CRAIG A. MUNRO

cah@mac.com

SENIOR-LEVEL MANAGEMENT PROFILE

Senior Technical Director

Technically sophisticated and business-savvy management professional with a pioneering career reflecting strong leadership qualifications coupled with hands-on IT expertise and strategic negotiation proficiencies. Maintain focus on achieving bottom-line results while formulating / implementing advanced technology and business solutions. Superior record of delivering simultaneous high-profile, large-scale, and mission-critical projects on time and under budget. Proven leader with strength for identifying talent, building, and motivating creative teams that work cooperatively to achieve goals. Excellent communication and brainstorming skills utilized in working with internal and technical teams and members of senior management. Recognized for technology expertise. *Core competencies include:*

- Strategic Business & Technology Planning
- Team Building & Leadership
- Sales & Marketing Training
- Creative, Out-of-the-Box Thinking
- Industry Standards & Advancements
- Budgets & Resource Planning
- Marketing Program Development
- Vendor Selection & Negotiation
- Executive-Level Relationship Management
- Contract Negotiations & Sales

PROFESSIONAL EXPERIENCE

Route Objects – Leesburg, VA **FOUNDER, 2022 - Present**

AT&T Global Business – Public Sector Services, Oakton, VA
SENIOR SALES – SOLUTION – CONSULTING ARCHITECT, 2006 – April 2022

Active Clearance: Top Secret/SCI

This role requires significant experience with all network layers, especially Layer 3 network technologies and protocols including design, development and support. Responsible for translating business needs into technical solutions, and defining solutions to problems through reasoned application of information technology.

Key Roles and Responsibilities: Designs, develops, documents and analyzes overall architecture of systems, including hardware and software. Determines integrated hardware and software architecture solutions that meet performance, usability, scalability, reliability, and security needs. Coordinates design and integration of total system including subsystems. Researches and recommends technology to improve the current systems.

Leading large scale Commercial Solutions for Classified (CSfC) service development. This Multi-site secure WAN architecture transport protects classified information as it travels across either an untrusted network or a network of a different security level. Responsibility and oversight involving system concept formulation, requirements development, IT system architecture design, system design analysis, acquisition of hardware, software as well as subcontractor services, systems integration design and implementation of complex network architectures in an unclassified and classified environment.

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Professional Experience Continued

A member of the Navy Next Generation (NGEN) sales team and lead the customers WAN Strategy and network transition planning hundreds of sites using Ethernet from 1Gbps up to 10Gbps. Full lifecycle development, initially in pre-proposal planning stage culminating in a total redesign of the core backbone and services to MPLS-CsC. Provided Architectural, and Engineering services for the Naval Enterprise Networks (NEN) Program Office (PMW-205) in support of the Navy Marine Corps Intranet (NMCI) transition to the Next Generation Enterprise Network (NGEN). Lab development and documentation of the transition of the services provided under NMCI CoSC to the services delivered under NGEN at Initial Transition Capability (ITC), and in planning for long term support and new requirements planning in support of Full Transition Capability (FTC) and beyond.

Lead Architect for Global Network Services (GNS) proposal, complex deal delivering international Transport/Network Services, to include Satellite Communications. Resolved technical challenges, shaped solution, and provided the technical future strategy and content for executive summary. Result: WIN - award potential value exceeds \$5B.

As a member of the Global Information Grid Services Management-Operations (GSM-O) CTO team as technical innovator for DISA Network Services initiatives (Accelerated Network Convergence, Signature Based Alerting, and Automatic Traffic Flow Management). Involved since proposal, resulting in an AT&T win of \$100M. Developed a Network Services Planning Guide across multiple DISN services aligned with DoD UCR 2013. Co-authored engineering design for automated IP Route Flap trouble tickets with cross layer correlation. Continual development of gap analysis, risk mitigation and contract growth opportunities and applying commercial best practices to the network.

