

CRITICAL FACILITIES ROUND TABLE

(CFRT)

Wednesday, May 19th, 2004

5th Quarterly Meeting

NETWORK APPLIANCE

SUNNYVALE DATA CENTER & COGENERATION SITE

495 E. Java Drive
Sunnyvale, CA 94089

Building 1 Lobby

(Directions below)

Many thanks to DAN HOFFMAN and MICHAEL PHELPS and Network Appliance for providing the facilities, catered lunch and communications to support this quarterly meeting of the Critical Facilities Round Table.

Congratulations to the High Density Data Center Cooling Committee for a successful third meeting last month with 40 attendees at Intel Corporation's Santa Clara headquarters where . More on this to come.

AGENDA

09:00 - 09:15 Welcome and Introductions of Individuals (Name, Background, Area of Focus) by Network Appliance and CFRT

09:15 - 09:30 Status Report and Review by CFRT

1. Charter/ Purpose/ Organization/ Membership
2. 4th Quarterly Meeting Minutes
3. Intel R&D Presentations on "Microprocessor Cooling Techniques" and "Power & Cooling Management in Data Centers" (HDDC Committee)
4. Status Report on Committee Formation and Activities/ Web Site Status/ White Papers/ Other

09:30 - 09:50 Update and feedback from presenters at last meeting:

"Physical Security for Data Centers", a probabilistic approach to determining a comprehensive security system for your data center, by Ed Chandler, CPP, Chairman, Security by Design

"Life after Construction", a data center life cycle analysis considering the operations, maintenance and testing of critical facilities' systems, by Bob Atkins, PE, Western Regional Director, Critical Facilities Assurance Group, EYP Mission Critical Facilities

10:00 - 10:50 NEW **"Electrical Power Monitoring in Data Centers"**, a presentation and case studies on the value of monitoring electrical power quality and consumption in your data center, by Lee Thiem, PE

Lee Thiem is a Power Systems Engineer for Square D's Engineering Services group located in Seattle, WA. Lee serves as regional engineer for the northwestern US, performing power system analyses, power quality, and electrical design services for Square D customers. He is experienced with the installation and start-up of power monitoring equipment as well as the data collection and interpretation of end user's power quality and usage reports. Lee received his BS in Electrical Engineering, California Polytechnic University in Pomona. He served Tacoma Public Utilities as an Electrical

Project Engineer where he was responsible for the entire water department power system and SCADA communication system. Lee is a member of IEEE and is a licensed Professional Engineer in the state of California.

11:00 - 11:50 NEW "**Distributed Generation in support of Critical Facilities Operations**", a presentation on the economic analysis and implementation of on-site power generation in support of critical facilities, by Stan Pace

Stan Pace is an applications engineer and project manager providing support to Northern Power System's On-Site Generation Business Unit in San Francisco. Stan leads a team that evaluates on-site generation opportunities by developing conceptual design, systems integration, cost estimating and economic analysis. Stan has 37 years of engineering experience including service in the US Navy Nuclear Power Program, then 17 years of mechanical design and field service with power generation equipment manufacturers, followed by 15 years managing research and development projects for the Electric Power Research Institute (EPRI). Stan's project management and construction experience includes central station utility power plant up to 1200 MW and distributed generation systems down to 375 kW. Stan received his BS and MS in Mechanical Engineering from Lehigh University.

12:00 - 12:15 Future CFRT Programs

The following additional topics are suggested for consideration:

Comparative analysis/function of the various UPS systems and other technologies in the market. Maybe a vendor panel.

Other topics of interest

12:15 - 12:30 Summary and Close

12:30 - 01:00 Catered Lunch (Network Appliance Conference Room)

01:00 - 02:00 Data Center and Cogen Plant Tour Network Appliance (by Dan Hoffman & Michael Phelps)

Thank you all for your continued support and contributions to our success from the Members of the Critical Facilities Round Table.

Founders: Charles Krieger PE, Bruce Myatt PE, Horst Pfendt, Steve Johnson

Please RSVP asap by e-mail reply to bmyatt@eypmcf.com <<mailto:bmyatt@eypmcf.com>> and chk1308@aol.com <<mailto:chk1308@aol.com>> as we need to provide information to Network Appliance's security group before our arrival for badge preparation.