

## Evan A. Bauer

[eb@evanbauer.com](mailto:eb@evanbauer.com)

Technology executive, architect, strategist, developer, and troubleshooter. Committed to creating revenue and improving business and technical operations through the discovery and application of innovative technology and best practices. Successful implementer of complex applications, enterprise infrastructure, distributed information systems and mission critical trading systems for the financial services industry. More than twenty-five years experience with systems where integrity, performance and availability are critical, including distributed database, data warehouse, real-time, and high volume transaction processing applications. Implement and support leading edge technologies and software engineering methodologies to meet business goals. Effective as both technical leader and manager of high performance teams. Advisor to both investment bankers and venture capital investors on technology products and companies. Accomplished writer, presenter, and teacher to business and technical audiences. Experience with IT in a wide range of industries in in-house, consultant, analyst and vendor, roles. Special interest and expertise in IT for financial services and in enterprise applications of open source technologies.

### Professional Experience

Evan Bauer Information Technology and Fanzilli | Bauer Technology Partners 2002 - current

#### Independent Consultancy

Clientele includes financial services firms, major technology companies, venture capital funds, private equity firms, fund-of-hedge-funds, and start-up enterprise software developers. Projects include infrastructure design, pre-investment due diligence, product development support, product introduction activities, multi-party development and testing coordination, as well as market requirements analysis. Clients include nLayers, HP, Platform Computing, Blazent, Pantero, Pequot Ventures, FT Ventures, Starvest, Kodiak Ventures, Partech, and Allegis Capital.

- **Spencer Trask Collaborative Innovations**  
Chief Information Officer
- **Collaborative Software Initiative**  
Chief Technology Officer
- Sona Mobile Inc. 2005 - 2006  
Managing Director, Product and Technology Operations  
Responsible for Product Management, technology delivery, customer service, and platform strategy for the leading provider of mobile application delivery to the financial services, telecommunications, and entertainment industries. Custom mobilization projects or new mobile products developed and delivered for a global customer base including NYSE, Alcatel, SugarCRM, and Vodafone.
- Robert Frances Group 2003 - 2005  
Principal Research Fellow  
Part-time research and consulting appointment with the Robert Frances Group, Business Advisors to IT Executives. Report to the CEO and provide strategic consulting

and advisory services to the CIO/CTO clients of RFG. Consulting clients included Pfizer, Dow Jones, nStar, HP IBM, Cognos, Red Hat, Sybase, HSBC, CSFB, and Schwabb.

## **Credit Suisse First Boston 1999 - 2002**

### Chief Technology Officer, Global Infrastructure

Senior technical architect for the rationalization of CSFB's global systems and networks. Provided new technology assessment and adoption oversight for the CIO. Coordinated all due diligence and advisory support for CSFB's Investment Banking and Merchant Banking Private Equity Departments including the Sprout Group (venture capital fund). Major projects included:

- Lowering the cost and improving the availability of CSFB applications through the innovative use of Linux and other Open Source software. Accomplishing this required a combination of internal engineering and education as well building and industry-level coalition of banks and vendors needed to support the financial services application base.
- Design and implementation of a new high-availability application architecture for application and database servers.
- Introduction of open source software into the enterprise infrastructure to take advantage of technology innovations and lower total cost of ownership for application and utility systems.
- Design and implementation of a formal customer/vendor partner management system to leverage CSFB's Information Technology resources in support of its banking franchise in Technology and Telecommunications. Multi-million dollar positive revenue and procurement results measured by the firm over the last 18 months. identified
- Successful pilots and early implementations of tools to automate the end-user help desk operation, including a Corechange Coreport-based support portal and the first implementation of Cohesiant Lighthouse for automated desktop hardware and software inventory and resource management.

