace, SolarWinds and PRTG

MASTER OF ENGINEERING SCIENCE (HONS: MAJOR IN COMMUNICATIONS)

University of New South Wales (UNSW) Sydney Australia

BACHELOR OF ELECTRONICS & COMMUNICATION ENGINEERING (HONS)

University of Punjab India

KEY COMPETENCIES

- ▶ **OSS/BSS & IT Service Assurance and Application performance management (APM)** solutions. Good understanding of Telco PS/CS/IMS Core and IP network, data models and integrations between CRM, ITSM and ERP platforms
- ▶ Experience with TCP/IP based networks and thorough understanding of application and Network management protocols e.g. WAN/LAN, VPN, VLAN, DMZ, OSPF, BGP, DMVPN, GRE Tunnels, SNMP, ICMP, DNS, DIAMETER, DHCP, LDAP
- ▶ Extensive industry knowledge and experience of both fixed and mobility wireless standards (3g, 4g & 5g) and communication protocols e.g. W-CDMA, UMTS, HSPA, LTE, Wi-Fi, **NB-IOT**, **Massive MIMO** & **SMALL Cells** technologies.
- ▶ Optimal planning, design & implementation of point-to-point and point-to-multipoint Radio & Optical fibre transmission links. It covers all types of transmission technologies, such as ATM, IP, xDSL, Optical GE, 10GE, Fibre Channel, DWDM, DOCSIS3.x HFC, ATM, MPLS & PWE3.
- ▶ **Technical expertise** in NetScout nGeniusOne APM, Packet Flow Switch, HP OpenView, HPOM, Red Hat Linux, Suse Linux, Red Hat Clustering, GIT, Docker, Kubernetes, KVM Virtualisation, VMWare, IBM Tivoli Storage Manager, Enterprise SAN and NAS Storage, Cloud computing (IaaS, PaaS, SaaS), TC/IP Networking, v4, v6, Microsoft family of Operating Systems, Advanced PostgreSQL, psycopg2 on Windows, Python Web and APIs, JS Git & GitHub, Data Structures and Algorithms, Oracle DB servers, Managing Windows- GNU/Linux mixed environment, C++, Linux, Unix, Python and bash scripting.

- ▶ Excellent **problem-solving skills** using **Lean Six Sigma** DMAIC methodology
- ▶ **AGILE** Project management proficient using **SCRUM** methodology for more effectively managing and completing projects.
- ▶ Experience in management of Business Intelligence (BI) technology assets such as Data Warehouse, CRM, ITSM, VMWARE, Citrix, STORAGE, Business Objects reporting, & Law enforcement data stores.
- ▶ Strong financial acumen that includes Project lifecycle costing considering NPV, IRR, Payback period and Benefit Cost Ratio (BCR)
- ▶ Experience in **coordinating, negotiating & motivating** outside vendors and off-shore resources in support of timeline and ICT project deliverables.
- ▶ Strong experience in **management** and **governance** of Australian IT vendors, partners & subcontractors e.g. Tech-Mahindra, Infosys, Terradata, *hp*, CISCO, SAS, SAP, VHA Finance, Business Objects & Deploy Partners.
- ▶ Effectively **training, motivating and mentoring** of onsite and offshore junior engineers, business analysts, Test engineers, Technology managers and solution architects.
- ▶ Strong leadership and **people management** experience within mission critical environments
- ▶ High-energy leader with **strong interpersonal, relationship building** and **business acumen skills**.
- ▶ Focus on **results** and enjoy **ownership** for **outcomes/initiatives**.

PROFESSIONAL EXPERIENCE

SENIOR OSS CONSULTANT (DEPLOY PARTNERS)

JAN 2018-OCT 2018

Deploy Partners deliver high-quality service assurance & network monitoring solution throughout the Asia Pacific region. It provides solution around NetScout nGeniusOne, Splunk, IBM Tivoli Software, InfoVista, VMWare and Infrastructure.

Customer: Vodafone Australia

Vendors/Partners: Nokia, Layer2, Cisco, Tech-Mahindra, NetScout, IBM Netcool, BMC Remedy ITSM, Oracle, Splunk, InfoVista

Scope: New hardware deployment and application/OS upgrade of NetScout network analytics platform application onto new commercial -off-the-shelf (COTS) hardware to monitor VHA PS & CS core, IMS, FBB & NB-IOT network traffic.

