

the data revolution

End-To-End Reliability: Mission Critical Facilities
2014 SPRING CONFERENCE

JUNE 1-4, 2014

**BOCA RATON RESORT & CLUB
BOCA RATON, FL**



The end-to-end reliability forum.™

www.7x24exchange.org

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2014 SPRING CONFERENCE

the data revolution

What is 7x24 Exchange?

The 7x24 Exchange is the leading knowledge exchange for those who design, build, operate and maintain mission critical enterprise information infrastructures. We are a not-for-profit organization seeking to promote dialog among industry professionals to address the many challenges facing owners and operators of these facilities. In addition to the ever present challenge of maintaining and improving end-to-end reliability; addressing the challenges of energy efficiency and sustainability and the potential for increased regulatory oversight have become a major focus of our membership.

The organization was founded on the assumption that professionals involved with data center uptime and operational issues often work in isolation when dealing with strategic, technical, budgetary, regulatory, and career issues. This often results in expensive, time consuming, and, sometimes, painful trial and error efforts. 7x24 Exchange members work together to advance the state-of-the-art by sharing best practices, lessons learned, and evolving strategies to address the challenges of infrastructure reliability and industry leading energy efficiency. Armed with this information members are enabled to proactively communicate, to technical peers, non-technical team members, clients and corporate management, the solutions necessary to drive operational efficiency and protect their companies' information lifelines.

The Goal of 7x24 Exchange Conferences

The field of mission critical operations continues to evolve. Before its founding in 1989 as the Uninterruptible Uptime Users Group, learning how to deal with reliability and operational issues largely resulted from individual trial and error. Continuing this random rate of reliability improvement increasingly restricts the potential productivity of the large and rapidly growing investments in computer and communication infrastructure. Adding to the challenge has been the rapid growth in energy demand and the ever increasing cost of energy. With 7x24 operations now more common, how much higher will availability requirements be in five years? How much will these facilities cost to operate? How will environmental and regulatory concerns impact operations? How can cost effective, reliable responses be assured? Addressing, and, hopefully, answering these and related strategic questions, 7x24 Exchange conferences provide stimulating discussion forums. Collectively, we know much about the future options and alternatives available. With the 7x24 Exchange, that knowledge can be shared. All program elements aim to increase the reliability and

availability of an enterprise's information infrastructure by presenting case studies, new ideas, techniques, equipment and tools. Open dialogue between attendees and presenters is encouraged throughout. Further, by involving the many specialists from end users to service providers to equipment manufacturers in both formal and informal sessions, the experience is rewarding and enjoyable for all. This conference is designed for anyone involved with 7x24 infrastructures – IT, data center, disaster recovery and network/telecommunication managers; computer technologists; facility or building managers, supervisors and engineers. Vendors, consultants, or anyone concerned with uninterrupted access to critical information also will find the conference of value. Attendees and their organizations benefit from the conference because proactive plans and cooperation from diverse corporate functions are needed to improve reliability. By promoting a dialogue and clarifying the synergies among functions, past conferences have enabled teams of attendees from a given organization to better communicate the critical importance of a proactive approach to continuous uptime. Attendees are also able to participate in breakout sessions and network with other professionals in similar companies/industries with like problems. Conference attendees benefit in three ways: professional development and advancement; increased recognition of their function's importance; and exposure to new ideas, contacts and resources. CEU credits are also available.

First-time attendees often discover that many companies face similar, if not identical, technical and organizational challenges in their quest for higher availability levels. 7x24 Exchange conferences provide insights into what is being planned and executed by others to mitigate or eliminate downtime risks. Recommended changes can then be justified, both on their practical merits and in the context of business cases that have been successful elsewhere.

What is a Tutorial Session?

7x24 Exchange has been offering tutorial sessions for many years. These tutorials are designed to deliver value to a broad range of participants. Whether your need is advanced training on a specific topic of the day or a refresher course on fundamental concepts, there is a tutorial that will meet your need. Almost all of the 7x24 Exchange general session presentations are geared towards those with an advanced understanding of the concepts that will be presented. The tutorials are intended to complement the Monday through Wednesday general session presentations and help each attendee deepen their level of comprehension.

SUNDAY, JUNE 1ST

11:30 A.M. – 9:00 P.M.

Registration

12:00 P.M. – 2:00 P.M.

