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SUMMARY:

As an accomplished engineer, consultant, and project manager, my career achievements have given me the opportunity to lead teams that provide communication services for fast-paced companies in the local, national, and international environments. I have applied my theory and experience to computer systems and networks, programming, Network Management Systems (NMS), wireless network design and integration, and Network Operations Center infrastructure design and implementation. My primary skill is in satellite and microwave communications coupled with network plan, design, integration, testing and implementation.

U.S. Citizen with active top-secret security clearance

Read, write, and speak Spanish

EDUCATION:

- Grantham College of Engineering: M.S. Information Technology, GPA: 4.0 with Distinction
- Grantham College of Engineering: B.S. Electronics Engineering Technology
- Panama Canal College: A.A. General Studies

SPECIALIZATIONS:

- Telecommunications Systems
- Satellite Communications
- Network Management
- Systems Engineer
- Project Management & Operations

BUSINESS ACTIVITIES:

- Involved in proposal writing, financial analysis, and technology assessment analysis used to identify, explain, and present telecommunication technologies, requirements, operational concepts, system limitations, problems, and vulnerabilities
- Provided technical leadership in and execute planning, assessment, design, development, integration, implementation, and test of complex telecommunications systems and infrastructures
- Supplied multi-level systems engineering support for implemented applications and systems
- Tested and exposure to a wide range of networks, systems, and technologies
- Presented verbal and write presentations in network communications systems
- Improved processes at different levels of an organization
- Planned, designed, and analyzed a diversity of networks, systems, and technologies
- Planned and evaluated budgets

COMMUNICATIONS SYSTEMS:

- Grid computing: Parallel/distributed, clusters
- Wide Area Networks (WANs): Leased lines (High-Level Data Link Control (HDLC)), circuit switching (Public Switched Telephone Network (PSTN)), packet switching (Frame relay), cell relay (ATM), GigE, Integrated Services Digital Network(ISDN)

- Local Area Networks (LANs): Ethernet, ATM, vLANs, WLAN IEEE 802.11, Token ring, Fiber Distributed Data Interface (FDDI)
- Computer Storage: Storage Area Networks (SANs), Network-attached Storage (NAS)
- Network Management Systems (NMS): WhatsUp, CiscoWorks, Solarwinds, HPOpenView, and proprietary systems
- Communications: (TDM, FDM, symmetrical, asymmetrical) satellite, microwave, fiber optics, telephony, serial communications
- Security appliances: Cisco PIX, Juniper NetScreen, and CheckPoint software
- X-, C-, ku-, L- and s-band satellite ground systems infrastructure: HF/IF/baseband related equipment, network interfaces, and control & operation systems
- Network Operations Center (NOC) infrastructure: project management & systems implementation, network assessments & site surveys, network design & validations, network cable & grounding planning & design, and maintenance & support
- Network devices: Cisco switches and routers, Extreme Networks switches, Nortel trunk switches,
- Computer Operating Systems adaptations: Windows, Unix, Linux

EXPERIENCE:

IEEE Standards Association Member
IEEE P1680.1 & IEEE P1680.4 at IEEE
05/2013 to current

- Participation in technical contributions to develop a quality standard.

Grantham's Skousen School of Business
Advisory Board Member
04/2013 to current

- Offer strategic decision-making to the university in many different business areas.

Senior Systems Integration Engineer and Senior Consultant
L-3 Communications
10/2008 to current

As part of a team of Lead Systems Engineers that perform requirements definitions, development, implementation, and integration activities to support complex ground and aircraft systems and networks.

- Define and direct network infrastructure architecture, operational concepts, system requirements, and interfaces
- Develop network infrastructure solutions for the ground stations and aircraft networks
- Conduct networks trade studies for the ground stations and aircraft networks
- Perform test and evaluation activities for the ground stations and aircraft networks
- Provide technical support to ensure hardware and software components function in complex networks for the ground stations and aircraft networks to ensure mission requirements are met
- Cisco and Brocade routers, switches

Systems Engineer and Senior Consultant
Science Applications International Corporation (SAIC)
10/2005 to 9/2008

As part of a team of Systems Engineers that perform activities to support the ground segment element of the Landsat Data Continuity Mission (LDCM) program. I also was the Network Communications Architecture Lead and team member for the X- and s-band ground station and parabolic antenna planning, design, and implementation.

