Final Agenda

CMG2005

December 4th - 9th

Gaylord Palms Resort & Convention Center

Orlando, Florida

CMG2005 • Orlando

Letter From the CMG2005 General Chair, Cathy Nolan

On behalf of The Computer Measurement Group, I'd like to welcome you to CMG2005! This is the 31st Annual International Conference of the Association of System Performance Professionals, and I thank you for taking an active part in this event. This conference is the culmination of more than a year's effort, and the entire Conference Committee is excited about delivering a full week of training and networking opportunities that can help you enhance your IT careers. We know the information and experience you take home with you will benefit you for years to come!

The Program Committee has worked hard to pull together an agenda that offers the systems management community a full week of comprehensive training presented by industry recognized experts and IT professionals. This conference offers you a chance to interface with presenters in a variety of venues including workshops and "how-to" tutorials, as well as user-experience and problem-solving presentation sessions. These technical sessions continue to be the primary focus of the conference, and we know you won't be disappointed by what you see and hear! This Final Agenda offers a wide-ranging group of presentations and panels that cross many disciplines and platforms, and I know you will find many interesting and informational sessions to attend daily.

CMG also offers a Trade Show accompanying the conference. Here is your opportunity to visit the exhibition hall often and learn what solutions our exhibitors have available for you today as well as for 2006 and beyond! Complimenting the Trade Show are the Monday User Group meetings held on Monday, December 5. These meetings give each of you a unique opportunity to get in-depth information on vendor product offerings.

Rounding out the whole CMG 2005 Conference experience are the vendor sessions and the Birds Of a Feather Sessions (BOFS) that are scheduled daily after the regular sessions end. Finally, after a full day of training and interaction with industry leaders and IT professionals, you have the opportunity to meet informally at PARS (Performance Analyst Relaxation Sessions) where we will all relax and network while enjoying food while listening to entertainment. Be sure to join us every evening for an opportunity to extend your network of professional contacts while enjoying music.

Finally, whether you are new to CMG or a long-time member, I want to thank you for attending the conference, and I ask you to volunteer both while you're here at this conference and for next year's conference. Volunteering is rewarding and gives you an opportunity to get involved with an organization that continues to serve the IT community year after year. CMG is a success because of the time and energy invested by its volunteers – you are THE reason this conference consistently delivers top notch content! Thank you again, and have a great week at CMG2005!

CMG

The Association of System Performance Professionals

What is CMG?

The Computer Measurement Group, Inc. is the professional association of technicians responsible for the management of computer systems. It is a volunteer organization whose primary mission is the education of its members and the advancement of the tools and techniques for computer performance evaluation.

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Gelb Information Systems

Unix / Linux
Rick Lebsack
IBM

Storage
Alan Schulman
Unisys

Mark B. Friedman
Demand Technology

Fundamentals / Core Competency
William Jouris

Network / Internet
Sidney W. Soberman
H W Wilson

Windows
Michael Salsburg, Ph.D
Unisys Corporation

Mark B. Friedman
Demand Technology

Hot Topics
Tim R. Norton
Visa USA

These are the areas of expertise that CMG builds, fosters and is chartered to advance:

Mainframe (z/OS)
The mainframe environment today has evolved from MVS and VM to Z/OS. Ever present and still mission critical to businesses worldwide are: CICS, IMS, DB2, Batch and WLM. Capacity on Demand, Software Licensing and zAAPs are still more examples of the mainframe's complex and ever-changing environment

Unix/Linux
The growth of the UNIX and Linux continues at a rapid rate, and on many platforms including VM, IBM, Sun, HP, Unisys and Intel. This subject area covers everything, from management and chargeback to I/O performance.

Storage
Storage can be defined as one small set of tape drives, one disk subsystem or a complex, geographically dispersed, networked system. This topic is inclusive of wherever information is stored, and encompasses NAS, SAN, iSCSi, Fibre Channel, Backup, Recovery, Storage Performance Council and SNIA as well.

Fundamentals/Core Competency
Fundamentals and core competency are topics that are the cornerstone to all that the CMG is about. Capacity planning, modeling, forecasting, simulation, software performance engineering, chargeback, data analysis and performance tuning are all topics that are key to successfully measuring and managing computer and storage resources.

Network/Internet
The power of connectivity has eclipsed the power of the processor, leading to such incredible phenomena as the Internet. All the components of the Internet, from hubs, routers and switches to the systems and architectures (DNS, IP, proxies, redirection, content distribution and delivery, etc.) that make up the Internet are covered in this subject area.

Windows
Exchange, .NET, servers and desktop environments are all part of mission critical applications in today's business organizations. The measurement and management of Microsoft's tools and applications is a key component of this subject area.

Hot Topics
This subject area introduces and offers a preliminary evaluation of hot topics and emerging technologies including but not limited to virtualization, server consolidation, blade servers, grid computing, compliance and RFID.

CMG PRESIDENTS

Sixteen CMG presidents guided and are continuing to guide CMG into the future.

2004 - 2005 . . . . Jaqui Lynch

2003 . . . . . Jerry Rosenberg

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CMG recognizes the technical excellence and professional contributions found in only a few professionals in the field of computer performance evaluation.

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2001 . . . . . Dr Daniel Menasce
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1994 . . . . . Dr. Arnold Allen (deceased)
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1992 . . . . . Dr. Bernie Domanski
1991 . . . . . J. W. Mullen (deceased)
1990 . . . . . Dr. Mario Morino
1987 . . . . . Dr. Domenico Ferrari
1986 . . . . . Dr. Connie U. Smith
1985 . . . . . Dr. Mani Chandy
1984 . . . . . Dr. H. Pat Artis
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1979 . . . . . Dr. Jeffrey P. Buzen
1978 . . . . . C. Dudley Warner
1976 . . . . . Phillip J. Kiviat
1975 . . . . . Dr. Thomas E. Bell
1974 . . . . . Kenneth W. Kolence

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General Information

Attendees with Special Needs

If you have special needs addressed by the Americans with Disabilities Act, stop by the CMG2005 On-Site Registration Area. We will make every effort to accommodate your needs.

Badge Policy

To gain access to all CMG functions and meals, attendees must wear conference badges and have the appropriate ticket. **There will be no exceptions.** Registered CMG guests must wear their badge and have the appropriate ticket to gain access to breakfast, lunch and PARS events.

Birds-Of-A-Feather (BOF) Sessions

Have a specific interest you want to discuss? CMG2005 offers BOF sessions Tuesday, Wednesday and Thurdays evenings from 6:15 PM - 7:15 PM. following sessions, these informal gatherings allow attendees with similar concerns to exchange ideas in a small group setting.

CMG Headquarters Hours

Saturday, December 3, 2005	4:00 PM	–	8:00 PM
Sunday, December 4, 2005	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
Monday, December 5, 2005	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
Tuesday, December 6, 2005	7:00 AM	–	12:00 PM
	1:00 PM	–	6:00 PM
Wednesday, December 7, 2005	7:00 AM	–	1:30 PM
Thursday, December 8, 2005	7:00 AM	–	1:30 PM
Friday, December 9, 2005	7:30 AM	–	10:00 AM

Exhibitor Details

The **CMG2005** Exhibitor Hall will be located in Florida A.

Exhibit Hall Hours

Tuesday, December 6, 2005	11:30 AM	–	4:00 PM
Wednesday, December 7, 2005	11:30 AM	–	4:00 PM
Thursday, December 8, 2005	11:30 AM	–	2:00 PM

For more information on **CMG2005** Exhibitors, refer to the Exhibitor Section.

User Group Meetings

Some **CMG2005** exhibitors use Monday, December 5, to hold User Group Meetings.

Exhibitor Presentations

Many of the **CMG2005** exhibiting companies will hold exhibitor presentations during conference week. Scheduled from 5:00 PM – 6:00 PM on Tuesday, Wednesday and Thursday, these presentations allow attendees a more comprehensive look at the exhibitor's products and services.

Conference Registration Information

Registration Hours

Saturday, December 3, 2005	4:00 PM	–	8:00 PM
Sunday, December 4, 2005	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
Monday, December 5, 2005	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
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Thursday, December 8, 2005	7:00 AM	–	1:30 PM
Friday, December 9, 2005	7:30 AM	–	10:00 AM

Meal Schedules

Breakfast will be served Tuesday – Friday, in Osceola A from 7:00 AM to 8:00 AM

Lunch will be served Tuesday – Friday in Osceola A. Please note that lunch will be served promptly at 12:00 PM.

Veggie/Kosher Meals – If you prefer vegetarian or kosher meals and did not indicate your preference on your registration form, please notify a CMG staff member at the On-Site Registration Area.

Individual meal tickets are also available at the CMG On-Site Registration Area. Breakfast tickets are $20, lunch tickets are $25 and PARS tickets are $50 per night.

Mullen Foundation

Extra CMG collectible items are available Wednesday and Thursday. Times will be posted. All check or cash donations will go directly to the J. William Mullen Foundation. The Mullen Foundation cannot accept credit card contributions.

Newsletter

Pick up your daily newsletter at Breakfast, Registration, or the Exhibitor Area for last minute updates to conference activities. A daily schedule of BOF's is found in each issue.

PARS

CMG hosts the unique **P**erformance **A**nalysts' **R**elaxation **S**ession **(PARS)**, Monday – Thursday, from 7:30 PM – 11:00 PM Take a breather, network with other attendees or just relax after a long day. Enjoy hors d'oeuvres during the first 90 minutes each evening, complimentary soft drinks, quiet areas, and entertainment. **Please note: You must be 21 years of age to attend PARS.**

Publications for Purchase Onsite

CMG has several member publications, in both printed and electronic formats. All attendees will receive the CMG2005 CD-ROM. Additional copies of the CMG2005 Proceedings (in either the 2-volume set or on CD-ROM) are available for purchase. For all other member publications, please consult the publication order form found in the CMG2005 On-Site Registration Area. (Orders of older publications will be mailed in January.)

Recruitment Policy

As the intent of the meeting is to share information, not to recruit new staff, there is a **no recruiting policy** at the conference. Deliberate recruiting such as job postings, general announcements, or recruiting conversations with specific individuals, is specifically prohibited at any meeting or activity sponsored by CMG.

Shipping Information

The hotel provides shipping services and a full service Business Center for your convenience.

Smoking

CMG's no smoking policy includes all CMG sessions, exhibit halls, meals, and PARS functions. There will be designated areas for smokers. We appreciate your compliance with this policy.

Sunday Workshops, December 4, 2005

Breakfast	7:30 AM – 8:30 AM
Morning Workshops	8:30 AM – 12:00 PM
Lunch	12:00 PM – 1:00 PM
Afternoon Workshops	1:00 PM – 4:30 PM

You must be registered to attend Sunday Workshops. Each workshop will only be held once and will not be repeated. Attendees registered for the Sunday Workshops will receive meal tickets with their workshop materials for Sunday's Breakfast and Lunch.

What Are The CMG2005 Collectibles?

Your on-site registration packet contains your tickets for the conference collectibles, which include a Final Agenda (on-site program), Proceedings and other CMG gifts.

Conference Guest Registration

Orlando is a fun place for everyone! In order to attend various CMG2005 functions, guests must be registered by a CMG2005 conference attendee. Registration forms are available in the CMG On-Site Registration Area. For only $350.00, your registered guest receives a conference badge and can attend:

- PARS on Monday, Tuesday, Wednesday, and Thursday evenings. A guest must have a badge and PARS ticket to attend PARS functions.
- Full Breakfast Tuesday – Friday in the designated meal area.
- Entrance into CMG's Exhibit Hall on Thursday.
- Registered guests may attend **only** the session at which their sponsoring attendee makes a presentation. A guest registration **does not** include attending formal conference sessions.
- Individual tickets for the luncheons or PARS can be purchased at the CMG On-Site Registration Area.

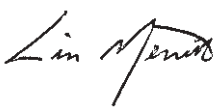
Welcome to CMG2005

Welcome to Orlando, where the Computer Measurement Group is hosting the Annual International Conference of the Association of System Performance Professionals. We've grown and fine-tuned the conference organization and content to meet the professional needs and expectations of those individuals who are focused on the measurement and management of IT resources. You see from this Final Agenda that CMG2005 features industry visionaries and luminaries covering keynote and plenary presentations as well as a wide variety of key and timely topics that will both enlighten and empower you to do your job as IT professionals.

We reorganized this year's subject areas into primary areas of focus: Mainframe (z/OS), Unix/Linux, Storage, Fundamentals/Core Competency, Network/Internet, Windows, and Hot Topics. Important topics within these categories include (but are not limited to) such subjects as load testing, ITIL, data encryption, virtualization, Software Performance Engineering and the new computing paradigm shift to service orientation to meet the needs of the new digital business era of On Demand or Sense and Respond Real Time Enterprise.

The conference schedule is organized into three parts: **Sunday Workshops** with seven concurrent morning and afternoon sessions, **Monday User Groups** where users of commercial products will hear about user experiences and new product updates, and seven concurrent **presentation sessions** offered Tuesday through Friday. The conference will offer three presentation lengths: "standard" 60-minute sessions, "extended" 90-minute sessions, and "short" sessions (around 30 minutes) within longer session slots.

Finally, the conference is never over without your feedback – please take the time to complete the conference evaluation and return it as soon as possible, as we need your input to determine how to further improve the conference each and every year. In addition, please consider volunteering for next year's conference by completing a volunteer form. You, the CMG volunteer, are the reason that CMG is the premier capacity and performance forum.



Lin Merritt
CMG 2005 Program Chair

K. Mani Chandy **Osceola A**
California Institute of Technology
Simon Ramo Professor of Computer Science

Sense and Respond Systems

Sense and respond systems sense, and then respond, to opportunities and threats. A sense and respond platform can be configured to develop specific sense and respond applications. Sense and respond applications arise in homeland security, healthcare, finance, supply chains, energy, environmental protection, security and - most importantly for this talk - the management of IT infrastructure. The CMG community can make a profound impact on the space of sense and respond applications because this community has expertise in the relevant technologies and mathematics: CMG papers deal with measurement of asynchronous events, statistics, probabilistic models, information fusion, and real time. Sense and respond applications are increasingly important to society, and CMG has a major role to play. This talk will survey the field of sense and respond applications; identify applications spaces that are critical for society; survey the technologies and software architectures used in these applications; describe fundamental problems in experimentation, systems design and theory; explore the rate of growth of this space; show how the CMG community's experience is directly relevant; and discuss experience with developing applications from platforms.

This year's keynote speaker is Dr. K. Mani Chandy, the Simon Ramo Professor of Computer Science at the California Institute of Technology.

Dr. Chandy got his Ph.D. from the Massachusetts Institute of Technology in Electrical Engineering, a Masters from the Polytechnic Institute of Brooklyn, and a Bachelors from the Indian Institute of Technology, Madras.

Dr. Chandy has worked for Honeywell and IBM. From 1970 to 1987, he was in the Computer Science Department of the University of Texas at Austin, where he served as chair. He has been at Caltech since 1987 where he served as executive officer of the Computer Science Department. He has served as a consultant to a number of companies and is a co-founder of iSpheres Corp.

Dr. Chandy is a member of the National Academy of Engineering. He received the IEEE Koji Kobayashi Award for Computers and Communication and the A.A. Michelson Award from the Computer Measurement Group and he was a Sherman Fairchild Fellow.

Dr. Chandy's research is on distributed computing. His current work is on building an event-directed architecture as a thin layer on top of service-oriented architectures. He is working on sense and respond applications dealing with managing crises. He has published three books and over a hundred papers on distributed computing, verification of concurrent programs, parallel programming languages and performance models of computing and communication systems.

Amy Wohl **Osceola A**

Wohl Associates

President of Wohl Associates, Editor and Publisher of Amy D. Wohl's Opinions

The China Era

The China Era: China is on the rise. Sometime in this century America will need to recognize it as (at least) an economic Super Power.

But what does China's evolution from an enormous, largely agrarian, economy to an international investor, an educational powerhouse, and a manufacturing giant have to do with the business of information processing? The answers are at once complex, disturbing, and exciting. It is one part scary (we'll loose jobs, even very skilled jobs to Chinese working remotely from the U.S.); one part challenging (they are educating their students much better in science and engineering than we are); and one part empowering (they are eager investors in the U.S. and excited to partner with U.S. firms on projects in China).

Don't just rerun the Indian Outsourcing tapes. In fact, Western companies are already looking to move some manufacturing work out of China, as increased labor costs (and the overhead of doing business remotely) makes them too expensive. Instead, be prepared to look at the facts. We'll bring lots of facts, war stories, and challenging questions.

The Chinese symbol for crisis includes the notion of both danger and opportunity. This session will look at both what a Chinese Powerhouse might demand and of the partnering and collaboration opportunities it will enable.

Amy D. Wohl is President of Wohl Associates, a consulting firm located in Narberth, Pennsylvania which consults on new and emerging technology and new market formation. Wohl Associates' current interests include all types of personal and group software, the Internet, and information appliances. She is well known for her past and on-going interests in office software, groupware, and speech processing. The firm provides services on strategic planning, marketing strategy, marketing research, and training to developers of information systems, hardware, and software.

A noted expert on the computer market, its products and dynamics, Mrs. Wohl has served as an expert witness and legal consultant on many occasions.

Mrs. Wohl is Editor and Publisher of Amy D. Wohl's Opinions, a weekly electronic newsletter. She previously edited The TrendsLetter and The Wohl Report. She also maintains a weblog at http://amywohl.weblogger.com., is a contributing editor to Spectrum Middleware, and a frequent contributor to the trade and general business press on the Internet, software, computing, computer trends, and technology. Mrs. Wohl is a frequent speaker at industry conferences and seminars in the U.S., Canada, Europe, South America, Africa, Asia, and Australia. She is especially well known for her keynotes on the future.