Tutorial A: A Growing Problem of Corrosion in Pre-Action Sprinkler Systems

A very large percentage of data centers across the country are protected by dry pre-action sprinkler systems. Sitting just above the ceiling and over the servers is a growing problem that has the potential of causing significant damage, and a high cost of repair if not addressed now! Every dry sprinkler system will eventually develop corrosion problems leading to pin hole leaks, or even worse, complete failure of the fire sprinkler systems. This corrosion can be accelerated by MIC (Microbiologically Induced Corrosion). Find out what the real problem is, locate the corrosion and what steps should be taken to mitigate corrosion problems in the future.

Steve Carter

Vice President of Engineering
Orr Protection Systems

2:30 P.M. – 5:00 P.M.

Tutorial B: Fluid Mechanics 101: Fundamentals of Cooling Airflow in a Data Centers

This tutorial session will introduce basic concepts of air velocity, airflow rate, pressure, and temperature distribution as applied to raised-floor data centers. You will be shown why the flow distribution through the perforated tiles is usually not uniform. It is governed by the air velocity and pressure variation under the raised floor. By calculating this variation, you can predict the airflow coming out of each perforated tile. Such a calculation allows you to study the effect of variables such as: layout of the CRAC units and the perforated tiles, the height of the raised floor, and the presence of obstructions under the raised floor. Once the flow rates through the perf tiles are determined, the next step is to calculate, in the above-floor space, the air velocity and temperature as the air moves through the server racks and back to the CRAC units. Many examples will be presented to develop an understanding of the physical processes and to draw practical conclusions. The tutorial will show how to create a computational model of a data center layout and calculate the corresponding airflow and temperature distribution.

Suhas V. Patankar, Ph.D.

Professor of Mechanical Engineering, University of Minnesota, and President, Innovative Research, Inc.

6:00 P.M. – 9:00 P.M.

Welcome Reception

SPONSORED IN PART BY: **CATERPILLAR®**

Join us for a reception with open bar accompanied by music. This is an excellent opportunity to dialogue with conference presenters, meet new people, network, welcome first time attendees, renew old acquaintances, and meet the board members.

MONDAY, JUNE 2ND

7:00 A.M.

Registration & Breakfast

Check in, pick up your name badge, conference materials and enjoy a hot buffet breakfast.

8:00 A.M.

Welcome and Opening Remarks

Bob Cassiliano, 7x24 Exchange chairman, will open the conference, provide an overview, review meeting logistics and address general housekeeping items.

8:30 A.M.

Keynote: The High Tech Tsunami that is Changing the World

Three explosive high technologies, Cloud, Internet-of-Things, and Unstructured Data Science are converging at an amazing pace. Their derivative effects will be that every major industry will be disrupted, reshaped or even reinvented. Sculley will explain how companies like Amazon are combining exceptional customer experience, disruptive price, and same day delivery by taking advantage of advanced high technology supply chain systems. New business models like Amazon don't require a large number of higher skilled middle managers that more traditional companies depend on. Sculley will discuss the possibility of middle managers becoming an endangered group as heavy lifting robots are joined by smart robots and the Internet-of-Things. How can corporations adapt to this fast changing world? John Sculley has a unique position as a leader in disruptive high technologies, a global investor and successful entrepreneur who is mentoring CEOs in his own companies in the fields of: the consumer era of healthcare; next generation mobile technologies; IT supply chain; and big data analytics. John will draw on examples from his current experience in the US and South Asia.



John Sculley

Former CEO, Apple and
Former President, Pepsi Cola



Bob Cassiliano presents Conference Keynote speaker, Carly Fiorina, with a donation to Good 360 at the 2013 Fall Conference.

9:30 A.M.**Refreshment Break****10:00 A.M.****PANEL: GM's New World-Class Enterprise Data Centers – The Dawn of a New Era**

GM's new transformational Enterprise Data Centers, in Warren and Milford, Michigan, will enable the auto giant to consolidate its global IT infrastructure from 23 data centers worldwide to just two. As part of this 7x24 conference, GM and design/construction officials will share the vision behind these projects, the leading-edge infrastructure they demanded and the challenges they effectively addressed during the delivery processes. The benefits of the two new data centers to GM include increasing the leverage of global, common applications, enhanced security and reliability, the ability to more quickly market technology-enabled solutions and the improved integration of GM's vast data repositories. In addition, due to maximum energy efficiencies being built into the design of its new \$120 million Warren Data Center, GM estimates that IT energy consumption will be reduced by 70%. That reduction, along with lean design and construction innovations and the savings generated by closing 23 data centers around the world (after twenty years of outsourcing) have resulted in GM anticipating a less than 10 year payoff of the facility. Jeff Liedel, GM's Executive Director and CIO for Infrastructure summed things up well when he stated, "In the IT business, you only get to build a data center once every 20 years or so. That's why we needed to get this right." The focus of this presentation will be on how GM got it right. This presentation will feature a brief video, a moderated panel discussion and questions from the audience.

