

# Critical Facilities Round Table 4<sup>th</sup> High Density Data Center (HDDC) Committee Meeting

Hosted by John Martin and AMD  
08-11-2004

Bruce Myatt, PE  
Co-Founder CFRT  
Principal EYP MCF  
[bmyatt@eypmcf.com](mailto:bmyatt@eypmcf.com)

Magnus K. Herrlin, Ph.D.  
Chair HDDC  
Principal ANCIS  
[mherrlin@ancis.us](mailto:mherrlin@ancis.us)

# Today's Program

- 8:30 Breakfast
- 8:55 AMD Welcome  
John Martin
- 9:00 HDDC Committee Business  
Magnus K. Herrlin/Bruce Myatt
- 9:20 Update: Data Center Standard Work  
Magnus K. Herrlin
- 9:30 AMD Presentations  
Jeff Underhill/Ed Gasiorowski
- 10:45 AMD Customer Equipment EXPO
- 11:30 AMD Developer Center

# CFRT Charter

Provide a Forum for End-User Members and their guests to...

- Share information about mission critical facilities
- Learn about new mission critical technologies
- Improve Members' technical expertise
- Develop solutions for facility operations.

# HDDC Purpose and Membership

- Purpose

Addressing End-Users' thermal and energy challenges in High Density Data Centers.

- Membership

Anyone interested in sharing his/her expertise or in understanding HDDC is welcome to become a Member and participate in the activities.

# Previous HDDC Meetings

## 1<sup>st</sup> HP Laboratories

Hosted by Dr. Chandra Patel,  
Internet Systems & Storage Laboratory

## 2<sup>nd</sup> Oracle Corporation

Hosted by Dr. Mukesh Khattar,  
Energy Director

# Previous HDDC Meetings

## 3<sup>rd</sup> Intel Corporation

Hosted by Bill Hammond,  
Intel Enterprise Server Group

Microelectronics Heat Removal—Trends & Opportunities  
Ven Holalkere, Intel

Power Management—System and DC Solutions  
Deva Bodas, Intel

# Intel Meeting

## Meeting Minutes

Contact HDDC Secretary

James Alvers

[alversj@squared.com](mailto:alversj@squared.com)

# Future Programs

Next HDDC Meeting:

Major Manufacturer of Data Center Cooling  
(Tentative)

Suggestions:

Contact HDDC Chair Magnus K. Herrlin

[mherrlin@ancis.us](mailto:mherrlin@ancis.us)



# Today's Program

- 8:30 Breakfast
- 8:55 AMD Welcome  
John Martin
- 9:00 HDDC Committee Business  
Magnus K. Herrlin/Bruce Myatt
- 9:20 Update: Data Center Standard Work  
Magnus K. Herrlin
- 9:30 AMD Presentations  
Jeff Underhill/Ed Gasiorowski
- 10:45 AMD Customer Equipment EXPO
- 11:30 AMD Developer Center

# Summary of Standard Efforts at ASHRAE, TIA, and BICSI

Magnus K. Herrlin, Ph.D.

Principal

ANCIS Incorporated

[mherrlin@ancis.us](mailto:mherrlin@ancis.us)

[www.ancis.us](http://www.ancis.us)

# ASHRAE TC9.9

February, 2004

**Special Publication #1**

**“Thermal Guidelines for Data Processing Environments”**

Environmental Criteria, Equip. Placement, Airflow Patterns, Reporting

# ASHRAE TC9.9

February, 2004

**Special Publication #1**

**“Thermal Guidelines for Data Processing Environments”**

Environmental Criteria, Equip. Placement, Airflow Patterns, Reporting

Late 2004

**Revised Chapter 17 of ASHRAE Handbook—HVAC Applications:**

**“Data Processing and Electronic Office Areas” →**

**“Data and Communications Equipment Centers”**

SP #1 + AC-Systems, Fire Protection, Energy Conservation,...

# ASHRAE TC9.9

February, 2004

**Special Publication #1**

**“Thermal Guidelines for Data Processing Environments”**

Environmental Criteria, Equip. Placement, Airflow Patterns, Reporting

Late 2004

**Revised Chapter 17 of ASHRAE Handbook—HVAC Applications:**

**“Data Processing and Electronic Office Areas” →**

**“Data and Communications Equipment Centers”**

SP #1 + AC-Systems, Fire Protection, Energy Conservation,...

Late 2004

**Special Publication #2**

**“Datacom Equipment Power Trends & Applications”**

Load Trends, Load Calculation, Air Cooling, Liquid Cooling

# TIA

Late, 2004

**Standard TIA/EIA–942 (ANSI)**

**“Telecommunications Infrastructure Standard for Data Centers”**

Provides requirements and guidelines for the design and installation of a data center, including data center spaces and cabling systems

TIA	Telecommunications Industry Association
EIA	Electronic Industries Alliance
ANSI	American National Standards Institute

# BICSI

2004/2005

**Standard BICSI-942 (ANSI)**

**“Data Center Design & Implementation Standard”**

Best practices and design implementation standard that complement the TIA and ASHRAE data center standards.

BICSI Today, simply an abbreviation...

# Today's Program

- 8:30 Breakfast
- 8:55 AMD Welcome  
John Martin
- 9:00 HDDC Committee Business  
Magnus K. Herrlin/Bruce Myatt
- 9:20 Update: Data Center Standard Work  
Magnus K. Herrlin
- 9:30 AMD Presentations  
Jeff Underhill/Ed Gasiorowski
- 10:45 AMD Customer Equipment EXPO
- 11:30 AMD Developer Center