She has served as a board member and advisor to several corporations. Currently, she is a principal and advisor to Interactive Intelligence, an Internet Design firm, and a member of the Board of Advisors of Bachow Investments. She also serves as an advisor to a number of new technology start-ups.

Mrs. Wohl was named one of the top 100 Women in Computing in 1994. She was program chairman of the first Office Automation Conference. She is past president of the Office Systems Research Association and served on the board of Women in Information Processing. She was the founding president of the Philadelphia Chapter of IWP. She is a member of OSRA, ACM, SIGOA, and SIGPC. Mrs. Wohl is the recipient of the Augusta Ada Lovelace Award from the Association of Women in Computing.

Mrs. Wohl received a B.A. in Economics from LaSalle College and an M.A. in Economics from Temple University, where she was an N.D.E.A. Doctoral Fellow. Mrs. Wohl currently teaches in the Masters program in Organizational Dynamics at the University of Pennsylvania. She has been a guest lecturer at many colleges and universities, including the Wharton School of the University of Pennsylvania, Harvard University, Oklahoma State University, Temple University, and the University of California at Berkeley.

BUSINESS MANAGEMENT SHOWCASE — TUESDAY - OSCEOLA 1/2

The Business Management Showcase returns with another excellent lineup of top executives to give you updates on technology directions. This track of four consecutive sessions will be offered on Tuesday.

TBD 9:15 AM - 10:15 AM

Vice President, Product Management and Product Marketing, ESM Division at Computer Associates

Are Integrated Management solutions the recipe for an invisible and secure IT infrastructure?

As businesses today are demanding greater flexibility and efficiency, we see that the IT Organizations are demanding the management software providers to deliver a complete, integrated and open solution for policy-driven, adaptive Services Oriented Infrastructure (SOI) that can expose assets as composite IT services and enable a contextually relevant view of business processes. In this presentation, we will discuss how we could optimize the delivery of business services through an invisible and secure infrastructure that can transparently adapt to changes in business conditions. We will also highlight how Management solutions that are integrated across the IT stack are better suited to achieve the vision of an invisible and secure infrastructure.

Glenn O'Donnell 10:30 AM - 12:00 PM

Principal Product Marketing Manager at EMC

Making Sense of the Performance Riddle

Service performance is a “riddle wrapped in a mystery inside an enigma” to the extreme majority of IT organizations. To truly understand this riddle, one must navigate a complex labyrinth of interrelated technology and business components. New composite applications and distributed services exacerbate this scenario. No human is capable of comprehending all of this complexity, so automation technology, process, and standardization are the keys to controlling our environments and to leveraging this complexity for competitive benefit. Some early successes prove it is possible, albeit difficult, as cultural shifts never come easily. Beware of grand promises of automated simplicity. Such nirvana remains many years from reality, if ever.

Herb VanHook 2:00 PM - 3:00 PM

Vice President at BMC Software

Opportunities and Challenges of the SOA World

The loosely-coupled application architectures emerging as the preferred new wave of integration enable flexible and adaptable business models, but come with their own challenges when mapped to the traditional management and operational process disciplines. The promise of Service-Oriented Architectures presents alignment opportunities between technology organizations and their business counterparts, as a closer mapping between real-world business services and application components is realized. As companies move to a "flow computing" paradigm with the adoption of Web services, many of the lessons learned over the years in running high-performance technology environments will carry forward, but many of them will have to be adapted to the realities of these new architectures. This session will address the imperatives that Service-Oriented Architecture "run-time" brings to the forefront.

Eric Pulier 3:45 PM - 4:45 PM

Executive Chairman at SOA Software, Inc

Learning to Play Nicely

By their very nature, Service-Oriented Architectures (SOAs) tend to blur traditional boundaries in large organizations. In the current environment, most IT initiatives involve the coordination of such distinct groups as software development, network operations, security, architects, as well as line of business managers. Not so anymore. With the SOA potentially creating reusable software code that must be accessed dynamically by composite applications, both inside and outside the firewall, the traditional roles and responsibilities of IT have been forever changed, or even erased. In this presentation, technology entrepreneur and SOA visionary Eric Pulier will explore the ways in which the SOA pushes the boundaries of IT and look at how large organizations can teach their disparate IT groups to “play nicely” and evolve into a successful SOA culture.

INVITED SPEAKERS

From analysts to industry-recognized experts in the fields of performance and capacity, CMG is the conference that puts attendees in direct contact with highly experienced individuals. CMG sessions provide attendees with the opportunity to network with and learn from the best the industry has to offer. CMG's Invited Speaker track includes some of the industry's most recognized visionaries.

SUBJECT	SESS.	ROOM	AUTHOR	TITLE
Core	301	Osc. A	K. Mani Chandy	Sense and Respond Systems
Core	316	Osc. 1/2	TBD	Are Integrated Management Solutions the Recipe for an Invisible and Secure IT Infrastructure?
Hot	325	Osc. 5/6	Dr. Toufic Boubez	Policy Driven SOA
Core	326	Osc. 1/2	Glenn O'Donnell	Making Sense of the Performance Riddle
Hot	336	Osc. 1/2	Herb VanHook	Opportunities and Challenges of the SOA World
Hot	346	Osc. 1/2	Eric Pulier	Learning to Play Nicely
Win	401	Osc. A	Amy D. Wohl	The China Era
zOS	412	Osc. B	Robert R. Rogers	How Do You Do What You Do When You're a CPU?
Core	413	Miami	Peter Sevcik	The Application Performance Index (Apdex) Standard+
zOS	422	Osc. B	Glenn R. Anderson	A Large Systems Guy Implements the Enterprise Workload Manager (EWLM)
Core	431	Osc. A	Dr. Jeffrey P. Buzen	Workload Characterization for Parallel Processing Environments
Win	433	Miami	Kevin Kline	Performance Baselining, Benchmarking and Monitoring for Microsoft SQL Server
Hot	435	Osc. 5/6	Ken Traub	Radio-Frequency Identification at Enterprise Scale
zOS	501	Osc. A	Cheryl Watson	z990 Performance and Capacity Planning Issues
Net	505	Osc. 5/6	Bernie Davidovics	Measuring End User Response Time - With a Passive Network Probe
Hot	507	Daytona	Nick Gall	Reflection: The Next Big Thing After SOA
Net	515	Osc. 5/6	Laura Knapp	Introduction to Simple Network Management Protocol (SNMP) Version 3
zOS	521	Osc. A	Kathy Walsh	The Mechanics of Developing a High Quality Capacity Plan
Net	535	Osc. 5/6	Chris Loosely	Measuring Actual and Perceived User Experience on the Web
Hot	536	Osc. 1/2	Richard Soley	The Model-Driven (R)evolution
Hot	543	Miami	David R. Morley	CMG: The Early Years

SUBJECT AREAS

Core	= Fundamentals / Core Competency	**Net**	= Network / Internet
Hot	= Hot Topics	**Stor**	= Storage
ITIL	= ITIL	***nix**	= Unix / Linux
zOS	= Mainframe (z/OS)	**Win**	= Windows

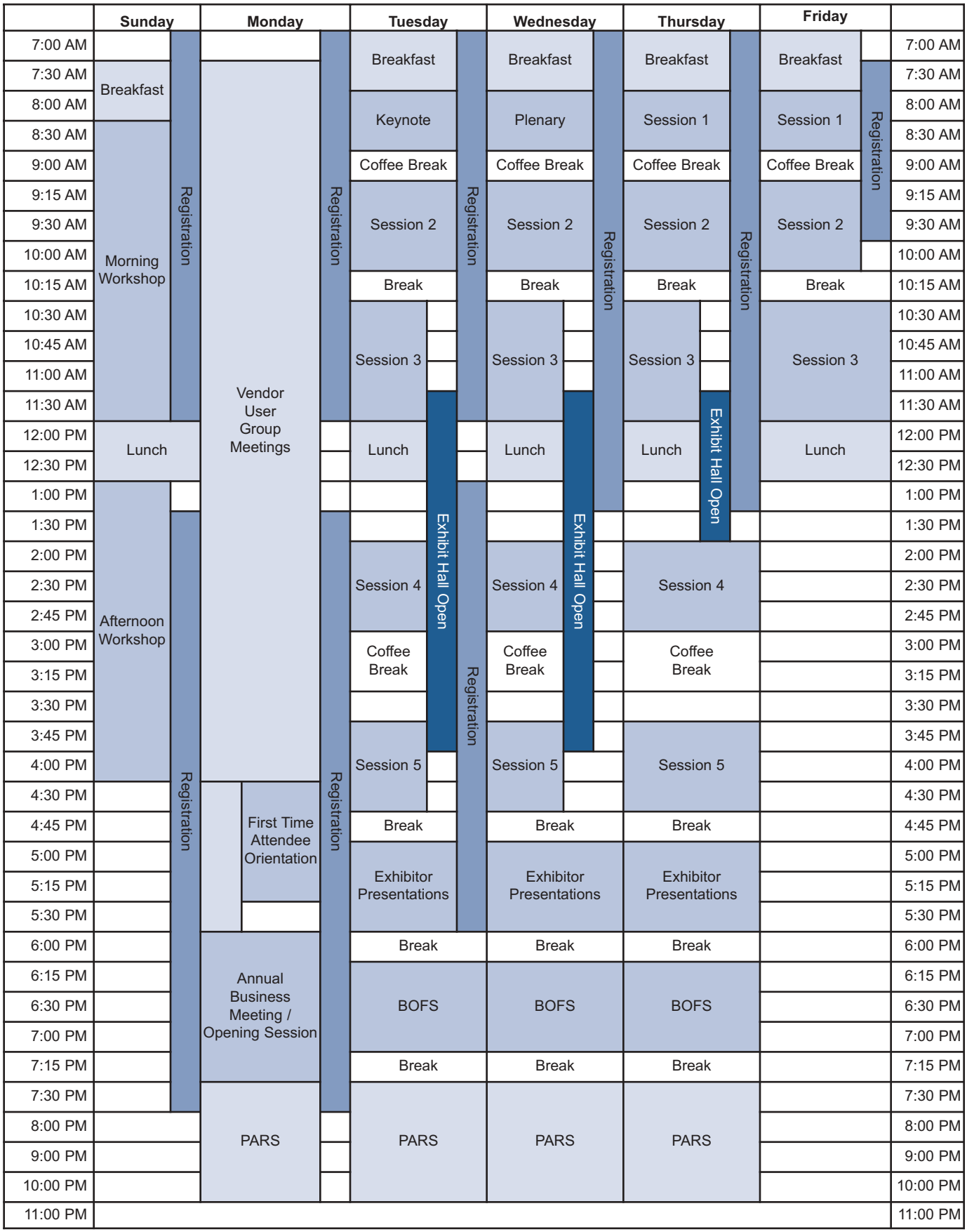
ROOKIE GUIDE

Suggested Sessions for New Conference Attendees

The following is a set of suggested sessions for attendees new to the national CMG conference, and for those that have not been at the the national conference in several years. These sessions were chosen primarily on the basis of their content being tutorial in nature. In some cases the speaker is well-known within CMG circles, and has consistently delivered high quality material in a very entertaining way.

SUBJECT	SESS.	ROOM	AUTHOR	TITLE
ITIL	313	Miami	Chris Molloy	ITIL Capacity Management Deep Dive
zOS	322	Osc. B	Dr. Bernard Domanski	Speaking SOA and Web Services: .NET and the Mainframe
zOS	322	Osc. B	Kenneth D. Williams	MVS Application Performance Management
ITIL	327	Daytona	Jim Waring	Achieve IT Agility by Integrating SOA with ITIL Based BSM
Hot	334	Osc. 3/4	Peter J. Weilnau	Measuring Up for Server Virtualization
zOS	342	Osc. B	Don Deese	Introduction to zSeries Application Assist Processor (zAAP)
Hot	411	Osc. A	Dr. Jeffrey P. Buzen	SOA and the Social Order - City Planning, Post Office & Business Protocols
Core	415	Osc. 5/6	Denise P. Kalm	Survivor - The Corporate Jungle
*nix	421	Osc. A	Jaqui Lynch	Linux Performance Tuning
zOS	422	Osc. B	Glenn R. Anderson	A Large Systems Guy Implements the Enterprise Workload Manager (EWLM)
Core	425	Osc. 5/6	Jack B. Woolley	Want to Know WHY Response Time is So Long? Listen to the Wire.
Core	431	Osc. A	Dr. Jeffrey P. Buzen	Workload Characterization for Parallel Processing Environments
Core	437	Daytona	Irving Smith	Wholesale Distributed Capacity Planning
Core	514	Osc. 3/4	Linwood Merritt	Closing the Gaps – Understanding Capacity Summarization
Core	517	Daytona	James A. Yaple	Benchmarking 101
zOS	521	Osc. A	Kathy Walsh	The Mechanics of Developing a High Quality Capacity Plan
*nix	523	Miami	Serge Tessier	Capacity Planning for UNIX System Metrics
Net	525	Osc. 5/6	Nalini J. Elkins	One-Minute TCP Stack Analysis
*nix	527	Daytona	Robert F. Patterson	Capturing System Data Using Native Commands
*nix	532	Osc. B	Rick Lebsack	Facilitated Discussion: Future of the Performance Field 2005
*nix	533	Miami	James Holtman	Visualization of Performance Data
Hot	537	Daytona	John C. Becsi	Encryption Primer: An Introduction to Data Protection
Hot	543	Miami	David R. Morley	CMG: The Early Years
Core	623	Miami	Frank Bereznay	Making Your Web Portal a Dynamic Website

Week at-a-Glance



Note: The above figure is not drawn to scale.

CMG2005 SUNDAY WORKSHOP SCHEDULE

BREAKFAST	7:30 AM	–	8:30 AM
MORNING WORKSHOPS	8:30 AM	–	12:00 PM
LUNCH	12:00 PM	–	1:00 PM
AFTERNOON WORKSHOPS	1:00 PM	–	4:30 PM

Please note that each workshop is only presented once and will not be repeated.

Morning Workshops

Robert D. Andresen — Osceola 3/4
Monitoring Linux Hands-on Lab

Adrian Cockcroft & Mario Jauvin — Osceola A
Capacity Planning and Performance Monitoring with Free Tools

Mark Friedman — Osceola B
Scalability and Performance of .NET Framework Applications

Ivan Gelb — Osceola 1/2
Maximizing Performance on z/OS

Curtis Hrischuk — Daytona
Capacity Sizing and Performance Engineering of the Mobile Enterprise

Nathan Walsh — Osceola 5/6
Managing I/O Subsystem Performance

Cathy A. Wright — Miami
ITIL - What's IT All About Then?

Afternoon Workshops

Dr. Toufic Boubez — Osceola B
Best Practices for Building a Secure and Manageable SOA

Dr. Alexandra Fenzl — Osceola 1/2
IT Executive Dashboards - Measuring the Essential

James P. Holtman — Osceola 3/4
Performance Analysis Using R

Randy Kerns — Osceola 5/6
Storage Strategy Workshop

Dr. Odysseas I. Pentakalos — Daytona
Tuning the Performance of Java and J2EE Applications

John P. Pilch — Osceola A
CPE as MIS or Information for Making Decisions

Jack Probst — Miami
ITIL at Warp Speed

DECEMBER • 4-9

Robert D. Andresen
MQSoftware Inc.

Morning only

Monitoring Linux Hands-on Lab

Linux is gaining interest as a solution across many hardware platforms: x86 based machines, Sun and Apple proprietary hardware and IBM zSeries platforms. But once applications are ported to an open source operating system what options are available to monitor their performance and availability? This in-depth hands-on lab will provide the unique opportunity for you to learn while doing and covers native Linux solutions for monitoring performance and collecting statistics for capacity planning. looking at tools ranging from real-time monitors through those that can build a database of historical system performance Students will need to bring a at least a Pentium laptop with at least 128Meg of memory that can boot from the CDROM. A bootable Knoppix CD will be provided to do the workshop exercises. Knoppix will make no changes to the laptop. Recommended audience: Linux beginners through intermediate.

Robert Andresen is a Systems Engineer with MQSoftware. He has been working in performance management and monitoring for several software companies since 1997. He has been working with Linux since 1995. He is a co-author of the IBM Redbook: Linux on IBM @server zSeries and S/390: System Management. He holds a degree in Mathematics from the Illinois Institute of Technology. At MQSoftware he supports QPasa and QNami, which provide business transaction assurance and middleware management. His areas of expertise include z/OS, UNIX/Linux, CICS, DB2, the Websphere family, and Networking.

Dr. Toufic Boubez
Layer 7 Technologies

Afternoon only

Best Practices for Building a Secure and Manageable SOA

Flexibility is one of the major goals of Service Oriented Architecture (SOA) and the words "loose coupling" have become the new architectural mantra. But what does it actually mean to build a true loosely coupled architecture, and how do you go about doing it? This workshop is intended to provide a relatively comprehensive coverage of Web Services for architects and IT executives. Starting with the original vision and business drivers for SOA and Web services, the workshop will introduce examples that illustrate the issues that companies face when building real world SOAs. Some of the issues that will be addressed are: How do you decouple your business logic from your infrastructure? How do you implement security, identity, reliability and non-repudiation in a loosely coupled world? How do you establish and enforce policies that allow you to manage your SOA deployments? The workshop will cover some of the main specifications such as WS-Security, WS-Trust, WS-Policy and SAML.

Dr. Toufic Boubez is a well-respected Web services pioneer. Prior to co-founding Layer 7 Technologies, he was the Chief Architect for Web Services at IBM's Software Group and drove their early XML and Web Services strategies. He co-authored the original UDDI API specification and represented IBM on several standards bodies, including the ebXML initiative. Toufic also managed some of IBM Global Services' largest e-business engagements. He is a sought-after presenter and has chaired many XML and Web services conferences. Toufic is also actively involved with various standards organizations such as OASIS and WS-I, and is the co-author of the WS-Trust and WS-SecureConversation specifications. He is the author of many publications and three books, including "Building Web Services with Java". In 2002, InfoWorld named him to its "Ones to Watch" list. Toufic holds a Master of Electrical Engineering degree from McGill University and a Ph.D. in Biomedical Engineering from Rutgers University.