Moderator:**Dennis Carignan**

Vice President/Director of Pre-Construction Services
Granger Construction Company

Panelists:**Curt Loehr**

Senior Project Manager
General Motors Corporation

Brian Becker

Project Manager
General Motors Corporation

Joanne Kulbacki

Project Manager
Granger Construction Company

Kim Bedford

Project Director
John E Green Company

William Schaumann, PE

Senior Associate
Syska Hennessy Group Inc.

11:00 A.M.**Kaiser Permanente – Convergence of IT in Healthcare: One Size Does Not Fit All**

With the introduction of new high-tech facilities, more technological procedures are being incorporated, and healthcare providers are becoming major keepers of electronic data. In this session, the presenters will discuss the current healthcare technology environment and show how high-tech facilities need to be supported by robust data centers. They will then talk about the options available to owners. This session will enable attendees to: define "high-tech facility" according to the current market and the new data storage/processing needs in healthcare; explore the business concerns and goals of healthcare data center operators; and compare the pros and cons of building a new facility, renovating or expanding existing facilities, and collocating in a hosted facility.

Brian Oylear

NFS Data Center Delivery Lead
Kaiser Permanente

David Ibarra

Advanced Technology-Mission Critical Project Director/MEP Specialist
DPR Construction

Hamilton Espinosa

National Healthcare Market Group Leader
DPR Construction

Mark Thompson

National Advanced Technology Market Group Leader
DPR Construction

12:00 P.M.**A Milestone for the Data Center Industry: The First Graduate Degree Program for Data Center Professionals**

The data center industry has reached a point in its evolution that its own unique set of professional skills has emerged, and that has led to an important milestone in the maturation of the industry: the first graduate degree program that formalizes academic training of data center professionals who will shape the future of our industry. Southern Methodist University's Lyle School of Engineering is the first school in the country to offer a graduate degree program targeted specifically at fulfilling the needs of today's industry professionals and preparing a new generation of data center professionals. In this presentation, Dr. Volkan Otugen of SMU and Chris Crosby of Compass Datacenters will jointly discuss the educational needs of the industry and how SMU's new Master of Science Degree in Data Center Engineering has been developed to address the multi-disciplinary requirements for current and future data center professionals.

Dr. Volkan Otugen

Senior Associate Dean
Lyle School of Engineering at Southern Methodist University

Chris Crosby

Founder & CEO
Compass Datacenters





12:15 P.M. Lunch and Networking

12:15 P.M. End User Xchange Forum

Designed to encourage in-depth discussion and debate on the latest challenges in data center planning, design and operation, topics will include: trends in infrastructure design resiliency, energy efficient design and operational practices, capacity planning and management, and the day-to-day challenges in managing data center operations. The moderator will guide the discussion with the use of PowerPoint slides and handouts; however, the real star of this session will be you, the end user! Bring your appetites, but more importantly, be ready to engage your peers for an exciting interactive discussion on the latest challenges of our industry. Don't forget those business cards as this will be a great opportunity to meet your peers in the industry!

Moderator:

David Schirmacher

Senior Vice President of Operations, Digital Realty and President, 7x24 Exchange International

1:45 P.M. Energy Regulatory Policies: Research and Implications for Data Centers in North America

The growth of data centers and their energy consumption has prompted the development and implementation of government policies that are designed to improve data center energy efficiency. At the same time, governments are working to address broader energy issues, such as climate change, by establishing policies to discourage the use of carbon-based fossil fuels and encourage the use of renewable energy sources.

In this report, The Green Grid included policies that are in effect or being proposed in the United States, Canada, and Mexico. The report highlights those that The Green Grid believes will be most useful or instructive to the audience. The report is intended to serve as a guide to data center developers and operators as to policies that could impact facility investment and operations. It also provides policy makers with examples of policy instruments that may form a favorable environment for data center siting decisions.