Network Assurance; Customer Experience Monitoring; Big Data Analytics (MPP-Hadoop)

Responsibilities

- Involved on various presales technical activities with the customer on services assurance solution.
- Design and Deployment of Network performance monitoring solution with following NetScout infrastructure to monitor Vodafone Core network
 - 95 NetScout Infinistream probes to monitor VHA PS Core. IMS Core, Control plane, User Plane, FBB, NB-IOT traffic
 - 14 Packet Flow Switches (PFS)
 - 12 nGeniusONE servers and
 - 4 Distributed Global Manager (DGM) to replace the existing obsolete NetScout Appliance environment that resulted in 20% improved capacity, resiliency and supportability.
 - Deployment and configuration of NSV and NSI

- Deployment of CS core SCTP (Stream Controlled Transmission Protocol) multi-home monitoring solution required for RNC migration
- Design and deployment of Fault Management with HPOM
- Design and deployment of FMS, Performance management and configuration management with IBM Tivoli suite including Netcool OMNibus, ITNCM
- Deep dive session analysis and packet analysis to diagnose customer faults
- NetScout Subscriber Intelligence (NSI) and NetScout Subscriber Voice (NSV) application configuration and fault management.
- Automation of managed services
- Solution design and deployment of various infrastructure projects
 - High availability and disaster recovery
 - Backup solution in Linux systems
- Design and deployment of Performance management with InfoVista and HPOM
- Provide professional services around Fault Management, Performance management and configuration management.
- FBB customer requirement gathering, detailed design, probe and server deployment, service configuration (DHCP, DIAMETER, DNS, LDAP, SIP), service migration to resilient platform, project management, testing and acceptance.
- NB-IOT customer requirement gathering, detailed design, probe and server deployment, service configuration (S1-Lite, S11 traffic) , service migration to resilient platform, project management, testing and acceptance

Achievements

- Helped Fixed Broad Band (FBB) and NB-IOT solution design according to customer needs and network growth plan.
- Trained MSP(Nokia) and VHA Lead architect on service & fault management using NetScout suite of products. Received best trainer award from VHA OSS platform owner.
- Enabled high visibility of traffic & capacity requirements enabling VHA to monitor capacity & growth for PS core, CS Core, IMS Core, FBB and NB-IOT network.
- Observed 13% improvement in troubleshooting of customer issues & root cause analysis due to new features introduced in application version 6.0.
- Deployed and tested NetScout nGeniusONE in VMWare environment on Suse Linux OS
- Developed solution to automate Managed services with platforms and tools such as Ansible, Docker, Kubernetes, Python (scripting), Bash(scripting)

Customer: NOKIA (MSP), VHA

Vendors/Partners: Nokia, *hp-OM*, Huawei, Tech-Mahindra, Tata Communication Services (TCS), SPLUNK, IBM, INFOVISTA, Oracle, IBM- Netcool

Scope: Requirements, Analysis, Design, Implementation, Testing & Verification, Project Management, Operational Acceptance and project close