Adrian Cockcroft
eBay Inc.

Mario Jauvin
MFJ Associates

Morning only

Capacity Planning and Performance Monitoring with Free Tools

Computer system and Network performance data collection, analysis, modeling and capacity planning on any platform (including but not limited to Solaris, Linux, Windows, MacOS X) using bundled utilities and freely available tools such as Orca, BigBrother, OpenNMS, Nagios, Ganglia, SE Toolkit, R, MySQL and PDQ. Overview: Capacity planning and performance management tools have been commercially available for many years. A new generation of freely available tools provide data collectors and analysis packages. As the underlying computer platforms and network devices have evolved, they have added improved data sources and have bundled free data collectors. Several open source and freeware projects have sprung up to collect and display cross-platform data, and with the advent of highly functional free statistics and modeling packages (and free databases) comprehensive analysis, modeling and archival storage can now be assembled without paying per-node license costs and with less integration effort and lower support costs than many commercial tools. Free tools are of special interest to sites with very diverse mixes of systems, very large sites where licensing costs become prohibitive, and sites replacing a few large single systems with many more low cost horizontally scaled systems.

- Overview of capacity planning processes

- Data collection
  SE toolkit and orcallator for Solaris
  Extended system accounting for Solaris
  procollator for Linux
  SNMP and other network data
  Windows data collection

- Logging, availability and alert generation
  openNMS, Nagios
  Big Brother, Big Sister

- Data storage
  orca for data storage with RRD
  (R and MySQL data storage schemas - covered in R tutorial)

- Data display
  (R based plotting and graphing - covered in R tutorial)
  gnuplot, Orca, OpenDX (3D data visualization), Openoffice Calc, Excel

- Data analysis and modeling
  (R based statistical analysis - covered in R tutorial)
  PDQ based queuing model analysis

- Licenses
  Types of license and restrictions on use
  Specific licenses used by products mentioned

Dr. Alexandra Fenzl
easyplex Software GmbH

Afternoon only

IT Executive Dashboards - Measuring the Essential

Under budgetary and competitive pressure, CIOs and CTOs are increasingly seeking better ways to tack IT projects and resources, justify their development cost and improve quality of output. Contrarily to the past, IT departments are required to align with the business side of the organization and contribute to highest levels of performance. And suddenly, engineers and technology specialists are on the hot seat, feeling unsure about their destiny and competence - all the metrics and various dashboards available through traditional software project and development tools, don´t provide the proper information anymore. Top management is asking for hard facts – performance and quality indicators - that they themselves don´t know how to define. All they know is that simple function point analysis or a count of LOC won´t do the trick.

So there you have it - even an infinite number of metrics that can be applied to various parts of the software development cycle, don´t help much with the measurement CIOs and IT Project managers are charged with.

Together with clients, easyplex Software GmbH has launched an initiative to face those challenges and establish Software Quality and Development Performance Criteria. Based on a comprehensive metrics catalogue, we developed a central dashboard to present real-time status of those indicators and underlying metrics to technical as well as non-technical top executives.

In an effort to not put another burden on CIOs for having to acquire yet another expensive tool and possibly having to replace some old tools (which we know is always another hurdle to overcome), the dashboard is designed according to open standards and easily integrates/captures the necessary data from underlying tools, such as PVCS Trackers, Bugtrackers, etc. The solution is also meant to eliminate old and tedious Excel sheets, error-prone as we know, and most of the manual work that had to be performed when a management report was due. The dashboard is published to a website and is available 24 hours for any management executive who wants to take a look at the technology team´s performance, customer satisfaction and/or product stabilization/quality metrics. Red, yellow and green lights quickly indicate the dangerous and most critical areas. For the more technically experienced, drill-down graphics reflect the underlying data and more detailed facts about an issue/risk.

The tutorial will introduce CIOs/Project Managers and Top Executives to the dashboard, will offer a case study of one of easyplex customers using the solution, and provide hands-on experience with Software development and quality metrics, discuss the use of a Software Project Balanced Scorecard and potential missing parts/tools within or around the dashboard.

Mark Friedman
Demand Technology

Morning only

Scalability and Performance of .NET Framework Applications

The Microsoft .NET Framework is a comprehensive set of application development and deployment technologies that is tightly integrated with a broad range of Microsoft server software products, including the IIS Web Server and MS SQL Server, This ½ day workshop focuses on the scalability and performance of .NET Framework applications, from design, development, testing through to deployment. Using the discipline of Performance Engineering as a conceptual framework, the workshop features a variety of practical techniques to assist application architects, senior developers, and system and database administrators with responsibility for designing, building, and deploying .NET Framework applications that will meet or exceed your organization's performance requirements. The workshop will focus on the architecture of.NET Framework applications, concentrating on ASP.NET web forms and ADO.NET data-driven design and development, and the use and interpretation of the measurement data that is available for .NET applications.

Mark Friedman is the founder and President of Demand Technology Software, headquartered in Naples, FL. The company develops tools for Windows performance monitoring and capacity planning. He is the author of the Windows Server 2003 Performance Guide, a volume in the Windows Server 2003 Resource Kit, published by Microsoft Press in 2005. His earlier book, Windows 2000 Performance Guide, was published by O'Reilly Associates in February, 2002.

Mr. Friedman's experience in commercial Information Technology spans twenty-five years with Fortune 100 corporate data centers, government, hardware vendors and commercial software houses. His previous experience includes senior technical and management roles at Datacore Software, Landmark Systems, Morino Associates, and StorageTek. He is a recognized expert in computer performance and storage management. He was a regular contributor to Enterprise Systems Journal and is in demand to speak at Computer Measurement Group, SHARE, GUIDE, Storage Management User Groups, the RAID Advisory Board, and meetings of other professional organizations. Mr. Friedman's training seminars, lectures and published work are highly regarded for their technical quality and depth, and he is esteemed for his ability to communicate complex technical topics in plain, concise terms. He holds a Master's degree in Computer Science.

Ivan Gelb
Gelb Information Systems Corp.

Morning only

Maximizing Performance on z/OS

Many of you are now being evaluated and judged based on how effectively you meet service level requirements and deliver your services within your organization. In this one day seminar you will learn proven best practices about how to set up, customize, report, and analyze the performance and capacity of z/OS and its major subsystems. In one information filed day, you will develop your skills to: Tune the z/OS environment beginning with the Workload Manager (WLM) goal mode service definitions and ending with specific examples of CICS Transaction Server and DB2 performance management. Effectively collect and analyze data and reports from Resource Measurement Facility (RMF) and System Management Facility (SMF). Quickly identify performance bottlenecks and reduce or eliminate their effects. Create effective procedures for monitoring and reporting system performance and capacity utilization. Adjust the system options to yield optimum performance at a minimum total cost for hardware and software. All the latest zSeries hardware and software configuration alternatives and major issues affecting performance will be covered, and you will develop your understanding about how a z/OS complex can be a truly on-demand service provider. The areas covered will also include: Intelligent Resource Director (IRD), variable Workload License Charges (vWLC), the zSeries Application Assist Processor (zAAP), and others. Registered attendees are encouraged to either bring to the seminar or email to us compressed files of system definition parameters and any performance or capacity management reports of issues they are currently being challenged by. Please include a description of the issues you are trying to resolve. We will not leave your questions within our subject areas unanswered.

Ivan L. Gelb has been involved with on-line systems and applications as part of his extensive hands-on experience with mainframe, client/server and all types of Web-based environments. His technical and management background includes (a) determination of hardware and software requirements for high-performance and high-availability systems; (b) effectiveness evaluations and optimization of computer systems performance; (c) data base and data communications systems design, implementation, and performance improvements; and (d) capacity requirements forecasting and development of proprietary analysis techniques and software packages.

James P. Holtman
Convergys

Afternoon only

Performance Analysis Using R

Performance analysis of a computer system requires the collection of a number of metrics relating to the operating system and business events that the application is processing. This information can take many forms:
database records, flat files, XML, etc. Once this data is collected it needs to be analyzed and correlated in order to understand what the system is doing.

There are a number of products in the marketplace which can do this (EXCEL, SAS, SPSS, Java, C++, etc.), but this workshop will focus on the use of R (a statistical programming environment) to process this information. R is 'freeware' and provides the ability to handle large amounts of data (matrices with millions of rows) and can perform most calculations in seconds on this data. It has a powerful graphics environment that allows the visualization of the information in various ways (PDF, postscript, JPEG, PNG, etc.). It also provides interfaces to relational databases, files and XML encoded data. R is primarily an environment that supports statistical analysis, and provides a very comprehensive set of routines to do linear/non-linear modeling and regression analysis. R is a programming language/environment that supports object oriented development.

The workshop will provide an overview of R with examples using data collected from UNIX systems. The data collection and analysis scripts will be provided to the students. Attendees can download the R software from http://www.r-project.org/ so that they can also follow along in class.

James has worked in the computer field for over 42 years and spent the last 30 on performance related issues. He is a Bell Labs Fellow for his work in architecture validation and for creating large scale OS systems for the Bell System. His work at Convergys is as an internal consultant on performance and scalability, and James teaches an internal course on performance for their staff.

Curtis Hrischuk
IBM

Morning only

Capacity Sizing and Performance Engineering of the Mobile Enterprise

The mobile enterprise is here and it introduces new technology that extends the edge of the enterprise network. It also adds new performance engineering issues and concerns. The performance characteristics of a mobile device (i.e, smart cell phones and PDA's) differ from similar devices (i.e., tablet PC) in radical ways because of CPU, memory, and battery constraints. The software infrastructure (e.g., Java Virtual Machine) and applications use technologies whose performance implications are only beginning to be examined. As well as operating in an on-line, connected mode, mobile application's operate in a disconnected mode that use an underlying, bi-directional synchronization to maintain consistency with the mobile data store and the enterprise data store. The communication mediums vary from minute to minute, ranging from: low to high speed, reliable to sporadic, etc. Capacity sizing for these class of systems is challenging because the workloads are different than conventional transactional systems. This workshop presents lesson learned in the performance engineering and capacity sizing of mobile enterprise middleware and applications. Background information about mobile technology is also presented.

Curtis Hrischuk is a Lead Performance Engineer for IBM in the area of Pervasive Computing middleware products. He completed the M.Eng. (1995) and Ph.D. (1998) degrees from Carleton University, Ottawa, Canada in systems and computer engineering.

Randy Kerns
Sun Microsystems

Afternoon only

Storage Strategy Workshop

Storage has become a critical asset for corporations and the purchase, management, and overall strategy is a key decision that may have effects on the overall success of the company. Finding the time to develop a storage strategy is difficult in and of itself but knowing what comprises a storage strategy and what are the important elements is something that most storage professionals have difficulty in developing on their own. There are many issues to understand and alternatives to consider that crucial for developing an effective strategy. Without that information there may be a lack of support for a strategic program. A decision that is not in the best interests of the company may be made or influenced based upon high-level sales techniques without the proper education as to the problems and solutions for handling information.

This session will present the information that is needed to develop a storage strategy for an enterprise. The information is applicable to executives or to IT staffs that have the responsibility to plan to meet the business demands. A Storage Strategy workbook will be provided.

The topics to be covered include:

- Understanding the issues and the need for a storage strategy.
- Business requirements to consider and risk management.
- The components that are part of a storage strategy.
- Where and how to acquire information.
- Making critical decisions.
- Recommendation for proceeding in designing and implementing a storage strategy.

Randy Kerns is currently the Vice President of Strategy and Planning for the Data Management Group at Sun Microsystems.

He has over thirty years in the computer industry involved in the development of storage products for both mainframe and open systems. His background is in product design and development. Randy's education includes a bachelor's degree in computer science from the University of Missouri at Rolla and a master's degree in engineering computer science from the University of Colorado. He has worked for IBM, Fujitsu, as Vice President of Engineering at the Array Technology subsidiary of Tandem Computers, as Director of Engineering for Enterprise Disk at Storage Technology Corporation, and as an industry analyst with Evaluator Group covering storage and storage management software. Product development that Randy has been involved in includes both disk and tape subsystems for those companies.

Randy has made numerous presentations at conferences and is the author of many industry articles and white papers.

Dr. Odysseas I. Pentakalos
SYSNET International, Inc.

Afternoon only

Tuning the Performance of Java and J2EE Applications

This workshop will provide a comprehensive overview on the development of high-performance Java-based applications and on the tuning of existing applications. Particular emphasis will be placed on enterprise and server-side applications.

The workshop will begin by reviewing the execution process of a Java application moving next to coverage of Java virtual machines and their impact on the performance of an application. This section will include a discussion of the HotSpot JVM, critical parameters that affect the operation of the JVM, and especially garbage collection algorithms. We will describe how JVM garbage collection works, how it impacts the performance of an application, what parameters are available for tuning its operation and how to tune the parameters.

The next section will cover tuning tips that may be used during development of an application, covering different areas of the Java programming language such as the object lifecycle, I/O performance, serialization, the choice of collections and parsing.

The workshop will describe some of the benchmarks that are available to assist you with building a high-performance Java application and load-testing tools for helping you detect bottlenecks.

We will close the session by bringing all the information together through a performance tuning exercise of an actual three-tiered application. While profiling the sample application, we will apply a workload and locate performance problem spots.

Odysseas Pentakalos is Chief Technology Officer of SYSNET International, Inc., where he focuses on providing his clients consulting services with performance management of computer systems and architecture, design and development of large distributed systems that utilize Java, XML and J2EE technologies. His clients have included major government agencies and corporations such as NASA Goddard Space Flight Center, the Army Research Lab, Sun Microsystems, Concert Communications, KPMG, Bearing Point and Northrop Grumman, IT. He holds a Ph.D. in Computer Science from the University of Maryland. He has published dozens of papers in conference proceedings and journals, is a frequent speaker at industry conferences and is the co-author of the book Windows 2000 Performance Guide that is published by O'Reilly.

John P. Pilch
Performance Capacity Solutions

Afternoon only

CPE as MIS or Information for Making Decisions

Ever get caught in the loop of designing a report for management and not quite getting it right? Reporting transmits data that has been processed into a form that is meaningful to the recipient and is of real perceived value in a current or prospective decision. It is possible that there is a disconnect between the source of the information and the recipient of the information. This leads to the examination of the nature of the decision and the nature of the decision maker.

Decisions can be broadly categorized as operational, managerial (tactical),or strategic. The scope of the decision determines the scope of the data sources that must be processed into usable information to support the decision. In addition, the decision category indicates the characteristics of the information such as time frame, scope, frequency, and precision.

Information, per se, cannot make a decision. It can, at best, reduce the risk surrounding the decision. The approach of this workshop is to first analyze the question to be answered and the manager asking the question.The characterization of the nature of the decision and maker leads to the characteristics of the information. The information sought leads to the potential data sources and some indication as to the precision of the information reported. Once the data sources have been identified, they can be processed and organized to aid in decision making.

John Pilch has a long career as a computer scientist and a professional educator. He possesses the unique background of over thirty years of industrial experience at world recognized research and system engineering firms with over thirty years experience teaching computer science at the graduate level. After a twenty year career at Bell Laboratories and Bell Communications Research, he is consulting on the deployment of large multi-tier, multi-platform applications. His experience and training includes hardware configuration sizing, performance benchmarking, application modeling, system instrumentation, and performance analysis on a variety of platforms.

John has consulted with firms in a variety of industries including telecommunications, financial, and pharmaceuticals on wide ranging management issues from organizational structure, tactical deployment of systems, and three to five year planning.

John has a long association with CMG. He has presented numerous tutorials and papers at the National Conference and at Regional CMG Meetings. He has served terms as National Director and Treasurer along with many years on the Conference Planning Committee.

Jack Probst
Pink Elephant

Afternoon only

ITIL at Warp Speed

Want to get up to speed on ITIL, but don't have time for a 2-day class? No problem. This is the theory from Essentials, condensed into 1/2 a day! This rapid-fire, wise-cracking, no-punches-pulled rendition of ITIL Essentials, will leave you gasping for breath with cramps in your note-taking hand. The Service Support and Service Delivery processes will never be the same!

Key learning objectives include:
- General introduction to the ITIL framework
- Overview of ITIL Service Support processes
- Overview of ITIL Service Delivery processes
- Better understanding of IT service management best practices

Jack Probst is an Executive Consultant with Pink Elephant, a leading provider of ITIL consulting, education and conferences. Jack's is responsible for working with senior management of client firms to identify the opportunity of the ITIL practices, discuss the challenges and provide guidance for implementation. Jack also conducts advanced training and education programs on ITIL and management issues associated with process implementation. .

Prior to joining Pink Elephant, Jack worked for Nationwide Insurance where he led the Officer of Process and Governance which facilitated efforts to implement consistent processes including ITIL, IT portfolio management, project development and implementation, technology acquisition and IT contributions to mergers and acquisitions. Jack also served as the CIO for Scottsdale Insurance Company, a Nationwide subsidiary. Before joining Nationwide, he spent 17 years with the Crum and Forster companies, a division of Xerox Corp.

Jack is a CPCU, holds a MBA from Georgia State University, a bachelor's degree in mechanical engineering from Georgia Tech and is certified as an ITIL Service Manager. Jack's hobbies include teaching, astronomy and radio control airplanes.

Nathan Walsh
EMC

Morning only

Managing I/O Subsystem Performance

This workshop is an introductory tutorial to I/O Subsystem Performance Management. It will cover the set of processes that enable data centers to manage their computer resources - specifically, their storage resources - thus ensuring business needs are continually met. It provides an overview of what is required to manage storage with introductions to the various skills and knowledge necessary to accomplish the task. Particularly, it will focus on the processes and procedures that enable an effective management of the performance of individual I/O subsystems that comprise a corporation's storage.