John Tuccillo

Senior Vice President, Global Industry & Government Affairs, Schneider Electric, and Chairman of the Board & President, The Green Grid

Rona Newmark

Intelligent Energy Efficiency Strategy
EMC Corp

2:45 P.M. Create Your Own Sundae Break

3:15 P.M. Digital Realty – A Kit-of-Parts Data Center

Working with Sheehan Partners, Ltd, Digital Realty Trust has developed a highly detailed kit-of-parts data center reference design with the goal of accelerating the design, entitlement, permitting and bidding phase of work for newly built data center projects. This case study will present this design which consists of a series of building modules for white space, MEP support spaces and front of house service areas. These modules can be quickly assembled to provide full building designs for data centers ranging from 3MW to 36 MW or more. These modules are defined in detailed REVIT models which allow for rapid preparation of project drawings and documentation.

Steve Kundich

Vice President of Design & Construction
Digital Realty, Data Center Solutions

Neil Sheehan

Principal
Sheehan Partners Ltd.

4:20 P.M. Concurrent Breakout Sessions Breakout A: Utilization of Computer Room Cooling Infrastructure: Measurement Reveals Opportunity (OPEX, CAPEX, Density)

Study of data centers reveals the average computer room has cooling capacity that is nearly four times the IT heat load. When running cooling capacity is excessively over-implemented, then potentially large operating cost reductions are possible by turning off cooling units and/or reducing fan speeds for units with variable frequency drives (VFD). Using data from 45 sites reviewed by Upsite Technologies, this presentation will show how you can calculate, benchmark, interpret, and benefit from a simple and practical metric called the Cooling Capacity Factor (CCF). Calculating the CCF is the quickest and easiest way to determine cooling infrastructure utilization and potential gains to be realized by AFM improvements.

Lars Strong, PE

Senior Engineer
Upsite Technologies



Delfina Eberly of Facebook delivers a keynote at the 2013 Fall Conference.

Breakout B: Finding the Ideal Mission Critical Site: Trends & Incentive

Data center location searches begin with an unrelenting list of requirements, including robust and reliable infrastructure, low cost power, minimal risk of natural or manmade disaster, favorable tax structures, and lucrative economic development incentives. Biggins Lacy Shapiro (BLS), a location economics consultant, has recently established a data center site qualification program for one of the nation's largest utilities, American Electric Power. This presentation will discuss what makes an ideal data center site based on this program. The latest in terms of power requirements, microwave technology and IT talent recruitment will be reviewed, along with financial incentives available for data centers.

Tim Comerford

Senior Vice President, Biggins Lacy Shapiro, and Principal, Sugarloaf Associates

Michael Pembroke

Senior Vice President
Russo Development

Breakout C: IBM – Intelligent IT Risk Management: A Paradigm Shift

With the ever increasing cost of downtime, companies are looking for shorter recovery times. Current technology can only move bits of data so fast and when an event occurs, it's usually too late to prevent an outage. What if we could anticipate the problem before it affects operations? What if we had already determined what actions to take if a potential event were to occur? What if we could begin the recovery sooner so that when the event occurs the company is already running on its recovery systems? Sounds great but that would require manually monitoring all potential risks to the company and company executives making quick, rational decisions under immense stress. We now have the ability to anticipate and respond to weather, power, water, systems and security events before they even impact a company. Come find out more how this new capability is taking IT Risk Management to a new level.

Richard Cocchiara

IBM Distinguished Engineer & CTO
IBM Corp.

TUESDAY, JUNE 3RD

7:00 A.M.

Breakfast & Registration

8:30 A.M.

Opening Remarks

Bob Cassiliano will review day one highlights, recognize the conference Corporate Leadership Program sponsors and give a 7x24 Exchange update.

9:00 A.M.

Keynote: eBay – Quantitative Comparison of Critical Facility Electrical System Architectures

eBay operates multiple mission-critical data centers to support core enterprise activities. The facilities include modern and legacy designs with a wide variety of architectures and features. MTechnology, Inc. (MTech) was retained to evaluate the reliability of key facilities. MTech employs fault tree analysis to calculate system unreliability and to identify the components and sub-systems most likely to participate in a failure. The results showed that typical metrics based on redundancy do not predict system reliability. While cost per MW of critical load increased for higher-reliability facilities, the relationship was complex. eBay and MTech will present results comparing the unreliability, component contributions, and relative cost figures for several different data center architectures. The presentation will also explore the question of how a firm might determine the appropriate level of reliability and risk for particular applications.

