

Rich Seifert

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Overview

Mr. Seifert has over 45 years of experience in the computer industry, specializing in computer network architecture, systems, and product design. He was one of the original developers of the 10 Mb/s Ethernet technology at Digital Equipment Corporation, and is now President of *Networks and Communications Consulting*, providing services to a wide range of network, semiconductor, and computer systems manufacturers, investors, and users. He taught graduate-level courses at the University of California for over 15 years, has published three best-selling technology treatises, and has chaired and co-authored numerous international standards for computer communications. He has served as a technology consultant and testifying expert to law firms in more than thirty cases over the past fifteen years. He is an advisor to numerous venture capital investors, has founded high-tech companies both in the U.S. and abroad, and has served on the Executive Boards of a number of firms. Mr. Seifert is an attorney, admitted to practice law in California and in the United States District Court for the Northern District of California.

Education

B.E. (E.E.)	City College of New York, 1976
M.S.E.E.	Worcester Polytechnic Institute, 1979
M.B.A.	Clark University, 1984
J.D.	Santa Clara University, 2006 (summa cum laude)

Computer/Communications Industry Work Experience

1987-Present: *Networks and Communications Consulting (Los Gatos, CA)*
President and Founder

Technical and business consulting to manufacturers, integrators, investors, and users of LAN, semiconductor, internetworking, and computer systems products. More than 200 clients over 20 years, with projects ranging from strategic planning through product design, specification, and training.

1984-1987: *Industrial Networking, Inc. (Santa Clara, CA)*
Chief Technology Officer

First employee and founding CTO for start-up company developing factory LAN modems, controllers, and systems. Provided technical leadership for firm (over 100 employees), as well as design and implementation of new manufacturing and test processes.

1976-1984: *Digital Equipment Corp. (Maynard, MA)*
Principal Engineer/Engineering Supervisor/Consulting Engineer

Technical leader for group of engineers developing first commercial Ethernet products. Co-author (with Xerox and Intel Corp.) of industry-standard Ethernet specification. Designed and developed physical channel for 10 Mb/s Ethernet, including serial interface and transceiver silicon. Charter member of IEEE 802 LAN Standards committee, and co-author of IEEE 802.3 Local Area Network Standard.

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Teaching Experience

- 1986-2002: *University of California (Berkeley)*
Graduate level courses on computer network technology.
- 1999: *University of California (Santa Cruz)*
Undergraduate level course on business information systems.
- 1998: *Oxford University (U.K.)*
Graduate level seminar on computer network technology.
- 1993-95: *University of California (Santa Barbara)*
Graduate level seminars on computer network technology.
- 1987-2002: *Networks and Communications Consulting*
Nearly 100 public and private seminars delivered on computer network technology, plus videotape sales.

Entrepreneurial Experience

- 1992-2000: *Tut Systems (Pleasanton, CA)*
Technical Advisory Board
Helped develop initial business plan, technology validation. Company taken public, subsequently acquired by Motorola.
- 1997-2005: *Mysticom, Inc. (Netanya, Israel; Mountain View, CA)*
Founder, Chief Architect, Board of Directors, Technical Advisory Board
Key member of company start-up team. Helped with initial incorporation, financing, business plan, market validation. Company acquired by TranSwitch Corp.
- 1997-1998: *Juniper Networks (JNPR; San Jose, CA)*
Member of start-up team. Helped with initial product architecture, market validation. Company taken public.
- 1997-1998: *Yago Systems (Sunnyvale, CA)*
Member of start-up team. Helped with technology issues, market validation. Company acquired by Cabletron Systems.
- 1999-2003: *Nishan Systems (San Jose, CA)*
Technical Advisory Board
Consulted to executive team on technology issues. Company acquired by McData Corp.
- 2000-2002: *JatoTech Ventures (Austin, TX)*
Technical Advisory Board
Evaluated and advised general partners on technology investments.
- 2000-2003: *TeraBlaze, Inc. (Cupertino, CA)*
Founder, Chief Architect
Key member of company start-up team. Helped with initial incorporation, financing, business plan, market validation. Company acquired by Agere Systems.
- 2000-2003: *Storage Networks (Waltham, MA)*
Technical Advisory Board
Consulted to executive team on technology issues. Company taken public, later dissolved.
- 2001-2007: *Silverback Systems (San Jose, CA)*
Technical Advisory Board
Member of company start-up team. Helped arrange financing, consulted on technology issues. Company acquired by Brocade Communications.
- 2001-2003: *Cavium Networks (CAVM; San Jose, CA)*
Technical Advisory Board
Member of company start-up team. Consulted on technology issues. Company taken public.