This methodology has been refined over the decades, however, somewhere in recent years - during radical changes in the data center and industry, the institutional memory of these successful and competent practices and procedures seems to have been lost. This presentation reintroduces Capacity Planning and Performance Monitoring/Analysis cycles and their role in the larger process of Storage Management. It will be a comprehensive survey of the responsibility with the emphasis on the breadth and an introduction to the depth.

Nathan Walsh is a Principle Engineer in EMC's Global Technical Support - Symmetrix Performance Department. His primary responsibility is the diagnosis and resolution of customer's performance problems. He's been with EMC for three years. Prior to that, Nathan spent fifteen years with Storage Technology in product architecture, software development, performance evaluation/design and product testing. He holds a patent for the Integration of an Expert System and Analytical Model in a Real Time Corrective System. Prior to working for StorageTek, Nathan enjoyed working at Hallmark Cards as a Computer Performance Evaluation Analyst and a Data Base Analyst. Nathan began his career as a System's Programmer, Application's Programmer, Operator and Check Sorter for Systematics, Inc. All told, Nathan has been doing this for over twenty eight years. Nathan holds a BS in Computer Science from the University of Arkansas and an MBA from the University of Kansas. He currently resides in Boulder, Colorado; most of the time.

Cathy A. Wright
BT

Morning only

ITIL - What's IT All About Then?

ITIL – The IT Infrastructure Library – is an internationally recognised framework supporting best practices in IT Service Management. It compliments international standards such as ISO20000 (formerly BS15000), and IT Governance programmes such as Sarbanes Oxley

This workshop will cover the key elements of the ITIL framework relating to Service Management. It will also look briefly at some of the related areas touched on by the ITIL publications such as Infrastructure Management and Software Asset Management.

A further section will concentrate on IT Service Configuration Management and its position at the heart of a process oriented, business aligned Service Management Strategy. It will look at the differing types of Configuration Management and their interfaces both to each other and to the wider Service Management process areas. This section will also include a discussion on some of the tools appearing in the emerging Configuration Management markets.

We will also look at some of the myths surrounding ITIL, some of the cultural and technical barriers to successful implementation, and what the future holds in terms of international standards such as ISO20000

Sections:
- ITIL Overview
- IT Service Configuration Management
- IT Governance & Regulatory issues
- ITIL – Myths, Culture, Futures

Cathy Wright is the IT Assets and Configuration Manager for British Telecom. Her IT experience also extends to the Capacity and Performance arena where she ran a team of specialists covering mainframe and mid range capacity planning for BT. She holds ITIL accreditation and has presented technical and ITIL related papers at many CMG conferences in recent years. Cathy was also the Chair of UKCMG.

CMG2005 Monday Schedule

Meeting Schedule

Vice President's Regional, International Officers, and Advisory Council Meeting	9:00 AM	-	12:00 PM	Miami 1
International Officers Meeting	1:00 PM	-	3:00 PM	Miami 1
Session Monitors & Chairs Meeting	4:30 PM	-	5:30 PM	Naples 2
First-Time Attendee Orientation	4:30 PM	-	5:30 PM	Tampa 1/2
Annual Business Meeting / Opening Session	6:00 PM	-		Osceola A
PARS	Immediately Following Business Meeting			Osceola C/D

Monday User Groups

BMC Software	7:30 AM	-	6:00 PM	Osceola B
Demand Technology Software, Inc.	1:00 PM	-	5:00 PM	Miami 3
ISM (the Information Systems Manager)	8:30 AM	-	4:00 PM	Tampa
MVS Solutions Inc.	8:00 AM	-	5:00 PM	Daytona 2
OPNET Technologies	9:00 AM	-	5:00 PM	Daytona 1
SAS Institute Inc.	1:00 PM	-	5:00 PM	Sun 1 - 3
TeamQuest Corporation	1:00 PM	-	5:00 PM	Sanibel

BMC Software

2101 CityWest Blvd Houston, TX 77042
Phone: 713-918-8800
www.bmc.com

BMC Software will hold its Annual Performance Conference at CMG on Monday, December 5th, at Gaylord Palms Resort & Convention Center. The Conference features the latest solutions for performance, capacity management of enterprise-wide applications as well as automated provisioning. BMC Software will present how our solutions ensure the performance and availability of business-critical applications in today's physical and virtualized IT environments. You will learn how to proactively identify system bottlenecks; monitor, manage and automate system performance, manage the capacity of existing and future systems as well as automatically provisioning the right resources at the right time - right now! Please join us at our Annual Performance Conference on Monday, December 5th!

Demand Technology Software, Inc.

1020 8th Ave. S. #6 Naples, FL 34102
Phone: 239-261-8945 Fax: 239-261-5456
www.demandtech.com

Demand Technology Software, the developer of NTSMF, is proud to sponsor its eighth annual Windows Performance Symposium, a half-day event devoted exclusively to a discussion of topics of interest to CMGers responsible for managing Microsoft Windows 2003 Server environments. Service-level management for Microsoft-powered web sites, the advent of inexpensive 64-bit Windows computing, and server consolidation best practices are among the topics planned. The full agenda for this event will not be finalized until this fall so that we can showcase the latest technology and developments. Please check the conference Final Agenda for complete details. However, attendees can be assured, as in years past, there will be no vendor marketing fluff!

ISM (the Information Systems Manager)

One Bethlehem Plaza Bethlehem, PA 18018
Phone: 610-865-0300 Fax: 610-868-6277
www.perfman.com

ISM's PerfMan* performance and capacity management solutions provide sophisticated, yet easy-to-use tools and services to manage even the most complex IT environments more efficiently and effectively.

Clients join ISM each year at CMG to meet other users, interact with PerfMan designers and developers, learn about new PerfMan features, and discuss general capacity and performance management issues.

A general session with information for all will be followed by dual-track sessions (z/Architecture & Windows/UNIX/Linux). These sessions will be followed by lunch.

If you'd like to attend ISM's 2005 User Group Meeting, please pre-register at our website:
http://www.perfman.com/CMGregistration

MVS Solutions Inc.

8300 Woodbine Ave Markham, ON L3R9Y7
4th Floor Canada
Phone: 905-940-9404 Fax: 905-940-5308
www.mvssol.com

You're invited to the annual ThruPut Manager CMG User Group session, to be held from 9:00 am to 4:30 pm. We can promise you a day of ThruPut Manager technical news, 'how to' sessions, an update on ThruPut Manager 6 Automation Edition and its implementation, and a chance to meet and talk to other ThruPut Manager users. All our customers are invited to meet with Jose Danobeitia, the chief architect of ThruPut Manager, Nancy and Martin for an interesting day of discussions on ThruPut Manager now and in the future. To reserve your space please contact Martin Wills at 905 940 9404 or email:
CMGUser@mvssol.com

OPNET Technologies

7255 Woodmont Ave. Bethesda, MD 20814
Phone: 240.497.3000 Fax: 240.497.3001
www.opnet.com

TBD

SAS Institute Inc.

100 SAS Campus Drive Cary, NC 27513
Phone: 919-677-8000 Fax: 919-677-4444
www.sas.com

SAS invites you to our CMG Monday Users Group on Dec. 5 to hear how SAS customers use SAS (r) IT Management Solutions to address their IT challenges. In turn, SAS will unveil SAS IT Resource Management 3.1, the next generation of IT intelligence. Join us to discover how SAS IT Management Solutions allow you to align IT delivery with business demands to optimize overall profitability and competitiveness through:

- Sophisticated analytical reporting and data visualization.
- Reliable information on IT usage and costs.
- Integrated and intuitive products for IT management across the enterprise.

TeamQuest Corporation

One TeamQuest Way Clear Lake, IA 50428
Phone: 641-357-2700 Fax: 641-357-2778
www.teamquest.com

Join TeamQuest at its annual CMG Users Meeting on Monday December 5 from 1 to 5PM. Customers and IT professionals interested in performance management, capacity planning, and IT Service Optimization are invited to the following presentations:

TeamQuest technical staff and customers addressing specific performance management and capacity planning issues.

Product managers and engineers discussing the latest release of TeamQuest Performance Software and a preview of upcoming features and functionality.

Customer presentations featuring real world examples of how significant dollars have been saved using capacity planning to consolidate servers and predict resource requirements.

DECEMBER • 4-9

CONFERENCE AT-A-GLANCE

- *TUESDAY SESSIONS*
- *WEDNESDAY SESSIONS*
- *THURSDAY SESSIONS*
- *FRIDAY SESSIONS*

DECEMBER • 4-9

Tuesday, December 6th At-a-Glance

Time	Subject	Sess.	Room	Author	Title
8:00 AM	Core	301	Osc. A	K. Mani Chandy	Sense and Respond Systems
9:15 AM	Core	311	Osc. A	Dr. Lloyd G. Williams	QSEM: Quantitative Scalability Evaluation Method
9:15 AM	zOS	312	Osc. B	Dr. Annie W. Shum	A Multi-Tiered Approach With Data Normalization To Analyzing CPU Metrics
9:15 AM	ITIL	313	Miami	Chris Molloy	ITIL Capacity Management Deep Dive
9:15 AM	Hot	314	Osc. 3/4	Daniel A. Menasce	Virtualization: Concepts, Applications, and Performance Modeling
9:15 AM	Core	315	Osc. 5/6	Peter Johnson	Scaling up the JBoss Application Server
9:15 AM	Core	316	Osc. 1/2	TBD	Are Integrated Management Solutions the Recipe for an Invisible and Secure IT Infrastructure?
9:15 AM	Core	317	Daytona	Dr. James Bouhana	Analysis of Workload Alerts in Consolidated Servers
10:30 AM	*nix	321	Osc. A	Mark M. Maccabee	Testing Scalability of a WebLogic Application
10:30 AM	*nix	321	Osc. A	William R. Sullivan	Overcoming Limitations to Java Application Scalability
10:30 AM	zOS	322	Osc. B	Kenneth D. Williams	MVS Application Performance Management
10:30 AM	zOS	322	Osc. B	Dr. Bernard Domanski	Speaking SOA and Web Services: .NET and the Mainframe
10:30 AM	Stor	323	Miami	TBD	TBD
10:30 AM	Core	324	Osc. 3/4	Gene P. Fernando	To V or not to V: A Practical Guide to Virtualization
10:30 AM	Hot	325	Osc. 5/6	Dr. Toufic Boubez	Policy Driven SOA
10:30 AM	Core	326	Osc. 1/2	Glenn O'Donnell	Making Sense of the Performance Riddle
10:30 AM	ITIL	327	Daytona	Jim Waring	Achieve IT Agility by Integrating SOA with ITIL Based BSM
10:30 AM	Core	327	Daytona	Dr. Thomas E. Bell	Determining Architectures of Existing Systems
2:00 PM	Core	331	Osc. A	Henry H. Liu	Service Demand Models for Enterprise Software Applications
2:00 PM	zOS	332	Osc. B	Craig Hodgins	Java Performance on z/OS: A Report from the Front Lines
2:00 PM	Stor	333	Miami	Mel Boksenbaum	Storage Performance Council Panel Discussion
2:00 PM	Hot	334	Osc. 3/4	Peter J. Weilnau	Measuring Up for Server Virtualization
2:00 PM	Core	335	Osc. 5/6	Shanti Subramanyam	Performance Management of a J2EE Application to Meet Service Level Agreements
2:00 PM	Hot	336	Osc. 1/2	Herb VanHook	Opportunities and Challenges of the SOA World
2:00 PM	Core	337	Daytona	Michael Wiener	Calculating Expected Reliability of Systems and Hardware
3:45 PM	Core	341	Osc. A	Michael D. Maddox	Using Fuzzy Logic to Automate Performance Analyses
3:45 PM	zOS	342	Osc. B	Don Deese	Introduction to zSeries Application Assist Processor (zAAP)
3:45 PM	Stor	343	Miami	Bruce McNutt	Disk Arm Management of Competing Workloads
3:45 PM	Core	344	Osc. 3/4	Prof. Ethan Bolker	Virtual Performance Won't Do: Capacity Planning for Virtual Systems
3:45 PM	Core	345	Osc. 5/6	Peter Johnson	Java Garbage Collection Performance Analysis 201
3:45 PM	Hot	346	Osc. 1/2	Eric Pulier	Learning to Play Nicely
3:45 PM	Hot	347	Daytona	Chris Molloy	Introduction to Data Center Markup Language (DCML)

SUBJECT AREAS

Core	= Fundamentals / Core Competency	**Net**	= Network / Internet
Hot	= Hot Topics	**Stor**	= Storage
ITIL	= ITIL	***nix**	= Unix / Linux
zOS	= Mainframe (z/OS)	**Win**	= Windows

TIME	SUBJECT	SESS.	ROOM	AUTHOR	TITLE
8:00 AM	Win	401	Osc. A	Amy D. Wohl	The China Era
9:15 AM	Hot	411	Osc. A	Dr. Jeffrey P. Buzen	SOA and the Social Order - City Planning, Post Office & Business Protocols
9:15 AM	zOS	412	Osc. B	Robert R. Rogers	How Do You Do What You Do When You're a CPU?
9:15 AM	Core	413	Miami	Peter Sevcik	The Application Performance Index (Apdex) Standard+
9:15 AM	Stor	414	Osc. 3/4	Charles T. McGavin Jr.	Smoke and Mirrors – A Survey of Remote Replication Technologies
9:15 AM	Core	415	Osc. 5/6	Denise P. Kalm	Survivor - The Corporate Jungle
9:15 AM	Core	416	Osc. 1/2	Alexander Podelko	Workload Generation: Does One Approach Fit All?
9:15 AM	Core	417	Daytona	Dick Arnold	Reactive Capacity Planning – An Alternative
10:30 AM	*nix	421	Osc. A	Jaqui Lynch	Linux Performance Tuning
10:30 AM	zOS	422	Osc. B	Glenn R. Anderson	A Large Systems Guy Implements the Enterprise Workload Manager (EWLM)
10:30 AM	Win	423	Miami	Mark B. Friedman	Virtual Memory Constraints in 32-bit Windows: an Update
10:30 AM	Stor	424	Osc. 3/4	Michael A. Salsburg	A Management Framework For Petabyte-Scale Disk Storage
10:30 AM	Stor	424	Osc. 3/4	Kathleen N. Hodge	Database Disk to Disk Backups Using ATA Disk
10:30 AM	Net	425	Osc. 5/6	Neil Carter	Intrusion Detection/Prevention Devices — Are They Protecting Your Network - or Hampering It?
10:30 AM	Core	425	Osc. 5/6	Jack B. Woolley	Want to Know WHY Response Time is So Long? Listen to the Wire.
10:30 AM	Core	426	Osc. 1/2	G Jay Lipovich	Is It Time for Capacity Planners to Hang Up Their Cleats?
10:30 AM	Core	427	Daytona	Kevin Mobley	Using Six Sigma to Define the Focus of Software Performance Engineering
2:00 PM	Core	431	Osc. A	Dr. Jeffrey P. Buzen	Workload Characterization for Parallel Processing Environments
2:00 PM	zOS	432	Osc. B	Tony Ruberry	UKCMG Best Paper: zSeries Capacity Management - a True Story
2:00 PM	Win	433	Miami	Kevin Kline	Performance Baselining, Benchmarking and Monitoring for Microsoft SQL Server
2:00 PM	Stor	434	Osc. 3/4	Dan W. Yee	I/O Performance Characteristics for Volume Managers on Linux 2.6 Servers
2:00 PM	Hot	435	Osc. 5/6	Ken Traub	Radio-Frequency Identification at Enterprise Scale
2:00 PM	Core	436	Osc. 1/2	Tony Allan	CMG Australia Best Paper: The Holy Grail: Building Applications That Can Survive the Unpredictable Web
2:00 PM	Core	437	Daytona	Irving Smith	Wholesale Distributed Capacity Planning
3:45 PM	Core	441	Osc. A	Dr. Jozo J. Dujmovic	QNS - an Online System for the Study of Queuing Models
3:45 PM	zOS	442	Osc. B	Ian C. Baldwin	Migrating to z-990 - A User Experience
3:45 PM	Win	443	Miami	Michael A. Salsburg	Panel: IT's Role in Business Performance Management
3:45 PM	Stor	444	Osc. 3/4	Robert Rogers	Information Classification and Service Level Objectives for Information Lifecycle Management
3:45 PM	Net	445	Osc. 5/6	Prof. James Westall	Performance Tuning of Gigabit Network Interfaces
3:45 PM	Hot	446	Osc. 1/2	Dr. Annie W. Shum	Through the Prism of Fractals: Why SOA Should Reflect the Natural Order
3:45 PM	Core	447	Daytona	Chandra Lanka	Capacity Planning for Shared Middleware Environments; A Methodology