- Define the X- and s-band ground station and networks operational concepts, system requirements,

and system interfaces
- Define technical documents and develop technical solutions for the ground stations and networks
- Perform X- and s-band ground station and networks systems functional analysis
- Conduct X- and s-band ground station and networks trade studies for the ground stations and networks
- Perform test and evaluation activities for the ground stations and networks
- Responsible for X- and s-band ground station and networks system design
- Ensure that project schedules and performance requirements meet X- and s-band ground station and networks needs
- Provide technical support to ensure relationship between various hardware and software components for X- and s-band ground station and networks are met
- Coordinate the of design of subsystems and integration of system components for X- and s-band ground station and networks
- Propose appropriate recommendations through analysis, assessments, testing, and research to project leadership
- Extreme Networks switches, Juniper security appliances

Network Engineer
CapRock Communications
05/2003 to 09/2005

As part of the Advance Technical Support Services (ATSS) team I designed optimal C- and ku-band satellite VSAT and networks, systems and related processes, including intra-corporate infrastructure and client connectivity solutions.
- Project Network Leader to plan, transfer, and implement all systems, elements, equipment, and infrastructure that would be transitioned and upgraded to the new Satellite and Network Operation Center (NOC)
- Responsible for the final operational testing and acceptance of diverse C- and ku-band satellite systems, and related elements and equipment
- Executed C- and ku-band terminal requirements including configuration, implementation, testing, and documentation
- Developed hardware and software configuration standards for C- and ku-band satellite terminals
- Developed and recommend strategies concerning satellite terminals, networks, systems, and equipment life cycle and replacement
- Managed and improve the global Network Management System (NMS), WhatsUpGold, HP OpenView, SolarWinds, Cacti, sniffer, network analysis tools to monitor satellite terminals and networks
- Deployed AdTran, Cisco Catlyst 6500/3500/2900, IGX 8430, PIX 500, Router 1760/2500/2600/7200, Alcatel, Dell, ComStream, and Tellabs equipment

Senior Consultant – Communications Engineer
Booz Allen Hamilton
07/2002 to 04/2003

As a Sr. Consultant and Commercial Satellite Communications Engineer (SATCOM expert), I provided hybrid satellite communications systems engineering support to DoD C4ISR related program offices in the areas of user requirements analysis and scope function, communications global synchronization, and related technical documentation.
- Researched and analyzed satellite communications network scenarios with various frequency bands and system platforms to be incorporated into the set arrangement of C4I connectivity in support of the Warfighter's global objective

- OP-42, Utilized research and tools to analyze data in order to forecast commercial satellite communications usage for the government and military
- TELEPORT, Utilized research and tools to analyze data in order to fund, shape, and employ satellite communications earth station gateways offering global accessibility to the Warfighter
- TELEPORT, Wrote documentation requirements and C4ISP document for Generation 2 satellite communications teleports

Senior Project Engineer
MCI-WorldCom
07/2000 to 07/2002

As a Sr. Project Engineer, I provided sound advice to high level managers on all engineering and technical concerns related to MCI-WorldCom's satellite communications network in order to provision and design voice and data services for MCI-WorldCom, government, and commercial clients.

- Government services include: State Dept., DISA, Armed Forces, and White House Com
- Provided technical guidance to lower level staff and lead project teams to execute and plan voice and data services for internal and external clients over satellite communications networks
- Developed methods, techniques, and evaluate criteria concerning voice and data services over satellite communications networks
- Negotiated, interpreted, and managed satellite communications contracts for IDR, IBS, and lease capacity and earth stations leases
- Provided engineering advice and translated tariffs rates to build cost models, business cases, and consulting for the account teams and corporate finance in satellite communications networks
- Managed over 2.5-million dollars per month of satellite communications capacity for voice and data services
- Provided short- and long-term capacity planning for voice and data services over satellite communications and networks
- Engineered and designed MCI-WorldCom satellite communications and terrestrial networks to integrate voice and data for clients
- Analyzed and designed satellite communications transmission plans for multi-carrier usage, bandwidth capacity, and availability in order to implement voice and data services
- Coordinated and provisioned satellite communications services between the US and foreign administrators worldwide
- Provided technical assistance in satellite communications and networks to all MCI-WorldCom earth stations located all over the world
- Employed technical writing to improve and control processes and projects for satellite communications and networks
- HP-UNIX, Solaris, Windows NT, EFData, Cisco, ComStream, Zephyrus

Network Engineer
Motorola - SpactraPoint Wireless LLC
07/1999 to 07/2000

As a Network Management Systems Engineer, I provided technical support, provisioning and engineering to manage, monitor and control all LMDS wireless, microwave communications, products for the client.

