

Jon M. Peha

peha@stanfordalumni.org

www.jpeha.com

Highlights

- **Chief Technical Officer of Pre-IPO Companies**
- **Full Professor and Research Director at Carnegie Mellon University (CMU)**
- **Telecommunications Policy Positions in Congress and Executive Branch**
- **Expertise in technical and policy issues of information networks, including Internet, telephone, wireless, e-commerce.**

Professor and Research Leader

Carnegie Mellon University, Full Professor & Associate Center Director, 10/91-present (*with absences*)

Associate Director of the Center for Wireless and Broadband Networks. Joint appointment with Dept. of Electrical & Computer Engineering, and Dept. of Engineering & Public Policy. Raised funding for and led projects with 2 to 25 researchers. Topics span technical and economic/policy issues of computer and telecommunications networks, from the world's first large microcellular wireless network to novel protocols for ATM and IP networks carrying multimedia traffic.

- Broadband networks: integrated services, multimedia, video & voice over IP (VOIP), QOS, DSL, DOCSIS, MPLS
- Wireless networks: PCS, cellular, 3G, 802.11 (wifi), bluetooth, UNII, unlicensed, ISM, ultrawideband
- Pricing in networks carrying diverse traffic or offering heterogeneous quality of service (QOS)
- Policy issues, such as spectrum management, broadband open access, universal service, telephone-cable competition.
- Protocol and architecture design, simulation development, system measurement, performance analysis
- Electronic Commerce payment mechanisms, privacy, taxation, security.

Position is 80% time or less, with several leaves of absence, to leave time for start-ups and consulting

Start-up Positions

Cyphermint, Chief Technical Officer, 1/02 – 1/04

Cyphermint develops innovative systems to transfer funds over the Internet with greater security and lower transaction costs than competitors, and highly secure public kiosks that offer financial services and Internet shopping, even to those without credit cards or bank accounts. (The kiosks have been called "ATM machines on steroids.") In charge of the company's technical direction. Led efforts to define the functionality and architecture of new products, based on both market needs and technical capabilities. Built the engineering team. Managed the research, development, quality assurance, and operations departments, containing roughly forty five engineers on two continents. Oversaw the design, development, testing, and deployment of products. Handled patent applications and disputes. Represented the company to potential investors. Wrote papers on Cyphermint technology and business strategy. Spoke for the company at conferences, trade shows, and to the press. (Full time, on leave from CMU, from 6/02 to 1/04. Part time from 1/02 to 5/02.)

VTLinx Multimedia Systems, acting Chief Technical Officer, 5/01 - 9/01

Joined this pre-IPO company with three-dozen engineers on staff as technical visionary for the turn-around transition period after investors removed previous management team. Identified new markets and defined new technical direction for products that transfer video and multimedia over IP networks. Presented this new direction in new business plan and oral presentations to technical staff, investors and strategic partners. Managed intellectual property. (Full time, on leave from CMU)

Proxicast, Chief Technical Officer, 5/00 - 5/01

Presented corporate vision to venture capitalists and worked on business plan. We were funded in Oct. 2000. Worked with CEO to define functionality and technical architecture of novel wireless product using bluetooth. We developed innovative prototypes on schedule and within budget, despite the effect of broader market forces on the bluetooth sector. (part time)

Teloasis, Chief Technical Officer and Co-Founder, 7/99 - 5/00

Developed product idea for wireless Internet access in areas with limited infrastructure, selected senior managers, defined technical architecture (part time)

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Sankhya Vahini, 1997-8

Helped create nationwide Internet backbone company in India by addressing design of broadband optical wide-area network (WAN), pricing of network services, and resolution of policy issues related to IP telephony (VOIP) (part time).

Microsoft, Systems Software Engineer, 1983-4

Developed software for operating system and compiler.

Consulting

Peha Consulting, 10/91 - present

Dozens of clients from computer and telecommunications industries, government, consulting and law firms. Designed critical components for future products, provided independent evaluations of designs and proposed product lines. Advised on business strategy. Assessed intellectual property. Advised on policy and regulatory issues in the US and in developing countries. Educated senior engineers on emerging technologies. (part time)

Government Telecom Positions

Commerce Committee, US Congress: Legislative Fellow, 1/99 - 12/99

Handled telecommunications legislation and oversight in House and Senate. Seven months as one of two telecom specialists on Minority Staff of House Commerce Committee, and five months working for Senator Wyden. Major legislative/oversight initiatives included broadband Internet open access, competition between satellite and cable TV, electronic signatures, inter-LATA Internet traffic, Internet domain names. (On leave from CMU)

U.S. Agency for International Development (USAID) + FCC, + NTIA + State: Program Leader, 9/97 - 8/98

Launched broad new US Government interagency program (comprised of USAID, FCC, NTIA, and State Dept.) to advance telecommunications and Internet infrastructure in developing countries through appropriate technology and policy reform. As first Team Leader, defined and built up new telecom program. Served on Strategic Planning Team for USAID's telecom and education Center. Co-author of framework for *Presidential Initiative* on Global Information Infrastructure & Electronic Commerce. Advised foreign governments around the world on telecommunications issues. (On leave from CMU.)

Previous Research Positions

SRI International, Computer Scientist, 9/87 - 9/91

Managed, proposed, and participated in R&D projects in Networking Group and Distributed Systems Group. Designed complex system architectures, developed prototype software, contributed to national standards. Areas included reliable distributed databases, local-area networks, and fault-tolerant networks.

South Thames College, Lecturer of Computer Science, 1/87 - 4/87

AT&T Bell Laboratories, Research Assistant, 5/84 - 8/84

Designed hardware and software for microprocessor-based wireless telephone (PBX) research prototype.

Education

Stanford University Ph.D. Electrical Engineering, Minor in Computer Science, 6/91

Jagellonian University Diploma in Polish History and Political Science, 8/86

Stanford University M.S. Electrical Engineering, 6/86

Brown University B.A. Computer Science / B.Sc. Electrical Engineering, Magna Cum Laude, 12/84

Publications

Over a hundred papers related to information technology listed at www.ece.cmu.edu/~peha/pubs.html
Some available for download at www.ece.cmu.edu/~peha