

October 29 – November 1, 2000

The Phoenician

Scottsdale, Arizona



# End-to-End Reliability Connections

The leading knowledge exchange among those who design, build, use and maintain mission-critical enterprise infrastructures, *7x24 Exchange's* goal is to improve end-to-end reliability by promoting dialogue among these groups.

#### Who Should Attend and Why

This conference is designed for anyone involved with 7x24 infrastructures—IS, 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 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. Team members also were able to cover 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.

First-time attendees often discover that many companies face similar, if not identical, technical and organizational problems in their quest for higher availability levels. Those unaware of this often view their situations as unique. However, they learn there are many common downtime risks and failure modes with solutions clustering around universal ideas and attitudes. *7x24 Exchange* conferences provide insights into what is being planned and done 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 arguments that have been successful elsewhere.

The world is 7x24. The Internet is 7x24. Business and culture increasingly are dependent on information. Information movement and *The Net* increasingly are interdependent. The result is **ALL** organizations are moving toward 7x24 operations for at least some of their operations. Your drug-store, bank, library or newspaper may operate less than 7x24, but their web site, shipping and order taking operations and ties to suppliers had better be 7x24. The result is **EVERY** organization will have a 7x24 facility somewhere.

This conference will explore many of the major issues and connections involved in creating and maintaining mission critical facilities. The program opens with discussions of organizational relationships and implications of using ASPs for critical applications/operations/systems/components by Arthur Ranney, CIO of the State of Arizona. Fred Moore, editor in chief, *Storage Magazine*, will supplement this with a discussion of the ASP/xSP movement and its implications for critical operations, facilities and functions.

Fred Chieux, senior vice president, Business and Corporate Development, Neomar, will give an overview of WAP (Wireless Application Protocol), its current and future business uses.

The related power and thermal connections sessions include: A New Approach to Power Quality: Tougher Loads; Critical Facilities Power Topology; Data Center Airflow: A Predictive Model by Drs. Roger Schmidt and Suhas Patankar, leading experts in the field from IBM and Innovative Research, who will report on an 11-member consortium of computer and telecommunications manufacturers' 10-year outlook for product power densities; and, a panel discussion on Environmental Cooling for Electronic Equipment.

Security and Safety topics will include: The Convergence of Security Threats, Risks and Mitigation; Biometrics, an overview of characteristics and the state-of-the-art for major biometric technologies; and, Fire Protection for Mission Critical Equipment.

There will be several technology specific orientation sessions, a professional panel, a range of opportunities for attendees to network and dialogue during tours, breaks and social events—vendor hospitality suites, Evening at the Corona Ranch/Mexican Rodeo—all designed to strengthen the human connection. And, a new companion/spousal program, coordinated by Karen Levison, wife of Howard Levison, one of *7x24 Exchange's* founders, will be available for attendee spouses and companions (see: [www.7x24Exchange.org](http://www.7x24Exchange.org)).

# Agenda

All program elements aim to increase the reliability and availability of an enterprise's information infrastructure by presenting case studies, new ideas, techniques and tools. Open dialogue between attendees and presenters is encouraged throughout. Further, by involving the many functional specialists from user and supplier/service organizations via formal and informal sessions, we hope to make the experience expanding, rewarding and enjoyable for all.

## Sunday, October 29

2:00 p.m.

### Chapter Dialogues/Updates

There will be an open meeting discussion by 7x24 Exchange Board members, chapter officers and current and prospective chapter members to review/discuss chapter activities and needs.

5:00 p.m.

### Registration

Please pick up registration materials and badges to help reduce Monday morning congestion.

6:00 p.m.

### Reception/Ice-Breaker

Join us for a buffet supper and open bar. This is an excellent opportunity to dialogue with conference presenters, network, meet new people and renew old acquaintances.

7x24 Exchange Board members Dave Sjogren and Bob Cassiliano will moderate an ice-breaker session designed to welcome first-timers and open dialogue on 7x24 Exchange and uptime issues and experiences.

## Monday, October 30

Starting at 6:30 a.m.

### Registration/Continental Breakfast

(Coffee, Danish, fruit)

Pick up conference material and badges.

8:15 a.m.

### Welcome and Opening Remarks

Robert (Bob) Cassiliano, president, Business Information Services, Inc. and 7x24 Exchange chairman.