Thursday, December 8th At-a-Glance

Time	Subject	Sess.	Room	Author	Title
8:00 AM	zOS	501	Osc. A	Cheryl Watson	z990 Performance and Capacity Planning Issues
8:00 AM	zOS	502	Osc. B	Stephen R. Guendert	Taking FICON to the Next Level-Cascaded High Performance FICON
8:00 AM	Win	503	Miami	Jeffry A. Schwartz	Understanding and Interpreting SQL Server Performance Counters
8:00 AM	zOS	504	Osc. 3/4	Michael P. Swanson	8 Great Myths of Software Asset Management
8:00 AM	Net	505	Osc. 5/6	Bernie Davidovics	Measuring End User Response Time - With a Passive Network Probe
8:00 AM	Core	506	Osc. 1/2	Dr. Pierre M. Fiorini	Software Performance Engineering Considerations in Unreliable Computing Environments
8:00 AM	Hot	507	Daytona	Nick Gall	Reflection: The Next Big Thing After SOA
9:15 AM	zOS	511	Osc. A	Ned A. Diehl	DB2 CPU and Response Metrics
9:15 AM	Core	512	Osc. B	Ellen M. Friedman	Measuring Performance in the Lab and Validating it in Production
9:15 AM	Hot	513	Miami	Marina Cismas	Redefining Capacity Planning for Grid Computing
9:15 AM	Core	514	Osc. 3/4	Linwood Merritt	Closing the Gaps – Understanding Capacity Summarization
9:15 AM	Net	515	Osc. 5/6	Laura Knapp	Introduction to Simple Network Management Protocol (SNMP) Version 3
9:15 AM	Hot	516	Osc. 1/2	Dr. Connie U. Smith	A Performance Model Web Service
9:15 AM	Core	517	Daytona	James A. Yaple	Benchmarking 101
10:30 AM	zOS	521	Osc. A	Kathy Walsh	The Mechanics of Developing a High Quality Capacity Plan
10:30 AM	zOS	522	Osc. B	Thomas A. Halinski	Unveiling of DB2's DDF: SQL Revealed via the Gestalt Perspective
10:30 AM	*nix	523	Miami	Brian Johnson	Designing a Fairer Round Robin Scheduling Algorithm
10:30 AM	*nix	523	Miami	Serge Tessier	Capacity Planning for UNIX System Metrics
10:30 AM	Stor	524	Osc. 3/4	Stephen R. Guendert	Proper Sizing and Modeling of ESCON to FICON Migrations
10:30 AM	Net	525	Osc. 5/6	Nalini J. Elkins	One-Minute TCP Stack Analysis
10:30 AM	Core	526	Osc. 1/2	Mary R. Hesselgrave	Underground SPE: Moving from Performance QA to SPE
10:30 AM	Core	526	Osc. 1/2	Klaus Fellner	Choosing a Load Testing Strategy
10:30 AM	*nix	527	Daytona	Robert F. Patterson	Capturing System Data Using Native Commands
10:30 AM	*nix	527	Daytona	Igor A. Trubin	Capturing Workload Pathology by Statistical Exception Detection System
2:00 PM	zOS	531	Osc. A	Peter Enrico	WLM Sysplex Management
2:00 PM	*nix	532	Osc. B	Rick Lebsack	Facilitated Discussion: Future of the Performance Field 2005
2:00 PM	*nix	533	Miami	James Holtman	Visualization of Performance Data
2:00 PM	Stor	534	Osc. 3/4	Prof. Robert Geist	Enhancing Web Server Performance Through the Use of a Drop-In, Statically Optimal Disk Scheduler
2:00 PM	Net	535	Osc. 5/6	Chris Loosely	Measuring Actual and Perceived User Experience on the Web
2:00 PM	Hot	536	Osc. 1/2	Richard Soley	The Model-Driven (R)evolution
2:00 PM	Hot	537	Daytona	John C. Becsi	Encryption Primer: An Introduction to Data Protection
3:45 PM	zOS	541	Osc. A	Ivan L. Gelb	Panel: zSeries Performance Q & A
3:45 PM	Core	542	Osc. B	Andrea Giudici	CMG Italia Best Paper: Excellence in Operations, Why Bother?
3:45 PM	Hot	543	Miami	David R. Morley	CMG: The Early Years
3:45 PM	Stor	544	Osc. 3/4	Chao Li	Analytic Way for Performance Management of SAN
3:45 PM	Net	545	Osc. 5/6	Dr. Swami Ramany	Workload Modelling of Stateful Protocols Using HMMs
3:45 PM	Hot	546	Osc. 1/2	William L. Shelden, Jr.	Modeling VMware ESX Performance
3:45 PM	Core	547	Daytona	Dr. Anatoliy Rikun	Using Principal Component Method for Performance Data Compression and Analysis

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TIME	SUBJECT	SESS.	ROOM	AUTHOR	TITLE
8:00 AM	zOS	603	Miami	Ivan L. Gelb	Mining Performance Gold From CICS Statistics
8:00 AM	zOS	604	Osc. 3/4	Wolfram Greis	Central Europe CMG Best Paper: J2EE & Mainframes
8:00 AM	Core	605	Osc. 5/6	Yiping Ding	Bandwidth and Latency: Their Changing Impact on Performance
8:00 AM	Core	606	Osc. 1/2	Stuart Plotkin	Distributed Resource Reclamation: Enterprise Shared Servers
8:00 AM	Net	607	Daytona	Dr. Dietmar Trattner	CMG Austria Best Paper: ePatent Project – a new Approach in Accessing Patent Data
9:15 AM	Core	613	Miami	Chris Greco	Dashboards, Black Boxes and the Database or Data as the Foundation for Correlative Analysis
9:15 AM	zOS	614	Osc. 3/4	Robert E. Chaney	DDF Performance Analysis - Does it Really Have to be This Complicated?
9:15 AM	Net	615	Osc. 5/6	Jie Lu	Performance Modeling and Analysis of Web Switch
9:15 AM	Core	616	Osc. 1/2	Dr. Charles A. Letner	A Methodology for Predicting the Scalability of Distributed Production Systems
9:15 AM	Net	617	Daytona	Catherine H. Liu	Network Performance & Availability Reporting: Someone Has to Start It.
10:30 AM	Core	623	Miami	Frank Bereznay	Making Your Web Portal a Dynamic Website
10:30 AM	zOS	624	Osc. 3/4	Charles E. Hackett	LSPR Benchmark Converter
10:30 AM	Hot	625	Osc. 5/6	Dr. Carl J. De Pasquale	Managing J2EE Applications with Application Response Measurement (ARM)
10:30 AM	Core	626	Osc. 1/2	Rupa S. Joshi	It's All About Statistics!
10:30 AM	Core	627	Daytona	Sebastian Bienkiewicz	CMG Poland Best Paper: TBD

Exhibitor Presentations

Tuesday 5:00 PM - 6:00 PM

CIMS Lab, Inc. *Osceola 1/2*
CIMS - Usage Based Billing and Reporting - Product Demo

HyPerformix, Inc. *Osceola 5/6*
Performance and Capacity Management – How to Reduce IT Fire Fighting

Indicative Software *Miami 1/2/3*
TBD

Metron-Athene, Inc. *Daytona 1/2*
Metron-Athene, Performance Management & Capacity Planning

OPNET Technologies *Osceola 3/4*
Best Practice Approaches for Optimizing Application, Server, and Mainframe Performance

PerfCap Corporation *Osceola B*
Web Based, Fully Automated Capacity Planning, Performance and Asset Management Solutions

SAS Institute Inc. *Osceola A*
SAS IT Intelligence for Resource Optimization

Wednesday 5:00 PM - 6:00 PM

CapTell Developments Pty Ltd *Osceola 5/6*
CapTell - Capacity Reporting Software, fully automating capacity management reporting

Computer Management Sciences, Inc. *Miami 1/2/3*
CPExpert overview and updates

Demand Technology Software, Inc. *Osceola 3/4*
NTSMF Futures

Diversified Software *Osceola 1/2*
PRO/JCL® Workstation: A windows interface to JCL development

MVS Solutions Inc. *Daytona 1/2*
Managing Batch Service Level Agreements with ThruPut Manager

Platform Solutions, Inc. Osceola B
z/OS Performance on the New Generation of Itanium® 2 Mainframes

Thursday 5:00 PM - 6:00 PM

Merrill Consultants *Osceola A*
MXG Update and MXG User Meeting

SESSION DESCRIPTIONS

DECEMBER • 4-9

SESSION 301 **TUESDAY 8:00 AM - 9:00 AM**
PAPER 5401 **OSCEOLA A**
FUNDAMENTALS/CORE COMPETENCY
NON-SPECIFIC

Sense and Respond Systems

K. Mani Chandy, California Institute of Technology

Sense and respond systems sense, and then respond, to opportunities and threats. A sense and respond platform can be configured to develop specific sense and respond applications. Sense and respond applications arise in homeland security, healthcare, finance, supply chains, energy, environmental protection, security and - most importantly for this talk - the management of IT infrastructure. The CMG community can make a profound impact on the space of sense and respond applications because this community has expertise in the relevant technologies and mathematics: CMG papers deal with measurement of asynchronous events, statistics, probabilistic models, information fusion, and real time. Sense and respond applications are increasingly important to society, and CMG has a major role to play. This talk will survey the field of sense and respond applications; identify applications spaces that are critical for society; survey the technologies and software architectures used in these applications; describe fundamental problems in experimentation, systems design and theory; explore the rate of growth of this space; show how the CMG community's experience is directly relevant; and discuss experience with developing applications from platforms.

SESSION 311 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 5165 **OSCEOLA A**
FUNDAMENTALS/CORE COMPETENCY HOW-TO
Z/OS

QSEM: Quantitative Scalability Evaluation Method

Dr. Lloyd G. Williams, PerfX
Connie U. Smith, Performance Engineering Services

While scalability is important to today's software applications, few organizations understand how to quantitatively evaluate their software's scalability. This paper describes the Quantitative Scalability Evaluation Method, QSEM. QSEM uses straightforward measurements to quantify the scalability of a software application. The results provide an understanding of the application's scalability that makes it possible to extrapolate behavior to larger configurations with confidence. The seven steps of the QSEM method are described and illustrated with a case study.

SESSION 312 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 5159 **OSCEOLA B**
MAINFRAME (Z/OS) INTRODUCTORY
Z/OS

A Multi-Tiered Approach With Data Normalization To Analyzing CPU Metrics

Dr. Annie W. Shum, BEA Systems
Boris Ginis, BMC Software

In IT management, CPU utilization is arguably the most basic performance metric. It is also one of the most multi-faceted, with IBM's RMF and SMF providing over 60 variations of zSeries CPU utilizations, spanning differing degrees of granularity and complexity. So which CPU utilization metrics are right for you? Why, when, and how do you use each of them? We advocate a new, multi-tiered approach built on a broad-based data normalization technique. In addition, we also offer guidance on how to select CPU utilization metrics to address specific problems, such as capacity planning.

SESSION 313 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 5088 **MIAMI**
ITIL ADVANCED
NON-SPECIFIC

ITIL Capacity Management Deep Dive

Chris Molloy, IBM

ITIL is continuing to grow in acceptance in IT environments as a model for best practices. This paper provides a low level analysis of the ITIL capacity management discipline. The paper describes the differences between business, service, and resource capacity management, and the need for each to have a proactive capacity management process. The paper will describe the elements needed for an ITIL-based capacity plan, a discussion on what several companies have done with ITIL capacity management, and lessons learned from implementing ITIL capacity management discipline in their environment.

SESSION 314 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 5189 **OSCEOLA 3/4**
HOT TOPICS TECHNICAL
NON-SPECIFIC

Virtualization: Concepts, Applications, and Performance Modeling

Daniel A. Menasce, George Mason University

Virtualization was invented more than thirty years ago to allow expensive mainframes to be shared among different applications. As hardware prices went down, the need for virtualization faded away. More recently, virtualization at all levels (system, storage, and network) became important again to improve system security, reliability, and to reduce costs. This paper explains the basics of system virtualization and addresses performance issues related to modeling virtualized systems using analytic performance models. A case study on server consolidation is used to illustrate the points.

SESSION DESCRIPTION LEGEND

SESSION NUMBER **DAY START TIME - END TIME**
PAPER NUMBER (No Paper) * **ROOM**
SUBJECT AREA SESSION TYPE
PLATFORM

Title

Author, Company
Co-Author, Company
Co-Author, Company

Abstract....

**** Session Handouts may be available on the CMG website following the conference: www.cmg.org/membersonly***

SESSION 315 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 5009 **OSCEOLA 5/6**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
WINDOWS NT/XP/ETC.

Scaling up the JBoss Application Server

Peter Johnson, Unisys

This paper presents our experience with tuning the JBoss Application Server to run the SPECjAppServer2002 benchmark. We used our knowledge of high-performance, highly scalable systems to push the JBoss Application Server to its limits. This paper describes how those performance gains were accomplished, highlights various significant improvements, and provides information about the performance gains that were attained. The reader should be able to use the information presented in this paper to tune his or her own applications deployed to the JBoss Application Server.

BUSINESS MANAGEMENT SHOWCASE

SESSION 316 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 5418 (No Paper) **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY

Are Integrated Management Solutions the Recipe for an Invisible and Secure IT Infrastructure?

TBD, Computer Associates

As businesses today are demanding greater flexibility and efficiency, we see that the IT Organizations are demanding the management software providers to deliver a complete, integrated and open solution for policy-driven, adaptive Services Oriented Infrastructure (SOI) that can expose assets as composite IT services and enable a contextually relevant view of business processes. In this presentation, we will discuss how we could optimize the delivery of business services through an invisible and secure infrastructure that can transparently adapt to changes in business conditions. We will also highlight how Management solutions that are integrated across the IT stack are better suited to achieve the vision of an invisible and secure infrastructure.

SESSION 317 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 5024 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
NON-SPECIFIC

Analysis of Workload Alerts in Consolidated Servers

Dr. James Bouhana, Performance International, Inc.
Mike Tsykin, Fujitsu Australia Limited

Traditional alerting on performance metrics works well when servers are dedicated to one application — the likely source of the alert is known. However when multiple workloads are hosted on a consolidated server, probable cause analysis for alerts becomes more challenging. An approach is presented for stratifying alerts by both metric and workload so that the distribution of alerts across workloads for each performance metric can be seen. An Alerts Map gives a birds-eye view of all alerting activity. The challenges and successes in implementing the multi-workload analysis are also discussed.

SESSION 321 **TUESDAY 10:30 AM - 12:00 PM**

PAPER 5175 **OSCEOLA A**
UNIX/LINUX TECHNICAL
UNIX/LINUX

Testing Scalability of a WebLogic Application

Mark M. Maccabee, IBM

To improve the scalability of an existing production application it was rewritten. The rewritten application was based on a new architecture, using J2EE technology (WebLogic product). The new Application was structured with multiple sub-applications using a set of common components. The common component expected to be the most heavily used was identified; this was the Access Control Facility (ACF). Development of ACF was accelerated to allow testing, analysis and improvements to occur well ahead of the development of the other components. This paper describes the scalability testing of ACF.

PAPER 5166 **OSCEOLA A**
UNIX/LINUX ADVANCED
Z/OS

Overcoming Limitations to Java Application Scalability

William R. Sullivan, WHAM Engineering & Software

Java is a robust language as well as development platform, for both server and client applications. The JVM is the undergirding support structure for both the language and the runtime environment. We look at the limitations which the JVM places upon applications from both a CPU usage and a serialization perspective. Several real examples from previous projects are examined as test cases, and the solution to the limitations is provided.

SESSION 322 **TUESDAY 10:30 AM - 12:00 PM**

PAPER 5172 **OSCEOLA B**
MAINFRAME (Z/OS) INTRODUCTORY
Z/OS

MVS Application Performance Management

Kenneth D. Williams, CPT Global

It is quite possible, and sometimes very easy, to make dramatic savings in the load on the system caused by some applications. This presentation explains the reasons behind application performance tuning, the tool kit required, goes into some case studies or war stories, and finally gives a set of performance hints and tips to reduce overall CPU and elapsed time in applications.

PAPER 5167 **OSCEOLA B**
MAINFRAME (Z/OS) TECHNICAL
WINDOWS NT/XP/ETC.

Speaking SOA and Web Services: .NET and the Mainframe

Dr. Bernard Domanski, The City University of New York/CSI

Highlighting the re-emerging mainframe, this paper explores deploying a Service-Oriented Architecture (SOA) in a Microsoft-centric environment with a variety of available products from different vendors. We also look at Microsoft's Host Integration Server 2004 to deploy a Service-Oriented Architecture (SOA), which uses both mainframe and .NET technologies.

SESSION 324 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 5014 **OSCEOLA 3/4**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
WINDOWS NT/XP/ETC.

To V or not to V: A Practical Guide to Virtualization

Gene P. Fernando, BMC Software

Virtualization has become so widespread that industry pundits have called it a megatrend. Many forms of Virtualization are available today, each with its own set of potential gains. Of course, with every new technology comes a new set of problems. This paper explores the benefits of Virtualization and discusses the difficulties in measuring the results in the real world. A case study is included to present a practical approach for measuring and forecasting growth for virtual servers.

SESSION 325 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 5407 (No Paper) **OSCEOLA 5/6**
HOT TOPICS

Policy Driven SOA

Dr. Toufic Boubez, Layer 7 Technologies

The original goal of the Service Oriented Architecture (SOA) concept, and its implementation technologies such as Web services, was to build flexible, loosely coupled systems. But any two components in a system that communicate with each other are by definition coupled to a certain extent. The goal therefore is to lessen that coupling, or, to put it another way, to loosely couple components in systems. That means removing or lessening the runtime dependencies between them. The best mechanism to achieve that is to delegate as much as possible the runtime tasks to the infrastructure. In order for this to work, contracts, requirement and capabilities need to be defined and automated through a declarative, configurable, and manageable mechanism. WSDL is the contract language for Web services. But WSDL is far from being adequate as a contract language for SOA. The required level of abstraction for SOA sits at the Policy level. Policies contain assertions about the operational interfaces for components in an SOA. These include credential preferences, authentication and authorization mechanisms, signature and encryption preferences, identity sources, routing, transformations, versioning, reliable messaging and others. This talk will introduce the concept of Policy Driven SOA and discuss Policy as the new contract abstraction for SOA.

BUSINESS MANAGEMENT SHOWCASE

SESSION 326 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 5416 (No Paper) **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY

Making Sense of the Performance Riddle

Glenn O'Donnell, EMC

Service performance is a "riddle wrapped in a mystery inside an enigma" to the extreme majority of IT organizations. To truly understand this riddle, one must navigate a complex labyrinth of interrelated technology and business components. New composite applications and distributed services exacerbate this scenario. No human is capable of comprehending all of this complexity, so automation technology, process, and standardization are the keys to controlling our environments and to leveraging this complexity for competitive benefit. Some early successes prove it is possible, albeit difficult, as cultural shifts never come easily. Beware of grand promises of automated simplicity. Such nirvana remains many years from reality, if ever.

