



## **Conference on Enterprise Servers and Data Centers: Opportunities for Energy Savings**

**Sun Microsystems Conference Facility  
January 31, 2006**

### **Speaker BIOs**

#### **Andrew Fanara, U.S. EPA ENERGY STAR Program**

Mr. Fanara manages the ENERGY STAR® Product Specifications Development Team. ENERGY STAR is part of the U.S. Environmental Protection Agency's Climate Protection Partnership Division. The ENERGY STAR Program is intended to help businesses and individuals protect the environment by identifying products with superior energy efficiency and water savings.

Mr. Fanara's team is responsible for writing product specifications and for teaming with manufacturers to encourage the design, manufacture, and sale of products that meet them. To date, more than 40 product categories have been created for the residential and commercial sectors. Over 1.5 billion ENERGY STAR products have been sold in the US, and in 2005, these products will realize electricity savings in excess of \$6.5 billion.

Mr. Fanara's team also manages the program's national energy model which is used to track energy consumption, savings and market penetration data for ENERGY STAR products sold in the US. Lastly, Mr. Fanara is responsible for managing the implementation of a product compliance testing verification initiative and for managing policy coordination with countries using ENERGY STAR in their markets. This includes Japan, Australia, New Zealand, Taiwan, Canada, China, and the European Union.

Previously in his tenure with the agency, Mr. Fanara worked on the EPA's Green Lights Program, which assisted commercial enterprises with the implementation of energy-efficient lighting upgrades. He is a graduate of the University of Wisconsin - Madison and has worked for the EPA for more than 10 years.

#### **Jonathan Koomey, Ph.D, Lawrence Berkeley National Laboratory and Stanford University**

Jonathan Koomey is a Staff Scientist at Lawrence Berkeley National Laboratory and a Consulting Professor at Stanford University. Dr. Koomey is one of the leading international experts on electricity used by computers, office equipment, and data centers, and is the author or co-author of eight books and more than one hundred and fifty articles and reports on energy and environmental economics, technology, forecasting, and policy. He has also published extensively on critical thinking skills. He holds M.S. and Ph.D. degrees from the Energy and Resources Group at the University of California at Berkeley, and an A.B. in History of Science from Harvard University. In 1993 he won the Fred Burgraff Award for Excellence in Transportation Research from

the National Research Council's Transportation Research Board. He was named an Aldo Leopold Leadership Fellow in 2004 and an AT&T Industrial Ecology Fellow in January 2005. He has been quoted in the New York Times, the Wall Street Journal, Barron's, The Washington Post, Science, Science News, American Scientist, Dow Jones News Wires, and the Christian Science Monitor, and has appeared on Nova/Frontline, BBC radio, CNBC, All Things Considered, Marketplace, On the Media, Tech Nation, and the California Report, among others. His latest solo book is *Turning Numbers into Knowledge: Mastering the Art of Problem Solving* <<http://www.analyticspress.com>>, now in its second printing (and recently translated into Chinese). For more biographical details and a complete publications list, go to <http://www.koomey.com>.

### **Greg Papadopoulos, Sun Microsystems**

As executive vice president and chief technology officer at Sun, Greg Papadopoulos guides the company's roughly \$2 billion annual research and development portfolio with an eye toward simplification and innovation. With more than 20 years experience in the technology industry, Papadopoulos is responsible for managing Sun's technology direction, architecture, and standards. He is in charge of the Sun Science Office and Sun Labs, and he pilots the global engineering architecture and advanced development programs. He also provides leadership and consistency for hardware and software architectures across Sun.

Passionate about technology and its possibilities, Papadopoulos supports open development models that stimulate communication, creativity and innovation, which he promotes through his blog, Greg Matter, as well as numerous speaking engagements.

During his tenure with Sun, Papadopoulos has held several positions, including vice president of technology and advanced development for the company's systems business, chief scientist for server systems engineering, and chief scientist for enterprise servers and storage. Before joining Sun in 1994, Papadopoulos was senior architect and director of product strategy for Thinking Machines, where he led the design of the CM6 massively parallel supercomputer.

Papadopoulos was an associate professor of electrical engineering and computer science at MIT, where he conducted research in scalable systems, multithreaded/dataflow processor architecture, functional and declarative languages, and fault-tolerant computing. Papadopoulos also worked as a development engineer at Hewlett-Packard and Honeywell, where he designed flight-control systems for Boeing jetliners. He co-founded three companies: PictureTel (video conferencing), Ergo (high-end PCs) and Exa Corporation (computational fluid dynamics).