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Publications

Books:

The All-New Switch Book: The Complete Guide to LAN Switching Technology, John Wiley & Sons, August 2008
The Switch Book: The Complete Guide to LAN Switching Technology, John Wiley & Sons, June 2000
Gigabit Ethernet: Technology and Applications of High Speed LANs, Addison-Wesley, April 1998
The Design and Planning of Enterprise-Wide AppleTalk Internetworks, Apple Computer, 1993
Choosing Between Bridges and Routers, Infonetics Research Institute, 1989 (2nd ed., 1990, 3rd ed. 1991)

Articles and Papers:

The Use of Backpressure for Congestion Control in Half Duplex CSMA/CD LANs, Networks and Communications Consulting Technical Report 15, August 1996
Issues in LAN Switching and Migration from a Shared LAN Environment, Networks and Communications Technical Report 14 (also published by Kalpana, Inc.), November 1995
The Effect of Ethernet Behavior on Networks using High-Performance Workstations and Servers, Networks and Communications Technical Report 13 (also published by Auspex Systems), March 1995
When Worlds Collide, Data Communications, January 1991
Have Remote Bridge Vendors Made a Big Blunder?, Data Communications, April 1991
Ethernet: Ten Years After, BYTE Magazine, January 1991

Industry Standards (Author or Co-author):

IEEE 802.3ad: *Link Aggregation*, 1999
IEEE 802.3z: *Media Access Control (MAC) Parameters, Physical Layer, Medium Attachment Units, and Repeater for 1000 Mb/s Operation, Type 1000BASE-X*, 1998
IEEE 802.3ac: *Frame Extensions for Virtual Bridge Local Area Networks*, 1998
IEEE 802.3x: *Specification for 802.3 Full Duplex Operation*, 1997
ISO/IEC 8802-3 (IEEE 802.3): *Carrier Sense Multiple Access with Collision Detect (CSMA/CD) Media Access Control Method and Physical Layer Specifications*, 1985, 1989, 1993, 1996 (and supplements)
IEEE 802.3u: *Media Access Control (MAC) Parameters, Physical Layer, Medium Attachment Units, and Repeater for 100 Mb/s Operation, Type 100BASE-T*, 1995
ISO/IEC 10038 (IEEE 802.1D): *Medium Access Control (MAC) Bridges*, 1990, 1993 (and supplements)
IEEE 802: *Overview and Architecture*, 1990
IEEE 802.1E: *System Load Protocol*, 1990
ISO 8802-4 (IEEE 802.4): *Token-passing bus access method and physical layer specifications*, 1985, 1990 (and supplements)
Digital Equipment Corp., Intel Corp., Xerox Corp., *The Ethernet: A Local Area Network, —Data Link Layer and Physical Layer Specifications*, Version 1: September 30, 1980, Version 2: November 1982

Legal Consulting Experience

From 1994–present, served as technology consultant and expert witness in numerous cases (for both plaintiffs and defendants) involving patent infringement, breach of contract/warranty, and tort liability. Services have included: clarifying and interpreting technology details for counsel, preparation of expert declarations and reports, providing testimony (both deposition and open court), and prior art searches. Has also served as Special Master (Sup. Ct., CA) in a high-profile trade secret dispute. In 2006, admitted to the bar in California, and to the Federal bar for the Northern District of California.