Dean Nelson

Vice President of Global Foundation Services
eBay

James Monahan

Senior Data Center Design Engineer
eBay

Steve Fairfax

President
MTechnology

10:00 A.M.

Refreshment Break

10:30 A.M.

Delivering a Healthcare Data Center

New Hanover Regional Medical Center (NHRMC), a hospital located in Wilmington NC, completed a data center addition in early 2012. Syska Hennessy Group, the data center engineering firm, along with Rodgers Builders, the General Contractor, will provide a case study review of the project, focusing on the business drivers which NHRMC used to justify the addition of their data center. In addition the case study will review the hospital's selection process for the location of the data center, the project delivery methodology, budget and scheduling restrictions, technical opportunities, the benefit of commissioning, and lessons learned.

Alex Myers, PE, LEED, AP

Associate
Syska Hennessy Group

Ryan Wathen

Senior Vice President, Construction Operations
Rodgers Builders

11:30 A.M.

The National Science Foundation Center for Energy Smart Electronic Systems (ES2) and 7x24 Exchange: A Partnership for Energy Sustainable Data Centers

This presentation will begin with an overview of ES2. Bahgat Sammakia will discuss the data center energy problem that was the impetus behind the development of the center and give an overview of ES2, including the university sites, member companies and member company demographic. In addition, he will articulate the process by which industry input directly affects both the types of research being done, and the research itself as it is carried out through industry mentoring. He will also discuss the value proposition of the I/UCRC program in supporting collaborative research among government, industry and universities.

Al Ortega and Bahgat will then go through each of the ten research projects in the current portfolio, explaining the value of the research to member companies and citing the progress that's been made over the past two years of research.

Finally, Bahgat will discuss the Strategic Partnership with 7x24 and highlight the value to be gained from both ES2 and 7x24 Exchange through this partnership.

Bahgat Sammakia

VP of Research and ES2 Center Director
Binghamton University

Alfonso Ortega

VP of Research and ES2 Site Director
Villanova University

12:30 P.M.

Lunch and Networking

2:00 P.M.

Uptime Institute – Start With The End in Mind

Organizations spend millions of dollars and many months of effort to design and build a new data center facility, yet too often planning for how that data center will actually operate is an afterthought. The impacts of this oversight are significant. If the operations team isn't prepared to go live on Day 1, facilities sit idle, losing revenues by the minute. Single design decisions that don't factor in day-to-day operations can add hundreds of unnecessary man-hours per year to data center maintenance costs. To ensure that the uptime and business goals of the data center are met, operations planning needs to begin early on. A "Start With The End In Mind" approach allows you to increase efficiency, avoid costly operating errors, and ensure that the large capital investments made in a facility yield the most efficient ROI.

Lee Kirby

SVP, Management Services
Uptime Institute

W. Pitt Turner, IV

Executive Director Emeritus
Uptime Institute

3:00 P.M.

Refreshment Break

3:30 P.M. Concurrent Breakout Sessions

Breakout A: Mobility – An Overview of Current Trends

Mobility is on an evolutionary fast track like never before as it continues to do more and more in terms of features and functionality. Teenagers have become aggressive users of smartphones and in turn they have been pushing the envelope in terms of features and functions that each successive mobile phone model tries to incorporate. What does this mean for the business community? Well, when Apple introduced their cloud storage function, a number of teenagers let their executive parents know who in turn started asking their CIOs, why can't we do this? Why can't we have easier interfaces that can connect from anywhere? Why do we still need laptops for our salespeople when these new tablet models are lighter and easier to manage? Two benefits jumped out right away: Offsite storage of mission critical data and the ability to build thin client solutions instead of fat client solutions that have become a huge challenge to manage. Join John Oyhagaray, former 7x24 Exchange board member and applications executive for a talk on mobility and what all of this means to you in the business community.

John Oyhagaray

Applications Executive
Independent Consultant

Breakout B: HIPAA, Not Just for Doctors: IT Vendor Risks & Obligations

Does your data center provide direct services to healthcare providers? How about indirectly by way of servicing vendors of healthcare providers? Congratulations! You may now be held directly liable for HIPAA/HITECH violations and subject to the fines and penalties formerly reserved exclusively for hospitals and healthcare providers. This presentation will educate IT vendors on (1) the regulatory compliance scheme surrounding protected health information, (2) business associate obligations under HIPAA/HITECH, and (3) recent enforcement actions undertaken by the HHS's Office of Civil Rights and State Attorneys' General as well as data breach class actions filed by plaintiffs' firms.