A contributing author to the DISN Overarching Technical Strategy (DOTS) and DISN Technical Evolution Plan (DTEP) for DISA Network Services covering all network layers. Performed as lead, author for the Unified Communications sections and interdependencies to other services areas for both strategy documents. The DTEP bridges the gap between DISN requirements and DISN implementation plans ultimately providing technical justification for funding. As an original member of this team, was able to grow to a \$5M consulting contract. Developed service portfolios and evolution initiatives on many technologies for the current, mid-term and farterm timeframe.

Provide Consulting Engineering and Design to Sales Engineering and Customers. Responsible for providing technical pre/post-sales support that ensures the success of customer integrations and implementations. Perform requirements analysis based on customer needs, develop network transition strategy and plans. Provide strategic and technical review of proposals as well as contribute to proposal development process. Work on high visibility escalation issues as needed covering Routing, VPN, QoS, and other technologies as needed to for AT&T Products and Services while increasing Customer satisfaction, trust and depth of relationship. Provide customer education on services and features.

Security Clearance: Top Secret/SCI (2009 - current)

Key Achievements:

AF NaaS NSA Commercial Solutions for Classified (CSfC) multi-site centrally managed design.
 Architect large scale double IPsec encrypted, end to end scalable security service for 187 bases, multiple security classifications. Design and implemented Cross Domain Solution for correlation at highest security classification.

- Lead Routing/Switching Architect for DISA Global Network Services (GNS) a \$4.3B multiple-award, indefinite delivery/indefinite quantity (IDIQ) contract. Complex deal delivering international Transport/Network Services.
- AT&T Innovation Pipeline idea "NetBond Route Management Toolkit", funded and implemented from 2014-2016
- NGEN pre-proposal, proposal and team member. Contract value \$3.45B over five years. Led NGEN backbone redesign for over 330 sites.
- DISA GSM-O Proposal development win of \$100M
- Earned AT&T Customer Service Excellence Award 2010
- Key contributor to growing professional services contract from 0 to \$5M in 3 years.
- A contributing author to the DISN Overarching Technical Strategy (DOTS) and DISN Technical Evolution Plan (DTEP) for DISA Network Services covering all network layers. As lead, authored the Unified Communications sections and interdependencies to other areas.
- Developing DiffServ enabled DNS, as an Internet Draft (in progress).
- Presented whitepaper on future of DiffServ enabled DNS for assured services to DoD Unified Capabilites
 Working Group (consists of Joint Chief of Staff, DISA, Army, Navy, Air Force, Marines)
- Developed strategy and coauthored proposal with sales/business development for selling AT&T UC Services to DISA.
- Performed a Network Assessment and Performance audit for Office of Naval Intelligence resulting in more precise use of available funding.
- Developed Unified Capabilities Requirements VoIP Service Checklist Template for Engineering/Operations
- Provided professional services on FAA ADSB program from competitive proposal bid development through initial first implementation. Contract value \$1.8B.

NOMINUM, Redwood City, CA

SENIOR SALES - SYSTEM DESIGN ENGINEER, 2003 - 2004

Hired to save major account and turned it into a \$3 million sale for a global provider of DNS, and DHCP solutions. Applied strong technical orientation by collaborating with engineering and project teams throughout product life cycle development. Planned and managed major market customers by strategizing and verifying critical long-term business, sales, marketing, and technology issues with corporate and field representatives to achieve high impact account development and ensure consistency with corporate directions. Managed briefings by clarifying and focusing issues, strategizing sales opportunities, building agendas, establishing rapport, and verifying customer objectives. Assisted in closing and expanding major sales.

Security Clearance: Secret

Key Achievements:

- Turned around government customer within two weeks of hire following highly visible failure of initial product demo pilot; became a \$3 million sale in 6 months.
- Recognized by Board of Directors for technical analysis and product design solutions.
- Identified and debugged multiple critical architectural product design flaws and proposed new scaleable solutions and product architecture.
- Led development team to achieve successful, seamless live network trial to close sale.
- Proposed product changes to increase customer ROI throughout the development life cycle.
- Performed product testing and verification, which added to quality assurance and production readiness, as well as product redesigns for target market.

