



real-world tools & solutions

Datacenter Energy Problem-Solving thru Education & Research

Wednesday, 04/09/08 8:00 am – 4:30 pm

American Conference Center

Increase your power and cooling efficiency. Managing power consumption today is a challenge shared among multiple groups within organizations of all sizes – facilities, engineering and information technology. During the past five years, datacenter energy usage and the power and cooling infrastructure that support it have doubled. According to the US EPA, this number could nearly double again in the next five years. To help organizations assess datacenter energy efficiency and learn proactive datacenter power consumption and cooling techniques that can also reduce costs, leaders in

education, research, energy management and technology are presenting the Advanced Datacenter Energy Solutions Seminar Series. This conference is a must for professionals responsible for their organization's energy efficiency.

Opening and Closing Remarks

Jim Smith, Stony Brook University

Keynote Address: Next Generation Datacenters: Don't Let the Past Decide the Future

Jay Taylor, Dell Global Strategist, ITI Energy Star® Working Group Chairman

Industry examples of datacenter strategies that continue to be supported even though they are ineffective, or impose risk to modern computer installations, will be described. Mr. Taylor will cast his vision of the Next Generation Datacenter, metrics for energy efficiency, availability and probable Federal regulations that must be accommodated. Radical, cost-effective concepts for simultaneously improving availability and energy efficiency will be presented. Mr. Taylor is at the forefront of energy and availability requirements for datacenters. He was recently appointed chairman of the ITI Energy Star Working Group. He routinely meets with customers and regulators in Europe, Asia and the US, as a worldwide strategic consultant for Dell advising ITI, EICTA, the Green Grid, SPECpower and BAPCo. He will describe and debunk some mission-critical myths and legends through a thoughtful and pragmatic approach.

Session I: Going Green Through Measurement and Control

James Fulton, Suffolk County Community College

A brief, historical introduction to Six-Sigma, Lean Manufacturing, and Control, and how it all applies to the datacenter industry will begin the session. Financial payoffs and cost-effective strategies for incorporating green technology in the datacenter, as well as the barriers to implementation, will be discussed. Dr. Fulton has over 20 years experience in mathematical modeling of complex physical phenomena. He continues to use these models to help solve industrial-related problems. Various strategies to overcome organizational stagnation will be presented. The subject of how measurement and control leverage savings will be covered, as well as a presentation on utilizing Six-Sigma to reduce variation and gain control. The session will conclude with a discussion on determining which metrics should be measured.

Session II: Improving Cooling While Reducing Energy Consumption

Edward C. Koplín, X-nth

Mr. Koplín has over 30 years experience evaluating, designing and testing mission-critical infrastructure. Methods to reduce energy consumption cost effectively, while increasing availability and redundant capacity, will be described. Many of the concepts that will be discussed can be implemented in live datacenters. Actual test data from live datacenters will be presented that validate these concepts.

Session III: Setting New Standards in Electrical Design: Reliable, Simple, Cost-effective Solutions

William J. Leuci, X-nth

Mr. Leuci has evaluated, designed and commissioned mission-critical electrical designs for over 20 years. Routinely involved in large-scale, mission-critical datacenter projects, his involvement also includes the commissioning and ongoing operations of the datacenters. The accelerating need to increase power density and reliability requires a number of factors to be balanced. Topics will include: methods to improve overall efficiency and reliability of new and existing datacenters; DC vs. AC advantages and disadvantages; and the energy penalty of electrical part-load performance inherent in every dual-power system. A case history will be featured that demonstrates how millions of dollars were saved on construction by improving a popular UPS design.



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Session IV: Creating an Empirically-Validated Datacenter Simulator

Jerry Becker, AFCO Systems, Inc.

One of the most exciting developments in the planning, design and ongoing operation of a datacenter will be presented. Improved software and PC processing capacity now enable a datacenter manager to have an accurate simulator of their datacenter to test planned hardware migrations prior to installing live load. Merging technology from well-known vendors such as: AutoCADD, Aperture, and Future Facilities Computational Fluid Dynamics (CFD) modeling, a virtual datacenter can be constructed. Dr. Becker has over 30 years experience managing large enterprise datacenter environments. He will present a case study, using a live Fortune 10 high-density datacenter, to empirically test and validate the CFD model, ensuring that management decisions would be duplicated in the field. Energy savings and improved power distribution, cooling and computer hardware reliability will be displayed in the presentation. This information will establish new opportunities for datacenter owners, designers and managers. Test protocol, measuring strategies, CFD software and interfaces with AutoCADD and Aperture will be described. It is probable that many of the seminar attendees already have most of the software needed to begin developing their own datacenter simulator.

Poster Session: Plan to review research posters highlighting the latest studies on energy efficiency.

REGISTRATION

Includes:

Admissions to all sessions • Continental breakfast • Lunch and coffee breaks • Access to presentations

Venue

American Conference Center
780 Third Avenue (between 48th & 49th Street)
New York, NY 10017
212-527-9000 1-800-582-4184

To register:

Online: Visit **www.adesc.org** for registration form and instructions.

Phone: Call **516-997-1950** and ask to register for the “ADESC Seminar”.

Mail: Complete the registration form and mail it back in a stamped envelope to **HJMT Communications, LLC, Attn: Lori Alexy 1025 Old Country Rd, Suite 302 Westbury, NY 11590**. If paying by check, please remember to include it in your envelope along with the completed form.

Payment Information: Registrations must be accompanied by full payment. The seminar fee is \$299.00.

Hotels in the area:

Doubletree Metropolitan	Hilton Garden Inn	NY Marriott East Side	Hilton New York	Best Western Hospitality House
212-752-7000	212-581-7000	212-755-4000	212-586-7000	212-753-8781
1-800-222-8733	1-800-782-9444	1-800-242-8684	1-800-445-8667	1-888-294-6873

Cancellation Policy: Substitutions may be made at any time by faxing a written request to HJMT at 516-997-1740.

Cancellations communicated to HJMT in writing by March 26, 2008 are subject to a \$75.00 processing fee. Registrants who either cancel after March 26, 2008, or do not attend the seminar, are liable for the full registration fee.

Special Needs: ADESC fully supports the Americans with Disabilities Act. If you require special assistance of any kind, including dietary, please contact Lori Alexy at 516-997-1950.

ABOUT ADESC

ADESC is dedicated to providing education and practical solutions for increasing datacenter energy efficiency while maintaining continuous availability. It is directed by an alliance of education, research and energy management leaders, as well as technology industry partners. Objective scientific studies form the foundation for developing best practices and creating tangible, real-world programs that organizations can implement immediately in accordance with recommendations from the US EPA. Member and sponsor organizations include: **Stony Brook University, the Advanced Energy Research and Technology Center (AERTC), the Center of Excellence in Wireless and Information Technology (CEWIT), the National Grid, AFCO Systems, X-nth, International Integrated Solutions, Ltd., mindSHIFT Technologies and Computer Associates.**