

Scott Bradner - resume

## WORK EXPERIENCE

University Technology Security Officer, Office of the CIO, [Harvard University](#), Cambridge, MA, 2008 to present.

Senior Technical Consultant, Office of the CIO, Harvard University, Cambridge, MA, 2008 to present. Assist CIO in ascertaining the implications of advanced technology on the University, serves as a liaison to various University groups dealing with technology issues.

University Technology Security Officer, Office of the Assistant Provost for [Information Systems](#), [Harvard University](#), Cambridge, MA, 2004 to 2008.

Senior Technical Consultant, Office of the Assistant Provost for [Information Systems](#), Harvard University, Cambridge, MA, 1996 to 2008. Assist Assistant Provost in ascertaining the implications of advanced technology on the University, serves as a liaison to various University groups dealing with technology issues.

Senior Technical Consultant, Office for Information Technology (OIT), Harvard University, Cambridge, MA, 1989 to 1996. Design data networks, install and operate production gateways, serve as OIT liaison to external organizations, oversee installation of fiber infrastructure, develop network based applications, develop recommendations on security and privacy, document existing Harvard network and network support organization.

Founded and managed the Harvard Network Device Test Lab, 1988 to 1999.

Senior Technical Consultant, [Psychology Department](#), Harvard University, Cambridge, MA, 1975 to 1990. Managed computer facility consisting of UNIX computers, PCs and Macintosh computers, developed phototypesetting facility, designed and installed first Harvard campus data network and designed the Longwood Medical Area Network.

Computer Programmer, Psychology Department, Harvard University, Cambridge, MA, 1966 to 1975. Co-developed real-time

operating system and designed special hardware to support real-time research experiments.

Computer Programmer, Information International Incorporated, Cambridge, MA, 1964 to 1965. Worked on film scanning systems.

Lab technician, Children's Hospital Cancer Institute, Boston, MA, 1964.

## TEACHING

Instructor, [Harvard University Extension School](#), from 1995 to the present. Teaching classes in advanced TCP/IP data networking as well as security, privacy and usability.

Tutorial Instructor, [Networld + Interop](#), from 1990 to 2001. (Now known as Interop.) Taught classes in multiprotocol enterprise and Internet service provider data networking.

Tutorial Instructor, [IBM Corporation](#), from 1990 to 1995. Taught classes in advanced TCP/IP data networking.

Senior Preceptor, Harvard University, 1982 to 1990. Taught classes in the use of computers in psychology and supervised special projects in computer and networking electronics and in computer programming.

## CONSULTING

Consultant on network design, management and security to educational institutions, Federal agencies, international telecommunications enterprises and commercial organizations ranging from Fortune 500 companies to small businesses, 1989 to present. Served as an Expert Witness in the [Communications Decency Act challenge](#) in the U.S. Federal court and in a number of patent cases.

## PATENTS:

US Patent 4,799,262 - *Speech Recognition* (with Joel A. Feldman and William F. Ganong, III) 1989

## AWARDS:

The Jonathan B. Postel Service Award from the [Internet Society](#)

The [Petra T. Shattuck Excellence in Teaching Award](#) from the [Harvard University Extension School](#)

## ORGANIZATIONS

### [Internet Engineering Task Force \(IETF\)](#)

- Co-Chair, [Operations and Management Area Working Group](#) (opsawg), 2007 to present)
- Co-Chair, [Congestion and Pre-Congestion Notification Working Group](#) (pcn), (2007 to present)
- Co-Chair, [Internet Emergency Preparedness Working Group](#) (ieprep), (2002 to 2007).
- Liaison between IETF and [ITU-T](#), (1995 to 2009).
- Chair, [New IETF Standards Track Discussion Working Group](#) (newtrk), (2004 to 2006).
- Member, IETF [Internet Engineering Steering Group](#) (1993 to 2003).
- Co-Director, Sub-IP Area (2001 to 2003).
- Co-Chair, [Transport Area Working Group](#) (tsvwg), (1999 to 2003).
- Co-Director, Transport Area (1997 to 2003).
- Co-Director, IPng Area (1993 to 1996).
- Co-Director, Operational Requirements Area (1993 to 1997).
- Chair, [Benchmarking Methodology Working Group](#) (bmwg), (1991 to 1993).

### [Internet Society \(ISOC\)](#)

- Secretary of the Board (2003 to present)
- Vice President for Standards, (1995 to 2003).
- Trustee, (1993 to 1999).