Mr. Cassiliano will open the formal agenda, provide a conference overview and review meeting logistics.

8:45 a.m.

### Business/Government IT and Infrastructure Needs

Arthur (Art) Ranney, chief information officer (CIO) and director of Government Information Technology Agency (GITA) of the State of Arizona.

As the CIO of the State of Arizona, one of the most progressive state governments in employing IT and IT related services, Mr. Ranney directs the State's use of information technology. Art has a unique view of the state-of-the-art in the latest out-and-in-sourcing rage—the ASP (application service provider) movement and the implications this business model has for mission critical operations.

9:45 a.m.

### Data Center Airflow: A Predictive Model

Drs. Roger R Schmidt, senior technical staff member and chief thermal engineer, IBM's Server Division and Suhas V. Patankar, founder and president, Innovative Research.

Roger and Suhas will report on an 11-member consortium of computer and telecommunications manufacturers' 10-year outlook for product power densities. They also will review a flow distribution model that deals with air-cooled computer raised floor installations under a variety of variables. Long-time 7x24 Exchange Conference goers will recall Roger's still-referenced *Watts per ft<sup>2</sup>* presentation at one of 7x24 Exchange's first conferences in the early 1990's and will be pleased to get this update.

10:45 a.m.

### Break

Coffee, Danish, juices and soft drinks will be available.

11:15 a.m.

### Concurrent Sessions

#### A. Communications for Non-Network Professionals

Michael A. (Mike) Weinstein, manager, AT&T Solutions and vice president, 7x24 Exchange.

What is the relationship between networking and high reliability? What is involved in building an enterprise-wide communications network? Mike will provide an overview of current and emerging networking and communications technologies and how they fit together to support enterprise operations. Topics covered will include network transmission facilities, routing, security, wireless and the convergence of voice, data and video technologies. Attendees will learn how these technologies work and fit together in end-to-end networks that support mission critical applications. The session will serve as a good primer for several communications related sessions that follow.

#### B. Power Basics for Non-Electrical Engineers

George Kamburoff, independent consultant.

George will discuss mysteries of electrical power, from electromagnetism's dual nature through electrical power production, to the application and understanding of power distribution configurations. Electron flow in circuits, the magic of reactive effects, AC versus DC and what really happens in distribution systems, will be explained. Covering power basics for non-EE's, this presentation will lead into discussions of power topologies later in the program.

12:00 p.m.

### Lunch

1:30 p.m.

#### Environmental Cooling for Electronic Equipment

Moderator: Dr. Robert Sullivan,

Computersite Engineering; Panelists:

Roland Geldert, engineering manager, Data Aire Corporation and David Kelley, manager Air Products, Liebert Corporation.

Picking up from the Spring Conference's Heat Removal Basics session and the Data Center Airflow presentation above, this Graduate Level panel will review major

cooling choices, including equipment and installation requirements, A/C unit design, humidifier and air circulation choices. The group will discuss costs (capital and operating), benefits and significant problem areas related to major components discussed. Anyone involved with highly reliable data centers will find this and the two companion thermal sessions invaluable in dealing with heat issues.

2:30 p.m.

#### **Concurrent Sessions**

##### **A. Server Rack Cooling**

*R. Stephen (Steve) Spinazzola, PE, co-director of engineering, RTKL Associates, Inc.*

The session goal is to initiate dialogue on what is believed to be a revolutionary method for cooling server cabinets. Steve will review how this new cooling system can greatly improve thermal efficiencies inside server cabinets and data rooms. This method, developed in response to new 1U servers designed for ISP/ASP markets, involves the integration of fan/coil systems, cabinets and data rooms, into a complete system that provides installation savings and ongoing energy cost savings.

##### **B. Fire Protection for Mission Critical Equipment**

*George Krabbe, chairman of the board, Automatic Suppression Systems.*

When downtime from a fire is not an option, water may not be the best choice for protecting mission-critical equipment. The session will provide attendees with the background on *clean agents* needed to make informed choices when specifying/recommending fire protection systems. For those with existing Halon systems, George will review regulations and codes related to its current and continued use. He also will discuss the next generation of *clean agents* that will replace Halon. George will cover the strengths and weaknesses of each commercially available agent, as well as state-of-the-art detection and fire control systems.

3:15 p.m.

