## **Robert Metcalfe**

My current "grand challenge" is disproving the Goldbach Conjecture, which I work on after answering late-night e-mails. Which has me wondering if there is, or should there be, an Internet grid for number theory including a really huge and growing data grid of the natural numbers -- a REAL grand challenge if ever there was one. I want to know which of the really big naturals are prime, for example, and I want everybody to be able to use distributed grid computations to update the data grid as they explore really huge numbers. The data grid could hold the primes, factors of the larger integers where storing and transmitting the factors would beat recomputing them, web conversations about various integers and their histories and applications, which are perfect numbers, ... and of course the soon to be growing number of even numbers which cannot be expressed as the sum of two primes.

## BIO

Dr. Robert M. ("Bob") Metcalfe is a venture capitalist at Polaris Venture Partners in Waltham, Massachusetts. Polaris invests in early-stage technology companies. Metcalfe focuses on Boston-based information-technology start-ups.

Metcalfe is a director of Avistar (public), EarthLink (public), Ember (Polaris), IDC, IDG, InvisibleHand (Polaris), Kelmscott, MediaLabEurope, MIT, Technology Review, Nanosys (Polaris), and Narad (Polaris). Metcalfe is on the advisory boards of Avaki (Polaris), Exploratorium, and Sockeye (Polaris). Metcalfe is the 2002 president of the Camden Technology Conference.

Metcalfe had three careers before becoming a venture capitalist on 1/1/1:

While an engineer-scientist (1965-1979), Metcalfe helped build the early Internet. In 1973, at the Xerox Palo Alto Research Center, he invented Ethernet, the international local-area networking standard on which he shares four patents.

While an entrepreneur-executive (1979-1990), Metcalfe founded 3Com Corporation, the billion-dollar networking company where at various times he was Chairman, CEO, division general manager, and vice president of engineering, marketing, and sales.

While a publisher-pundit (1990-2000), Metcalfe was CEO of IDG's InfoWorld Publishing Company (1992-1995). For eight years, he wrote an Internet column read weekly by 629,000 information technologists. He also wrote for The American Spectator, Forbes, Technology Review, The New York Times, The Wall Street Journal, and Wired.

Metcalfe gave speeches, appeared on radio and television, and hosted his own weekly webcast. He produced conferences including ACM97, ACM1, Agenda, Pop!Tech, and Vortex. His books include Packet Communication, Beyond Calculation: The Next Fifty Years of Computing, and Internet Collapses.

Metcalfe was born in Brooklyn, New York in 1946. He graduated from the Massachusetts Institute of Technology in 1969 with degrees in electrical engineering and in management. His 1973 Harvard PhD dissertation was entitled Packet

Communication. He was consulting associate professor of electrical engineering at Stanford, where he taught computer programming and networking 1976-1983. He was a 1991-92 visiting fellow in the Computer Laboratory at the University of Cambridge, England.

Metcalfe received the Grace Murray Hopper Award in 1980 from the Association for Computing Machinery. In 1988, he received the Alexander Graham Bell Medal from the Institute of Electrical and Electronics Engineers. In 1995, Metcalfe was elected to the American Academy of Arts and Sciences. In 1996, he received the IEEE's Medal of Honor. In 1997, he was elected to the National Academy of Engineering. In 1999, he was elected to the International Engineering Consortium.

After 22 years in Silicon Valley, Metcalfe now lives with his family in Boston and Maine.

Web: www.polarisventures.com See also poptech.org Email: metcalfe@polarisventures.com