### Chief Technology Officer, Investment Banking and Core Technology

Responsible for the interface between Information Technology and CSFB's banking and private equity business lines, as well as the application and infrastructure architecture supporting all non-trading activities of the firm. Major projects included:

- Coordination of IBD and Core Technology requirements with central infrastructure teams (networks, data center, DBA) on a global basis.
- Definition of standard development platforms (hardware, operating system, database, middleware, tools, libraries) for the non-trading operations of CSFB. This included definition of application classes and requirements as well as selection of an efficient, rationalized set of products and processes to improve productivity and improve re-use of both code and skills between projects and teams.
- Architectural support of the integration of the former-DLJ banking and private equity applications into the CSFB infrastructure.
- Design and architecture support for the integration of multiple business intelligence, market data, news, and customer resource management systems into a single web-

based portal application for the investment banking division. The Spider application was adopted by the full senior management team of CSFB as a replacement for Bloomberg and other external resource systems.

- Design and implementation of a wireless application deployment infrastructure for the secure, reliable, delivery of business information to the firms 5,000 US-based RIM BlackBerry users.

#### Director, Global Information Technology/Global Web Services

Developed the web application and hosting architecture for CSFB, building a new department of 36 professionals managing 1,019 web sites and applications on 181 servers in 9 data centers in 6 countries. CSFB GWS selected by parent Credit Suisse Group to manage all Group web sites outside of Switzerland. Designed an Internet hosting architecture providing the industry's highest security standards, scalable performance, high availability, and automated disaster recovery. Implemented in six external hosting facilities distributed globally. Subsystems include web servers, web application servers, end-to-end monitoring, usage analysis, content management, and code/content distribution. Designed and built high-availability NT Intranet web server farms. CSFB.com availability improved from 97% in May-June 1999 to 100% in May 2000, on target for full year design goal of 99.99% up time. As part of the corporate Business Process and Technology Architecture project, developed first web application development and deployment standards for CSFB along with a full toolkit to support them. Provided operational design and provide full production support for two major new retail web ventures and 12 institutional e-commerce initiatives. In secondary role of technology architect for the CTO, coordinated improved product interfaces between PeopleSoft GL and Sybase ASE new features designed in the process are now part of both products. Provided an independent evaluation of Global Loans processing application and provided technical analysis for the selection of a replacement technology.

Bankers Trust Company 1997 - 1999

#### **Principal Technology Architect, Global Operations Technology (GOT)**

Headed the team responsible for both technical architecture and infrastructure support for all Cash Trading (MM/FX) and the back office systems for securities trading. Represented GOT in the bank-wide Technology Architecture Review Committee. Managed rollout of GOT Y2K and EMU upgrades in NY and London. Y2K system and application software upgrades in NY/NJ datacenters installed in October 1998 and London in March 1999 with no disruption of service; as a result, Global Operations NY was the only group in BT to implement EMU on a completely Y2K compliant platform. Designed and managed division-wide system availability project that reduced service-disrupting outages by over 82% in 1998, resulting in achievement of 99.97% scheduled uptime; the processes and tools created have now been adopted bank-wide. Provided network and system capacity planning for the rollout of a new global FX back office system. Managed hardware upgrades of OpenVMS clusters and Unix server complexes. Engineered first integration of SilverStream web application server and the Oracle Rdb database management system. Provide database design, tuning, and administration for Oracle Rdb, Sybase, and Microsoft SQL Server databases plus TP and messaging middleware. Served

as acting manager for the 42 member Cash Technology Group.

**Giga Information Group 1996 - 1997**

Vice President and Senior Research Advisor

Provided research and analysis on the information management industry to the global 1000 client base of this new information technology advisory service founded by industry pioneer Gideon Gartner. Promoted to Senior Research Advisor responsible for advisory consulting and research coordination with Giga sales teams. Received President's Club Award as top research contributor of 1996 and Research Achievement Award for first half 1997. Responsibilities included IT strategy consulting, technology and best practices research, authoring of research papers for WWW distribution, telephone and Email advisory services, conference presentations to senior executive and technical management audiences. Built a data management research team of senior analysts backed by research associates and outside experts, coordinate collaborative responses to complex inquiries. Research concentrations in database management, financial services applications, network computing, transaction processing, data warehousing, commercial application development, and production systems operations. Regularly quoted in the international business and technical press as well as made appearances on both CNBC and Science Technology Network.

