7x24 Exchange

The end-to end reliability forum.

Northwest Chapter

WWW.7X24NW.ORG

spring 2002 UPDATE

Mission Statement

The 7x24 Exchange Northwest Chapter's mission is to provide an open educational forum dedicated to the continuous improvement and increased awareness of data center reliability focusing on the key disciplines of design, construction, maintenance, security and management with the goal of obtaining continuous data center operations.

Winter Chapter Session - US Trends in Redundancy and Security for WAN's Server Cooling Work Group Update

The Winter Session provided a diverse range of topics, covering both an IT perspective and engineering focus. Joe Fox, of FatPipe Networks gave an overview of a new approach to network reliability and security using technology developed by FatPipe. FatPipe Networks can be found at: ***www.fatpipeinc.com.***

David DeLorenzo of Intel Corporation gave the chapter a final update on the work of the Server Cooling Work Group. David has been a driving force in the SCWG and has spearheaded much of the discussion and exploration of this topic. You can find a copy of David's presentation on the chapter website at: ***www.7x24nw.org***. David can be reached at: ***david.s.de.lorenzo@intel.com.***

Many thanks to David and all of the other participants in the Server Cooling Work Group.

Mark Your Calender

May 7, 2002
7x24 Exchange NW Chapter
Spring Session
Hyatt Regency
Bellevue, WA
4pm - 7pm

June 2 - 6, 2002
7x24 Exchange
National Spring Conference
Grand Floridian Hotel
Orlando, FL
www.7x24exchange.org

September 17, 2002
7x24 Exchange NW Chapter
Fall Session

November 17 - 20, 2002
7x24 Exchange
National Fall Conference
Scottsdale, AZ
www.7x24exchange.org

7x24 Exchange Northwest Chapter Moves to New Venue

With this Spring Session, the Northwest Chapter moves to a new location, The Hyatt Regency Bellevue in downtown Bellevue. We'd like to hear your feedback about this format. Send your comments to:
Leonard Ruff, Secretary, ***lruff@callison.com.***

Our Chapter Needs You

Want to help and get involved in a dynamic and leading professional organization? Our chapter is always looking for volunteers to help organize our meeting sessions. If you would like to become involved, let us know at the meeting or contact any one of our board members listed on the last page.

Be an industry leader!

Data Center Roundtable

Date
Tuesday, May 7, 2002
4 - 7 pm

Hyatt Regency
Bellevue
Regency Room B
900 Bellevue Way NE
(At Bellvue Place)
Bellevue, WA

Agenda

4:00 Symposium:
Developing Technologies in Server Design

4:45 Break

5:00 Prediction and Control of Airflow Distribution in Raised Floor Data Centers

5:45 Break

6:00 Energy Code Update
Economizer Requirements

6:45 Open Discussion

7:00 Adjourn

RSVP
by Thursday, May 2

Boeing Information & Support Services

Attn: Rob Costa

T: 425-8652187
F: 425-865-2961
E: robert.costa@pss.boeing.com

Space is limited to promote interactive discussion.

Developing Technologies in Server Design

Stephen Montgomery, Ph.D. System Mechanical Engineer
Advanced Systems Lab, Intel Corporation

Servers and the chipsets that power them have undergone extraordinary changes over the last several years. With Moore's Law in full force, the density of transistors on every silcone die is becoming exponentially greater every year. This poses significant challenges to both the chip and server manufacturers and to the designers of data centers.

Increasing heat loads have begun to stress the data center environment, leading the design community to explore new methods for cooling the server intensive facilities that are more and more common. Air cooling is reaching its limit, new technologies both in server design and the facilities that house the servers are required.

Steve will present recent research exploring new ideas about server cooling and some of the possible concepts that may find their way into new servers soon.

Prediction and Control of Airflow Distributionin Raised Floor Data Centers

Dr. Suhas V. Patankar
President, Innovative Research, Inc.

Air-cooled raised-floor data centers continue to be the most common facilities to house computer equipment. Since the air is supplied to the space below the raised floor at a few discrete locations (by the CRAC units) and emerges from many perforated tiles spread throughout the data center, the flow distribution is usually not uniform. As a result, despite careful efforts of the designers and operators of the data centers, sufficient air may not reach critical computer equipment. The distribution of the airflow through the perforated tiles is governed by the air velocity and pressure variation *under* the raised floor. By calculating this variation, we can predict the amount of flow coming out of each perforated tile.