- Setup and configured Network Management Systems(NMS) and operating systems for clients
- Provided Network Management System(NMS) training and support for clients
- Administered security for NMS and OS access accounts
- Built scripts and small programs related to MIB's, SNMP, and NMS using C++, Java, and HTML
- Assisted in network design of NMS network to the customer's existing network

- Troubleshot and tested the LMDS wireless, microwave communications, equipment firmware
- Troubleshot established links between the LMDS, microwave communications, product and interface equipment
- Operated, tested, and configured LMDS wireless, microwave communications, equipment

Integration Engineer
CapRock Communications
08/1997 to 07/1999

As an Integration Engineer, I provided project management and engineering in order to upgrade and activate new installs of voice and data service over satellite transmissions in ku-band and C-band for the clients.

- Led the design, engineering, and install activities for voice and data services over satellite communications and networks to new and existing customers
- Ensured satellite communications and networks install and configuration comply with internal and external requirements
- Resolved and investigate satellite and microwave communications, and networks problems during the life of the project
- Directed technicians to install and test satellite and microwave communications, and networks related equipment to provide services for the client
- Collected satellite and microwave communications, and networks information to implement, develop, operate, and support client solutions
- Monitored and troubleshot satellite, microwave, and terrestrial networks
- Managed modems, multiplexers, DACS, routers, and digital network access nodes
- Configured satellite communications radios, modems, multiplexers, channel banks, DSU/CSU, and key systems for data and voice
- Implemented the use of test equipment and circuit analysis to satellite and microwave communications, and networks in order to provide 100% reliability
- Designed a ticket database with MS-Access
- Wrote training plans and procedures for satellite communications and networks
- Alcatel, Cisco 2500, AdTran, Black Box, ComStream, EFData, NeuEra, Ascom Timeplex, Newbridge, SWB, DSC Communications, Tellabs, RAD Data Communications

Satellite and Microwave Technician
U.S. Air Force
06/1994 to 06/1997

- Maintained two satellite communications earth stations, control, and terminal subsystems
- Administered secure communications networks, Timeplex Link/2, and Jam-resistant modems
- Provided clients service by monitoring, maintaining, and operating all satellite communications, and networks equipment
- Justified satellite communications, and networks tasks, repairs, installations, and modifications through data collection and written reports
- Interpreted instruction manuals, blueprint drawings, wiring diagrams, and schematics
- Comprehend the uplink function, downlink function, and frequency standard functions of a Defense Satellite Communications System (DSCS) earth station
- Understand the tracking, monitoring, and switching functions of a DSCS earth station
- Operated and maintained a DSCS station equipment and its related subsystems to include: AN/GSC-52, AN/FSC-78, AN/USC-28 spread spectrum modem, AN/FSC-97(SCTIS), Survivable Secure Communications Network(SSCN, AN/UYC-13), AN/GSC-51(DFCS), uninterruptible power systems(SSUPS), and Timplex/Link2

- Operated, configured, tested, and maintained electronic equipment to include: AN/GSC-51, AN/GSC-24, AN/FCC-98, AN/FCC-100 Multiplexes
- Operated, configured, tested, and maintained satellite subsystems to include: Up/Down converters, modems, cesium beam frequency standard timing oscillators, distribution systems, transmitters and receivers, amplifiers, servo-motors, and synchronic-mechanisms
- Comprehend electronic theory, components, solid-state devices, and power supplies to include: direct and alternating current, relays, inductors, transformers, capacitors, transistors, diodes, rectifiers, filters, and voltage regulators

TRAINING:

- Security+ Certificate, 2013 (ID: COMP001020166229)
- Cisco Advance Routing & Switching, 2009
- Storage Systems Technologies, 2008
- IT Project Management, 2007
- SAIC Systems Engineering, 2007
- Service-Oriented Architecture, 2006
- Project Cost Estimating Certificate, 2006
- Satellite Communications Sys Eng, 2006
- Work Breakdown Structures, 2006
- Voice over IP, 2005
- Internet and Network Security, 2005
- ViaSat Star Wire, 2003
- Information Technology, 2001
- Network Management System, 2000
- EFData Satellite Converters, 1998
- SeaTel Antenna Systems, 1997
- Satellite & Microwave Communications, 1994

MEMBERSHIP & AFFILIATIONS:

- Institute of Electrical and Electronics Engineers (IEEE)
- Society of Satellite Professionals International (SPI)
- International Council on Systems Engineering (InCoSE)