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Legal Cases

- 1994–95 3Com v. SynOptics Communications
Workman, Nydegger & Seeley (Salt Lake City, UT) for Plaintiff 3Com
Patent litigation relating to secure Ethernet repeater technology. Provided expert technology consultation. Case settled before deposition or trial.
- 1996–98 Datapoint v. Intel, et. al.
Kenyon and Kenyon (Washington, DC) for Defendant Intel
Patent litigation relating to multi-speed Local Area Networks, Ethernet, Fast Ethernet, LAN Bridges, and Auto-Negotiation. Provided expert consultation and testimony at Markman hearing. Summary judgment for client Intel (non-infringement); affirmed on appeal.
- 1998 Bay Networks
Provided expert opinion on the classification of networking products for the Harmonized Tariff Schedule of the European Union (World Customs Organization).
- 1998 Level One v. SEEQ
Fish & Richardson (Menlo Park, CA) for Plaintiff Level One
Patent litigation relating to Fast Ethernet Auto-Negotiation and IEEE standards. Provided expert consultation, expert report and deposition testimony. Case settled prior to trial.
- 1998 Ashraf Dahod v. LANCity Communications (Bay Networks)
Weingarten, Schurgin, Gagnebin & Hayes (Boston, MA) for Defendant Bay Networks
Patent litigation relating to broadband metropolitan-area network equipment. Provided expert consultation, expert report, and deposition testimony. Trial verdict for client Bay Networks.
- 1998–00 Accton Technology v. Microlinear
Morgan, Miller & Blair (Walnut Creek, CA) for Plaintiff Accton
Liability litigation relating to defective Ethernet transceiver components. Provided expert consultation. Case settled before trial.
- 1999 Texas Instruments v. Hyundai
Jones, Day, Reavis & Pogue (Dallas, TX) for Plaintiff Texas Instruments
Patent litigation relating to Fast Ethernet, signal encoding, and IEEE standards. Provided expert consultation and expert report. Case settled before trial (in excess of \$1B for Plaintiff).
- 1999 Lucent v. Cisco Systems
Weil, Gotshal & Manges (Menlo Park, CA) for Defendant Cisco Systems
Patent litigation relating to Virtual LANs, internetworking, etc. (many patents at issue). Provided expert consultation. Case settled before trial.
- 2000 Nortel Networks v. Optical Networks, Inc.
Fenwick & West (Menlo Park, CA) for Defendant Optical Networks
Patent litigation relating to redundant fiber ring technology. Provided expert technology consultation. Consulting assignment completed during pendency of case.
- 2000 Accton Technology v. Valor Electronics
Morgan, Miller & Blair (Walnut Creek, CA) for Plaintiff Accton
Liability litigation relating to defective Ethernet power converter modules. Provided expert consultation and deposition testimony. Case settled before trial.
- 2000-01 Intel v. Broadcom
Superior Court of California (Santa Clara County)
Litigation relating to potential disclosure of trade secrets as a result of hiring employees from a competitor. Served as Special Master to the Court, pursuant to a Preliminary Injunction ruling. Acted as a neutral, technically-knowledgeable third party to monitor work of affected employees to see if trade secret information was being misappropriated. Technologies at issue included Gigabit Ethernet and LAN Switch semiconductors. Provided report to court; case subsequently settled before trial.
- 2000 Grumman v. 3Com
Workman, Nydegger & Seeley (Salt Lake City, UT) for Defendant 3Com
Patent litigation relating to internetworking systems architecture. Provided expert consultation. Consulting assignment completed during pendency of case.
- 2001 Intel Corporation
Provided expert consultation to in-house counsel regarding entire portfolio of network-related patents.

