

G. WILLIAM KNAPP

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ENGINEERING / SEMICONDUCTOR PRODUCT DEVELOPMENT EXECUTIVE SVP, VP, INTERIM CEO, DIRECTOR

Over 20 years of experience in executive, leadership, and management positions within Product Development / Engineering, with an emphasis on the development of high-technology semiconductor products for consumer, computer, telecom, military, and medical markets. MS and BS degrees.

Overview

Strong background in directing multi-site, complex operations, with highest P&L responsibility at \$70 million, \$900 million in revenues, and 350 employees. Expertise in product development (over 10 years of innovative design experience) that includes leading-edge 2.5/10/40G products, 3D technology, broadband xDSL and WiFi products, and digital/analog/mixed signal offerings. Track record of success in developing and leading multimillion-dollar programs, establishing and managing design centers worldwide, and directing start-up and turnaround initiatives.

Selected Achievements

- Led Nortel Microelectronics Product Development/Commercialization to reach \$900 million in annual revenues.
- Developed the 1st A/VDSL residential gateway for triple play applications with integrated Wi-Fi, USB, Ethernet.
- Commercialized Nortel's switching/wireless products creating a \$100 million revenue stream within 2 years.
- Developed the 1st 1.6GBS Video Crosspoint Switch for SDTV applications.
- Developed the 1st 3D integrated circuit with over 2 billion transistors for a Fortune 100 customer.
- Designed the 1st UPC retail scanner for grocery checkout systems.
- Designed the 1st HYBRID circuit that controlled guidance system of the Navy's 1st video-guided bomb prototype.

Key Value-Offered Qualifications

- VLSI, Mixed Signal & Analog Product Development
 - Senior Executive Communications/Relationships
 - Policies/Procedures Design & Implementation
 - New Market Analysis, Evaluation & Penetration
 - Organizational Mission & Vision Development
 - Start-Up & Turnaround Operations Leadership
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PROFESSIONAL HIGHLIGHTS

IKANOS / CONEXANT – Red Bank, NJ – 2006-2010

Senior Vice President of Engineering, Broadband Access / Vice President of Product Development

Led development of analog, digital, and DSL products for the xDSL consumer and enterprise markets. Awarded more expansive SVP role within 6 months of hire to oversee Product Portfolio Management, Product Development, Software, Firmware, Hardware & System Engineering, Program Management, and Testing. Directed team of 180 in introducing 6 new products and 6 companion offerings, as well as the development of 6 new platforms (GB Packet Switch, Network Processor, CO/CPE A/VDSL, GPON ONU, VDSL/WiFi Gateway).

Challenges: Establishing process to ensure development of 1st pass, high-performance competitive products; creating new products with new technologies within atmosphere of offshoring and downsizing; and driving operating cost reduction over a 4-year period.

Selected Achievements & Contributions:

- **Engineered turnaround for under-performing organization** (30% attrition, several RIFs) by launching new xDSL designs in 90/65nm for Central Office and Residential Gateway applications, resolving a \$10 million revenue blocking problem, and instituted common FIRST PASS SUCCESS development platform for VLSI and Analog organizations.
- **Transitioned 80/20 domestic-dominant into a 30/70 global-dominant population**, reducing R&D operating costs by 35% as a result. Grew the India semiconductor design center staff from 20 to 85 who managed the design from concept to production and worldwide verification.
- **Reduced capital equipment and maintenance budget by \$8 million** over 4 years by consolidating system testing laboratories and investing in automation programming and remote testing technology.

- **Maintained commitments with Verizon, Cisco, Motorola, and Alcatel** as well as with other key customers, executing product development despite downsizing, offshoring, and severe attrition challenges.
- **Established worldwide automated system test capability**; developed 1.25G/2.5G/6G SERDES 65nm IP platform and 10/100/1000 Ethernet IP.

ZIPTRONIX – Research Triangle Park, NC – 2003-2006

Interim CEO / Vice President of Development

Hired as VP and held interim CEO position for 13 months in early-stage, VC-controlled organization. Identified critical problems involving operating budget, revenue plan, and sales forecast. Instituted operational expense controls, improved the business model, and developed executive/business/3-year operation/revenue plans as well as product/process strategies and roadmaps.

Challenges: Developing the 1st 3D SoC using 2D EDA/Packaging on a limited budget in 11 months.

Selected Achievements & Contributions:

- **Achieved 25% reduction in the workforce** and reworked operating budget and revenue/sales forecasts within the 1st 60 days as interim CEO. Rebranded proprietary technology and identified avenues for expansion into different areas.
- **Played critical role in development of 3D device** subsequently showcased in 2004 and projected to generate \$50 million in revenues in 2007. Worked with Cadence and Mentor EDA advance concept groups to pull together 3D flow that would support early adopters of the technology.
- **Launched market validation with key strategic partners**, including Microsoft, ATI, Nokia, Motorola, Cisco, Xilinx, Altera, and LSI Logic; presented to Wall Street analysts and venture capitalists. Established supply chain and alliances with EDA and IP providers (IDM and market channels).