### The American Registry for Internet Numbers (ARIN)

- Treasurer (2009 to 2010)
- Secretary of the Board (1997 to 2009)
- Trustee, (1997 to present)

### IEEE Internet Computing

- Editorial Board, (1999 to 2008).

### Wiley Computer Publishing

- Wiley Network Council, (1997 to 2000).  
Technical editing for a number of books including: *Internet Performance Survival Guide*, by G. Huston; *Converged Networks and Systems*, by I. Faynberg; *Network Services Investment Guide: Maximizing ROI in Uncertain Times*, by M. Gaynor; *Network Routing Basics: Understanding IP Routing in Cisco Systems*, by J. Macfarlane; *The NAT Handbook: Implementing and Managing Network Address Translation*, by B. Dutcher; and *WAN Survival Guide: Strategies for VPNs and Multiservice Networks*, by H. Berkowitz

### Corporation for Regional and Enterprise Networking, Inc.(CoREN)

- Co-chair, Joint MCI-CoREN Technical Committee (1994 to 1995)

### New England Academic and Research Network (NEARnet)

- Co-founder
- Member, Steering Committee (1989 to 1995)
- Chair, Technical Committee (1989 to 1995)

### Longwood Medical Area Network

- Chair, Technical Committee (1991 to 1995)

### Technical Advisory Boards

I have been on many technical advisory boards over the years. Current appointments include:

- [U.S. Venture Partners](#)

Member, [ACM](#), [IEEE](#), [ISOC](#)

## SELECTED PUBLICATIONS

### *Columns*

- [Net Insider](#), [Network World](#), 1992 to present
- [View from the USA](#), [Nikkei Communications](#), 1997 to 1999

### *Papers and Articles*

- Gaynor, M. Pearce, A., Bradner, S., and Ken Post, *Open Infrastructure for a Nationwide Emergency Service Network*, International Journal of Information Systems for Crisis Response Management (IJISCRAM), 2009
- Gaynor, M., Bradner, S., [Statistical Framework to Value Network Neutrality](#), Media Law & Policy, New York Law School, March 2008
- Gaynor, M. and S. Bradner, [Valuing Network Neutrality](#), Broadband Properties, December 2007
- claffy, kc, S. Meinrath and S. Bradner, [The \(un\)Economic Internet?](#), IEEE Internet Computing, May/June 2007
- Bradner, S., [The End of End-to-End Security](#), IEEE Security & Privacy, March/April 2006
- Goodell, G., M. Roussopoulos and S. Bradner, [A Directory Service for Perspective Access Networks](#), Harvard University Computer Science Group Technical Report
- Goodell, G., S. Bradner and M. Roussopoulos, [Building a Coreless Internet without Ripping out the Core](#), Hotnets05, November 2005
- Bradner, S. and C. Metz, [Guest Editor's Introduction: The Continuing Road toward Internet Media](#), IEEE Internet Computing, July-August, 2005
- Bradner, S., [Internet governance - a train on many tracks](#), ARIN newsletter, December 2004
- Gaynor, M., S. Bradner [A Real Options Metric to Evaluate Network, Protocol, and Service Architecture](#), Computer Communication Review (CCR), October 2004
- McKnight, L., J. Howison, and S. Bradner, [Wireless Grids: Distributed Resource Sharing by Mobile, Nomadic, and Fixed Devices](#), IEEE Internet Computing, July-August 2004