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- 2001-04 Nortel v. Foundry Networks
Orrick, Herrington & Sutcliffe (Menlo Park, CA) for Defendant Foundry Networks
Patent litigation relating to design of bridges, switches, and routers. Provided expert consultation and expert reports. Case settled before trial.
- 2001-02 IBM v. Pluris
Wilson, Sonsini, Goodrich & Rosati (Palo Alto, CA) for Defendant Pluris
Patent litigation relating to a variety of internetworking technologies. Provided expert consultation. Case rendered moot by dissolution of Pluris.
- 2002-04 Connectel v. NMS
Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Boston, MA) for Defendant NMS
Patent litigation relating to Internet fax technology. Provided expert consultation, expert report, deposition testimony and testimony at Markman hearing. Case settled before trial.
- 2002-05 Chrimar Systems v. Cisco Systems
Orrick, Herrington & Sutcliffe (Menlo Park, CA) for Defendant Cisco Systems
Patent litigation relating to providing power to Ethernet devices over a communications link. Provided expert consultation, expert reports and affidavits, deposition and hearing testimony. Summary judgment for client Cisco (both non-infringement and invalidity of asserted patent claim).
- 2005 Connectel v. Cisco Systems
Kirkland & Ellis (San Francisco, CA) for Defendant Cisco Systems
Patent litigation relating to Internet fax technology. Provided expert consultation. Case settled before trial.
- 2005 Micrel v. Deloitte
Bingham McCutcheon (East Palo Alto, CA) for Defendant Deloitte
Accounting malpractice dispute relating to network semiconductor devices. Provided expert consultation. Consulting assignment completed during pendency of case.
- 2005-07 Negotiated Data Solutions v. Dell Computer
Greenberg Traurig (Costa Mesa, CA) and Paul Hastings (Palo Alto, CA) for Defendant Dell
Patent litigation relating to Ethernet Auto-Negotiation. Provided expert consultation. Consulting assignment completed during pendency of case.
- 2005- Marvell v. Broadcom
O'Melveny & Myers (San Francisco, CA) for Defendant Broadcom
Trade secret dispute relating to network semiconductor devices. Provided expert consultation. Case stayed indefinitely due to criminal prosecution of employee involved.
- 2005-07 L3 Communications v. Reveal Imaging Technologies, Inc.
Mintz, Levin, Cohn, Ferris, Glovsky & Popeo (Boston, MA) for Defendant Reveal
Patent litigation relating to networked airport baggage scanning equipment. Provided expert consultation. Case settled before trial.
- 2006-07 Network-1 v. D-Link Systems
Christine Yang (Fountain Valley, CA) for Defendant D-Link Systems
Patent litigation relating to providing power to Ethernet devices over a communications link. Provided expert consultation, expert report, deposition testimony. Case settled before trial.
- 2006-07 Accton Technology v. Centillum Communications
Morgan, Miller & Blair (Walnut Creek, CA) for Plaintiff Accton.
Liability litigation relating to defective network routing semiconductors. Provided expert consultation, declarations. Case settled before trial.
- 2006-07 Alcatel v. Foundry Networks
Orrick, Herrington & Sutcliffe (Menlo Park, CA) for Defendant Foundry Networks
Patent litigation relating to user authentication for network switches. Provided expert consultation. Case settled before trial.
- 2006 Antor Media v. Palm Computing
Quinn Emanuel (Redwood Shores, CA) for Defendant Palm Computing
Patent litigation relating to method for data communications. Provided expert consultation. Case settled before trial.
- 2006- Enterasys Networks v. Foundry Networks
Orrick, Herrington & Sutcliffe (Menlo Park, CA) for Defendant Foundry Networks
Patent litigation relating to Virtual LAN implementation in network switches. Provided expert consultation. Consulting assignment completed during pendency of case.

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- 2006-10 Chrimar Systems v. PowerDSine, Chrimar Systems v. D-Link Systems
Orrick, Herrington & Sutcliffe (Menlo Park, CA) for Defendants PowerDSine and D-Link.
Patent litigation relating to providing power to Ethernet devices over a communications link.
Provided expert consultation, expert reports, declarations, deposition and hearing testimony.
Case settled before trial.
- 2007 3Com v. Realtek
Simpson Thacher (New York, NY) for Plaintiff 3Com
Patent litigation relating to implementation of host interface in Ethernet and FDDI network
products. Provided expert consultation. Consulting assignment completed during pendency of
case.
- 2008-09 Commil v. Cisco Systems
Simpson Thacher (Palo Alto, CA) for Defendant Cisco Systems
Patent litigation relating to partitioning of Wireless LAN devices. Provided expert consultation.
Consulting assignment completed during pendency of case.
- 2008 Epson v. Advanced Micro Devices
Townsend, Townsend and Crew (San Francisco, CA) for Plaintiff/Cross-Defendant Epson.
Patent negotiation relating to Ethernet Auto-Negotiation, Wake-on LAN, Full Duplex Ethernet
(many patents at issue). Provided expert consultation.
- 2008-10 Network Appliance v. Sun Microsystems, Inc.
DLA Piper (Washington, DC) for Defendant Sun Microsystems
Patent litigation relating to Ethernet Link Aggregation. Provided expert consultation. Case settled
before trial.
- 2008-09 Fenner v. 3Com, et. al.
Finnegan, Henderson (Palo Alto, CA) for Defendants D-Link, Extreme Networks, Netgear, ZyXel
Vasquez, Benisek & Lindgren (Lafayette, CA) for Defendants SMC, Enterasys, et. al.
Patent litigation relating to MAC bridging, IP routing, and address lookup algorithms. Provided
expert consultation, expert report. Case settled before trial.
- 2008- Network-1 v. Enterasys, et. al.
Vasquez, Benisek & Lindgren (Lafayette, CA) for Enterasys and Joint Defense
Follow-on case from prior Network-1 v. D-Link, same patent pursued against additional
defendants following earlier settlement. Provided expert consultation. Consulting assignment
completed during pendency of case.
- 2009 Fenner v. Dell, et. al.
Weil, Gotshal & Manges (New York, NY) for Defendant Dell Computer
Goodwin, Procter (Washington, DC) for Defendant Hewlett-Packard
Follow-on case from prior Fenner v. 3Com litigation relating to MAC bridging, IP routing, and
address lookup algorithms. Provided expert consultation. Consulting assignment completed
during pendency of case.
- 2009 FINoc v. D-Link
Law Offices of Christine Yang for Defendant D-Link
Patent litigation relating to wireless DSL communications systems. Provided expert consultation.
Case settled before trial.
- 2009 United States v. Ge
Swanson & McNamara (San Francisco, CA) for Defendant Yuefei Ge
Criminal prosecution relating to economic espionage and theft of trade secrets. Provided expert
consultation. Defendant acquitted on two counts, mistrial (jury deadlock) on three counts.
- 2009- Zircon v. Stanley
Haynes and Boone (San Jose, CA) for Plaintiff Zircon
Patent litigation relating to algorithms for electronic stud finder. Provided expert consultation.
Consulting assignment completed during pendency of case.
- 2009-10 Optimum Path v. SMC Networks
Vasquez, Benisek & Lindgren (Lafayette, CA) for Defendant SMC Networks
Patent litigation relating to wireless routers. Provided expert consultation. Consulting assignment
completed during pendency of case.
- 2010 Eon v. Verizon
Simpson Thacher (New York, NY) for Defendant Verizon
Patent litigation relating to interactive video networks. Provided expert consultation, expert
reports, deposition testimony. Case settled before trial.