**Bankers Trust Company 1994 - 1996**

Vice President, Client/Server Engineering

Provided database, transaction processing, and related middleware infrastructure selection, implementation design, consulting, and support for all BTCo operating groups and subsidiaries, worldwide. Oversight for new technology projects in New York, London, Edinburgh, and Sydney. Served as corporate engineering consultant for the re-engineering of BTCo's foreign exchange systems to a new "middle office" model, currently handling over \$100BB USD in daily transactions. Developed and implemented the administration and operations portion of an OODB benchmark for derivative instrument processing. Led the database software and hardware platform evaluation for the new bank-wide general ledger system, including the design and execution of full-scale performance benchmarks. Project managed the development of a portable regression test methodology for Microsoft and Sybase SQL Server products. Designed replication strategy for multinational VLDB data warehouse implementation with Edinburgh hub using Sybase System 10. Lead engineer for joint New York/Sydney pilot of OSF DCE and the Transarc Encina TP monitor on Windows NT and UNIX for 3-tier client-server trading and settlement systems. Developed security procedures and mechanisms for Oracle Rdb/ODBC server. Managed beta tests for Sybase System 11, OmniCONNECT 10.5, and Rdb 7.0. Managed vendor relations with Oracle Corporation, negotiated a new bank-wide support agreement, and served on the Oracle Rdb Customer Advisory Council. Worked with Sybase on the re-engineering of their XA interface and as a "Technology Partner" for their Asynchronous Transaction Processing research project.

**Digital Equipment Corporation 1986 - 1994**

Principal Consultant, Database Systems Engineering, 1992 - 1994

Was the ranking database software consultant within Digital Equipment Corporation and Database Run-time System Engineering's primary North American technical spokesperson and external troubleshooter. Worked closely with Digital and customer senior executives. Directly supported and managed customer projects that produced revenues to Digital of over \$120,000,000. Participated in the DEC Rdb product design effort, with a particular emphasis on database administration requirements and client/server application support. Author of performance critical software and technical publications. Provided technical assessment and reverse engineering of competitive database products to corporate marketing and engineering, as well as to sales teams. Tracked between 10 and 15 new product development, marketing, pre-sales, systems integration, and consulting projects within any given month, providing engineering support and direction as needed. Project manager/ for both the DEC Rdb VLDB Performance Testing Project (set new world's records for backup and restore) and the "Lights-Out" Advanced Development Project (includes remote management and database fault tolerance). Managed field test of the DEC ODBC Driver V1.1. Implemented AS3AP benchmark for DEC Rdb. Won eight of nine competitive benchmarks between 1989 and 1994 as project manager and database designer. Prepared the engineering consulting team to support Rdb on 64-bit UNIX.

As the sole New York area representative of corporate engineering, consulted to, field tested software in, supported, and advanced use of DEC Rdb and Digital's related production systems products in money market banks and Fortune 500 accounts. Provided advanced training and direct support to the "Information Management Partners", Digital's top 125 production systems consultants. Major accounts included: Bankers Trust, Bank of NY, Republic National Bank, Con Edison, Fleet Northstar Bank, Dun & Bradstreet, Chemical Bank, J.P. Morgan, ITT, Bell Atlantic, General Electric, NBA, HBO, Pfizer, Monsanto, GM Hughes, Pioneer, McGraw-Hill, M&M Mars, Phoenix Mutual Life, State of New Jersey, and the City of New York. Software vendors supported include SAS Institute, Must, Powersoft, Information Builders, Financial Models, Financial Sciences, Consilium, PeopleSoft, CompuText, Ross Systems, Cognos, and Verity.

