**IAN SCARBOROUGH**

Virginia, USA | Cell: (707) 622-5569 | ian@tcpipconsulting

**NETWORK** **PROFESSIONAL CONSULTANT**

 *Solution Provider*

 *Vendor Channel Partner*

 *Consultant/VAR*

 *Network Design*

 *Cloud & SDN/NFV*

 **Experienced Network Consultant with 16+ years of experience** providing network design, implementation, security, and troubleshooting support

 **Cloud Network Engineer,** supporting network migration and datacenter extensions to Amazon Web Services (AWS)

 **Deployment Engineer** prepare, plan, design and implement remote customer network solutions aligned with business goals

**PROFESSIONAL EXPERIENCE & ACHIEVEMENTS**

**NETWORK ARCHITECT** 08/2018 to Present TCP/IP Consulting LLC, Virginia …………………………………… ………….

Network Consultant responsible for maintaining underlay infrastructure architecture. Design and implement customer overlay solutions. Establish and maintain positive relations between customers and vendors. Perform network assessments and recommended optimization. Align engineering capabilities and fiscal constraints with clients’ vision. Reduce technical compartmentalization. Approach business driven solutions under the Agile Methodology.

***Highlighted Duties:***

* Design and plan migration to cloud provider.
* Perform gap analysis on legacy architecture.
* Manage remote access and site-to-site VPN’s.
* Coordinate with vendors to facilitate proof-of-concept.
* Characterize network leveraging NMS tools and Wireshark.
* Identify and mitigate inefficient configurations and traffic flows.
* Assess and test network configuration behavior in lab environment.
* Create and update documentation to accurately reflect current network posture.
* Respond to service outages and coordinate restoration of service with engineering team and ISP.

**PRINCIPAL NETWORK ENGINEER** 03/2014 to 08/2018 ManTech, Quantico, VA …………………………………… ………….

Provide network planning, design, and implementation to support network modernization efforts for Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise (MCISR-E). Responsible for IaaS in supporting customer datacenter migrations to cloud environment. Assess Virtual Private Cloud (VPC) designs, perform gap analysis, and characterize network requirements, proof-of-concept testing, implementation, optimization, operations and management for MCISR-E hybrid architectures. Maintain channel of communication between the MCISR-E, service providers, product vendors, and solution architects.

Create, validate, harden, and maintain enterprise configuration baselines aligned with organization policies and guidelines. Maintain Quality-of-Service (QoS) for real-time, latency sensitive customer network traffic. Provide advanced tier 3 network troubleshooting and service restoration for local and remote customer sites. Develop and maintain network documentation. Utilize network monitoring tools for real-time event notification, policy reporting, and traffic analysis. Leverage network automation to reduce margin of error and minimize service outages. Configure and manage MCISR-E’s VoIP, VTC, VPN, circuit actions, wan accelerators, load balancers, stateful/stateless firewalls, NMS, AAA servers, routers, switches for the enterprise edge and datacenter.

**Sr. ENGINEER ASSOCIATE III** 12/2014 to 03/2015 IOMAXIS, Quantico, VA

Lead Network Engineer for Infrastructure team providing design, proof-of-concept testing, implementation, and network management. Create and maintain customer network diagrams. Validate security posture and increase user mobility options across various vendor platforms. Leverage virtual network platforms to provide rapid resource provisioning, reduction in configuration complexity and minimize hardware dependencies for rapidly evolving network requirements.

***Highlighted Duties:***

* Provide mentorship to less experienced network engineers
* Implemented custom network solutions for unique operation requirements for misattribution
* Build and manage web-cache/proxy and firewall rules for multi-zoned ingress/egress traffic flows
* Establish and maintain multiple site-to-site and remote access VPN’s between various customers’ sites and datacenters.
* Deployed Solarwinds network management applications to monitor hardware, analyze real-time applications, event reporting, configuration management, and baseline recovery.

**Sr. NETWORK ENGINEER** 11/2013 to 03/2014 TEKsystems, Quantico, VA

Support the Marine Corp Engineering efforts by provisioning lab resources for resident Engineering teams. Perform daily Operations & Maintenance on the Marine Corps Network Operations and Security Center (MCNOSC) Engineering lab. Support tasks include, system monitoring, OS patches and upgrades, device configuration and performing rollback procedures. Provide assistance during the design, test, and implementation phases of the proposed network design solution. Create, maintain, and update network documentation to support troubleshooting efforts and expedite future upgrades.