#### **Break: Make your own Sundae**

Coffee, juices, soft drinks, ice cream, toppings and sweets

4:00± p.m.

#### **Concurrent Tours**

*To avoid rush hour traffic, buses for all tours will leave at 4:15 pm and return to the hotel by 7:30 pm. Several vendor organizations will host hospitality suites from 5:00 pm – 10:00 pm. Details will be posted at the conference.*

##### **T1. Co-Generation at The Phoenician**

*(limit 50; a 15-minute overview presentation, followed by a short walk to The Phoenician Power Room).*

*Bill Claypool, director of technical services, The Phoenician.*

Back by popular demand, this CoGen/Distributed Generation facility, part of The Phoenician central plant, began operation when The Phoenician opened in 1988 and has been in continuous operation since. The facility features two 650 kW natural gas engine generators that were upgraded to *lean burn* in 1995, with switchgear and controls to handle engine start, paralleling and paralleling to the utility.

##### **T2. SRP OPS Center**

*(Two, one-hour tours of 30: two buses, one at 4:15 p.m., the second at 5:30 p.m. 15 minutes from The Phoenician).*

SRP, the electric utility that serves most of the Phoenix area, will provide a behind-the-scenes tour of its operational control center. Attendees will learn how system reliability and electric loads are monitored and controlled and how outages are dispatched and repaired. Attendees will be divided into smaller groups to rotate through SRP's Transmission Control, Distribution Operations and Computer Application Centers for its electric system control. SRP's Control Center is a critical 7x24 facility with dual utility feeds, dual UPS's, dual back-up generators and dual back-up batteries.

##### **T3. Charles Schwab's New Chandler Facility**

*(Limit 25, 30-minute bus ride, 1-hour presentation/tour)*

*Tour sponsor: Jim McGuire, svp, Charles Schwab.*

This newly completed (10/26/00) facility mirrors the operations of Schwab's recently expanded Phoenix Data Center. This state-of-the-art 320,000ft<sup>2</sup> facility combines 2N and N+1 mechanical and electrical plants. Schwab's facilities and engineering staff and members of the design/build team will be on hand to discuss design philosophies and the fast track process used to bring this facility on line in time to meet Schwab's rapidly expanding needs, due to the growth in web-based trading.

##### **T4. First Data Corp. Data Center**

*(Limit 30-2 tours, 15 each, 20 minutes from The Phoenician).*

*Tour Guides: Larry Pellerito, sales representative, ISS and Bruce Penmen, vice president, Facility Resources Company, Inc.*

Larry and Bruce will provide a facility overview and lead a tour(s) of First Data Corporation's two-year-old, 100,000 ft<sup>2</sup>, 7x24 data center, in Chandler, AZ. This facility provides 7x24 credit card processing services. The infrastructure is fully redundant at the component and system level. Visitors will see and learn about the facility's dual utility feeds, three 2,000kVA UPS systems and three 1,750kW diesel generators that parallel with the utility. Also on display will be three 500-ton centrifugal chillers with redundant pumps and chilled water loops. Twelve 450kVA computer power centers with integral 600 amp static transfer switches reside on raised floor.

##### **T5. Honeywell Data Center**

*(limit 20 US Citizens, 30 minutes from The Phoenician).*

Details on this tour will be posted on our web site.



## Tuesday, October 31

8:00 a.m.

### Continental Breakfast

(Coffee, Danish, fruit)

Pick up conference material and badges.

8:30 a.m.

### Opening Remarks Day 2

Bob Cassiliano will review day one highlights, provide an overview of upcoming events and last-minute changes.

8:45 a.m.

### Keynote Address: WAP (Wireless Application Protocol) – Today and Tomorrow

*Fred Chieux, SVP Business and Corporate Development, Neoma, Inc.*

Professionals are increasingly reliant on the flexibility of PDA access to wireless enterprise applications and Intranets, especially while traveling. Deploying applications built using WAP offers the most secure environment for sending and receiving important enterprise data over wireless networks to devices. Fred will provide an overview of what WAP is, what is required for adherence to WAP and why companies should adopt this open standard protocol that allows application deployment on any wireless device over any wireless network. Fred also will discuss WAP/wireless' implications for business operations, including examples of major existing and potential blue-sky applications. The presentation will conclude with a discussion of likely implications of these applications on mission critical infrastructures, hardware, bandwidth, security, and support.