Papadopoulos participates in several associations, including serving as chairman of the board for the Search for Extraterrestrial Intelligence (SETI), as a member of the Board of Trustees for the Anita Borg Institute for Women and Technology, and as a member of the President's Board on Science and Innovation at the University of California.

He holds a bachelor's degree in systems science from the University of California at San Diego, as well as master's and doctoral degrees in electrical engineering and computer science from MIT

## **Bob Sullivan, Uptime Institute and CSE/TUI**

Dr. Sullivan, commonly known as "Dr Bob" in the industry, joined CSE/TUI in 2000 after a 32 year career with IBM's Storage Systems Division in San Jose, CA.

Prior to joining IBM, Bob received a BS in Mechanical Engineering from Northwestern University and an MS and PhD in Applied Mechanics from Stanford University. In his 32 year career at IBM, he did technology, component and new product development work, plus customer hardware problem resolution support, installation planning and consulting work in computer room environment, and hardware installation issues. He created the Hot Aisle/Cold Aisle equipment layout plan when drawer type products were first introduced in the early 1990s. At the same time, he identified the need to have all air flowing in one direction in the computer room. He first implemented supply side temperature control in the early 1990s. These are both critical concepts that are now generally accepted and employed in newly built or remodeled computer rooms.

Bob is a recognized expert in the areas of computer room environments, hardware installation, computer room layout, power and power distribution, grounding, cooling and air flow, plus contamination identification and remediation. With IBM, he visited as many as 50 computer rooms a year to assess hardware and infrastructure problems and work out solutions.

Bob led the team that identified Zinc Whisker conductive contamination as a source of hardware failures. This includes identifying the problem and the sources plus developing and implementing remediation plans.

He also has done testing and consulting in the area of seismic bracing of equipment and facilities, including co-authoring a paper reviewing a wide variety of equipment tethering techniques.

## **Vernon Turner, IDC**

Vernon Turner, Group Vice President and General Manager of IDC's Enterprise Computing, is responsible for world-wide research across the server, software, network and services programs for the IT Enterprise. Mr. Turner advises IDC clients on the competitive, managerial, technological, integration and implementation issues for complete systems environments.

Mr. Turner's areas of expertise include enterprise computer and storage relationships, technology recovery and capacity planning, performance management and end-user perspectives. He has helped to drive research on the evolution of the next generation Internet Infrastructure including grid computing, service centric IT infrastructures, utility computing solutions, processors and modular server designs. In addition he has worked with several industry customer councils in an advisory role on server network and storage architectures to take advantage of initiatives such as IT Consolidation. Mr. Turner has a strong background in the technology requirements of the finance and banking communities and comments frequently on high availability and disaster recovery requirements for mission critical workloads. Finally, Mr. Turner is frequently quoted in the Wall Street Journal, New York Times, USA Today and Financial Times as well as commenting on technology showcases for CNBC, CNNfn, and international media outlets.

Prior to joining IDC, Mr. Turner was Vice President, Technology Services, with State Street Bank in Boston where he managed the deployment of hardware technology (tape, disk, server, print) across a multi-data center environment. He held similar responsibilities at Fidelity Investments.

Mr. Turner holds an M.B.A. from Babson College and a Computer Science undergraduate degree from Oxford Polytechnic, Oxford, England.

### **Ben Williams, AMD**

Ben Williams is vice president of the Commercial Business for AMD. In the commercial role, Williams oversees sales and marketing strategy, customer requirements and market development activities for the commercial client/server business in AMD's Microprocessor Solutions Sector. Williams also served as the head of AMD's server and workstation business segment for the past four years. In that role, he was responsible for the Server/Workstation P&L and managed the AMD Opteron™ and AMD Athlon™ MP processors as well as the AMD-8000™ series and AMD-760™ chip set product lines.

Prior to joining AMD in June 2001, Williams spent 12 years at Compaq Computer Corporation, where he focused on the enterprise market and gained extensive experience in managing all aspects of commercial product launches, customer relations, marketing and sales activities. During his tenure at Compaq, Williams was responsible for the iPAQ Internet products and Prosignia SMB line for desktop, mobile and servers within the North America market. In addition to focusing on several company marketing and partnership programs, Williams worked in the company's Server Telecommunications Business Unit, managed Compaq's North America commercial desktop program (Deskpro) and served as product manager for the SystemPro server line. Williams also spent time at Cyrix Corp., where he focused on product marketing and customer support within the Cyrix Systems business unit.

Williams holds a bachelor's in marketing with an emphasis in finance from Stephen F. Austin State University.