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Professional Experience Continued

 Wrote whitepaper on Future of IP Address Management to establish direction and strategy for product development.

LUCENT TECHNOLOGIES, Herndon, VA and Marlborough, MA TECHNICAL MANAGEMENT – Sr. SALES ENGINEER, 1999 - 2001

Participated as part of a 300-member Terabit router product-development group responsible for obtaining lab trials and conducting live test demos for leading global supplier of communications networking equipment. Implemented strong business acumen and technical abilities in providing strategic planning, marketing, and sales to large customer accounts. Facilitated as communicator between Executive Management, Marketing, Product Management, Development, Quality Assurance, Product Support, Customer Lab Trials, and Engineering. Maintained a proactive position during sales process by maintaining customer contact, participating in lab trials, and presenting at executive meetings. Tactically prioritized and managed customer feature requests and delivered new product presentations. Educated internal Marketing and Executives on strategic and tactical operation, as well as business requirements of technical Internet Protocol features, defining features and scalability requirements. Edited and reviewed product manuals, test plans, and product brochures. Represented company at industry trade conferences to include NANOG, IETF, SuperComm, and Asia Telecom.

Key Achievements:

- Facilitated Terabit router product development and within three years expanded Internet Terabit router business from no market share to a revenue-generating entity involving more than 30 customer trials, each valued at \$1 million to \$13 million in initial sales.
- Attended NANOG and IETF conferences to keep abreast of current industry standards and operations.
- Served as Advisor in Competitive Comparisons and sales tactics for large distributed sales force account teams.
- Validated and tested software QA, ensuring conformance to RFC/test plans and operational requirements for production networks.

CIDERA (formerly Skycache), Laurel, MD

SALES AND MARKETING ENGINEER, 1998 – 1999

Supported growing domestic database for international leader in the delivery of broadband content. Developed PowerPoint sales and technical presentations. Rendered input in the review of marketing materials. Performed technical tasks to include tuning system performance, troubleshooting errors, and analyzing logged system metrics. Broadened knowledge in Internet caching and related protocols.

CANDO CONSULTING (SELF-EMPLOYED), Vienna, VA INDEPENDENT CONSULTANT, 1989 – 1998

Engaged in independent Internet consulting to major telecommunication carriers and government organizations embarking on architecting global and large-scale IP commercial infrastructure networks. Provided services in architecture, engineering, and network operations/management. Utilized latest data transport and related protocol technologies in routed and switched networks in providing high availability IP backbone routing architecture solutions. Negotiated and managed BGP peers. Trained and mentored junior engineers.

Key Achievements:

- Served as pioneer IP Architect on SprintLink, the first telecommunications company to offer commercial IP services.
- Orchestrated a full-service turnkey IP network design and implementation for Bosnian PTT, a three-month full life-cycle project for technical services. Project included a comprehensive training program.

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- Provided technical review of draft government proposal designed to replace the DREN IP network.
- Recognized as catalyst and original contributor for Global-One IP network, internetMCI, ChinaNet, and Sprint International.
- Contracted as Senior Network Architect with MCI on diverse projects to include development of Internet Peering requirement documentation, training Regional Sales teams and Marketing employees, conducting marketing traffic analysis, writing service descriptions, rendering pre-sales support and closure to major Fortune 500 clients, and participating in WebDex software development.
- Participated as Senior Network Architect for Sprint International in deploying a global network to provide Internet access and services already based on the International Connections Manager service operated by Sprint as a part of the SprintLink IP network.
- Engaged in FDDI network backbone implementation, an Office Automation network for DOD customer to EDS.
- Orchestrated numerous projects for Sprint Government Systems Division and represented company at global business meetings and Internet Engineering Task Force conferences both domestically and internationally.
- Played an instrumental role in product design and business plan revisions for Whistle Communications, later acquired by IBM.
- Facilitated worldwide medical office-automation and systems integration services for the US Navy on the SMSCRC contract.