#### Senior Consultant, Database Systems Technical Support Group 1989 - 1992

Provided technical support for worldwide marketing activities. Co-developed in-house Rdb support course and trained over 100 new database specialists and consultants. Designed a fault-tolerant trading system architecture for GE Capital (the first US application for the DEC Reliable Transaction Router, solution was replicated at ITT Financial Services, Caterpillar Tractor, and Ford Motor Credit). Did performance engineering for the Rdb databases supporting the Digital solution for newspaper pre-press operations used at seven daily newspapers nationwide. Co-authored monograph on ISAM to database migration. Was the technical member of the database marketing planning team and technical editor for database system's proprietary information disclosure presentations. Participated in briefings of industry analysts. Lead database product demonstrator at DECworld '92. Developed new product demonstrations for DEC Rdb and DEC RALLY. Number of accounts in NY running Rdb/VMS increased by more than 350% from 1989 to 1992, 150% of the US average. Rdb grew to the number one RDBMS product in the VAX/VMS market during this period.

#### Senior Software Consultant, New York District and New York ISST 1986 - 1989

Systems Integration solution architect for large IS projects in NY-based Fortune 500 accounts. Pioneered the use of Rapid Application Development techniques in DEC consulting projects. Developed a prototype EDI system for Colgate-Palmolive that was put into production to support critical retail accounts and did so for two years. Designed network and database system to support Colgate's first "Just-In-Time" manufacturing facility. Tuned and managed demonstration databases and systems for "Desktop Information Management" at DECworld '87, was primary presenter and VAXcluster system manager. Received "Outstanding Contributor" award for the overnight development and rollout of a stateroom reservation system needed for the QE II. Served as technical leader of the Digital team that re-engineered the F.W. Dodge construction information division of McGraw-Hill. The resulting system was the world's largest database publishing application, and the first built on a three-tier client server model. Delivered projects at Pfizer, Con Edison, Seagrams, General Electric, W.R. Grace, and the City of New York. Account revenue goals were met or exceeded in all years spent in Digital's New York office.

SEED Software Corporation (ManTech International) 1984 - 1986

Vice President / Senior Data Base Analyst

Led the development of a PC-LAN/Xerox 9700 publishing system, project brought in on time and on budget. While working for ManTech, took part in the acquisition of the SEED DBMS from CDC. Became the senior full time manager of the start up database software subsidiary. In 16 months built a sales, marketing, and support team that brought out a new product release, re-architected and completed the SEED II 4GL, expanded an international and DoD OEM distribution base, ported SEED to UNIX System V, and produced a profitable \$2MM in annual sales.

International Data Base Systems / United Telecom / Control Data 1979 - 1984

Midwest Regional Manager / Field Engineer / Member of the Technical Staff

Developed, documented, sold, taught, and consulted on use of the SEED (CODASYL) portable database management system. After acquisition of SEED by CDC, managed sales and support for a 20 state Midwest and western territory (including Canada and Latin America). Accounts included the US DoD, Mannesmann, Kaiser Engineers, Bankers Trust, CSC, Boeing, and Digital.

First Pennsylvania Bank, Public Financial Management 1978 - 1979

Research Analyst, Campaign Consultant, and Programmer

Maintained system to price and coupon municipal bonds, developed electrical utility debt analysis model, did due diligence research for new debt issues, and provided campaign support to mayoral candidate Bill Green. Trained poll watching and Election Day support teams. Negotiated a federally supervised recount of ballots after tallying system irregularities forced a

seizure of all voting machines after close of voting in the 1979 mayoral primary election.

Committee to Elect William H. Gray, 1978 and 1980

Speech Writer, Policy Analyst, Ward Coordinator, and Advance Man

Congressman Gray won both primary and general elections by unprecedented majorities.