SESSION 327 **TUESDAY 10:30 AM - 12:00 PM**

PAPER 5195 **DAYTONA**
ITIL INTRODUCTORY
NON-SPECIFIC

Achieve IT Agility by Integrating SOA with ITIL Based BSM

Jim Waring, BMC Software Ltd.
Annie W. Shum, BEA Systems
Avtar Dhillon, BMC Software

Business Service Management (BSM), rooted in ITIL, helps organizations manage IT from a business perspective. By identifying and mapping business-critical processes to the underlying IT infrastructure and services, BSM connects key business services to the IT services that manage them, such as routers, servers, and applications. While BSM does the mapping, SOA serves as the framework that connects the infrastructure. Hence, the BSM methodology and SOA are synergistic and the integration of BSM into SOA is pivotal to IT agility.

PAPER 5185 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY HOW-TO
NON-SPECIFIC

Determining Architectures of Existing Systems

Dr. Thomas E. Bell, Rivendel Consultants

An architectural description of an existing application is often needed, especially for performance work. The architecture is the highest level description of an implemented system in response to its requirements; it is needed to understand interactions for performance analysis. Academic descriptions can help, but existing system documentation, combined with extensive interviews, are needed to discover the most important characteristics.

SESSION 331 **TUESDAY 2:00 PM - 3:00 PM**
PAPER 5120 **OSCEOLA A**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
NON-SPECIFIC

Service Demand Models for Enterprise Software Applications

Henry H. Liu, DST Innovis, Inc.

Queuing models are solved with process probability distributions for system performance analysis and capacity planning. However, the models depend on service demand as one of the input variables which can be obtained only through measurements of an existing system. This kind of dependency makes it difficult to project the performance and capacity requirement of an enterprise software application prior to deployment in production. In this paper, we demonstrate that this constraint can be removed. Our models help support the notion of "predict and build" for developing enterprise software applications.

SESSION 332 **TUESDAY 2:00 PM - 3:00 PM**
PAPER 5047 **OSCEOLA B**
MAINFRAME (Z/OS) INTRODUCTORY
Z/OS

Java Performance on z/OS: A Report from the Front Lines

Craig Hodgins, Compuware

Java is ten years old this year and is being used more and more as the language of choice for mainframe applications under WebSphere. But Java is not COBOL. It is important that analysts understand the performance implications of this new world. This paper will use actual front line application examples to illustrate some of the performance issues involved with Java running under WebSphere on the mainframe.

SESSION 333 **TUESDAY 2:00 PM - 3:00 PM**
PAPER 5149 (No Paper) **MIAMI**
STORAGE PANEL
NON-SPECIFIC

Storage Performance Council Panel Discussion

Mel Boksenbaum, Hitachi Data Systems

The first cross-vendor team of storage performance experts has built the industry's first benchmark for storage that has become the standard for decision making. The Storage Performance Council has sought a real-world workload to become the first benchmark that is vendor-neutral, platform independent, network storage capable. More than three dozen SPC-1 results have been published to date. This panel session will discuss the status of the Storage Performance Council (SPC) and the Storage Industry standard performance benchmarks available and under development.

SESSION 334 **TUESDAY 2:00 PM - 3:00 PM**
PAPER 5054 **OSCEOLA 3/4**
HOT TOPICS INTRODUCTORY
NON-SPECIFIC

Measuring Up for Server Virtualization

Peter J. Weilnau, ISM

Server virtualization is one of the hottest topics for the capacity planner in 2005. How does a hardware virtualization environment like VMware ESX impact the performance measurements we have been accustomed to getting from Windows and Linux? If you can't measure it, you can't manage it, so how are we to measure and understand this new environment? This paper presents a lab-based study designed specifically to aid in understanding performance measurements available directly from VMware ESX. The study sheds light on the impact of virtualization on Windows and Linux performance information.

SESSION 335 **TUESDAY 2:00 PM - 3:00 PM**
PAPER 5129 **OSCEOLA 5/6**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
UNIX/LINUX

Performance Management of a J2EE Application to Meet Service Level Agreements

Shanti Subramanyam, Sun Microsystems Inc.

As Service Level Management increasingly encompasses multi-tier J2EE applications, it is no longer sufficient to do one-time capacity planning or static performance analysis and predictions. Utility Computing requires dynamic performance management capabilities that include modeling, analysis and predictions based on dynamic data. This paper analyzes various approaches to this problem and describes a methodology that can help solve this problem for real-world, multi-tier enterprise applications.

BUSINESS MANAGEMENT SHOWCASE

SESSION 336 **TUESDAY 2:00 PM - 3:00 PM**
PAPER 5417 (No Paper) **OSCEOLA 1/2**
HOT TOPICS

Opportunities and Challenges of the SOA World

Herb VanHook, BMC Software

The loosely-coupled application architectures emerging as the preferred new wave of integration enable flexible and adaptable business models, but come with their own challenges when mapped to the traditional management and operational process disciplines. The promise of Service-Oriented Architectures presents alignment opportunities between technology organizations and their business counterparts, as a closer mapping between real-world business services and application components is realized. As companies move to a "flow computing" paradigm with the adoption of Web services, many of the lessons learned over the years in running high-performance technology environments will carry forward, but many of them will have to be adapted to the realities of these new architectures. This session will address the imperatives that Service-Oriented Architecture "run-time" brings to the forefront.

SESSION 337 **TUESDAY 2:00 PM - 3:00 PM**
PAPER 5124 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
NON-SPECIFIC

Calculating Expected Reliability of Systems and Hardware

Michael Wiener, Bank of America

The need to calculate the reliability and expected up-time of new systems has become critical. This paper describes some simple methods that can be used to determine the reliability of a current system and the underlying components. It also shows how these techniques can be used to determine if an improvement is warranted and if so where. The paper starts by reviewing the concepts behind the calculations, using single system failures. It then goes onto calculating the probability of failure across numerous components and then shows how these techniques can be used to analyze and improve the reliability of a complex system.

SESSION 341 **TUESDAY 3:45 PM - 4:45 PM**
PAPER 5040 **OSCEOLA A**
FUNDAMENTALS/CORE COMPETENCY HOW-TO
NON-SPECIFIC

Using Fuzzy Logic to Automate Performance Analyses

Michael D. Maddox, MCI

Fuzzy logic, also known as approximate reasoning, is an expansion of set theory originated in the 1960s by Lotfi Zadeh. It has been applied successfully in many areas, including control systems. This paper defines key concepts of fuzzy logic, shows examples of fuzzy logic in life and in real-world applications, shows how fuzzy logic can be applied to computer performance work to simplify and speed analysis and reporting, and shows a simple example of program code which implements fuzzy logic. Examples are based on MS-Windows®, but the principles should be applicable to other operating systems.

SESSION 342 **TUESDAY 3:45 PM - 4:45 PM**
PAPER 5050 **OSCEOLA B**
MAINFRAME (Z/OS) INTRODUCTORY
Z/OS

Introduction to zSeries Application Assist Processor (zAAP)

Don Deese, Computer Management Sciences, Inc.

Starting with z/OS V1R6 on z890 and z990 servers, Java applications can run on a new type of processor called the eServer zSeries Application Assist Processor (zAAP). The zAAP is a relatively inexpensive solution for installations running a large amount of Java work. This paper presents an overview of zAAP processors, describes how zAAP processors interact with z/OS, discusses some performance considerations when implementing zAAP processors, and describes the data available in RMF that can be used to analyze zAAP performance.

SESSION 343 **TUESDAY 3:45 PM - 4:45 PM**
PAPER 5130 **MIAMI**
STORAGE TECHNICAL
NON-SPECIFIC

Disk Arm Management of Competing Workloads

Bruce McNutt, IBM

Can scheduled nighttime processing somehow escape the tyranny of the ''batch window''? Can transactions and large-scale queries be run against the same database at the same time, while maintaining acceptable levels of performance? To those managing database or other systems that require access by multiple applications to a common pool of data, such questions tend to be a key focus. Encouraged by recent developments in the SCSI standard, this paper considers the possibility of delegating such performance management to the individual disk drive.

SESSION 344 **TUESDAY 3:45 PM - 4:45 PM**
PAPER 5101 **OSCEOLA 3/4**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
NON-SPECIFIC

Virtual Performance Won't Do: Capacity Planning for Virtual Systems

Prof. Ethan Bolker, BMC Software, Inc
Yiping Ding, BMC Software
Ken Hu, BMC Software, Inc

The history of computing is a history of virtualization. Each increase in the number of abstraction layers separating the end user from the hardware makes life easier for the user, but harder for the planner who must choose a configuration to guarantee performance.

We review the architectures of several contemporary virtual systems, and report on experiments that show how naive interpretations of traditional metrics like "utilization" can lead planners astray. Then we propose a generic set of performance metrics and simple prediction guidelines that can help planners manage those systems.

SESSION 345 **TUESDAY 3:45 PM - 4:45 PM**
PAPER 5010 **OSCEOLA 5/6**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
UNIX/LINUX

Java Garbage Collection Performance Analysis 201

Peter Johnson, Unisys

The HotSpot® Virtual Machine for the Java 2 Platform provides a variety of garbage collection algorithms geared towards different application behavior or requirements. This paper discusses the pros and cons of each algorithm, and shows how to gather and analyze statistics provided by each algorithm. With a greater understanding of the garbage collection options available, and how to analyze their performance, the reader will be better equipped to choose the proper algorithm for use with his or her Java applications.

BUSINESS MANAGEMENT SHOWCASE

SESSION 346 **TUESDAY 3:45 PM - 4:45 PM**
PAPER 5415 (No Paper) **OSCEOLA 1/2**
HOT TOPICS

Learning to Play Nicely

Eric Pulier, SOA Software, Inc

By their very nature, Service-Oriented Architectures (SOAs) tend to blur traditional boundaries in large organizations. In the current environment, most IT initiatives involve the coordination of such distinct groups as software development, network operations, security, architects, as well as line of business managers. Not so anymore. With the SOA potentially creating reusable software code that must be accessed dynamically by composite applications, both inside and outside the firewall, the traditional roles and responsibilities of IT have been forever changed, or even erased. In this presentation, technology entrepreneur and SOA visionary Eric Pulier will explore the ways in which the SOA pushes the boundaries of IT and look at how large organizations can teach their disparate IT groups to "play nicely" and evolve into a successful SOA culture.

SESSION 347
PAPER 5087
HOT TOPICS
NON-SPECIFIC

TUESDAY 3:45 PM - 4:45 PM
DAYTONA
INTRODUCTORY

Introduction to Data Center Markup Language (DCML)

Chris Molloy, IBM

As labor costs continue to rise, IT environments are installing automation to convert labor based tasks. There are heterogeneous niche products that have been proven very effective. The Data Center Markup Language (DCML) standard has been proposed by a consortium of companies to allow one to codify the current state of an IT environment, and provide a metalanguage for defining the policies for how that environment should be run. This paper discusses DCML, and takes a look at how performance information can be defined in a common format so that disparate products may use the information.

SESSION 401 **WEDNESDAY 8:00 AM - 9:00 AM**
PAPER 5412 (No Paper) **OSCEOLA A**
WINDOWS

The China Era

Amy D. Wohl, *Wohl Associates*

China is on the rise. Sometime in this century America will need to recognize it as (at least) an economic Super Power.

But what does China's evolution from an enormous, largely agrarian, economy to an international investor, an educational powerhouse, and a manufacturing giant have to do with the business of information processing? The answers are at once complex, disturbing, and exciting. It is one part scary (we'll loose jobs, even very skilled jobs to Chinese working remotely from the U.S.); one part challenging (they are educating their students much better in science and engineering than we are); and one part empowering (they are eager investors in the U.S. and excited to partner with U.S. firms on projects in China).

(See complete abstract on page 10)

SESSION 411 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 5177 **OSCEOLA A**
HOT TOPICS INTRODUCTORY
NON-SPECIFIC

SOA and the Social Order - City Planning, Post Office & Business Protocols

Dr. Jeffrey P. Buzen, *Independent Consultant*
Dr. Annie W. Shum, *BEA Systems*

The software industry is abuzz with excitement over promises that Service Oriented Architecture (SOA) will provide unprecedented business value by containing IT complexity, aligning IT with business, and facilitating IT agility – while also spurring a momentous paradigm shift towards virtualizing and uniformly connecting disparate software programs at the business logic layer. The key to achieving these goals is the rise of a horizontal service infrastructure layer/business application framework. This nascent but pivotal concept is illustrated through familiar metaphors and examples.

SESSION 412 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 5196 (No Paper) **OSCEOLA B**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

How Do You Do What You Do When You're a CPU?

Robert R. Rogers, *IBM Corp.*

If you've ever been an assembler programmer, you'll enjoy this look inside the modern CPU given by one of its architects. It includes an overview of the processor cache, the elements of the instruction pipeline and the best way to move data. This version of the presentation has been updated to describe the superscalar, in-order instruction processing of the IBM z990.

SESSION 413 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 5413 (No Paper) **MIAMI**
FUNDAMENTALS/CORE COMPETENCY ADVANCED
WINDOWS NT/XP/ETC.

The Application Performance Index (Apdex) Standard+

Peter Sevcik, *NetForecast, Inc.*

Application performance measurement tools have several limitations. Each has its own definition of performance, they produce too many confusing or conflicting numbers, and they lack a simple summary result that can be understood by corporate management. A consortium of more than 20 companies is developing the Application Performance Index (Apdex) to bridge the reporting gap by specifying a uniform way to measure and report on the user experience. This paper describes the index and provides an update on its standardization.

SESSION 414 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 5110 **OSCEOLA 3/4**
STORAGE INTRODUCTORY
NON-SPECIFIC

Smoke and Mirrors – A Survey of Remote Replication Technologies

Charles T. McGavin Jr., *EMC Corporation*
Tony Mungal, *EMC Corporation*

Increasing business and regulatory pressures are forcing more and more enterprises to consider remote replication (replication of data from one storage array to another). Fortunately, there are more options than ever before. This paper will survey the current landscape of remote replication technologies, examining the technologies and analyzing their advantages and disadvantages.

SESSION 415 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 5007 **OSCEOLA 5/6**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Survivor - The Corporate Jungle

Denise P. Kalm, *Cybermation, Inc.*

The IT world has changed. With job losses exceeding 400,000 in the last four years, survival in this New Age requires much more than just putting in a good day's work. The tools and strategies you need include: career assessment, 'managing up,' personal public relations, networking and much more. Learn how to outwit, outplay and outlast the competition – to thrive, instead of just survive.

SESSION 416 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 5019 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
NON-SPECIFIC

Workload Generation: Does One Approach Fit All?

Alexander Podelko, *Hyperion Solutions*

A must task in load testing is workload generation: how to apply a load to your system. It is important to understand all possible options; a single approach may not work in all situations. The main choices are to generate workload manually, to use a load testing tool or to create a program to generate a load. Many tools allow you to use different ways of recording/playback and programming. This paper discusses pros and cons of each approach mainly based on experience with distributed business applications.

SESSION 417 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 5069 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY HOW-TO
Z/OS

Reactive Capacity Planning – An Alternative

Dick Arnold, JP Morgan Chase Bank

Since the practice of capacity planning first spun off from the performance measurement and tuning area around 1980, it has generally evolved into fairly commonly used techniques. However, a number of things have changed over the last 20 years . There is less staff to do the very labor intensive work, CPU upgrades are less complex and upgrade costs are much lower. But, we are still doing the job the same way. There is another way that is faster, takes less effort and costs less. And, even though there are some tradeoffs and it requires some management buy in, it may work for you.

SESSION 421 **WEDNESDAY 10:30 AM - 12:00 PM**
PAPER 5178 (No Paper) **OSCEOLA A**
UNIX/LINUX INTRODUCTORY
UNIX/LINUX

Linux Performance Tuning

Jaqui Lynch, Mainline Information Systems

This presentation only session will go into the basics of performance tuning on a Redhat Linux system. Tuneables, as well as some architectural issues, will be discussed.

SESSION 422 **WEDNESDAY 10:30 AM - 12:00 PM**
PAPER 5201 (No Paper) **OSCEOLA B**
MAINFRAME (Z/OS) INTRODUCTORY
NON-SPECIFIC

A Large Systems Guy Implements the Enterprise Workload Manager (EWLM)

Glenn R. Anderson, IBM

Enterprise Workload Manager monitors and responds to workload processing across systems in a distributed heterogeneous environment. EWLM is an example of mainframe technology (z/OS WLM) migrated out to distributed platforms. That is a bit comforting to an old MVS guy. This session will walk through the implementation and usage of the components of an EWLM domain. These include policies that define goals; middleware equipped for ARM (Application Response Measurement), such as Websphere and DB2; and the EWLM Domain Manager that monitors, tracks and reports on performance against goals.

SESSION 423 **WEDNESDAY 10:30 AM - 12:00 PM**
PAPER 5193 **MIAMI**
WINDOWS TECHNICAL
WINDOWS NT/XP/ETC.

Virtual Memory Constraints in 32-bit Windows: an Update

Mark B. Friedman, Demand Technology Software

This paper discusses the signs that indicate a machine is suffering from a virtual memory constraint in 32-bit Windows. It also discusses options to keep this from happening, including (1) changing the way 32-bit virtual address spaces are partitioned into private and shared ranges, (2) settings that govern the size of system memory pools, (3) hardware that supports 37-bit addressing, and (4) hardware that supports 64-bit addressing but can still run 32-bit applications in compatibility mode.

SESSION 424 **WEDNESDAY 10:30 AM - 12:00 PM**

PAPER 5136 **OSCEOLA 3/4**
STORAGE TECHNICAL
WINDOWS NT/XP/ETC.