Tatiana Melnik

Attorney
Melnik Legal

Breakout C: TCO Scoring Model for Effective Data Center Solutions

In designing a data center there are many decisions that need to be made. It can be difficult to determine the correct level of redundancy, reliability and components to specify for each system topology. Many of these decisions can be evaluated using a TCO (total cost of ownership) model which not only evaluates the cost of the system components but also includes the pros, cons, risk assessments and design analysis based on a scoring system. Through this modeling process we can develop a design that provides a cost-effective technical solution for your specific data center.

Debra Vieira

Electrical Engineer
IDC Architects

Ron Budicky

Electrical Engineer
IDC Architects

SPONSORED EVENT

NEW YORK CITY BLOCK PARTY

TUESDAY ★ JUNE 3RD

6:30PM - 9:30PM

CELEBRATING THE START OF 7x24 Exchange INTERNATIONAL'S SILVER ANNIVERSARY YEAR

TWENTY FIVE YEARS AGO THIS FALL IN NEW YORK CITY, SEVEN VISIONARIES FORMED THE UNINTERRUPTABLE UPTIME USERS GROUP, THE ORGANIZATION WE RECOGNIZE TODAY AS **7x24 EXCHANGE INTERNATIONAL**. THANK YOU KENNETH BRILL (DEC), DENNIS CRONIN, PAUL FOX, ALAN FREEDMAN (DEC), FRANK GIALANELLA, JOHN JACKSON AND HOWARD LEVISON FOR CREATING THE BEST PLACE FOR NETWORKING, INFORMATION SHARING, EDUCATION, AND THE FINEST RESOURCES ALLOWING MEMBERS TO MOVE AHEAD IN THE MISSION CRITICAL INDUSTRY. **7x24 EXCHANGE** LEADERSHIP HAS NOT FORGOTTEN HOW AND WHERE THIS ORGANIZATION WAS FORMED, AND IN RECOGNITION OF THAT **WE INVITE YOU** TO JOIN US FOR A **NEW YORK CITY BLOCK PARTY** TO CELEBRATE THE BEGINNING OF A YEARLONG **CELEBRATION** BEGINNING IN **BOCA RATON** THIS **JUNE!**...

★ ★ ★ **1989 - 2014** ★ ★ ★

ATTENDEES WILL EXPERIENCE AN AUTHENTIC NEW YORK CITY STREET FESTIVAL/BLOCK PARTY. ENTERTAINMENT WILL INCLUDE STREET VENDORS, FOOD TRUCKS, ARTS & CRAFTS, SIDEWALK CHALK ART, GAMES, MUSIC, MAGIC, SIMULATED HOT AIR BALLOONS AND MORE...

WE LOOK FORWARD TO KICKING OFF OUR SILVER ANNIVERSARY CELEBRATION WITH YOU!

Special thanks to the partners that made this event possible:



WEDNESDAY, JUNE 4TH

7:00 A.M.

Breakfast

8:30 A.M.

Opening Remarks

Bob Cassiliano will review highlights from day two and address housekeeping items of interest.

8:45 A.M.

Keynote: State-of-the-Art of Field Technologies and Lifecycle Infrastructure Management in Data Centers

Over the years, field equipment and management systems in the data centers have been evolving in terms of power consumption, heat management and operational efficiency. In the first part of this session, we will review some of these state of the art technologies such as busway, blade systems, EPMS/BMS and CMDB. As each of these individual systems grows more complex, and as changes require constant coordination, more and more data centers are looking for tools to transform reams of data from siloed systems into information used to make enterprise level decisions. As the backbone of an integrated solution, Data Center Infrastructure Management (DCIM) tools bridge the gaps between IT and facility management. In the second part of this session, we will discuss, by exploring some real-world examples, how DCIM features, such as advanced integration, alarms, 3D virtual asset management, embedded CFD and configuration driven service management, can bring infrastructure management to new levels throughout the lifecycle of data centers.

Yue Ma

Senior Product Manager
SIEMENS

Aaron Carman

Worldwide Critical Facilities Strategy Leader
HP

9:45 A.M.

Refreshment Break



Chris McLean of the Markley Group presents at the 2013 Fall Conference.



Chris Crosby of Compass Datacenters presents at the 2013 Fall Conference.

10:15 A.M.