Achievements

- **Successfully migrated VHA Operational Support Systems (OSS) Business Support Systems (BSS) IT applications** to new virtualised OSS platform at Erskine park and Newington Data Centre. This resulting in net Operational savings of \$0.25m per year and moreover improved system availability by 30%.
- **OSS/VAS IT Alarming:** The project allowed pro-active monitoring and alarming of circa 450 VAS/OSS servers providing Nokia Managed services consolidated view IT network in line with VHA roadmap. Project met all forecasted budget financials & project milestones.
- **BSS/IT Alarming:** Successfully completed alarm migration of 658 BSS/IT Vodafone lead servers from HP managed services environment to TechM managed services. Timely integration per schedule resulted in net savings of \$500k by not having to renew the HP managed services contract.
- **Upgrade of all VHA Radio Access Network elements to Latest software SRAN12.1** release prior to P3 comms drive test to meet VHA business requirements. Resulted in significant improvement in Network KPIs
 - 3CC DownLink User throughput improved by 10%
 - VOLte drop call rate reduced by 14%
 - P3 benchmark score increase by >40%. Rates best network in metro cities
- Worked as part of **major Data Centre Consolidation & Optimisation project** team to consolidate VHA RAN/Tx/OSS/BSS IT/VAS Infrastructure equipment reducing (>70%) footprint from existing seven(7) sites to two (2) major sites. This resulted in annual savings of >\$6.2m in rent cost, air-conditioning, battery backup and overall power & footprint reduction
- Consolidated equipment at 7 NSW data centres (Artarmon, Lane Cove, Strathfield, Pyrmont, North Ryde, Newington, Erskine Park) in two major data centres at Newington and Erskine Park.
- **Global Facts 7: IT** Equipment supplied by Keynote Sigos Germany, this project upgrades the existing CLU probes worldwide with Vodafone international roaming partners to enable 4G capability so as to performance test international roaming traffic
- **Lean Six Sigma Green Belt Assignments:**
 - **Improved VHA Transmission Integration Centre (TIC) Failures/defects rate by 141%** -Jumped from 34% measured in Oct 2016 to 82% measured in Oct 2017 using **Lean six sigma** continuous improvement Process excellence tools resulting in savings of \$1.2m to the organisation.
 - **Reduced VHA RAN Integration Centre (RIC) defects /failures by 22%** by carefully identifying and analysing the top three key components contributing to defects and eliminating them using six sigma DMAIC principles
 - **Data Centre Consolidation:** All equipment's from VHA North Ryde DC were consolidated into two existing data centres in Erskine Park and Newington DC resulting on Net savings of >\$2m in site rent, air-conditioning, battery backup, forward generator, site security etc

PROGRAM MANAGER (TEKTRONIX)

MAR 2008-TO- DEC 2009

Company: Tektronix Communications now owned by **NetScout** provides service providers and network equipment manufacturers around the world an unparalleled suite of network diagnostics and service assurance solutions for fixed, mobile, IP and converged multi-service networks. The comprehensive set of solutions support a range of architectures and applications such as LTE, fixed mobile convergence, IMS, broadband wireless access, VoIP and triple play.

Customer: Telecom New Zealand, Alcatel-Lucent, Vodafone New Zealand, Optus & Telstra

Products & Platforms: Geoprobe Network Surveillance & Protocol Monitoring OSS application Solutions, Customer Experience Management, Customer Active Assurance Direct Quality OSS applications, Network Assurance, Customer Assurance & Service assurance applications, Sun Solaris Servers, Suse Linux, Sun Storage Arrays, TomCat, VMware, Clarify CRM, Apache, JBOSS & Cognos customer care & account management applications.

Achievements:

- Successfully delivered on time and in budget to Telecom New Zealand (through their managed service provider Alcatel-Lucent) Network Active and Passive Assurance Geoprobe Surveillance & Protocol Monitoring OSS service assurance solution to monitor Mobile (XT) & IMS core network. TNZ actively uses the product for 111 emergency call monitoring and SMS welcome service and other Value Added Services (VAS) to manage their internal CSAT.
- Replaced Agilent's Access7 network surveillance solution with Tektronix state of the art Geoprobe network assurance solution and APM (Advanced Performance Monitoring for GSM A-Int, IuB, IuCS and IuPS, RNC, SGSN, GGSN) in Vodafone New Zealand 2g/3g network that includes new functionality provided by newly designed session and protocol analysis applications.
- Project managed deployment of Tektronix New Generation high bandwidth GeoProbe G10 IP probes in Telstra 3G Mobile Network for Panda Datacast MDA (Mobile Data Analytics) application monitoring protocols e.g. HTTP, RTSP, IMAP, SMTP & POP3 on (Gn) and Gi interfaces.
- Exceeded customer SLA for service tickets as a Service Manager for Optus Geoprobe SS7 protocol analysis monitoring tool. This resulted in expansion order from Optus to monitor 3g Voice and VOIP.

PROJECT MANAGER- CUSTOMER CONNECT (NBNC0)

TEAM LEAD ASIA PAC- NORTEL NETWORKS

SYSTEM ENGINEER- NORTEL NETWORKS

MICROWAVE DESIGN ENGINEER- AWA COMMS

JAN 2010-TO- DEC 2010

JAN 2006-TO- DEC 2008

MAR 1996-TO- DEC 2005

MAR 1992 TO- FEB 1996