9:45 a.m.

### Break

Coffee, Danish, juices and soft drinks

10:15 a.m.

### The XSP Market's Impact on Storage and Implications for Mission Critical Information Infrastructures

*Fred Moore, editor in chief, Storage, founder, Horison Information Strategies and founding partner, IN\_fusion.*

Expanding on the day one keynote address, Fred will further explore the scope and meaning of the new XSP "outsourcing" movement (X = Application, Storage, Management, Vertical, etc. and SP = Service Provider). The presentation

will define and discuss the relationships between the major service types/categories and review the underlying forces driving this burgeoning movement.

Discussion will cover major issues of availability, staffing, storage, bandwidth and infrastructure implications for this *new approach* to the structure and management of information processing.

11:10 a.m.

### Biometrics: The Security Connection

*William A. (Bill) Rogers, publisher, Biometrics Digest.*

Security, authentication and access control is a critical element in any highly reliable system. This vital connection increasingly is being satisfied with biometrics—the application of biological metrics to identify/verify/authenticate an individual for access. Bill will provide an overview of today's major biometric technologies, applications and issues, including a review of the characteristics, cost and benefits associated with finger, hand, eye, voice, face and signature recognition technologies.

12:05 p.m.

### Lunch

1:30 p.m.

### Critical Facilities Power Topologies

*Fred Lewis, vice president sales, Power One.*

Fred will review the characteristics, costs and benefits of the AC and DC alternatives to powering critical communications and data center facilities. The convergence of data and communications is heightening this re-evaluation as communications equipment and facilities have long been DC-oriented, while AC has been the *data processing paradigm* down to chip and/or board level. Clearly, power is always DC at the chip level; the question is, where in the overall facility power topology does it begin? Discussion will cover how some leading-edge facilities are dealing with this issue.

2:15 p.m.

### Break

Coffee, juices, soft drinks and snacks.

2:45 p.m.

### Security Threats/Risks and Mitigation Strategies

*Todd Flemming, CEO, Advantor Corporation and Richard E. Weiner P.E., corporate VP, Science Applications International Corporation.*

Todd and Rich will discuss the threats and risks currently associated with today's information systems and critical assets infrastructures and automation's major role in mitigating those risks. They also will discuss how the cost and staffing challenges associated with maintaining risk mitigation are provided through a new breed of service providers.

3:30 p.m.

### Professional Roundtable/Pass-The-Mike

A panel of program speakers and/or a moderated Pass-The-Mike will respond to questions submitted beforehand or surfaced during conference presentations and dialogue with the audience on 7x24 operations issues of interest.

5:45 p.m.

### Vendor Sponsored Dinner:

**Mexican Rodeo at The Corona Ranch**  
(Buses depart at 5:45 p.m. and return to The Phoenician by 10:00 p.m.)

The vendor-sponsored *Mexican Rodeo at The Corona Ranch*, featuring beautiful mountain views, fabulous food and Arizona's only Mexican Rodeo Team will provide excellent networking opportunities and a chance to unwind. Attendees will be treated to a cocktail reception on the lawn adjacent to the rodeo grounds. Music will fill the air during a gourmet meal followed by an authentic Mexican Charrida (Rodeo), which highlights exciting portions of this traditional pastime.

## Wednesday, November 1

7:30 a.m.

### Continental Breakfast

8:15 a.m.

### Opening Remarks and 7x24 Exchange Chapter Update

Bob Cassiliano will review highlights from days one and two and provide an update on chapter activities, a brief State of the 7x24 Exchange message, current 7x24 Exchange activities and plans.

8:45 a.m.

### e - Learning

*Ben Watson, general manager, Smart Force.*

End-to-End Reliability always rests on people, the people who design, build, use and maintain mission critical systems and applications, people whose primary value added is based on ideas, knowledge and conceptual skills. The importance of these skills and this knowledge—intellectual capital—continues to increase. At the same time, the amount of available information is exploding. This session will review major elements and implications of e-learning and how it is being used to address these problems in a variety of industries.

9:45 a.m.

### Break

Coffee, juices, soft drinks and fruit.

10:15 a.m.