TELUS Super Intelligent Data Center Program

In 2009, TELUS began a program to develop two SIDC's, Super Intelligent Data Centers, intended to provide a highly reliable and efficient consolidated data center environment and serve both western and eastern Canada. The program included two new hybrid/modular data centers designed to support up to 16.2 MW of critical power at each site for both TELUS internal and external customers. Each project features the use of a highly efficient prefabricated server module that utilizes a patented refrigerant based evaporative cooling loop that can support heat loads up to 40 KW per rack, while maintaining energy efficient operations. Even at full load, the system can operate at an average annual PUE of less than 1.2. The projects are targeting LEED Gold Certification. The first project was built in Rimouski, Quebec in eastern Canada, with construction finishing during July and August of 2012. The second data center in Kamloops, British Columbia was completed in October, 2013.

Peter Hegarty

Director Infrastructure and Fundamental Planning
TELUS

Leonard Ruff

Principal Mission Critical Design
Callison

11:15 A.M.

Transforming Traditional Office Space into A High Density Data Center

Hear from SNL Financial's data center project manager on how SNL added more computing capacity, redundancy and eliminated all power and cooling issues at their existing data center. Also learn how this project was delivered on time and below budget with market leading design, intelligent airflow management, CFD modeling and DCiM visualization tools. SNL reliably increased their compute density in an existing office facility and will present project details, CFD models and DCiM graphical views to show results.

John Peterson

Enterprise IT Project Manager
SNL

James Betts

National Sales Manager Northeast
Geist

12:15 P.M.

Conference Adjourns

1. Conference Registration

Complete a Conference Registration Form for each participant online or mail or fax a copy of the Conference Registration Form on the next page to:

7x24 Exchange International

322 Eighth Avenue, Suite 202, New York, NY 10001
Phone: 646-486-3818 Fax: 212-645-1147
www.7x24exchange.org

To guarantee early bird rate, registrations must be received by May 9th.

2. Hotel Reservations



**BOCA RATON
RESORT & CLUB®**

501 East Camino Real
Boca Raton, FL 33432

To take advantage of 7x24 Exchange's special rates at the **Boca Raton Resort & Club** you can visit the conference website at www.7x24exchange.org to make an online reservation, or call **Boca Raton directly at 1-888-557-6375 and ask for the 7x24 Exchange Conference room rate of \$225/night for a single or double plus tax. Please refer to Group Code A724SC when calling.**

The Daily Resort Fee is \$22.20 inclusive of taxes and includes: Guest internet access; Mizner's Dream weekend water taxi; resort village shuttle; beach chairs and umbrellas; Mizner's Quest discovery tour; fitness classes; driving range use; local, toll-free, domestic and credit card calls (no access fee).

Please Note: Room reservations are available on a first come, space-available basis. Space permitting, this block will be available until May 16, 2014. Register for the conference and make your hotel reservations early, as the blocks will likely sell out. Previous 7x24 Exchange conference room blocks have sold out. 7x24 Exchange is not responsible for matching rates, finding additional rooms or providing transportation to hotels that have not been contracted by 7x24 Exchange once the block is sold out. 7x24 Exchange makes every effort to reserve the appropriate number of room nights for attendees. In the event of a sellout 7x24 Exchange will recommend nearby accommodations.



VENDOR/CONSULTANT POLICIES & PROCEDURES

Information Tables

All vendors and consultants are encouraged to participate in 7x24 Exchange.

However, the group is primarily driven by user interest. Tables are provided at the conference for the distribution of product literature, educational material and other useful information at no cost. Display signs are not permitted on literature tables. Overt selling at 7x24 Exchange meetings and the use of 7x24 Exchange membership lists for direct selling are prohibited.

Hospitality Suites

Hospitality suites/demo rooms are permitted on Monday, June 2nd between the hours of 6:30PM and 10:30PM. All hospitality suite hosts must be a Silver Partner of the 7x24 Exchange Corporate Leadership Program (CLP). In order to be recognized by 7x24 Exchange vendors must complete a suite registration form.

As always, hosting a hospitality suite gives vendors direct access to the conference attendees and provides the opportunity to promote products and services in an enjoyable relaxed environment.

If you are interested in hosting a suite on Monday, June 2nd please contact Brandon Dolci at 646-486-3818 x108.

Guest/Spouse Shopping Shuttle

MONDAY, JUNE 2, 2014

10:00 A.M. – 4:00 P.M.