United States Senate Select Committee on Small Business, 1977

Legislative Assistant / Intern for the Subcommittee on Monopoly Practices

Served as investigator committee staff for hearings on the effects of government regulations on small business air carriers. Edited the hearing transcripts and write the committee report, served as acting press secretary.

#### Professional Affiliations and Board Memberships

- Observer/Advisor to the Board of Directors of the Open Source Development Lab
- Advisory Board, Department of Computer and Information Sciences, LaGuardia Community College, City University of New York
- Association for Computing Machinery
- Interwoven Technical Advisory Board
- nLayers Technical Advisory Board
- Egenera Technical Advisory Board

#### Awards, Recognition, and Public Service

- Brooklyn Leadership Committee of the Board of Habitat for Humanity New York City 2005 -
- Habitat for Humanity NYC: Charter Member, Community Builders Society; Team Leader, Martin Luther King Birthday Blitz Build, Bronx, NY, 2002
- Top-rated Director (rank of 1), Credit Suisse First Boston Investment Banking IT, 2001
- Project Leader, Mouse Network Build for the NYC High School of Economics and Finance Post-9/11 Relocation, 2001
- Top-rated Director (rank of 1), Credit Suisse First Boston Team CTO 1999
- Research Achievement Award, Giga Information Group, Q1 1997
- President's Club, Top Research Contributor, Giga Information Group, 1996
- Computer-support (volunteer), Stamford, CT "I Have a Dream" Foundation, 1993-1997
- Highest Student-rated DECUS Pre-Symposium Seminar, 1993
- Top Contributor, Database Product Business Unit, 1992
- DECworld '92 "Superstar", Database Product Business Unit.
- Digital Area Sales Vice President's "Winners Circle" Award, 1989

- Selected by Durzo Development as key member of "model" customer account team, 1988
- Digital New York District Quarterly Top Sales Support Award, 1987, 1988, 1989
- Vice President's Award DECworld '87
- Sales & Marketing Top Performer Award, IDBS, 1980, 1982, 1983, 1984
- Board of Directors, National Science Foundation Discovery Learning Program in Mathematics, Philadelphia 1980 - 1981
- Elected Alternate Delegate, Democratic National Convention, 1980
- Founding Member, Delaware Valley Regional Planning Board, 1979 - 1981
- Elected Committeeman, Democratic City Committee, 1979 and 1980

## Education

- University of Pennsylvania, College of General Studies, 1978 - 1979
  - Wesleyan University, 1975 - 1978
- Note: Four years of coursework, no degree received.

Languages: English and Spanish

## Publications

- "Linux 2.6 and Solaris 10: An Analysis of Two Strategies for Enterprise Operating Systems", Robert Frances Group, 2005.
- "Server Consolidation and Linux Adoption; Linked Opportunities for Infrastructure Rationalization", Robert Frances Group, 2004
- "Enterprise Information Integration -- An Idea Whose Time May Have Finally Come", Robert Frances Group, 2003
- "Going to the Well or Walking in the Lion's Den; Some thoughts on communicating with the business" Waters Magazine, 2003
- "J2EE vs. .NET -- Refereeing the Holy War", Robert Frances Group, 2003
- "It's Not Just What You Copy but How You Copy It; Technology Options for Data Synchronization and Replication", Ticker Wall Street Technology Association, May 2003
- "Middleware Strategy as a Key Component of the Enterprise Architecture", Robert Frances Group, 2003
- "FutureView: Two-Year Information Technology Forecast", Credit Suisse First Boston, 2000, 2001, 2002
- "OLAP & Web Commerce: Driving Forces on the Enterprise Data Strategy", Giga Information Group 1997,
- "Evaluating RDBMS Data Warehouse Servers", Giga Information Group 1997,
- "IT Planning for the European Monetary Union", Giga Information Group 1997,
- "Red Brick Warehouse 5.0: An RDBMS with a Mission", Giga Information Group 1997,



