ROGER R. BUSICO

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Senior Technology Executive

Multimedia / Telecommunications / Embedded Systems / Management SW Application Systems

Experienced *Senior Technology Executive* with an extensive span of skills gained by developing organizations, products, and processes across the telecommunications industry. Led global projects of 200+ staff and annual development budgets of $50M producing product line revenues of $700M. Broad professional history rich in hands-on management and development of multimedia systems employing embedded real-time and management application software. Recent work initiatives focused on leading edge systems which converge voice, data, optics, video, and wireless technologies.

Professional Experience

SYCAMORE NETWORKS, INC., Chelmsford, MA/Moorestown, NJ   **2006-2009**

DIRECTOR OF QUALITY ENGINEERING

Directed System Test / Quality Assurance (SQA) and Product Technical Publications (TPUBS) across a full portfolio of core and access intelligent bandwidth management solutions for fixed line and mobile network operators worldwide. Twenty-six products supported comprising 3 optical switches (OXC), 14 multi-service access cross-connects/platforms (DXC), and 9 network management systems/components (NMS).

- Chosen to create and lead a combined core/access SQA/TPUBS organization at the merger of Eastern Research, Inc. into Sycamore Networks, Inc. Integrated, recruited, and built a multi-disciplined team of 45+ professional technical staff and 5 direct reports across locations in 3 states (MA, CT, and NJ).
- Contributed to a one-year 200% business revenue growth with product development and customer sales/sustaining support. Managed a $41M expense and $7.2M capital engineering organization budget to 19% and 57% respective savings.
- Introduced 8 major new product platforms: World's First Terabit OXC system, 80-320 Gbps Multiservice Optical Switch, G.709 OTU-2 Module, L2 Ethernet Switch Module, Add/Drop Multiplexer (OEM ADM product), OC3/STM1 Optical Module Set, MS Windows-based NMS, and TMF MTOSI NMS OSS Interface. Employed transmission interfaces (SONET/SDH/ATM/STM) at DS1, DS3, STS1, OC3, OC12, OC48, OC192, OTU-2, WAN, LAN, 10/100/1000 Mbps, 10 Gbps, 40 Gbps Rates. Network Management SW Applications including ASON/GMPLS control planes, CORBA, XML, TL1, SNMP, MTOSI, TMF, LINUX, UNIX, WINDOWS.
- Contributed to the successful establishment of a new 70+ staffed Shanghai, China Engineering Development Center. Led the Access NMS development outsourcing to a USA/Jaipur, India partner. Worked OEM product development relationships with India (ADM), South Korea (Channel Bank), and USA (Voice/Data Bridge) vendors.
- As the **System Test / Quality Assurance (SQA) Director**, built an integrated team and process with 54+ staff across 4 locations (MA, CT, NJ, and China) to validate and sustain 26 product lines. Managed the testing of ~15 major product releases per year with an average project schedule slip rate less than +4.5%. Maintained a 95% core and 40% access automated SQA test script coverage (TEA, QTP, SilkTest, Procomm, Perl, Java, Tcl/Expect, Shell).
- As a **security champion**, helped create the Engineering Security Vulnerability Process implementing the corporate product security vulnerability policy. Executed the Detection Phase vulnerability scanning in SQA (CVE's, CVSS) on all new and deployed releases using automated tools (NESSUS, SRR, SecureScout).
- As the **Product Technical Publications Director**, built an integrated team and process with 15+ staff across 4 locations (MA, CT, NJ, and China) to cover 118+ documents supporting 26 product lines.
- As a **configuration management champion**, improved the change control/defect management process (CR, MR) by defining better severity definitions, workflows, and review boards (ClearQuest, HP Quality Center). Updated the Reviews Methodology Process for improved early defect prevention/detection. Helped create and implement a proprietary Staff Resource Tool to better manage staff assignments. Contributed to integration of ISO9001:2004 processes across the four company locations resulting in expanded continual annual certification.

EASTERN RESEARCH, INC., Moorestown, NJ   **2002-2006**

DIRECTOR OF PRODUCT INTRODUCTION

Directed System Test / Quality Assurance (SQA), Product Technical Publications (TPUBS), and Program Management (PM) across an access portfolio of 19 multi-service broadband/narrowband access products comprising cross-connects (DXC, DCS), concentrators (AC), wireless gateways, add-drop multiplexers (ADM), data/voice bridges, channel banks (CB), network management systems (EMS/NMS), test & patch systems, routers, and CSU/DSUs.