- Kung, H.T., C-M. Cheng, K-S Tan, and S. Bradner, [Design and Analysis of an IP-Layer Anonymizing Infrastructure](#), Proceedings of the third DARPA Information Survivability Conference and Exposition (DISCEX 3), April 2003
- Bradner, S., *Are Global Internet-Related Standards Possible?*, International Journal of IT Standards and Standardization Research, Jan-Mar 2003
- King, K. and S. Bradner, [Internet Emergency Preparedness in the IETF](#), Applications and the Internet Workshops, Jan 2003
- Kung, H.T., S. Bradner, and K. S. Tan, [An IP-layer Anonymizing Infrastructure](#), MILCOM 2002, Anaheim, CA, October 2002
- Bradner, S., [Internet Telephony -- Progress Along the Road](#), IEEE Internet Computing, May/ Jun 2002
- Gaynor, M. and S. Bradner, [The Real Options Approach to Standardization](#), Proceedings of Hawaii International Conference on Systems Science, Jan 2001
- Gaynor, M., S. Bradner, M Iansiti, and HT Kung, [The Real Options Approach to Standards for Building Network-based Services](#), Proceeding of IEEE Conference on Standardization and Innovation in Information Technology, Oct 2001
- Gaynor, M. and S. Bradner, [Using Real Options to Value Modularity in Standards](#), Journal of Knowledge Technology & Policy (Special issue on IT standards)
- Bradner, S., *Virtual networking: reflections on the status of ATM*, Journal of High Speed Networks, Volume 6, Number 3, 1997
- Bradner, S., [The Bradner Report: The yet untold story and barking dogs](#), Network Computing, Aug 15, 1997
- Bradner, S., [The Bradner Report](#), Network Computing, July 15, 1996
- Bradner, S., *The Bradner Report 1995*, Network Computing May 15, 1995
- Bradner, S., *The Bradner Bridge Report*, Network Computing, October 1, 1994
- Bradner, S., *The Exclusive Bradner Report*, Network Computing, September 1, 1994
- Bradner, S. and D. Greenfield, *Building the Highway*, PC Magazine, March 30, 1993
- Bradner, S., *Rooting out the Best Routers*, SunExpert Magazine, October 1992
- Bradner, S., *Bridges or Routers: What Matters?*, 3TECH The 3Com Technical Journal, Winter 1992



- Bradner, S., *Ethernet Bridges and Routers: Faster Than Fast Enough*, Data Communications, February 1992
- Bradner, S., *Testing Multiprotocol Routers: How Fast is Fast Enough?*, Data Communications, February 1991

### **Books**

- Bradner, S., *Forward in The Complete April Fools' Day RFCs*, compiled by T. Limoncelli and P. Salus, Peer-to-Peer Communications, 2007, ISBN 13: 978-1-57398-042-5
- Bradner, S., *Forward in TCP/IP for Dummies* by C. Leiden and M. Wilensky, Wiley Publishing, 2003, ISBN 0-7645-1760-0
- Bradner, S., *Current Trends in the IETF and Voice over IP*, chapter in *Carrier IP Telephony 2000*, The International Engineering Consortium, 2000, ISBN 0-933-21775-7
- Bradner, S., [\*The Internet Engineering Task Force\*](#), a chapter in *Open Sources: Voices from the Open Source Revolution*, edited by C. DiBona, S. Ockman & M. Stone, [O' Reilly](#), 1999, ISBN 1-56592-582-3
- Mitchell, D., S. Bradner and K Claffy, [\*In Whose Domain?: Name service in Adolescence\*](#), section in *Coordinating the Internet*, [MIT Press](#), 1997, ISBN 0-262-11230-2
- Bradner, S., and A. Mankin (Eds.), *IPng, Internet Protocol Next Generation*, [Addison-Wesley](#) 1996, ISBN 0-201-63395-7
- Bradner, S., *A Practical Perspective on Routers*, a chapter in *The Internet System Handbook*, Edited by D. Lynch & M. Rose, [Addison-Wesley](#), 1993, ISBN-0-201-56741-5

### **IETF RFCs and Internet Drafts**

- Bradner, S, L. Conroy & K. Fujiwara, *The E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discovery System (DDDS) Application (ENUM)*, [RFC 6116](#), March 2011 [ID00](#), [ID01](#), [ID02](#), [ID03](#), [ID04](#), [ID05](#), [ID06](#), [ID07](#), [ID08](#), [ID09](#)
- Arkko, J. and S. Bradner, *IANA Allocation Guidelines for the IPv6 Routing Header*, [RFC 5871](#), May 2010
- Bradner, S. and J. Contreras, eds, *Rights Contributors Provide to the IETF Trust*, [RFC 5378](#), November 2008, [ID00](#) [ID01](#) [ID02](#) [ID03](#) [ID04](#) [ID05](#) [ID06](#) [ID07](#) [ID08](#) [ID09](#)
- Falk, A. and S. Bradner, *Naming Rights in IETF Protocols*, [RFC 5241](#), 1-April-2008