- "Sybase IQ: A Unique Architecture for a High-Performance Data Mart", Giga Information Group 1997,
- "Windows NT: Database Server for the Workgroup, Not the Enterprise", Giga Information Group 1997,
- "Object and Relational Database Underpinnings for Workflow Systems", Giga Information Group 1997,
- "RDBMS Cost-to-Use Studies: Caveat Emptor", Giga Information Group 1997,
- "Data and Database Administration Changes for Client/Server and the Web", Giga Information Group 1997,
- "Informix Universal Server: Building and Using DataBlades", Giga Information Group 1996,
- "Universal Database Servers: Object-Relational Technology Comes of Age", Giga Information Group 1996,
- "Oracle's Network Computing Architecture: Evolution Not Revolution", Giga Information Group 1996,
- "Enterprise Security Rules for Java Applets and ActiveX Controls", Giga Information Group 1996,
- "A New Turn for Open Systems OLTP", Giga Information Group 1996,
- "Rdb7: A Surprising Alternative to Mainframes for High-End Databases", Giga Information Group 1996,
- "Planning for Web-Enabled Database Access", Giga Information Group 1996,
- "Microsoft SQL Server 6.5: Not Sybase's Little Brother Anymore", Giga Information Group 1996,
- "System 11 and the Future of Sybase", Giga Information Group 1996,
- "Save Up to 66% on Your Database Purchases (with Chip Gliedman) ", Giga Information Group 1996,
- "Relational Database Overview '96", Giga Information Group 1996,
- "IBM/Tivoli Merger Changes the DSM Market", Giga Information Group 1996,
- "IBM DB2 on Windows NT: Player or Placeholder? ", Giga Information Group 1996,

- More than 200 1-page Giga "Catalyst Question and Answer" spot research documents published by Giga Information Group, 1996-1997.
- Served as editor for database construction and tuning of Information Systems, a monthly refereed journal published by Pergamon Press, Oxford, UK, (edited by Professor Dennis Shasha, Courant Institute, New York University) 1994 - 1995.
- Introduction to ANSI SQL92 Programming, Textbook and Course Materials, with Charles R. Kelley, FrontRange, 1995.
- Sybase 10.0 on OpenVMS AXP: Engineering Evaluation, with W. Schulhoff, Bankers Trust Company, 1995
- Testing Backup and Restore Operations for Very Large Relational Databases, with Robert Abbot, Digital Equipment Corporation, 1994.
- Questions and Answers About Managing Very Large Relational Databases, Digital Equipment Corp., 1994.
- "Ask the Rdb Experts" Column, Digital's Rdb World, PCI Publications, Quarterly, 1991 - 1993 (contributed columns to twelve consecutive issues).
- Migrating from RMS to Rdb, a Planning Guide, with Philip A. Naecker, Digital Equipment Corp., 1992.
- The Underlying Factors Affecting the Credit Quality of Major Public Power Issuers, with G. Edward DeSeve, First Pennsylvania Bank, 1978.
- Report of the Subcommittee on Monopoly Practices, United States Senate Select Committee on Small Business on Federal Regulation and the Fate of Small Business Air Carriers in the United States, Government Printing Office, 1977.

#### Selected Courses Taught, Seminars, and Conference Presentations

- "Technology meets the business-side on the road to compliance", Panel Moderator, Waters Congress 2005, New York, December 2005
- "New Open Source Business Models", Panelist, Open Source Business Conference, Boston, October 2005
- "Disruptive technologies and the changing trading environment", Panel Moderator, Waters Congress 2004, New York, December 2004