Bachelor of Science in Computer Science – Concentration: Mathematics MORAVIAN COLLEGE, Bethlehem, PA

CRAIG A. MUNRO

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Endorsements

Stellar Architect and Team Lead!

I have known Craig for 4 years and without a doubt, he is the most astute and goal driven Network Architect with whom I have worked. He is a dedicated and extremely knowledgeable engineer who consistently provided efficient and effective network solutions for my enterprise projects. Craig has the unique ability to quickly grasp customer requirements, assess the current state of the network and provide a sound architecture that will service the customer's current and future operational needs. He led my enterprise network development project designing an architecture that transitioned an oversubscribed legacy system with a multitude of static routes to a vastly more effective MPLS network with dynamic routing protocols. Craig adeptly captured the customer's requirements and developed a network transition strategy and framework that could meet cost, schedule and performance objectives while delivering optimal capability and life cycle supportability. This was especially important since the existing network was 15 years behind current industry standards and the transition required accommodating its continued use as the new architecture was implemented in a phased approach.

Craig is also a very strong engineering team lead who can bring engineers and technicians from multiple disciplines together and deliver on even the most complex projects. I observed him consistently training engineers and future architects not only in the technology and engineering practices, but also in the process of organizing requirements and structuring the solution so that technical risk was minimized and efficient installation of the capability could occur at the field level. His ability to discuss these same concepts with program leadership and the customer at a level of operational understanding was paramount to the successful development, risk capture and programmatic "buy in" required to ensure a project of this technical complexity would be programmatically successful as well. Craig is extremely skilled at synthesizing all team member inputs and bringing the best solution to the table. He is very inclusive of his team members and values their inputs while shaping and clearly communicating the technical path.

Craig's work ethic is beyond compare, and he leads by example in any project he is assigned. He is very willing to put in the extra time to ensure the solution is sound and that all exigencies are properly captured. He also invests much of his personal time to fully understand the latest network concepts and engineering best practices. His focus and commitment to architectural excellence have been extremely beneficial to the success of the projects in which he has supported me.

Craig is truly an exceptional architect, engineer and technical team leader who understands the technology, the customer and the business requirements of enterprise network design. He delivers only the FINEST solutions to the most complex customers.

August 06, 2018, Matt Most worked with Craig in different groups at AT&T Public Sector.

At AT&T, I had the privilege of working with Craig on new and emerging work, as well as post award, project related work. His experience and knowledge lent to compliant solutions that met customer qualifications and needs.

In both environments, Craig has been proactive, result oriented, responsible and technically sound. He is always ready to put all of his energy and time in to getting the job done. He has exceptional networking, troubleshooting, documenting and analytical skills and is a great asset to any company.

July 26, 2018, Christal Ringrose, CF APMP, AT&T Associate Director Program Management

I recently worked with Craig on a Proof of Concept project for AT&T. Craig's years of experience in the networking arena was instrumental in the success of the project. He constantly challenged me to "up my game" in my knowledge of network testing. His knowledge in areas such as Quality of Service (QoS) and how that relates to Virtual Private Networks (VPNs) was superb. I would gladly recommend Craig Munro for any position in the IT and networking field.

July 25, 2018 James "Mitch" Thompson, CISSP

Craig was instrumental in designing the solution for the USMC Multi-protocol Label Switching network. He took arduous requirements and provided a solution that encompassed all the MPLS requirements across a global backbone in concert with multicast, GRE, BGP and OSPF. Craig met every milestone and delivered a solution that is flexible and expandable. I highly recommend him for any network design, troubleshooting or solution fit tasks. He is in the top 5% of network personnel I have known in my networking career. He never fails to deliver no matter the task at hand. A dedicated professional with superior knowledge who can be counted on to perform no matter the variables.