A Management Framework For Petabyte-Scale Disk Storage

Michael A. Salsburg, Unisys
David Lifka
Ruth S. Mitchell, Cornell Theory Center

An explosion of data, along with new requirements for corporate governance, are generating requirements to build petabyte-sized disk subsystems. Given the current costs and complexities in administration for terabyte-sized systems, new innovations in management and monitoring are needed to scale beyond a petabyte. We are currently constructing a disk subsystem that will exceed a petabyte within the next few years. This paper presents, from a practitioner's viewpoint, the design and implementation of a management framework that is architected to scale beyond a petabyte of storage.

PAPER 5065 **OSCEOLA 3/4**
STORAGE TECHNICAL
NON-SPECIFIC

Database Disk to Disk Backups Using ATA Disk

Kathleen N. Hodge, Storage Technology Corporation

As the cost of disk continues to decrease, disk-based backups have become more attractive. Although tape backups still have their place in data archival and off-site vaulting, they are not a very efficient method of data recovery. Database backups are staged on disk in preparation for a tape backup routine to copy to tape. The staged backup can be stored on inexpensive ATA disk relieving expensive primary disk storage. This white paper describes ATA disk capacities available for backup solutions, and also presents storage strategies for backups throughout the lifecycle of a database.

SESSION 425 **WEDNESDAY 10:30 AM - 12:00 PM**

PAPER 5111 **OSCEOLA 5/6**
NETWORK TECHNICAL
NON-SPECIFIC

Intrusion Detection/Prevention Devices — Are They Protecting Your Network - or Hampering It?

Neil Carter, *Spirent Communications*

IDS/IPS devices are burdened with serious and increasing challenges. Performance of these devices is affected by factors such as configuration, traffic types, and security they provide. Companies looking to deploy IDS/IPS should measure the performance, reliability and overall security. How do different protocols/applications (normal traffic) used in networks combined with virus, DDoS and spam attacks affect IDS/IPS performance? This paper will delve into the challenges of IDS/IPS deployment, using real life situations and show the impact of performance testing and measurement.

PAPER 5038 **OSCEOLA 5/6**
FUNDAMENTALS/CORE COMPETENCY HOW-TO
NON-SPECIFIC

Want to Know WHY Response Time is So Long? Listen to the Wire.

Jack B. Woolley, *Kaiser Permanente*

Kaiser Permanente has been using application network traffic analysis as part of our application performance problem determination. Unencrypted TCP/IP network activity often identifies the portion(s) of the application that result in poor overall performance.

Training in this technique has the ability to identify poor performing application modules/objects, CPU constrained components, implementation configuration issues, and specific poor performing application SQL.

This paper presents the basic techniques of this type of problem determination, along with several real life examples.

SESSION 426 **WEDNESDAY 10:30 AM - 12:00 PM**
PAPER 5179 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY ADVANCED
NON-SPECIFIC

Is It Time for Capacity Planners to Hang Up Their Cleats?

G Jay Lipovich, *BMC Software, Inc*

Historically, capacity planning has delivered measurable value to the organization in the form of reduced costs, deferred acquisitions, and service level delivery, deliver a return on investment (ROI) for the organization. However, fundamental changes in the underpinnings of capacity planning ROI threaten the traditional value of capacity planning, and raise the question of whether it is still worth it to engage in capacity planning efforts. This paper examines these changes and their impacts and then considers actions capacity planners might take to adapt to the new reality.

SESSION 427 **WEDNESDAY 10:30 AM - 12:00 PM**
PAPER 5031 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Using Six Sigma to Define the Focus of Software Performance Engineering

Kevin Mobley, *Fidelity Information Services*

Software Performance Engineering Failure Modes and Effects Analysis (SFMEA) is a method to assess risk and determine the top business processes (bps) to focus on during software architecture and design, performance simulation and optimization, and performance management. Specifically SFMEA identifies how bps violate software performance anti-patterns and combines this risk with the bps' frequency, current control plan and the voice of the customer. The product of these dimensions is the risk priority number (RPN). The bps with the highest RPN values defines the SPE focus

SESSION 431 **WEDNESDAY 2:00 PM - 3:00 PM**
PAPER 5403 (No Paper) **OSCEOLA A**
FUNDAMENTALS/CORE COMPETENCY
NON-SPECIFIC

Workload Characterization for Parallel Processing Environments

Dr. Jeffrey P. Buzen, *Independent Consultant*
Boris Zbitsker, *BEZ Systems*

Workload characterization represents a fundamentally important step in the process of understanding, managing and modeling the performance of any computer system. After reviewing some universal workload characterization issues that are common to all systems, this paper discusses the specific issues, measurement sources and "what if" questions associated with three distinct parallel processing data base environments: Oracle 10g, DB2 UDB ESE and Teradata V2R5. Architectural differences are shown to have an important impact on the performance of applications running in these three environments.

SESSION 432 **WEDNESDAY 2:00 PM - 3:00 PM**
PAPER 5197 **OSCEOLA B**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

UKCMG Best Paper: zSeries Capacity Management - a True Story

Tony Ruberry, *John Lewis Partnership*

In September 2003, five months after our previous mainframe upgrade, John Lewis added another two processors to our zSeries machine. Within days the peak hour CPU reached 94%; and we hadn't even reached our busiest time of year! Fifteen months later, we are running with the same capacity, and have provided excellent service in the run up to Christmas 2004, despite an increase of over 25% in business transactions. This paper tells the tale of how, by a mixture of good luck and good judgement, John Lewis have moved from reactive panic to controlled and effective capacity management.

SESSION 433 **WEDNESDAY 2:00 PM - 3:00 PM**
PAPER 5414 (No Paper) **MIAMI**
WINDOWS
WINDOWS NT/XP/ETC.

Performance Baselining, Benchmarking and Monitoring for Microsoft SQL Server

Kevin Kline, *Quest Software*

It's impossible to truly tune SQL Server without a good understanding of its performance profile and workload. This session describes techniques and procedures to assess the baseline performance profile of a SQL Server, benchmark the performance of the server under varying work loads, and how to continuously monitor the server for maximum availability and performance. This session will help you:

1. Learn how to set up baselines, benchmarks, and monitoring
2. Understand the benefits and drawbacks of the two main approaches to monitoring
3. Learn major PerfMon counters that are important for baselining, benchmarking, and monitoring
4. Discuss useful methods for ongoing 24x7 monitoring on SQL Server boxes.

Basic database administration skills and Windows Server OS management skills are prerequisites.

SESSION 434 **WEDNESDAY 2:00 PM - 3:00 PM**
PAPER 5102 **OSCEOLA 3/4**
STORAGE TECHNICAL
UNIX/LINUX

I/O Performance Characteristics for Volume Managers on Linux 2.6 Servers

Dan W. Yee, *VERITAS Software Corporation*
Xianneng Shen, *VERITAS Software Corporation*
Randy Taylor, *VERITAS Software Corporation*

This study investigates the I/O performance characteristics of raw volumes in a Linux 2.6 environment running on 64-bit processors (AMD Opteron and Intel Itanium 2). Both sequential and random I/O are tested on RAID-0, and RAID-1+0 devices. The volume managers used are VxVM, Linux LVM2, and Linux MD. Synthetic workloads are used in the study. Measurement results are reported.

SESSION 435 **WEDNESDAY 2:00 PM - 3:00 PM**
PAPER 5405 (No Paper) **OSCEOLA 5/6**
HOT TOPICS

Radio-Frequency Identification at Enterprise Scale

Ken Traub, *ConnecTerra*

Radio-frequency Identification (RFID) is being rapidly adopted within many industry verticals, driven in part by mandates from leading retailers, regulatory agencies, and the federal government. Adoption will have significant impact on IT infrastructure for enterprises. For example, a nationwide retail chain may require ten million RFID readers, representing a manageability problem and a source of new data, orders of magnitude larger than anything deployed today. This talk will present the fundamentals of large-scale RFID deployments, with particular attention on the enterprise IT challenges. Topics discussed include architecture, software standards, management, and scalability.

SESSION 436 **WEDNESDAY 2:00 PM - 3:00 PM**
PAPER 5424 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY

CMG Australia Best Paper: The Holy Grail: Building Applications That Can Survive the Unpredictable Web

Tony Allan, *Allan Project Management Services*

We have all seen Web applications fail in spectacular ways under heavy load. This paper examines approaches that can be used to understand and eliminate this problem.

Users are resigned to poor service when a web-site becomes overloaded and persist only when the alternatives are more painful (such as missing out on a ticket to see a much loved band in concert). If there is a choice, users will go to another web-site for the information or service.

Once an application is deployed, the opportunities to fix the problem are often limited to a quick software change, or, more often than not, additional hardware. A better approach is to consider the issue during requirements (when sizing and SLA objectives are set) and application design (when architectural and user interface alternatives are still available).

Spikes in usage are difficult to predict and it is a fact of life that resources are always limited. Developers must assume 'when' not 'if' there will be a problem and design accordingly.

SESSION 437 **WEDNESDAY 2:00 PM - 3:00 PM**
PAPER 5048 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Wholesale Distributed Capacity Planning

Irving Smith, *Bank of America*
Russell W. Burns, *Bank of America*

In today's multi-tiered mass server infrastructure, it is highly desirable to be able to provide capacity reports in a timely, proactive and cost effective manner. This paper presents a methodology for producing a level one automated capacity planning report for a large heterogeneous, distributed systems server population. The paper describes the forecasting techniques employed to generate the report and the capacity planning process that it supports.

SESSION 441 **WEDNESDAY 3:45 PM - 4:45 PM**
PAPER 5147 **OSCEOLA A**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
NON-SPECIFIC

QNS - an Online System for the Study of Queuing Models

Dr. Jozo J. Dujmovic, *San Francisco State University*
Hemamalini Sankar

QNS is an online system for the self study of the most important queuing models. QNS is publicly available on the Internet. It offers a complete educational support including: (1) theoretical presentation of material, (2) queuing theory models, (3) graphical simulator with queuing network animation, (4) laboratory experiments based on numerical solver, (5) quiz subsystem with automatic grading, (6) control system with GUI, and (7) remote access support. The paper presents the design and implementation of QNS using JSP, HTML, Java, and Tomcat.

SESSION 442 **WEDNESDAY 3:45 PM - 4:45 PM**
PAPER 5052 **OSCEOLA B**
MAINFRAME (Z/OS) HOW-TO
Z/OS

Migrating to z-990 - A User Experience

Ian C. Baldwin, *Barclaycard*

The author has recently been through the task of migrating his applications and services from z-900 to z-990 technology. This paper gives the authors experiences, processes, suggestions and lessons learnt to aid like-minded IT professionals with similar migrations and to aid in truly understanding what the z-990 can achieve.

SESSION 443 **WEDNESDAY 3:45 PM - 4:45 PM**
PAPER 5421 (No Paper) **MIAMI**
WINDOWS PANEL
WINDOWS NT/XP/ETC.

Panel: IT's Role in Business Performance Management

Michael A. Salsburg, PhD, *Unisys Corporation*

Business Performance Management raises performance analysis and management to a new level of the enterprise. It is concerned with ways to improve the overall business, using Key Performance Indicators (KPIs) to monitor enterprise-wide performance as viewed by the executive decision makers. When necessary, strategy and business processes need to be adjusted to improve performance and achieve the goals of these indicators. How will we apply our expertise and discipline to have a positive impact on these KPIs? What emerging IT technologies can be brought to bear on this higher level of management? The panel of specialists will explore these and other questions regarding the impact of IT on Business Performance Management.

SESSION 444 **WEDNESDAY 3:45 PM - 4:45 PM**
PAPER 5115 **OSCEOLA 3/4**
STORAGE ADVANCED
NON-SPECIFIC

Information Classification and Service Level Objectives for Information Lifecycle Management

Robert Rogers, *Application Matrix*

Information Lifecycle Management (ILM) is the alignment of storage resources services to business goals and objectives. It is critically important to have an ILM methodology that associates business elements with their resources. The alignment of resources depends on understanding what is important, what the business needs are, and what corporate and regulatory requirements affect the business (e.g., Sarbanes-Oxley, and HIPAA). This paper focuses on those techniques and strategies for classifying information and data.

SESSION 445 **WEDNESDAY 3:45 PM - 4:45 PM**
PAPER 5181 **OSCEOLA 5/6**
NETWORK ADVANCED
UNIX/LINUX

Performance Tuning of Gigabit Network Interfaces

Prof. James Westall, *Clemson University*
Robert Geist, *Clemson University*
James J. Martin, *Clemson University*

As Ethernets have attained gigabit speeds, it has become obvious that NIC and device driver designs that work well at slower speeds introduce performance problems at gigabit rates. In this paper we present a systematic evaluation of the effects of frame size and interrupt coalescing strategy on the performance of three benchmark workloads on a gigabit LAN. We show that the use of large frames and interrupt coalescing can produce significant performance benefits, but that the proper degree of interrupt coalescing is strongly dependent upon the characteristics of the workload.

SESSION 446 **WEDNESDAY 3:45 PM - 4:45 PM**
PAPER 5160 **OSCEOLA 1/2**
HOT TOPICS INTRODUCTORY
NON-SPECIFIC

Through the Prism of Fractals: Why SOA Should Reflect the Natural Order

Dr. Annie W. Shum, BEA Systems

Service Orientation is emerging as the fourth wave of the computing paradigm shift because it promises to enable broad-scale interoperability and unprecedented business agility in a service value-net (ecosystem). Containing IT complexity and aligning IT with business through a set of sound and robust design principles are pivotal to the transformational power of Service Oriented Architecture (SOA). This paper looks for insights into containing IT complexity by studying the time-tested tenets and dynamics of complex fractal-like forms that abound in Nature.

SESSION 447 **WEDNESDAY 3:45 PM - 4:45 PM**
PAPER 5070 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
UNIX/LINUX

Capacity Planning for Shared Middleware Environments; A Methodology

Chandra Lanka, *Bank of America*

Sharing middleware application environments has gained significance in the recent past. Heterogeneous mix of transactions that run in the shared environments increases the complexity of both performance management and capacity planning. Some transactions consume more CPU power and memory than others. Different transactions peak at different times of the day. If and when all transactions peak at the same time, there may be a ''perfect storm''. In this paper, I discuss the issues involved in capacity planning for a shared webMethods environment and present a methodology for capacity planning.

SESSION 501 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 5037 (No Paper) **OSCEOLA A**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

z990 Performance and Capacity Planning Issues

Cheryl Watson, *Watson & Walker, Inc.*

Several installations believe their new z990 processors are not performing as expected. Are their beginning expectations unrealistic? Do the new configurations require a different level of tuning? Are the machines not performing according to LSPR expectations? You may find that one or more of these is true in your case. Whether you have z990 processors currently installed, or are planning on ordering them, this is an extremely important session. The session is given by Cheryl Watson, who has an intense interest in these new machines and extensive experience in comparative performance studies.

SESSION 502 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 5078 **OSCEOLA B**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

Taking FICON to the Next Level- Cascaded High Performance FICON

Stephen R. Guendert, *McDATA Corporation*

FICON technology has been in place for five years now, and in the past two years significant advances have been made. One of those advances is cascaded FICON. This paper will discuss FICON cascading in depth: what it is, what its benefits are, what the important z/OS considerations are when implementing, how to implement, and finally what are the performance considerations and how to get better performance via optimizing buffer to buffer credits. The author will then go through a real life example of modeling and testing that was done to optimize a cascaded FICON environment.

SESSION 503 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 5135 **MIAMI**
WINDOWS TECHNICAL
WINDOWS NT/XP/ETC.

Understanding and Interpreting SQL Server Performance Counters

Jeffry A. Schwartz, *Unisys Corp.*

SQL Server makes many performance counters available. However numerous explanations provided via the Windows Performance Monitor simply restate the name of the counter or provide cryptic explanations. This paper discusses the interpretation of several performance counters that have proven useful in performance studies, elaborates on their Windows Performance Monitor explanations, and proposes potential courses of action.

SESSION 504 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 5184 **OSCEOLA 3/4**
MAINFRAME (Z/OS) INTRODUCTORY
Z/OS

8 Great Myths of Software Asset Management

Michael P. Swanson, *ISAM*

Best-in-class companies save tremendously by reducing their software costs via applying the principals of SAM, Software Asset Management. Often companies think that pursuing one course of action vs another will provide the "promised land" of best-in-class cost savings; however, in the author's research and experience, there are myths associated with various strategies. You will see these myths exposed, learn what to do about them, and how to pursue an enlightened path to lower software costs.

SESSION 505 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 5408 (No Paper) **OSCEOLA 5/6**
NETWORK

Measuring End User Response Time - With a Passive Network Probe

Bernie Davidovics, *SeaNet Technologies*

One of the most vital yet elusive measurements has always been the "End User Response Time". This presentation discusses recent breakthroughs in using passive network probes to effectively measure the end user response time of not only the low level components of response time - but also the logical business transactions. This presentation describes how traffic collected on the network can be decoded and analyzed to provide the most vital end user measurements - without the need to install server side or client side agents.

SESSION 506 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 5183 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Software Performance Engineering Considerations in Unreliable Computing Environments

Dr. Pierre M. Fiorini, *University of Southern Maine*
Yiping Ding, *BMC Software*

In this paper, we discuss software design issues that should be considered whenever jobs execute in unreliable computing environments. Specifically, we show that if proper checkpointing mechanisms are not properly implemented, then under certain conditions completion times of applications executing on the system exhibit properties of heavy-tail or power-tail distributions, which can lead to unpredictable and long completion times.

SESSION 507 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 5406 (No Paper) **DAYTONA**
HOT TOPICS

Reflection: The Next Big Thing After SOA

Nick Gall

Emerging concepts such as the following are actually different manifestations of one emerging trend: Aspect-Oriented Architecture, Dynamic Systems Initiative, Model Driven Architecture, REST (Representational State Transfer), Service-Oriented Architecture, and Web & Web Services Architecture (including Web Services Distributed Management). We call this emerging trend "Decentralized Reflective Architecture". A reflective architecture is one that is Self-describing, Self-discovering, Self-relating, Self-modifying, Self-similar (fractal).