- "Server Virtualization", Panelist, CeBIT America, New York, June 2003
- "Understanding and Managing Technology Risk", Session Chair and presentation "A Taxonomy of Technology Risk", FiShare/RFG Roundtable on Regulatory and Legislative Requirements for Financial Services Information Technology, New York and Chicago, June 2003.
- "The Changing Requirements and Market for Enterprise Storage", RFG Conference on Document Retention and Storage, February 2003.
- "Linux and Open Source on Wall Street", Panelist, LinuxWorld Expo, New York, January 2003
- "Virtualization Technologies and the Enterprise Data Center", Panelist, Next Generation Data Center Conference, New York, November 2002
- "Free Software, Real Money, Implementing a Global Securities Trading Platform on Linux", LinuxWorld Expo, San Francisco, September 2002 <"Rebuilding for the Recovery", CSFB European Technology Conference, Barcelona, May 2002
- "Enterprise Technology Requirements and Directions", CSFB Asian Investors Conference, Hong Kong, March 2002
- "Telecommunication in 2002, a Global Enterprise View", CSFB Global Telecommunications CEO Conference, Orlando, March 2002
- "A Second Generation Web Content Management Architecture", Internet World, New York, December 2001
- "Managing and Deploying Web Content for the Global Enterprise" and "Developing a Wireless Commerce Strategy", Interwoven GearUp 2000 Conference, San Francisco, October 2000.
- Keynote Presentation: "Web Architectures for OLTP", First Annual Conference on Intranets and Extranets for Financial Services", International Center for Economic Research, New York, November 1997
- "Data Management for the Distributed Enterprise", The World Bank, July 1997
- "Driving Forces on the Enterprise Data Strategy" Theme Presentation, GigaWorld IT Forum, 1997
- "Universal Database Servers: Object-Relational Comes of Age", GigaWorld IT Forum, 1997
- "New Options in Web-Enabled Databases", Keynote Address for the Database Administration and Management Association (DAMA) North-East Regional Meeting, 1997
- "RDBMS Product and Market Trends" and "Web Enabled Database Systems", Giga Briefings, 1996
- "Evaluating RDBMS Data Warehouse Servers", Red Brick Executive Seminars, October 1996
- "Planning for Return on the Data Warehouse Investment", Giga/DST Data Warehousing Conference, June 1996
- "Working with Distributed Databases", Session Chair, COMDEX Spring '96, June 1996.
- "Managing OpenVMS Two-Phase Commit Facilities", Bankers Trust Company, August 1995
- "Building Software", The Germantown Science and Art Club, February 1995
- "Downsizing NOMAD Applications from VSAM and RMS to DEC Rdb and Alpha AXP", 10th Annual OASYS/Must Software International Users Training Conference, June 1994.
- "Using RMU for DEC Rdb Database Administration", DECUS National Event Pre-Symposium Seminar, 1992-1993

- "VLDB Backup Performance" and "Migrating from RMS to Rdb: Strategies and Tactics", Rdb Conference and Exposition, August 1993.
- "DEC Rdb V6 Vs Oracle7 for VLDB" and "Newspaper Publishing: Multi-Media Database Systems Integration Case Study", DEC IM Partners Meeting, July 1993.
- "Database Systems Alpha Program Update", Digital IM Partner's Meeting 1992.
- Presenter and Demonstrator: "Rdb and DBMS on OpenVMS Alpha", "Integrated Solution for Database Design and Tuning", Multi-Media Database Management", DECworld '92, Boston.
- "Supporting RMS to Rdb Conversion Programs", Sales Support Training, 1992.
- Presenter and Panelist "Enterprise Information Management", NetWorld '92, Boston.
- "Rdb Survival Skills for Software Services", delivered twice a year 1990 - 1992.
- "Positioning Digital's Client Server Offerings", Digital IM Partner's Meeting 1991.
- "Digital Solutions for Data Management", Sales Support Training, 1991 -1992.
- Storage and Database Announcements, VAX 9000/DECtp II Press Briefing, 1990
- F.W. Dodge Project, Information Systems/Database Symposium, Baltimore 1989.
- CASE and ASDE presentations and demonstrations, New York ACT, DECworld '88.
- Panelist "The Future of Database Technologies", National DBMS Symposium, 1986.
- Guest Lecturer, Database Programming, Wharton School, University of Pennsylvania, 1985 - 1986.
- DECUS Presentation, "Data Access Techniques and 4GL Performance", February 1986.
- Presenter for SEED Software, National DBMS and 4GL Symposia 1983 - 1986.
- Guest lecturer, Network Database Design, Air Force Institute of Technology, 1983.
- Guest lecturer, Physical Database Design Techniques, Shippensburg State College, 1982.