### A New Approach to Power Quality: Tougher Loads

*Alex McEachern, president, Power Standards Lab*

The traditional approach to solving power quality problems has been to interpose a box between the utility grid and the load: UPS, filters, surge suppression, voltage regulators, etc. This approach is expensive and sometimes ineffective. A new approach has developed over the years: design tougher loads that can tolerate ordinary power quality disturbances. Alex will review the elements of this approach and relevant methods, tools and standards.

11:00 a.m.

### Adjournment

Box lunches will be provided.

## Registration includes two steps:

### 1. Conference Registration

Complete a copy of the **Conference Registration Form** (following) for each participant and FAX or mail to:

*7x24 Exchange*  
83 Calvert Street  
Harrison, NY 10528  
Phone: 914 835-5740  
Fax: 914 835-5762

Or visit [www.7x24Exchange.org](http://www.7x24Exchange.org) and register online.

To assure space availability, registrations must be received by October 20, 2000. Attendance will be limited to 275.

### 2. Hotel Reservations

If you wish to stay at The Phoenician and take advantage of 7x24 Exchange's special rates, complete the **Hotel Registration Form** (following) and FAX or mail a copy to:

The Phoenician  
6000 East Camelback Road  
Scottsdale, AZ 85251  
Phone 480 941-8200  
Fax 480 947-4311

The Phoenician must receive a completed 7x24 Exchange Hotel Registration Form by October 10, 2000. After October 10, rooms are subject to space availability.

## What is 7x24 Exchange?

The leading knowledge exchange for those who design, build, use and maintain mission-critical enterprise information infrastructures, 7x24 Exchange is a non-profit organization seeking to improve end-to-end reliability by promoting dialogue among these groups.

Founded on the assumption that most professionals involved with data center uptime issues work in isolation when dealing with technical, budget, political, and career issues. As a result of expensive, time-consuming, and, sometimes, painful trial and error processes, innovative practitioners evolved unique and creative ways of solving problems and building the organizational support needed for their implementation. However, many have been stymied because they did not have access or know how to communicate potential risks to senior management to avoid a downtime disaster occurrence.

7x24 Exchange members work together to advance the state-of-the-art in infrastructure reliability. By collecting and disseminating data on safeguarding information systems and alerting top management to the importance of proactive measures, members can protect their companies' information lifelines.

## The Goal of 7x24 Exchange Conferences

The field of uninterrupted uptime has no textbooks. Before its founding in 1989 as the *Uninterruptible Uptime Users Group*, learning how to deal with uptime issues largely resulted from individual trial and error. Continuing this random rate of reliability improvement would increasingly restrict the potential productivity of the large, growing investment in computer and communication hardware and systems. It also would interfere with the increasingly critical dependence on information accessible through computers.

With 7x24 operations now common, how much higher will availability requirements be in five years? How can cost-effective, reliable responses be

*Continued on back panel*

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## Directors and Officers

### Directors and Officers

Chairman, Robert Cassiliano  
Business Information Services, Inc.  
732 446-7502

### President

David Sjogren  
Strategic Facilities Inc.  
973 875-7701

### Vice President

Michael Weinstein  
AT&T Solutions  
856 787-1884

### Secretary

Tom Belesimo  
Innovative I/T Services Inc.  
516 242-1255

### Treasurer

John Oyhagaray  
Western Union  
201 986-5653

### Board Member

Mark Dianora  
Cantor Fitzgerald, International  
011-44-171-894-7000

### Executive Director

Joseph Paladino  
914 835-5740

### Chapters

David Sjogren

### Membership

Tom Belesimo

### Newsletter

Joseph Paladino

### Press Relations

Robert Cassiliano

### Programs

Fall 2000  
Howard Levison

Spring 2001

Joseph Paladino



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## Continued from page 5

assured? When is a centralized application site requiring ultra-high availability viable? 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 7x24 Exchange, that knowledge can be shared.

### Vendor/Consultant Participation

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. Overt selling at 7x24 Exchange meetings and the use of 7x24 Exchange membership lists for direct selling are prohibited.

### Special Interest Groups (SIGs) and Chapters

To better serve users and provide a means for ongoing technical interchange between semi-annual conferences, 7x24 Exchange encourages and supports the formation of local 7x24 Exchange Chapters and Special Interest Groups (SIGs). Monthly or bi-monthly chapter

meetings help assure continued dialogue between members in a given geographic area. SIG's provide an opportunity for members to explore specific 7x24 issues/problems in depth.