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- 2010 SynQor, Inc. v. Lineage Power, et. al.
Vasquez, Benisek & Lindgren (Lafayette, CA) for Defendants Lineage Power and Cherokee Power
Patent litigation relating to switching power systems architecture. Provided expert consultation.
Consulting assignment completed during pendency of case.
- 2011- Eon v. D-Link
Law Offices of Christine Yang for Defendant D-Link
Patent litigation relating to interactive video networks. Provided expert consultation. Consulting
assignment completed during pendency of case.
- 2011- Fujitsu v. D-Link
Law Offices of Christine Yang for Defendant D-Link
Patent litigation relating to PCMCIA interface adapters. Provided expert consultation. Consulting
assignment completed during pendency of case.
- 2011 Pepper Hamilton LLP
Evaluated patent portfolio for client considering acquisition of IP.
- 2011 VirnetX v. Siemens
Pepper Hamilton LLP for Defendant Siemens
Patent litigation relating to secure communications systems. Provided expert consultation.
Consulting assignment completed during pendency of case.
- 2011 Chalumeau v. Enterasys, et. al.
Vasquez, Benisek & Lindgren for joint defense.
Patent litigation relating to Power-over-Ethernet. Provided expert consultation. Consulting
assignment completed during pendency of case.
- 2012 Chrimar v. Avaya, et. al.
Crowell & Moring for Defendant Avaya
ITC action relating to Power-over-Ethernet. Provided expert consulting. Consulting assignment
completed during pendency of case.
- 2012- Eon v. FLO TV
Simpson Thacher for Defendant FLO TV
Patent litigation relating to interactive video networks. Provided expert consultation. Case
pending.
- 2012-13 Eon v. Novatel, et. al.
K&L Gates for Defendants Novatel and Enfora.
Patent litigation relating to interactive video networks. Provided expert consultation, expert
report, and deposition testimony. Case settled before trial.
- 2012-13 USEI v. Digi
Robins, Kaplan, Miller & Ciresi for Defendant Digi, Inc.
Patent litigation relating to Ethernet interface design. Provided expert consultation. Consulting
assignment completed during pendency of case.
- 2013 Eon v. Silver Spring Networks
SNR Denton for Defendant Silver Spring Networks.
Patent litigation relating to wireless telemetry systems. Provided expert consultation. Consulting
assignment completed during pendency of case.
- 2013- Fenner v. Juniper Networks
Irell & Manella, LLP for Defendant Juniper Networks. Provided expert consultation. Case
pending.
- 2013- USEI v. Xerox Corp.
Robins, Kaplan, Miller & Ciresi for Defendant Xerox Corp. Provided expert consultation, expert
report. Case settled before trial.
- 2014 USEI v. Apple Corp.
Williams Morgan for Defendant Apple Corp. Provided expert consultation, expert reports.
Summary judgment in favor of Defendant Apple.
- 2014- Chrimar v. AMX, et al.
McDermott, Will & Emery for Defendant AMX. Provided expert consultation. Case pending.
- 2014- Net Navigation Systems LLC v. Extreme Networks
Vasquez, Benisek, and Lindgren for Defendant Extreme. Provided expert consultation. Case
pending.