Enjoy a day of leisure at some of Boca Raton's finest indoor and outdoor shopping malls.

Name: _____

(Informal Name/nickname for badge) _____

Position/Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

E-mail _____

CONFERENCE FEES:

	Early Bird Discount through MAY 9th	After MAY 9th
VENDOR		
Member:	\$1,900	\$2,200
Non-member:	\$2,200	\$2,500

An individual that sells or distributes products and/or services.

	\$1,700	\$2,000
CONSULTANT		
Member:	\$1,700	\$2,000
Non-member:	\$2,000	\$2,300

An individual that provides professional advice or consulting services for a fee.

	\$1,200	\$1,400
END USER		
Member:	\$1,200	\$1,400
Non-member:	\$1,400	\$1,700

An individual that operates or maintains mission critical technology and enterprise information infrastructures for internal use.

An individual that can be considered as an End User or a Vendor will be classified as a Vendor.

An individual that can be considered as an End User or a Consultant will be classified as a Consultant.

CONFERENCE BOOK OR MOBILE APP?

In an effort to become paperless, 7x24 Exchange is offering attendees the option of receiving printed materials in the traditional format of a bound conference book or the use of our brand new mobile app which will be available on all mobile devices and tablets. Due to print deadlines, the mobile app will be the only option for attendees registering after May 9th.

If nothing is selected the Mobile App will be the default choice.

(Please check one)

☐ I would like to receive the traditional conference book

☐ I will use the New Mobile App

PAYMENT METHOD:

☐ Check enclosed

Charge (check one)

☐ American Express ☐ Visa ☐ MasterCard ☐ Discover

Card Number:

Exp. Date:

Name (as it appears on the card)

Signature

Promotion Code:

DO YOU PLAN TO ATTEND?

Sunday 11:00 A.M. – 1:00 P.M.

Growing Problem of Corrosion

☐ Yes ☐ No

Sunday 2:30 P.M. – 5:00 P.M.

Fundamentals of Cooling Airflow

☐ Yes ☐ No

Sunday 6:00 P.M. – 9:00 P.M.

Sunday Evening's Welcome Reception

☐ Yes ☐ No

If yes, do you plan to bring a guest?

☐ Yes ☐ No

Name of guest:

A guest is a spouse/significant other or an adult child (18 and over) who is not in an industry related occupation. Co-workers or associates in the industry may not use the guest registration category and are required to submit a separate registration form. Only one guest is permitted for each paid registration. Guests are invited to attend the Welcome Reception, Monday Morning Keynote, Tuesday Sponsored Event and Wednesday Morning Breakfast.

Monday 10:00 A.M. – 4:00 P.M.

Guest/Spouse Shopping Shuttle

☐ Yes ☐ No

Monday 4:20 P.M.

Concurrent Breakout Sessions

A: Utilization of Computer Room Cooling Infrastructure

☐ Yes ☐ No

B: Finding the Ideal Mission Critical Site

☐ Yes ☐ No

C: Intelligent IT Risk Management

☐ Yes ☐ No

Tuesday 3:30 P.M.

Concurrent Breakout Sessions

A: Mobility – An Overview of Current Trends

☐ Yes ☐ No

B: HIPAA, Not Just for Doctors

☐ Yes ☐ No

C: TCO Scoring Model

☐ Yes ☐ No

Tuesday 6:30 P.M. – 9:30 P.M.

Sponsored Event

New York City Block Party

☐ Yes ☐ No

If yes, do you plan to bring a guest?

☐ Yes ☐ No

Name of guest:

Do you wish to receive membership information? ☐ Yes ☐ No

The conference registration fee covers conference sessions and activities, handout materials or mobile app, Sunday's reception, lunches and breakfasts on Monday, Tuesday and Wednesday. Participants are responsible for all other expenses, including guest meals, transportation and hotel accommodations. The dress code is business casual. Cancellations received by May 2nd will be refunded, less a \$200 handling fee. There will be no refunds after May 2nd. However, substitutions of company participants may be made at any time.

All applications for registration are subject to review by 7x24 Exchange for accuracy and completeness prior to being accepted. We may contact you for further information.

We reserve the right to modify the registration if the incorrect fee is selected.

RETURN THIS FORM TO:

7x24 Exchange

322 Eighth Avenue, Suite 202, New York, NY 10001

Phone 646-486-3818 • Fax: 212-645-1147

Registration is also available online at

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