CONEXANT/MINDSPEED – Newport Beach, CA – 2003

Vice President of Development, Transport System Solutions

Directed portfolio management and product development for broad range of products, including telecom processors for ATM, SONET, HDLC, xDSL and Ethernet applications, High Performance Analog for Optical Networking and Switching applications, and Mixed Signal Design for soft-modem applications. Led team of 160.

Challenges: Developing expertise in new areas, including Ethernet and video networks. Maintaining forward progress on many different initiatives at various stages.

Selected Achievements & Contributions:

- **Drove development of 1.6GBS Video Crosspoint Switch** designed for SDTV applications, with further refinements expanding the offering to 8 products supporting HD/SD TV and 3.2 Gbps.
- **Led development of products that accounted for 65+% of company revenue**; released 15 devices in 1st 6 months of tenure to fab, 4 to pre-production, and 1 to production.
- **Inherited and resolved several catastrophic issues** that enabled revenue streams with key Tier 1 customers. Instituted FIRST PASS SUCCESS development processes for Digital, Analog, and Mixed Signal products, with 4 of 4 new developments passing validation plans upon departure.

VITESSE SEMICONDUCTOR CORPORATION – Research Triangle Park, NC – 2001-2002

Vice President, Advanced Network Processing Products

In charge of all development, application, and general management functions for start-up company. Provided leadership and technical management to transition start-up and bring 1st products to market.

Challenges: Ensuring successful delivery of working prototype after 3 attempts, ensuring \$20 million revenue target.

Selected Achievements & Contributions:

- **Developed ATM product line that generated over \$20 million in annual revenues**. Created 1st revenue stream (\$2 million) in 2001 with marketing/sales collateral and customer support.

- **Instituted functions, processes and personnel to run \$200 million operation.** Turned around development and brought product to market in 9/01. Developed ATM/PACKET Network Processing products.
- **Implemented random verification testing and assertion structures** to the design in order to resolve all issues; ensured delivery of fully functional device 5 months into tenure. Facilitated transition from start-up to corporate discipline development, growing the organization to 50 and adding new organizations.

NORTEL NETWORKS – Research Triangle Park, NC / Ottawa, Ontario – 1986-2001

Vice President, Nortel Networks Microelectronics, 1999-2001

Director of Engineering, Semiconductor Products, Nortel Networks, 1997-1999

Section Manager, Semiconductor Public Carrier, Wireless/Enterprise Products, 1992-1997

Section Manager, Semiconductor Public Carrier, Wireless/Enterprise Products, 1986-1992

Selected Achievements & Contributions:

- **Vice President** – Directed multi-site, cross-functional Development organization with 325 team members and a \$70 million R&D budget. Led development of 64 products per year that generated over \$900 million in 2000. Prepared for IPO of Microelectronics unit, with a \$10 billion market cap. Reduced attrition from 25% to 9% and improved acquisition/investment/divestiture process for technology, products, and businesses.
- **Director of Engineering** – Managed products and services that provided underlying technology for Nortel Public Carrier, Wireless, Broadband, Data, Telecom Network and Access products. Established Nortel Semiconductors as a commercial supplier of semiconductor telecom products, with revenues increasing from zero to over \$100 million; introduced various key products.
- **Section Manager** – Spearheaded development of silicon technology for every major product platform. Introduced new Cable HFC platform for Broadband and ATM transport. Introduced silicon into multiple products, developed 35 ASICS in CMOS and BiCMOS technologies, and instituted operational environment that set the standard for quality (98% First Pass) and development interval (40K gates/myr).

PRIOR POSITIONS: Section Design Manager-Senior IC Design Engineer – GENERAL ELECTRIC / IC Design Engineer-Product Design Engineer – NCR MICROELECTRONICS / Design Engineer – KODAK / Design Engineer – US NAFI / Co-Op Engineer – NATIONAL STEEL

EDUCATION & CREDENTIALS

Master of Science in Solid State Physics/Advanced Computer Architectures

NORTH CAROLINA STATE UNIVERSITY, Raleigh, NC

Bachelor of Science in Electrical Engineering, Integrated Circuit Design and Fabrication

UNIVERSITY OF CINCINNATI, Cincinnati, OH

MBA Overview, 18 Hours, Program for Technology Managers

UNIVERSITY OF NORTH CAROLINA, Chapel Hill, NC

Certifications/Licenses/Designations: U.S. Secret Security Clearance (expired); Red Cross CPR; First Aid; Electrical Contractor License, NC (pending); Student Pilot.

Professional & Community Affiliations: Member, IEEE; Leader/Volunteer, Habitat for Humanity; Volunteer, Calculus Tutor, PTSA; Coach & Scout Leader

Awards/Patents: 3 patents - NCR Communications Protocol (OCIA, SDLC, DLC) / Patent - CE High Voltage CMOS Transistor/Low Voltage Process / Patent - Proprietary Voice-Data Protocol / 3 publications CICC / Technical Excellence Award DE, 1983 / Managerial Excellence Award CE, 1985 / Technical Achievement Award BNR, 1987 / NCR Outstanding Achievement of the Decade 1989 –UPC Retail Scanner