- Arkko, J. and S. Bradner, *IANA Allocation Guidelines for the Protocol Field*, [RFC 5237](#), February 2008
- Bradner, S., B. Carpenter (Ed.), and T. Narten, *Procedures for Protocol Extensions and Variations*, [RFC 4775](#), December 2006
- Bradner, S. Ed., *RFC 3978 Update to Recognize the IETF Trust*, [RFC 4748](#), October 2006, [ID00](#) [ID01](#) [ID02](#) [ID03](#)
- Bradner, S. *Obtaining Additional Permissions from Contributors*, [Internet Draft](#), July 2005
- Trowbridge, S., S. Bradner and F. Baker, *Procedures for Handling Liaison Statements to and from the IETF*, [RFC 4053](#), April 2005
- Bradner, S., *IETF Rights in Contributions*, [RFC 3979](#), March 2005, [ID00](#)
- Bradner, S., *Intellectual Property Rights in IETF Technology*, [RFC 3978](#), March 2005
- Bradner, S. Ed. *Extracting RFCs*, [Internet Draft](#), February 2005, [ID01](#)
- Bradner, S. *Sample ISD for the IETF Standards Process*, [Internet Draft](#), October 2004
- Bradner, S., *Omniscience Protocol Requirements*, [RFC 3751](#), 1-April-2004
- Bradner, S., *Intellectual Property Rights in IETF Technology*, [RFC 3668](#), February 2004
- Bradner, S., *IETF Rights in Contributions*, [RFC 3667](#), February 2004, [ID00](#) [ID01](#) [ID02](#) [ID03](#) [ID04](#) [ID05](#) [ID06](#) [ID07](#) [ID08](#)
- Bradner, S. *Ideas for changes to the IETF document approval process*, [Internet Draft](#), July 2003
- Bradner, S. *An Idea for an Alternate IETF Standards Track*, [Internet Draft](#), July 2003 [ID01](#)
- Mankin, A., S. Bradner, R. Mahy, D. Willis, J. Ott, and B. Rosen, *Change Process for the Session Initiation Protocol (SIP)*, [RFC 3427](#), December 2002, [ID00](#) [ID01](#) [ID02](#) [ID03](#)
- Fishman, G., and S. Bradner, *Internet Engineering Task Force and International Telecommunication Union - Telecommunications Standardization Sector Collaboration Guidelines*, [RFC 3356](#), August 2002, [ID00](#) [ID01](#) [ID02](#)
- Bradner, S. Ed. *Intellectual Property Rights in IETF Technology*, [Internet Draft](#), June 2002 (published as RFC 3668) [ID01](#)
- Bradner, S. Ed. *IETF Rights in Submissions*, [Internet Draft](#) (published as RFC 3667), [ID01](#)
- Hoffman, P., and S. Bradner, *Defining the IETF*, [RFC 3233](#), February 2002



- Bradner, S., P. Calhoun, H. Cuschieri, S. Dennett, G. Flynn, M. Lipford, and M. McPheters, *3GPP2-IETF Standardization Collaboration*, [RFC 3131](#), June 2001 [ID00](#)
- Bradner, S. and HT Kung, *Requirements for an Anonymizing Packet Forwarder*, [Internet Draft](#), November 2001
- Bradner, S. and A. Mankin, *Report of the Next Steps in Signaling BOF*, [Internet Draft](#), July 2001
- Rosenbrock, K., R. Sanmugam, S. Bradner, J. Klensin, *3GPP-IETF Standardization Collaboration*, [RFC 3113](#), June 2001, [ID00](#) [ID01](#)
- Gaynor, M. and S. Bradner, *Firewall Enhancement Protocol (FEP)*, [RFC 3093](#), 1-April-2001
- Bradner, S., A. Mankin and J. Schiller, *A Framework for Purpose Built Keys (PBK)*, [Internet Draft](#), February 2001, [ID01](#), [ID02](#), [ID03](#) [ID04](#), [ID05](#)
- Bradner, S., A. Mankin and V. Paxson *Advancement of metrics specifications on the IETF Standards Track*, [Internet Draft](#), February 2000, [ID01](#) [ID02](#) [ID03](#)
- Bradner, S. and V. Paxson, *IANA Allocation Guidelines For Values In the Internet Protocol and Related Headers*, [RFC 2780](#), March 2000 [ID00](#) [ID01](#) [ID02](#) [ID03](#) [ID04](#)
- Bradner, S., *A Memorandum of Understanding for an ICANN Protocol Support Organization*, [RFC 2691](#), September 1999, [ID01](#)
- Bradner, S., *A Proposal for an MOU-Based ICANN Protocol Support Organization*, [RFC 2690](#), September 1999, [ID00](#)
- Bradner, S., *OSI connectionless transport services on top of UDP Applicability Statement for Historic Status*, [RFC 2556](#), March 1999 [ID00](#) [ID01](#)
- Bradner, S., *The Roman Standards Process -- Revision III*, [RFC 2551](#), 1-April-1999
- Bradner, S., and J. McQuaid (Eds.), *Methodology for testing network interconnection devices*, [RFC 2544](#), March 1999
- Bradner, S. *Bylaws for a Protocol Support Organization*, [Internet Draft](#), September 1998, [ID01](#) [ID02](#) [ID03](#)
- O'Dell, M., H. Alvestrand, B. Wijnen, and S. Bradner, *Advancement of MIB specifications on the IETF Standards Track*, [RFC 2438](#), October 1998, [ID00](#) [ID01](#)
- Bradner, S. *Secret Handshakes: How to get RFCs published in the IETF*, [Internet Draft](#), October 1998 [ID01](#) [ID02](#) [ID03](#)
- Brett, R., S. Bradner, and G. Parsons, *Collaboration between ISOC/IETF and ITU-T*, [RFC 2436](#), October 1998