This prediction model has been validated by comparison with numerous measurements conducted at IBM, at Oakridge National Lab, and in a Washington-DC data center. The presentation will also include a demonstration of the software product TileFlow that incorporates the flow prediction model.

Energy Code Update - Economizer Requirements

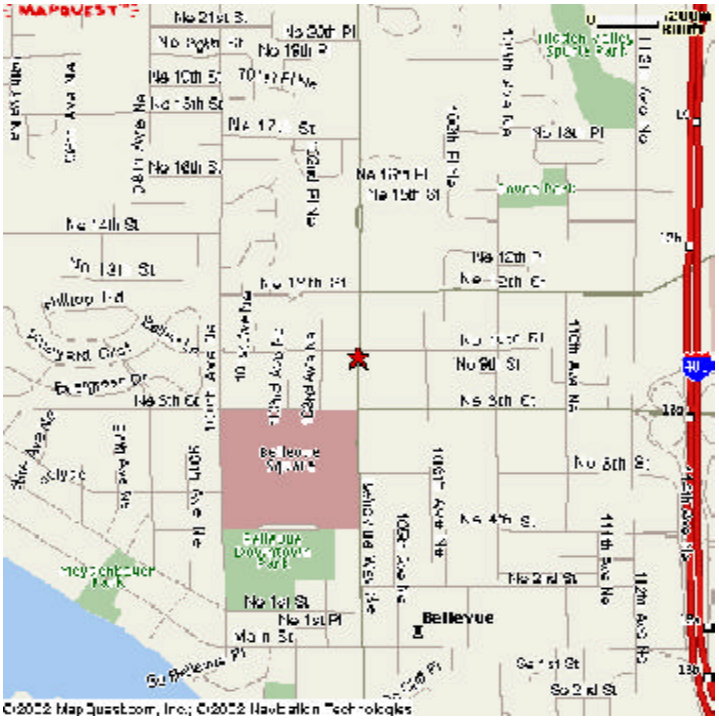
Tim Burns, PE
PSF Mechanical, Inc.

Washington State is adopting a revised energy code, effective July 1, 2002, which includes language affecting computer server rooms. This overview of economizer requirements in the new code will highlight differences from the previous code, discuss basic modes of operation, and address planning considerations for new projects.

Directions

From I-90:
Take I-405 North
Exit on NE 8th St.
Go west and turn
North on Bellevue
Way NE

From SR-520:
Take I-405 South
Exit on NE 8th St.
Go west and turn
North on Bellevue
Way NE



Officers & Committees

President
Doug Bors
Sparling

T: 206-667-0535
F: 206-667-0554
E: dab@sparling.com

Vice President
Ron Hookland
Boeing

T: 425-865-6099
E: ronald.d.hookland@boeing.com

Treasurer
Rob Costa
Boeing Information & Support Services

T: 425-865-2187
F: 425-865-2961
E: robert.costa@pss.boeing.com

Secretary
Leonard Ruff
Callison Architecture

T: 206-623-4646
F: 206-623-4625
E: lruff@callison.com

Program
Jon Ridgeway
T: 425-643-0212
F: 206-918-4163
E: jncridge@aol.com

Newsletter - Website
Leonard Ruff
Callison Architecture

T: 206-623-4646
F: 206-623-4625
E: lruff@callison.com

Server Work Group
David DeLorenzo
Intel Corporation

E: david.de.lorenzo@intel.com

Power Work Group
Wayne Humphry
Mazzetti & Associates

E: wayneh@mazzetti.com

officers

7x24 Exchange
Northwest Chapter

membership

Membership Application

Membership Type: ☐ Individual $50 per year ☐ Corporate $200 per year
☐ Renewal ☐ New Member

For corporate memberships, complete one application for each individual and return the applications together with your membership fee. Corporate memberships may include an unlimited number of members per company. Send applications and payment to: Leonard Ruff, Callison Architecture, 1420 Fifth Avenue, Suite 2400 Seattle, WA 98101. Make checks payable to: 7x24 Exchange Northwest Chapter

Name:_____

Title:_____

Company:_____

Mailing Address:_____

City:_____ State:_____

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Remember, you can register on-line at: *www.7x24nw.org.*