- Promoted after 2 months to Director reporting directly to the CEO/President. Recruited, built, and led a multi-

disciplined team of 33+ professional technical staff and ten direct reports representing a staff growth of better than 500% in 3.5 years.

- Contributed to business revenue growth of over 200%. Played a key role in the company conversion to a direct business sales model strategy from a prior OEM focus. Designed, built, and occupied a major new consolidated corporate home achieving a 300% space increase. Participated in the acquisition and integration of Avail Networks, Ann Arbor, Michigan in July 2003.
- Presented the company to prospective acquisition partners and buyers culminating in the purchase by Sycamore Networks, Inc in July 2006 for $92.5M in cash and stock.
- As **business change champion**, moved organizational structure from a functional to matrix basis. Reorganized the business from monolithic to a service-oriented architecture (SOA) employing market focused business units. Grew a product lifecycle management definition incorporating best practices of Project Management Institute (PMI), Software Development Lifecycle (SDLC), and Bell Labs Lifecycle. Instituted a R&D Business/Stage Gates process and built a strong R&D front-end process.
- As the **System Test / Quality Assurance (SQA) Director**, built a design system test organization by initiating SQA processes, purchasing test equipment, growing staff over 700%, and adding SQA progress/performance metrics. Changed focus from an architecture-based board test mentality to a requirement-based customer advocate system test methodology. Managed the testing of 25-30 product releases on average per year. Grew the average number of test cases executed per product release from ~100 to ~2500. Dropped the average number of product-line customer problem reports from ~120 to ~12 per year. Launched 3 major new product platforms for the Wireless Mobility Backhaul and Optical Broadband markets.
- As **automation champion**, introduced test automation productivity initiatives achieving ~40% automated test case coverage.
- As **Program Management Director**, championed the growth of program management (PM) as part of corporate structure change from functional to strong matrix organization. Program management was grown from one engineering coordinator to a 6-staff Director-lead program management office (PMO) reporting directly to the CEO/President. Applied subject matter expertise in ISO9001:2000 to ensure compliance/certification.
- As the **Product Technical Publications Director**, totally restructured and rejuvenated product documentation process and deliverables while tripling the staff to cover 33 product manuals, 3 price lists, 1 policy document, 2 technical bulletins, 3 CD-ROMs, 1 on-line help software integration, and an external web site.
- As **configuration management champion**, designed a change control/defect management process (MR) with a defined workflow and review board. Invested in the HP Quality Center tool, customized it to support the process, and converted from the previous database.

EASYLINK SERVICES, INC., Edison, NJ   2002-2002

ENGINEERING TECHNICAL/PROJECT MANAGER

Led a 5 staff engineering group that provided maintenance, new service development, and Tier 3 customer support for the Western Union/AT&T IMS (Instant Mail Service) Value-Added-Network (VAN). The VAN supplied business-to-business (B2B) packet messaging services including Email, Device Independent Messaging, Store & Forward, Telex, Fax, Web-To-Fax, Email Fax, Internet Fax, Multi-Cast Messaging, and Electronic Data Interchange (EDI).

LUCENT TECHNOLOGIES, INC. BELL LABORATORIES, New Jersey   1996-2001

TECHNICAL MANAGER

Provided key technical management to teams developing broadband and narrowband Access/Edge product lines.

- Served as **Technical Program Manager** for the MultiVoice Voice-Over-IP (VoIP) Gateway product line consisting of a family of VoIP gateways, gatekeepers, softswitches, and a set of VoIP clients (Application SW, DSP SW, H.323, H.248-Megaco, IPDC, SIP, SS7, PRI). With 3 direct reports, coordinated three departments consisting of 150 staff in 5 locations and a $35M expense budget. Software release production was shared across a worldwide set of units. The product line achieved revenues of $350M in a $1.5B business.
- Served as **Product Manager** for the MultiVoice VoIP Gateway product line with 15 staff responsible for supplying major back office functions (customer documentation, websites, training courses, front-end process, pre-sales technical support) to improve customer support quality.
- As **Information Technology (IT/MIS) Manager**, provided PC desktop, UNIX/Windows servers, IT network, and business application SW support across the MultiVoice organization with a team of 5 staff.
- Served as the **Technical Program Manager** for the Voice-Over-IP (VoIP) access interfaces on the PathStar Access Server, a compact Class 5 telephony PSTN/data IP router-engine based access server (4 direct reports). Developed a Voice-Over-Cable (VoCable) CATV interface consisting of the Cable Labs PacketCable NCS/MGCP CLASS call agent, DOCSIS-compliant CMTS, and Cable Modems (CMs). Developed a Voice-Over-DSL (VoDSL) interface consisting of

a NCS/MGCP CLASS call agent, a DSLAM, and DSL CPE IADs.