- Bradner, S. (Ed), *IETF Working Group Guidelines and Procedures*, [RFC 2418](#), September 1998, [ID00](#) [ID01](#) [ID02](#) [ID03](#)
- Mankin, A., A. Romanow, S. Bradner, V. Paxson, *IETF Criteria for Evaluating Reliable Multicast Transport and Application Protocols*, [RFC 2357](#), June 1998
- Mankin, A., F. Baker, B. Braden, S. Bradner, M. O'Dell, A. Romanow, A. Weinrib, L. Zhang, *Resource ReSerVation Protocol (RSVP) -- Version 1 Applicability Statement Some Guidelines on Deployment*, [RFC 2208](#), September 1997
- Bradner, S. Ed. *Internet Protocol Multicast Problem Statement*, [Internet Draft](#), September 1997
- Bradner, S. Ed. *Internet Protocol Quality of Service Problem Statement*, [Internet Draft](#), September 1997
- Elz, R., R. Bush, S. Bradner and M., Patton, *Selection and Operation of Secondary DNS Servers*, [RFC 2182](#), July 1997
- Bradner, S., *Key words for use in RFCs to Indicate Requirement Levels*, [RFC 2119](#), March 1997 [ID00](#) [ID01](#) [ID02](#)
- Bradner, S., *Source directed access control on the Internet.*, [RFC 2057](#), November 1996 [ID00](#) [ID01](#)
- R. Hovey and S. Bradner, *The Organizations Involved in the IETF Standards Process*, [RFC 2028](#), October 1996, [ID00](#) [ID01](#) [ID02](#)
- Bradner, S. (Ed.), *Internet Standards process - revision 3*, [RFC 2026](#), October 1996, [ID00](#) [ID01](#) [ID02](#) [ID03](#) [ID04](#) [ID05](#) [ID06](#)
- Bradner, S., and J. McQuaid (Eds.), *Methodology for testing network interconnection devices*, [RFC 1944](#), May 1996, [ID00](#) [ID01](#) [ID02](#)
- Halpern, J. and S. Bradner, *RIPv1 Applicability Statement for Historic Status*, [RFC 1923](#), March 1996
- Bradner, S. and A. Mankin, *The recommendation for the IP next generation protocol*, [RFC 1752](#), January 1995, [ID00](#)
- Bradner, S. and A. Mankin, *IP: Next Generation (IPng) White Paper Solicitation*, [RFC 1550](#), December 1993
- Bradner, S. (Ed.), *Benchmarking terminology for network interconnection devices*, [RFC 1242](#), July 1991

#### **Talks** (some of the talks I've done over the years)

- [Challenges of Research Data Security](#) - EDUCAUSE Security 2010-04-14
- *Privacy is not a Spectator Sport* - Grand Valley State University - 2010-02-25
- *Research Data Protection Policy at Harvard* - PRIM&R - 2009-11-15

