David Goldblatt

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Summary

Extensive hands-on and leadership experience in systems architecture, design, and development for Smart Grid and communications products. In-depth technical expertise in Smart Grid technologies, operating systems and networking protocols. Exceptional problem solving, communication, and customer skills.

Desire technically challenging position in engineering leadership, product and system architecture, or individual contributor.

Technologies

- Smart Grid - AMI/AMR, outage detection, power quality, PLC/BPL, SCADA, DNP3, IEC 61850
- Linux, Windows, OS X, BSD, vxWorks
- C/C++, Intel, PowerPC, FPGA (Altera Nios)
- TCP/IP, routing and storage protocols

Experience

CTO, Smart Grid, *TDJ Consulting, MA* 2011 – Present

TDJ provides premier consulting and services to engineering organizations in high-growth technology sectors.

Focus is currently on smart grid technologies, including product architecture, software development and scalability, and integration of third-party technologies. System includes a smart grid communication node providing PLC communication to smart meters using cellular and 802.11 wireless interfaces. Additional projects include generating and responding to RFPs, developing and leading customer deployment efforts and advanced project planning of both electric and water systems.

Other projects include development of Linux-based 802.11 wireless communication systems.

Co-Founder, Chief Engineer/Architect, *ElectricRoute,* MA/NH 2010 – 2011

Co-founder and Chief Engineer/Architect for a startup in the substation automation space. The product focuses on bringing advanced communication capabilities, monitoring, security, and control to the substation.

Responsible for system architecture, creating hardware and software designs, evaluation of hardware and software elements, participating in fundraising efforts and customer research and outreach. Created documentation, project plans, schedules and budgets.

ElectricRoute was one of five Innovation Award winners (http://bit.ly/GEInnovationAward) in the 2010 GE ecomagination Challenge out of approximately 4,000 entries.

Independent Consultant, *Psyton Software,* Chestnut Hill, MA 1998 – Present

Independent consultant performing architecture analysis, business and development plan reviews and software development on Linux and other operating systems. Most recently focused on smart grid opportunities, including Linux-based embedded systems in the energy storage space.

Architect, *Ambient Corporation,* Newton, MA 2008 – 2009
Vice President, Engineering 2006 – 2008
Director, Engineering 2005 – 2006
Consulting Engineer 2004 – 2005

Lead member of Engineering team, providing technical insight, architectural leadership and investigation of new technologies. Led systems integration efforts to investigate and recommend design solutions to best meet customer needs, product cost and performance requirements.

Conceived, architected, and led hardware and software development efforts for Ambient's Smart Grid communications products through multiple iterations, which have resulted in over 100,000 units ordered from Duke Energy and approximately $80M in revenue.

Projects included:
- A second-generation Broadband over Powerline (BPL) hardware adapter using a Linux-based host; successfully demonstrated in customer trials.
- Development of a x86-based Linux Smart Grid platform to provide BPL, 802.11 Wi-Fi and cellular (Verizon Wireless EVDO using Novatel and Sierra Wireless) capability; approximately 10,000 units shipped.
- Development of a follow-on PowerPC-based Linux platform to provide further cost reduction and additional flexibility; in volume deployment as part of Duke Energy's 'Utility of the Future' project.
- Advanced development of a FPGA-based Linux platform to provide for dynamic configuration to meet customer needs with further cost reduction.
- Led integration and development of support for third-party AMI solutions, including Echelon, Itron, and Badger Meter along with advanced energy sensing capabilities using Analog Devices energy metering ICs.

Principal technical resource for the company, including mentoring and ownership of critical customer issues. Consistently utilized to solve critical customer issues, from issue resolution to dynamically creating new products to quickly address changing customer requirements.

Initially brought in as sole software engineer, took over responsibility for Engineering and grew staff from 5 to approximately 20 resources. Recruited and managed hardware, software, QA, and network management teams. Supported Customer Service team directly, including field support at customer sites. Maintained direct customer relationships and represented company at selected conferences.

Founding Engineer, *Charles River Networks, Inc.,* Boston, MA 2002 – 2003

Initial engineer for a seed-funded startup developing 802.11 wireless solutions for the carrier space. Defined product requirements, designed product architecture, created development plans and staffing requirements, and analyzed hardware and software solutions and partners.

Developed prototype of a Linux-based access point with both Ethernet and cellular uplinks. Created software architecture for Linux- and vxWorks-based products along with architecture for a wireless backbone connecting access points.

Consulting Engineer, *Gotham Networks, Inc.,* Acton, MA 1999 – 2002
Development Manager

One of the initial engineers to develop a network processor-based multiservice switching platform. Technical and managerial lead of a 10 engineer group for IP routing and ATM signaling protocols. Participated in architectural specification, design and development, including identifying Agere Systems network processor, selecting PowerPC target platform, Netplane and Phase2 Networks for protocol stacks.

Principal Engineer, *General DataComm, Inc,* Marlboro, MA 1995–1998

Project lead for development of an IP switching implementation on the GDC APEX platform. Founding member of the development team.

Bootstrapped operating system on two H/W platforms, developed low-level device drivers, designed and implemented boot ROM, integrated compression methods and file system. Reviewed product definitions, hardware designs, protocol specifications, and software architecture for GDC's next-generation ATM adapter.

Software Developer, *NetCentric Corporation*, Cambridge, MA 1995

One of the founding employees hired to develop Internet-based distributed fax service. Architected underlying security models used, implemented portions of the project on UNIX and Windows systems.

Sr. Member Technical Staff, *Locus Computing*, Burlington, MA 1992–1995

Projects included designing the external routing architecture for a clustered computing platform and development of a new version of the customer's BSD-based UNIX system on the MIPS R4000/4400.

Sr. Software Engineer, *Clearpoint Research Corp.*, Hopkinton, MA 1991–1992

Project lead for SCSI-based RAID 5 storage subsystem. Coordinated hardware and software development and integration, compatibility and performance testing.

Diagnostic Engineer, *Racal InterLan, Inc.*, Boxborough, MA 1989–1991

Developed diagnostic software for PC and Macintosh Ethernet network adapters.

Education

Clarkson University, Potsdam, NY
Bachelor of Science, Electrical and Computer Engineering; May, 1989

Patents

US Patent 7,859,378: Housing for inductive coupler for power line communications
Multiple provisionals filed