- Invited to serve as the **Technical Program Manager** for the MultiServices Switch 1000 (MX 1000), a 9 Gbps ATM Edge Switch (ATM, Frame Relay, voice, and data circuits) with DS3 through OC-12 interfaces (6 direct reports). Organized development (200 staff, $40M annual budget) into a matrix structure using cross-functional self-directed feature teams (Feature Teams). Recovered and deployed the 2-year languishing initial product release while instituting new releases every 6 months.
- As **ISO9001 Quality Manager** on MX-1000, constructed a full set of processes and led the organization to ISO9001 compliance and certification within 6 months. Methodologies earned SEI CMMI level 2 and partially met SEI CMMI level 3 requirements.
- Served as the **Technical Program Manager** for the AnyMedia Access System (AMAS), a new global GR303/V5.2 fourth generation Digital Loop Carrier (DLC) System (7 direct reports). Achieved an 18 month development lifecycle from inception to deployment using annual budgets of $35M expense and $4.5M capital. Product-line grew to a $700 million business with 30,000+ systems deployed in more than 25 countries. Organized development (150 staff) using cross-functional self-directed work teams (Feature Teams). Implemented software process improvements that increased productivity 225% per developer and reduced intervals by 35% through object-oriented-design (OOD, C++) and case tools (DOORS, ObjecTime, Clearcase, PureddTS, Chorus). Project team achieved ISO9001 compliance earning SEI CMMI level 2 and partially meeting SEI CMMI level 3 requirements.

Prior Relevant Experience

AT&T BELL LABORATORIES, Whippany, NJ

MEMBER OF TECHNICAL STAFF

Served in numerous technical roles designing Access/Loop Systems providing telephony, data, and video services (Voice/POTS, Data, Specials, DLC/SLC, TR08, GR303, V5.2, xDSL, HFC, SDV, FITL, FTTH, PON, ADM).

- **Program Manager**: Built and led program management office with 2 direct reports overseeing a CATV digital video dial tone network program (MPEG-2 Encoders, Digital Head Ends, Set Top Boxes) and the first Bell Labs cable modem telephony system.
- **System Engineer**: Managed SE planning, scheduling, and creation of an ISO9001 SE process.
- **System Tester/Quality Assurance**: Designed and applied the first post-AT&T divestiture Access SBU system test (SQA) methodology to ensure delivery of product quality.
- **System Architect/Integrator**: Architected ISDN and LBRV technologies into the DLC product lines. Lead a task force responsible for integration, hardware models, and lab construction across several DLC product lines.
- **Digital Hardware Designer**: Designed digital circuit packs and digital custom LSI CMOS integrated circuits.
- **Analog Hardware Designer**: Designed analog circuit packs, analog line interfaces/filters, and analog custom hybrid integrated circuits (HICs) used as telephony channel units.

RAYTHEON EQUIPMENT DIVISION, CDL, Sudbury, MA

ELECTRICAL DESIGN ENGINEER

Designed, developed, and supported intelligent computer C^3 CRT displays for military and commercial markets.

Education

M.S. in Electrical Engineering	Worcester Polytechnic Institute, Worcester, MA
B.E. in Electrical Engineering	Stevens Institute of Technology, Hoboken, NJ
Project Management Capstone Certificate	Villanova University, Villanova, PA
Master's Certificate in Project Management	Stevens Institute of Technology, Hoboken, NJ
Master's Certificate in Leadership	Dale Carnegie, Inc./Lucent Technologies, Inc.

Continuing Technical Education Courses Attended: 100+ courses.

Professional Memberships

Project Management Institute (PMI)

NJVoIP.org (Founding Member)

Tau Beta Pi (Engineering Honor Fraternity)