7x24 Exchange's Board of Directors will authorize Chapters and SIGs based on availability of a president/chairperson, a clear program plan and, if needed, a budget. Each chairperson is responsible for gathering a working group and achieving the approved plan's objectives.

Any member interested in forming a Chapter or SIG should contact a board member.

# Conference Registration Form

Return this form to 7x24 Exchange. Fax: 914 835-5762

Please type or print clearly

Full name \_\_\_\_\_  
 (Informal name/nickname for badges) \_\_\_\_\_  
 Position/Title \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City ( ) State ( ) Zip \_\_\_\_\_  
 Phone \_\_\_\_\_ Fax \_\_\_\_\_  
 E-mail \_\_\_\_\_

Fees	Through Oct. 20	After Oct. 20
Member	\$ 900	\$1,100
Non-member	\$1,200	\$1,400

**Payment Method**

Bill me  Check enclosed  
 Charge (check one):  
 American Express,  Discover,  MasterCard,  Visa

\_\_\_\_\_ Expiration Date

**Do you plan to attend?**

**Sunday 2:00 p.m. – Chapter Dialogues/Updates**  
 Yes  No  Undecided  
 Are you currently active in a chapter/a chapter member?  
 Yes. If yes, which?  
 \_\_\_\_\_  
 No. If no, are you interested in forming a chapter? Where?  
 \_\_\_\_\_

Please include any questions/topics you wish covered.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Sunday Evening's Buffet Reception?**

Yes  No  
 Do you plan to bring a guest?  Yes  No  
 If yes, name \_\_\_\_\_

**Monday Field Trips/Tours**

Do you plan to attend a tour?  Yes  No  
 If yes, please indicate your preferences: 1 – preferred, 2 – second choice, 3 – third choice; or N for tours you are not interested in. Space is limited, requests will be handled on a first-come, first-served basis. See page 3 for tour descriptions, logistics and limits.

- Preference Tour**  
 \_\_\_\_\_ T1. Co-Generation at the Phoenician  
 \_\_\_\_\_ T2. SRP OPS Center  
 \_\_\_\_\_ T3. Schwab Data Facility  
 \_\_\_\_\_ T4. First Data Corp. Data Center  
 \_\_\_\_\_ T5. Honeywell Data Center (US Citizens only)

**Breakout sessions**

**Monday 11:15 a.m.**  
 A. Communications for Non-Network Professionals  
 B. Power Basics for Non-Electrical Engineers  
**Monday 2:30 p.m.**  
 A. Server Rack Cooling  
 B. Fire Protection for Mission Critical Equipment

**Tuesday Evening's Corona Ranch Vendor Sponsored Event?**

Yes  No  
 Do you plan to bring a guest?  Yes  No  
 If yes, name \_\_\_\_\_

**Optional Companion/Spouse Program**

Attendee companions and spouses interested in taking part in Monday and Tuesday daytime activities, should check our web site for schedule and costs. [www.7x24Exchange.org](http://www.7x24Exchange.org)

**Company problem/issue/case study**

An important part of 7x24 Exchange conferences is the discussion of real world uptime issues, problems and solutions. Each attending organization is requested to provide a short write-up of a recent experience, major question, problem or issue which might be of interest to conference attendees:  
 \_\_\_\_\_  
 \_\_\_\_\_

(include additional sheets if necessary)

May we identify your company as submitting this information?  
 Yes  No

These write-ups will be reviewed by the 7x24 Exchange Board of Directors and provided to appropriate presenters and moderators for possible inclusion in their sessions.

Other comments, suggestions:  
 \_\_\_\_\_  
 \_\_\_\_\_

**Please Note:**

The registration fee covers all sessions and activities, handout materials, Sunday's reception, breakfasts and lunches, on Monday, Tuesday and Wednesday and field trip transportation.

Participants are responsible for all other expenses, including transportation and hotel accommodations.

The dress code is business casual.

Cancellations received by October 20, 2000 will be refunded, less a \$75 handling fee. There will be no refunds after October 20. However, substitutions of company participants may be made at any time.

7x24 Exchange's annual corporate membership is \$300 for users and \$600 for vendor organizations. A corporate membership allows all employees from that business unit to attend 7x24 Exchange conferences at the reduced rate.