## Information Systems Environments and Tools

### Web Tools

- Netscape Enterprise Server
- Apache / Tomcat / JBOSS
- Microsoft Internet Information Server
- Allaire Cold Fusion
- IBM WebSphere Advanced Server (Servlet, JSP, EJB)
- Mercury Interactive/Freshwater SiteScope
- Interwoven TeamSite and OpenDeploy
- Allaire HomeSite
- Adobe PageMill
- Quanta
- Microsoft FrontPage

### Database Management Products

- \*Oracle Rdb
- Oracle 10g
- \*Sybase Adaptive Server Enterprise
- MySQL
- Microsoft SQL Server
- DB2 UDB
- Sybase Replication Server
- MS Access
- Informix Universal Server
- Red Brick Data Warehouse Server
- \*DEC/Oracle Data Base Integrator
- Oracle DBI Gateways (RMS, Oracle, Sybase, DB2)
- Oracle CDD/Repository
- Sybase OmniCONNECT with Rdb Access Module
- SEED
- DEC DBMS
- ObjectStore (Object Design)
- Lotus Notes

#### Development and Administration Tools

- PowerBuilder
- Embarcadero DBartisan
- ERwin
- Oracle Designer/Developer 2000
- SilverStream
- GNU emacs
- DECset (LSE, CMS, MMS, PCA, DTM)
- DEC RALLY
- Oracle Trace
- Prolifics/JAM
- VAX COBOL Generator
- Oracle Rdb Expert
- DEC Datatrieve
- BMC Patrol

#### Programming Languages and Environments

- Java (Sun JDK V1.4, IBM VisualAge for Java, Eclipse)
- HTML, JavaScript, SGML, perl, shell scripts (sh, ksh, bash), DCL
- C (VAX C, DEC C, IBM AIX C, MS C, GNU cc)
- C++ (DEC C++, Borland Turbo C++, MS Visual C++, IBM VisualAge for C++)
- FORTRAN (DEC FORTRAN, MS-Fortran)
- BASIC (VAX BASIC, MS Quick BASIC, MS Visual Basic)
- COBOL (VAX COBOL, DEC COBOL, IBM VS-COBOL, MicroFocus COBOL)
- Pascal (VAX Pascal, MS-Pascal)
- Prolog (Borland Turbo Prolog)
- Bliss (VAX Bliss-32)

#### Transaction Processing and Messaging

- OSF DCE
- Transarc Encina
- \*Compaq ACMS
- Compaq RTR (Reliable Transaction Router)

- BEA TUXEDO
- BEA MessageQ
- Sybase Open Server
- BEA ObjectBroker

#### Authoring, Analysis, Publishing, and Presentation Tools

- MS Office (Word, Excel, PowerPoint) Visio
- OpenOffice / StarOffice
- GIMP
- WordPerfect
- Datalogics Pager
- SAS
- SPSS
- VAX Document

#### Operating Systems and GUIs

- MS-DOS with MS-Windows, Windows 95, \*MS Windows NT 4.0, Windows 2000, Windows XP, Windows Server 2003
- UNIX with X11 (\*OSF/1 (True64), Solaris, AIX)
- MVS/ESA with TSO/ISPF and CICS
- \*OpenVMS with Motif
- \*Linux with X11 and KDE (SUSE, Red Hat/Fedora)

Have hands-on development or production support experience with all listed technologies. An asterisk indicates internals or vendor support level knowledge of the product.