

ENERNET

Internet Lessons for Solving Energy

Bob Metcalfe

Polaris Venture Partners

University of Maine

April 10, 2009

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Hall**

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Bob Metcalfe

Dr. Robert M. Metcalfe is a venture capitalist, with Polaris Venture Partners in Waltham, MA since 2001. Bob is a director of Polaris-backed technology start-ups including 1366, Ember (chairman and past CEO), GreenFuel (chairman and past CEO), Infinite Power Solutions, Mintera, SiCortex (past chairman), SiOnyx, and Sun Catalytix.

Bob is also advisor/director/trustee to Avistar (NASDAQ: AVSR), National Academy of Engineering (Audit Committee), St. Mark's School, Singularity University, USC Stevens Institute for Innovation, Massachusetts Institute of Technology (MIT '68, Life Trustee), and MIT's Technology Review Magazine, McGovern Institute for Brain Research, Energy Initiative, Electrical Engineering and Computer Science Department, Dean of Engineering, and Dean of Science.

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Metcalfe's career is technological innovation, where he is best known for inventing Ethernet (1973), founding 3Com (1979), and writing eight years of Internet columns in InfoWorld, collected in his book, *INTERNET COLLAPSES* (2000), still available down the long tail at Amazon.com.

In a culmination of the American Dream, President George W. Bush invited Bob to the White House in 2005 with his parents, Ruth C. and Robert I. Metcalfe, to receive the National Medal of Technology, for "leadership in the invention, standardization, and commercialization of Ethernet." Bob shares four expired patents on Ethernet, of which, according to IDC, 350 million new switch ports were shipped in 2008, and that's not counting WiFi.

Questions, corrections, and comments are welcome, and might even get answered by email at Metcalfe@PolarisVentures.com.
Twitter [BobMetcalfe](https://twitter.com/BobMetcalfe).

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Polaris Enertech Portfolio

1366	Manufacturing of efficient mutlicrystalline Si solar cells.
Athenix	Agricultural biotechnology for ... biomass conversion.
Ember	ZigBee wireless networking for energy management.
GreenFuel	Algae-solar CO₂ recycling for feed, food, fuel, chemicals...
Infinite Power	Flexible solid-state Li-ion rechargeable micro-batteries.
Mintera	40-Gbps fiber-optic systems for carrying bits, not atoms.
Nanosys	Nanotechnology for ... fuel cells and solar cells.
Paratek	Tunable ceramics for ... energy efficiency in cellphones.
SiCortex	Open clusters for energy-efficient green supercomputing.
SiOnyx	Black Silicon for photodetectors, cameras, photovoltaics.
Sun Catalytix	Catalysts for converting sun and water into fuels.
SustainX	Distributed energy storage using compressed air.
Wakonda	High-volume thin-film solar cells on flexible substrates.



- The SC5832 contains 5832 processors each consuming < 1 watt of power
- We have the SC648 with 648 nodes each consuming < 1 watt of power

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**UMaine October 15,
2008SciCortex Green
Supercomputer Demo**



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