July 24, 2018 Randy Watkins – Technical Lead AT&T GSI

Craig and I work together today (AT&T) and I am very impressed with his leadership, engineering skills and his ability to adapt and focus on details in a very complex changing technical environment. His genuineness lets everyone on the team feel confidence in discussing details of a solution. Also he has a wonderful way of getting his point across without being dismissive of others. He is a great asset to the TEAM!!

August 16, 2015, Kim Marshall managed Craig indirectly at AT&T Global Business - Public Sector Services

Craig is an outstanding solutions architect. He understands network services and he is clearly the subject matter expertise in new technologies. His contributions on a large procurement and our ability to not only be compliant but to offer the DISA customer an innovative solution is directly attribute to Craig's knowledge and creativity. **September 21, 2015, Jon Wilson** worked with Craig at AT&T Government Systems

Craig Munro is one of the best engineers that I know. He has broad knowledge of networking technology and excels at analyzing customer problems and crafting an optimum solution. His work has resulted in added value for both the customer and improved AT&T's products. He is highly regarded at AT&T and a consultant because of his expertise and skill at applying it. It has been a pleasure and a privilege to work with him.

May 16, 2016, Steve Foster worked with Craig at AT&T Global Business - Public Sector Services

Craig Munro has worked in the AT&T Government Solutions network engineering team for the last 5 years under my tenure. His technical skills are abundant as well as his hands on approach with Federal clients. He is very detailed focused and is seen as a SME within the engineering ranks as well as an integral member of the team that supports that AT&T Proof of Concept Lab in Oakton, VA. Craig is constantly looking at the art of what is possible when approaching complex customer solutions.

August 11, 2015, Quinten Johnson managed Craig indirectly at AT&T Global Business - Public Sector Services

Craig is an outstanding IP routing / switching guru - both theoretical and hands on. Great on the RFP analysis side, great in the lab. No one better at protocol use case development and analysis.

September 12, 2015, Tim Tuggle managed Craig at AT&T Global Business - Public Sector Services

Craig provided excellent sales and systems engineering support while at Nominum. He was instrumental in closing multiple deals and had guided engineering team to provide the features that are crucial in closing those deals.— Jian Song, Nominum (August 19, 2005)

I had the pleasure of working closely at Craig at Nominum. Craig was so far ahead technically in the network operations domain that the engineers who built complex DNS Response Validation units looked to Craig to design the ultimate systems. His customer management skills were second to none and he was a tireless worker and team member. I hope to work with Craig again. – **Brian Smith, Nominum (August 16, 2005)**

"Craig was instrumental to our success in rolling out our network and becoming a nationwide provider. Without his guidance, assistance, and introductions to the Internet movers and shakers we would not have met our operational and revenue targets. Craig will give you the shirt off his back to ensure the success of a project because he only involves himself with projects he believes in." – Darin Wayrynen, Winstar / Goodnet (April 4, 2006)

"Craig Haney was one of my best employees. Craig was dedicated and loyal. If I ever start another company, you can count on him being approached for a job. He is someone I can count on time and time again." – **David Jemmett, Winstar / Goodnet (March 31, 2006)**

"Back in 1997 Craig was challenged to teach the group of eight engineers everything they need to know to start first professional ISP in Bosnia and Herzegovina. The harder task to be, most of attendants had no experience with networking. Knowing that Craig's students managed to install, start and maintain currently largest ISP in Bosnia and Herzegovina prove his capabilities." – **Samir Metic, Client (December 12, 2005)**

"Craig was essential in bringing the first Internet connections to China through his work at Sprint International. Without his guidance and leadership the project would have stretched out much, much longer. Great engineer, great vision, strong team player." – John Savageau, Global-One (March 31, 2006)

"This was Craig's first professional software development position after graduating from college. We asked a

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Professional Experience Continued

great deal of Craig on a complex network integration project with Scott Paper. Craig was responsible for porting over what - at the time - was the first TCP/IP stack on Windows 2.0. It was a bit messy at times dealing with the unstable Windows memory model, but Craig prevailed!" – **Joe Lewinski**, **AT&T** (**April 1, 2006**)