- *The Past, Present and Future of the Internet* - Boston Network Users Group - 2008-12-02
- [\*How is the Internet Different? Is "good enough" good enough?\*](#) - VON Mexico - 2008-02-28
- [\*The Implications of the Unmet Last Goal for the Internet Protocols\*](#) - Boston Network Users Group - 2007-01-02
- [\*Where is Controversy?\*](#) - Alcatel - 2006-10-25
- [\*Will the Internet be permitted to grow up?\*](#) - Wainhouse Research - 2006-07-20
- [\*Internet II: Looking forward from 10 years ago\*](#) - Joint Techs - 2006-07-17
- [\*Network Neutrality: Federal Non-Legislation\*](#) - Cornell - 2006-06-28
- [\*Owing the Desktop: Is .edu like .com\*](#) - Cornell - 2006-06-28
- [\*Internet Governance: Not Just Dealing with a Uniqueness Requirement\*](#) - MIT, Cambridge MA - 2006-05-02
- *Not Your Father's Internet, and that Hurts* - CENIC, Oakland CA - 2006-04-15
- [\*Internet Concepts, History, Regulations & Governance\*](#) - Harvard Business School, Boston MA - 2006-04-03
- [\*Security Related Musings\*](#) - Boston University - 2006-03-01
- [\*The Myth of network Neutrality\*](#) - EDUCAUSE streaming radio - 2006-02-15
- *Where-to-Where (was End-to-End)* - Cisco, San Jose CA - 2005-12-07
- [\*Electronic Data Security: Designing a Good Data Protection Plan\*](#) - Human Research Protection Program (HRPP), Boston MA - 2005-12-06
- *This Internet Thing* - Harvard University, Cambridge MA - 2005-10-22
- [\*Where-to-Where \(was End-to-End\)\*](#) - Greater Boston Chapter / ACM - October 20 2005
- [\*NGN: Replacement or Evolution?\*](#) - FCC, Washington DC - 2005-09-12
- [\*Will the Internet be reliably bad enough to preserve PPVPNs?\*](#) - MPLSCON, New York, NY - 2005-05-17
- *Wireless Grids: The current hype or the next Internet?* - TTI Vanguard, Chicago IL - 2005-04-12
- *IP nets: from the origins to a possible NGN future* - Cisco, San Jose - 2005-01-11
- *Witness to the Evolution* - Cisco Networkers, New Orleans LA - 2004-07-15

- [\*How to Kill Worms and Viruses with Policy Pontifications\*](#), NANOG, Miami - 2004-02-10
- [\*A Short History of the Internet\*](#) - NANOG, Miami - 2004-02-09
- *The Internet Engineering Task Force (IETF) Stuff* - Harvard Berkman Center, Cambridge MA - 2003-07-29
- *The Internet: Imagination, Innovation or Imitation* - USTA - 2003-05-20
- *Will the future Internet look like what we have today?* - Orange Country IEEE, Irvine CA - 2003-05-20
- *Will there be an Internet in 5 years?* - Syracuse University, Syracuse NY - 2003-05-08
- *Locating the IETF: GIS related work at the IETF* - OGC - 2003-02-13
- [\*The Sub-IP Area and Optical Networking at the IETF\*](#) - GRID Forum, Amsterdam - 2002-09-25
- [\*Internet Architectural Philosophy and the New Business Reality\*](#) - GRID Forum, Amsterdam - 2002-09-24
- [\*Are technology standards too important to leave to those that know what they are doing?\*](#) - Public Design Workshop - 2002-09-14
- *The IETF: A Decentralized Voluntary Standards Process* - SES, Washington DC - 2002-08-13
- *The Internet and Optical Networking at the IETF* - COIN 2002 - 2002-07-22
- *The Future of the Net - Wireless 2002*, Calgary AB - 2002-07-08
- *Can the e2e RG be real-world useful?* - e2e RG meeting - 2002-05-15
- *An IETF Insider View* - TranSwitch - 2002-04-15
- *The Internet: Philosophy & Technology* - Boston University, Boston MA - 2002-02-04
- *Once there was a network and it was not the one we needed, but the one we built hurts or how the Internet is not the phone network and why that matters to users, service providers, cops and society* - MIT, Cambridge MA - 2002-01-10
- *The Future of the Net* - CINA - 2001-09-15
- *Impact of enum and IP telephony* - Taiwan - 2001-08-21
- *The future of the nets or will it be The Net?* - New England telecommunications Association - 2001-01-17
- *Convergence in Telecom Networks: Is there A future?* - Lucerne - 2000-11-13
- [\*Convergence Efforts in the IETF\*](#) - SPIE, Boston - 2000-11-08
- *Current IETF Efforts and Technology Trends* - Lucent - 2000-08-18
- *Internet of the Future: Convergence Nirvana?* - Broad Band Year, San Jose CA - 2000-06-28