***Accomplishments:***

* Facilitate successful hot patching, rollback and failover testing without disruption in service
* Increased Engineering team efficiency by providing full remote access to lab resources
* Improved teams technical training curriculum by utilizing no-cost vendor provided training materials to maximize the use of MCNOSC Engineering lab resources

**Sr. NETWORK ENGINEER** 11/2011 to 11/2013 ManTech, Chantilly, VA …………………………………… ………….

Serve as Deployment Engineer for remote customer networks. Initiate LAN/WAN planning, designing and implementation of secure end-to-end network solutions. Provide secure remote network monitoring and tier 3 LAN/WAN support for customer sites. Design, test and implement strategic planning objectives in support of network Certification and Accreditation (C&A) process. Analyze information systems using sound judgment for managing special projects, integrating new applications and maintaining data integrity.

***Highlighted Duties:***

* Prepare network devices for Certification and Accreditation
* Create and maintain customer network documentation and diagrams
* Lead technician for customer system and network upgrades
* Manage multiple concurrent network deployment projects
* Extract and translate customer business requirements into proposed network design solutions
* Prepare, plan, design, and implement network infrastructure for remote customer networks

***Accomplishments:***

* 100% success rate deploying remote sites that meet the business goals of our customers
* Reduced deployment cost by 50% by redesigning and offering a modular deployment package.
* Enabled continual service improvement by leveraging industry best practice lifecycle models e.g. ITIL
* Coordinated successful site teardown and relocation of network infrastructure
* Increased deployment efficiency by designing and offering modular and integrated services

**Sr. NETWORK ADMINISTRATOR** 05/2003 to 11/2011

 United States (US) Army, Various Domestic and International Locations Served as Section Chief and Lead Signal Support Systems Specialist installing, testing, and repairing IT and

telecommunication systems in the US and abroad. Managed ten personnel to support and troubleshoot enterprise network infrastructure and other systems valued at more than $3M. Perform network analysis and recommend improvements to operations, administration, and maintenance.

***Highlighted Duties:***

* Directly support more than $3M in equipment connected to secure, globally networked enterprise architecture
* Manage INFOSEC, Communications Security (COMSEC) and Operations Security (OPSEC)
* Manage Help Desk operations and support personnel, troubleshooting and repairing equipment failures

***Accomplishments:***

* Instituted COMSEC plan that provided 100% protection from compromise with no incident
* Repeatedly rated as Outstanding Performer
* Managed Help Desk supporting 1,300+ devices
* Supported real-world aviation exercises and operations in Iraq and Afghanistan under harsh, remote conditions
* Served as Tactical Network Operation Center (NOC) Engineer

**EDUCATION & TRAINING**

**Masters of Science In Telecommunications (2020)**

George Mason University, Fairfax, VA

**Bachelor’s Degree in Computer Networks and Security (2013)**

University of Maryland University College, Adelphi, MD,

**UG Certificate Computer Networking (2013)**

University of Maryland University College, Adelphi, MD

IEEE Member # 94285043

* IEEE Communications Society
* IEEE Young Professionals

**PROFESSIONAL CERTIFICATIONS (Current):**

AWS Certified Solutions Architect

Juniper JNCIA-Junos, JNCIS-ENT, JNCIP-ENT

Juniper JNCIA-Cloud

Juniper JNCDA

Brocade BCNE, BCNP

Microsoft MCTS

 **SKILL SET**

**Software:**  RHEL/CentOS, Debian/Ubuntu, Quagga/FRR, Mac OS X; Kubernetes, Docker; Wireshark; Cisco IOS, IOS-XR, NX-OS; Juniper Junos OS; Brocade IronWare OS; ExtremeXOS; VMware Vsphere, VCenter, Horizon and Workstation; Solarwinds.

**Platforms:** Cisco ASR/CSR, Catalyst Switches, and ASA security appliances, Juniper EX, MX,SRX and QFX series, Junos Fusion, Extreme Networks Black Diamond and Summit series, Riverbed Steelhead

**Protocols & Standards**: IEEE 802.1, IEEE 802.3, IEEE 802.11, IETF, TCP/IP suite, RIP, OSPF, EIGRP, BGP, MPLS, SONET, GRE, HSRP, VRRP, GLBP, IPV6, VLAN, RSTP, MSTP, AAA, SNMP v3, NETCONF, YANG MODULES, DNS, DHCP, NTP, IPSEC, SSL/TLS, VRF, FTP, SFTP, SCP, sFlow, NetFlow. IPFIX, IGMP, PIM, DCBX, PFC, QCN, ETS, LLDP, LACP, L2TP, VXLAN/NVGRE, Q-in-Q, LDAP, POP, IMAP, SSH