- [Internet Engineering Task Force: Standards & ideas for the Internet](#) - G8 meeting, Paris - 2000-05-16
- *Internet Engineering Task Force* - IPR Summit, London - 2000-04-11
- *Next Generation Internet: Where will it stop?* - Ericsson, Stockholm - 2000-01-31
- *The IETF and the Future of the Internet* - ISOC SE, Stockholm - 2000-01-31
- *Voice-Over-IP Standards and Interoperability Update IETF* - NCF Chicago - 1999-10-27
- *Does reality matter?: QoS & ISPs* - GTE - 1999-09-15
- *WAN Quality of Service* - Information Technology Business Forum, Seattle WA - 1999-07-21
- *Emerging Trends for the Millennium: Communications Technology* - NACAS- 1999-06-26
- *The Internet's Impact on Government Programs and Services* - Kentucky GIS - 1999-05-03
- *Convergence and the IETF - Signaling Futures '99* - 1999-03-30
- *The IETF: Standards and non-Standards* - IEEE, Austin TX - 1999-03-08
- *Internet Governance: Where are we Now?* - Harvard JFK School, Cambridge MA- 1999-02-24
- *Technical and Political Issues With Alternatives to Undersea Cables* - Nortel - 1998-04-21
- *Real QoS versus a Few Traffic Classes* - Next Generation Networks - 1998-11-04
- *Internet 2, NGI, and the Real World* - Harvard - 1998-04-15
- *Reality and the Internet of the Future Programs* - IEEE - 1998-04-09
- *Measuring the Impact of the Integrated Infrastructure for Voice Video and Data on Traditional Telephone Service Administration* - IIR, Washington DC - 1998-04-20
- [Institutionalizing the IANA Functions To Deliver a Stable and Accessible Global Internet for Mission Critical Business Traffic and Transactions](#) - Reengineering the Internet - London - 1998-01-28
- *Technology Trends and the IETF* - Bellcore - 1997-11-24
- *Managing the Bandwidth Explosion* - SaskTel, Saskatoon SK - 1997-09-23
- *Next Generation Routers* - Taiwan - 1997-08
- *Trends and Issues in the next Generation Internet Protocols* - Harvard ABCD - 1997-07-11
- *Reality and the "next generation" projects: NGI, Internet 2 and the real world* - U Texas, Austin - 1997-04-30



- *The future of the Internet* - GTE - 1997-04-14
- *Internet II Status* - IEPG - 1997-04-06
- *IVD at Citicorp* - Citicorp, New York City - 1997-01-14
- *Current Status, Problems and Future Directions of ATM Technology - High Speed Nets* - 1996-11
- *Under Construction: The Network of the Future* - Federal Deposit Insurance Corporation - 1996-11
- *Internet II: Introduction* - Chicago - 1996-10-01
- *In whose domain: name service in adolescence* (with Don Mitchell & K Claffy) - Harvard JFK School, Cambridge MA - 1996-09-08
- *Will there be an Internet in the Year 2000?* - ATM year - 1996-03
- *The Future of IP* - 1996-05-18
- *The new Internet*, Reseau Interordinateurs Scientifique Quebecois (RISQ) '95, Montreal QU, 1995-01-17
- *Did we miss the fork in the road?* - Information Superhighway Summit - 1994-09-27
- *IP Tunneling Relative to Routing Natively* - SHARE 83, Boston - 1994-08-09
- *Router Tests V.6* - Interop, San Francisco CA - 1993-08-25
- *Connecting to the Internet* - SHARE 80, San Francisco - 1993-04-01
- *Unix Security* - SHARE 78, Anaheim - 1992-04-04
- *Router Tests V.5* - Interop, Washington DC - 1992-05-20
- *NEARnet & NSFnet (& MERIT) (& ANS)* - IETF, San Diego CA - 1992-04-14
- *Enterprise-wide Network Design* - Networks and Imaging Symposium and Exhibition - 1992-02-19
- *Router Tests V.4* - Interop, San Jose CA - 1991-10-09
- *A Technical Non-IBM View of networking* - IBM, Raleigh NC - 1990-11-28
- *Traffic Patterns in an X Window Environment* - Interop - 1990-10-11
- *Router Tests V.3* - Interop - Fall 1990
- *Application of Bridges and Routers* - CANET - 1990-06-14
- [\*Worms, Viruses, etc: Things That Go Bump on the Net\*](#) - SHARE, 1989-08-06

1/1/2010