Twenty-plus years of academic research into "reflection" is now ready to commercially harvest. In fact, it is already happening. Imagine that all information was literally distributed through a global information space with possibly millions of replicas kept in varying degrees of sync using gossip and epidemic protocols. Such a global information space is becoming an absolute requirement for EPCGlobal, Network Centric Warfare, global sensor networks, etc. This presentation will

- Explain the concepts of decentralized reflective architecture are emerging from SOA and WS-* principles
- Show how it can be applied to solve business problems
- Provide examples of vendor architectures that embody it
- Discuss several proof of concepts, possibly including a brief demo

SESSION 511 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 5058 **OSCEOLA A**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

DB2 CPU and Response Metrics

Ned A. Diehl, *ISM*

DB2 requests originate from a variety of diverse sources including batch, CICS, DDF and SAP. Related DB2 CPU usage can be recorded in RMF, DB2, SMF 30, and other subsystem records. Proper selection and interpretation of these values will vary with transaction source, DB2 environment, product levels, and analysis objectives. Analysts must be careful to include all desired values and avoid multiple counting of the same logical utilization. This paper will discuss the sources and analysis of DB2 CPU metrics and corresponding response times. Examples will include CICS, DDF, and SAP.

SESSION 512 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 5164 **OSCEOLA B**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
WINDOWS NT/XP/ETC.

Measuring Performance in the Lab and Validating it in Production

Ellen M. Friedman, *SRM Associates, Ltd.*

You have a script to run which represents your production environment. What do you measure, what do you look at to make sure it is representative, and examining performance? What to look for when running the tests, how to compare the results between test iterations and re-evaluating performance after hardware/software changes. When you are done, how do your tests compare in your first assessment in a production environment? The case study presented will be SQL server under Windows

SESSION 513 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 5128 **MIAMI**
HOT TOPICS TECHNICAL
NON-SPECIFIC

Redefining Capacity Planning for Grid Computing

Marina Cismas, *Bank of America*

Grid computing is an emerging concept that will change the way we use and think about technology. This paper will explore the questions such as how the role of capacity planning will change in respect to the rise of grid technology and why the field is becoming ever more critical, despite rapid hardware price-performance improvements. The paper will also discuss the benefits and challenges that capacity planning analysts will face when working with grids and explore the new capacity planning objectives and innovative performance improvement strategies promised by the grid technology.

SESSION 514 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 5020 **OSCEOLA 3/4**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Closing the Gaps – Understanding Capacity Summarization

Linwood Merritt, *Bank of America*

One of the first steps in the capacity planning process is the summarization of capacity/performance data. This activity aggregates detailed event-level data into a manageable number of workloads and intervals. Interval data can be summarized into average, peak or percentile figures. This paper discusses summarization techniques and intervals, and the gaps between results from different choices of each.

SESSION 515 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 5410 (No Paper) **OSCEOLA 5/6**
NETWORK

Introduction to Simple Network Management Protocol (SNMP) Version 3

Laura Knapp, *IBM*

Simple Network Management Protocol has emerged as the de facto standard for the management of networks. Growing from its initial focus of managing devices in a TCP/IP network, this protocol is now used by networking elements, operating systems, and applications, allowing a common management infrastructure to be put in place.

One of the gravest exposures in today's business networks comes from the SNMP management software. The lax security makes this a hacker's dream come true and allows entry points to private business networks. But fear not, SNMP v3 has the functions designed to secure your management flows. This is even more important as the demarcation lines blur between your business and the Internet.

This session explores SNMP, providing you the basics and the architecture enhancements in SNMP v3 to support new requirements and explores how you can use it to manage your overall end-end system.

SESSION 516 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 5186 **OSCEOLA 1/2**
HOT TOPICS INTRODUCTORY
NON-SPECIFIC

A Performance Model Web Service

Dr. Connie U. Smith, *Performance Engineering Services*
Catalina M. Lladó, *Universitat Illes Balears*
Ramon Puigjaner, *Universitat de les Illes Balears*

Performance Engineering uses multiple performance assessment tools depending on the state of the software and the amount of performance data available. This paper demonstrates how Web Services can be used to facilitate the use of modeling tools in a plug-and-play manner thus enabling the use of the tool best suited to the analysis. The paper describes the design and implementation of a prototype Web Service for a performance modeling tool. Additionally, it shows experimental results that prove the viability of such a Web Service.

SESSION 517 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 5092 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Benchmarking 101

James A. Yaple, *Austin Automation Center - Dept. of Veteran' Affairs*
Jennifer Sutherland, *State of Wisconsin - DHFS*

This paper will explore benchmarking using tools and products available in the commercial marketplace. The material will include overviews of commonly used open systems benchmarks, what benchmarks are designed to measure, how vendors use and misuse benchmarks, how customer organizations can use benchmark results and the value of customers establishing an internal benchmarking process. This paper presents published results from several current industry-standard benchmarks and analyzes them.

SESSION 521 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 5208 (No Paper) **OSCEOLA A**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

The Mechanics of Developing a High Quality Capacity Plan

Kathy Walsh, *IBM*

There are many steps to developing a successful capacity plan. Errors in any of these steps can cause the resulting capacity plan to incorrectly set an expectation for a new processor or LPAR configuration change. This session will review the actual steps in the planning process which often cause these problems with suggestions on how to avoid potential pitfalls through the use of new tools.

SESSION 522 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 5083 **OSCEOLA B**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

Unveiling of DB2's DDF: SQL Revealed via the Gestalt Perspective

Thomas A. Halinski, *Compuware Corporation*

DB2's Distributed Data Facility's (DDF) veil has been lifted from the eyes of the eBusiness applications personnel. With the ability to view and measure the performance of DDF SQL, which runs outside of the normal DB2 address space, IT personnel finally have insight into their systems. This paper will discuss: the evolution of using DDF - from a Gestalt perspective; DDF's components and how they interact with MVS - key elements in understanding this process. Using special tools to enter the former "black box" of DDF's address space, its SQL is revealed and thus tunable.

SESSION 523 **THURSDAY 10:30 AM - 12:00 PM**

PAPER 5056 **MIAMI**
UNIX/LINUX TECHNICAL
UNIX/LINUX

Designing a Fairer Round Robin Scheduling Algorithm

Brian Johnson, *Bank Of America*
Richard Roehl, *Bank of America*

Operating Systems that implement a simple round robin scheduler are inherently inefficient. In this environment tasks that have consumed or consume more CPU than their peers get equal scheduling priority on the CPU. By implementing a priority queue on the scheduler you can easily improve performance of processes that require short bursts of CPU while continuing to service the processes with higher usage demands.

The example used is based on the Minix operating system. However, this scheduling algorithm can be applied for any operating system that implements a round robin scheduler.

PAPER 5008 **MIAMI**
UNIX/LINUX INTRODUCTORY
UNIX/LINUX

Capacity Planning for UNIX System Metrics

Serge Tessier, *Volvo*

In recent years, the Volvo AB group realized many acquisitions that impacted strongly the overall IT processes. This triggered the need for global troubleshooting tools and procedures, as well as a global web-based monitoring facility allowing worldwide servers' diagnostically proactive survey.

Starting our project, we were seeking for a solution aiming at presenting a consolidated vision of our UNIX servers through a single portal for system administrators, managers and, in some way, customers.

The scope was to get resource utilization for a UNIX server via home-made development.

SESSION 524 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 5077 **OSCEOLA 3/4**
STORAGE TECHNICAL
Z/OS

Proper Sizing and Modeling of ESCON to FICON Migrations

Stephen R. Guendert, McDATA Corporation

This paper will discuss the aspects and best practices of sizing an ESCON to FICON migration to result in a high performance FICON architecture. We will discuss disk, tape and CTC considerations. The paper will then demonstrate these principles applied to real world examples of FICON migrations using data from actual client sizings using modeling tools.

SESSION 525 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 5157 **OSCEOLA 5/6**
NETWORK INTRODUCTORY
Z/OS

One-Minute TCP Stack Analysis

Nalini J. Elkins, Inside Products

The One Minute Manager suggests three principles for effective management: one-minute goals, one-minute praisings and one-minute reprimands. These principles apply equally well to TCP network analysis. Regularly finding and fixing the problems in one minute of TCP stack activity can keep your network running smoothly. If you find and fix the problems in the packets transferred in one minute from your TCP stack every week for a year, you will have found and fixed hundreds of problems.

SESSION 526 **THURSDAY 10:30 AM - 12:00 PM**

PAPER 5084 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Underground SPE: Moving from Performance QA to SPE

Dr. Mary R. Hesselgrave, How Many? How Fast?

I spent 18 months with a client who asked for a performance test team. By the end of the engagement, we were able to put in place a true Software Performance Engineering (SPE) process that began at the requirements stage, and that included tasks involving systems engineering, development, support for development tuning, quality assurance, production monitoring, support for evaluation of proposed production configuration changes, and capacity planning.

How was this achieved? This talk discusses the steps we took to make SPE happen for an organization that did not know it wanted SPE.

PAPER 5205 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Choosing a Load Testing Strategy

Klaus Fellner, Segue Software
Heidi A. Gilmore, Segue Software

This paper introduces load testing, an important component in optimizing software quality. Proper load testing can help to mitigate the costs of poor quality. The paper will explain the importance of load testing, when in the software development process and how optimal performance can be achieved by conducting proper load testing and capacity planning. In addition to discussing the various strategies for implementing load testing within an organization, we will also explore the very real benefits load testing returns to the organization.

SESSION 527 **THURSDAY 10:30 AM - 12:00 PM**

PAPER 5061 **DAYTONA**
UNIX/LINUX INTRODUCTORY
UNIX/LINUX

Capturing System Data Using Native Commands

Robert F. Patterson, Bank of America

Our company was paying rather large licensing fees for third-party products for gathering systems data for capacity planning and performance management. Our focus was to save cost and at the same time obtain data for mid-range systems like UNIX, Linux, and Windows servers. We wrote scripts to gather our own data using native commands.

This paper does comparisons of the various native commands and metrics/data in AIX, Solaris, HP-UX, Linux, and Windows and presents an overview of the capture methodology.

PAPER 5016 **DAYTONA**
UNIX/LINUX TECHNICAL
UNIX/LINUX

Capturing Workload Pathology by Statistical Exception Detection System

Igor A. Trubin, Capital One

The paper describes one site's experience of using Multivariate Adaptive Statistical Filtering (MASF) to automatically recognize some common computer system defects such as run-away processes on one or multiple CPUs and memory leaks. A home-made SEDS (Statistical Exception Detection System) that captures any global and application level statistical exceptions was modified to recognize, separately report and alarm about those particular defects.

SESSION 531 **THURSDAY 2:00 PM - 3:00 PM**
PAPER 5204 (No Paper) **OSCEOLA A**
MAINFRAME (Z/OS) INTRODUCTORY
Z/OS

WLM Sysplex Management

Peter Enrico, Enterprise Perf Strategies, Inc.

What Sysplex considerations does WLM take into account when managing work towards goals? How does WLM manage workloads in a Sysplex, and what interest in the Sysplex does WLM have? Recently there have been many questions that revolve around the topic z/OS Workload Manager (WLM) Sysplex management. The basic concepts of WLM Sysplex management have not changed much since the introduction of WLM, but many questions stem from the ever more common practice of combining more and more unlike system images into a single Sysplex. This paper explores this important topic.

SESSION 532 **THURSDAY 2:00 PM - 3:00 PM**
PAPER 5209 (No Paper) **OSCEOLA B**
UNIX/LINUX PANEL
NON-SPECIFIC

Facilitated Discussion: Future of the Performance Field 2005

Rick Lebsack, IBM

Decreases in the cost of hardware is no longer being cited as the reason the performance field will disappear. However will it continue to evolve, or will it wither as other topics capture management attention? The topic of this facilitated discussion will be perceptions of the future, and how individuals should focus their attention to survive and prosper. Opinions of CMG attendees will be interchanged on a number to topics, and senior members of the profession from a academia, business and consultancy will offer their ideas.

Panelists include: Daniel Menasce of George Mason University, Frank Bereznay of Kaiser Permanente, Tom Bell of Rivendel Consultants Inc.

SESSION 533 **THURSDAY 2:00 PM - 3:00 PM**
PAPER 5122 **MIAMI**
UNIX/LINUX HOW-TO
UNIX/LINUX

Visualization of Performance Data

James Holtman, Convergys

Measuring performance of a system creates a large amount of data that has to be analyzed, summarized and then used to make decisions on. Many systems look at just textual/reports that summarize by time of day or business events. It is sometimes hard to understand what the data is trying to tell you.

This paper will describe a number of ways of visualizing the data in terms of charts, graphs and other descriptive techniques. The paper will show how this can highlight patterns in the data and provide for alternative drill downs on the data.

SESSION 534 **THURSDAY 2:00 PM - 3:00 PM**
PAPER 5140 **OSCEOLA 3/4**
STORAGE ADVANCED
UNIX/LINUX

Enhancing Web Server Performance Through the Use of a Drop-In, Statically Optimal Disk Scheduler

Prof. Robert Geist, Clemson University
Jay Steele, Clemson University
James Westall, Clemson University

With version 2.6 of the Linux operating system, disk schedulers have become totally modular. This paper provides a performance comparison of the four native schedulers included with the 2.6 kernel. Also of the authors' new algorithm (the table-building bus driver) whose implementation is, like the others, available in a single C source file that may be dropped into the kernel. The algorithms are compared on a real system under a workload designed to emulate heavy web server traffic. The authors' algorithm is seen to deliver substantial performance improvements over the other four schedulers.

SESSION 535 **THURSDAY 2:00 PM - 3:00 PM**
PAPER 5411 (No Paper) **OSCEOLA 5/6**
NETWORK

Measuring Actual and Perceived User Experience on the Web

Chris Loosely, *Keynote*

What do you know about your customers' experience? How satisfied are they after each visit to your site? How well does your site perform when users attempt critical tasks? What frustrations do they have? How likely are customers to make a purchase and return to your site? What impact does your site have on a customer's impressions of your brand? Companies doing business on the Web know that site performance is a continually rising target. Customers' expectations are being raised by their experiences when browsing other Web sites and when using other Web-enabled ("eBusiness") applications. In the early days, availability was everything; the challenge was to keep your site up and running. Next came "the 8-second rule" of Web page response time, and people began focusing on the need to build and maintain a consistently responsive Web presence.

At the same time, the measures of site effectiveness have evolved. The simple quantitative metrics available from log file analysis are no longer sufficient for tracking the user experience on your site and measuring its ROI. You need a full-service evaluation program that establishes key metrics to assess the effectiveness of your site over time - as seen by actual users of your site. This presentation will discuss how companies are now moving beyond tracking isolated metrics like site availability, page response time, traffic volumes, and page clicks to management approaches that encompass both quantitative site measurements of site effectiveness, and behavioral and attitudinal data collected from actual uses. The marriage of quantitative and qualitative information provides a more complete understanding of the user experience, and how to improve it.

SESSION 536 **THURSDAY 2:00 PM - 3:00 PM**
PAPER 5404 (No Paper) **OSCEOLA 1/2**
HOT TOPICS

The Model-Driven (R)evolution

Richard Soley, *The Object Management Group, Inc.*

All sorts of promises of a revolution in software development accompany the phrase "model-driven" these days. Model Driven Architecture, Model Driven Development, Model Driven Enterprise — there must be something to these ideas, but is "model driven" the key to a revolution, or just the newest buzz word? Will we have to completely change the way we develop systems? Is code dead?

SESSION 537 **THURSDAY 2:00 PM - 3:00 PM**
PAPER 5194 **DAYTONA**
HOT TOPICS INTRODUCTORY
NON-SPECIFIC

Encryption Primer: An Introduction to Data Protection

John C. Becsi, *Bank of America*
Cathy Nolan, *Bank of America*
Prentice O. Dees, Bank of America
Sean E. Jamison, Bank of America

From an enterprise-level perspective, encryption is the most-often mentioned option for protecting stored confidential or proprietary informaton today. This paper will give you an overview of encryption, including what problems encryption can solve and what problems it may introduce. Also discussed will be the challenges of developing an encryption strategy for protecting data-at-rest in enterprise-level environments, as well as performance impacts of encrypting data and key management issues.

SESSION 541 **THURSDAY 3:45 PM - 4:45 PM**
PAPER 5501 (No Paper) **OSCEOLA A**
MAINFRAME (Z/OS) PANEL
Z/OS

Panel: zSeries Performance Q & A

Ivan L. Gelb, *Gelb Information Systems Corp.*

If you have a zSeries performance question, this is the panel to ask. Some of the many performance related questions the panel of experts can answer include: zSeries processors, processor configurations, general Sysplex, z/OS system performance, WLM anything, variable Workload License Charges, WebSphere, etc... Come prepared with questions, email them as soon as you can to mainframe@cmg.org, or drop a written question into the Q&A box you will find at various z/OS track sessions, or hand your written questions to any z/OS session monitor.

Panelists include: Ivan Gelb of Gelb Information Systems Corp., Peter Enrico of EPS Strategies, Kathy Walsh of IBM Corp., Cheryl Watson of Watson Walker.

SESSION 542 **THURSDAY 3:45 PM - 4:45 PM**
PAPER 5423 **OSCEOLA B**
FUNDAMENTALS/CORE COMPETENCY

CMG Italia Best Paper: Excellence in Operations, Why Bother?

Andrea Giudici, *Unicredit Servizi Informativi S.p.A.*

If you have been working for an IT company in recent times, you must have already heard about "Excellence in Operations". Let us clarify first the meaning of operations for an IT company: in this paper it generically refers to all the tools, the procedures and the actions, aimed at Service Management, where the Service is what the IT company is providing to its clients. As it easy to understand now, Excellence in Operations basically means performing operations, and so Service Management, in a better way: at its best, in an excellent way.

SESSION 543 **THURSDAY 3:45 PM - 4:45 PM**
PAPER 5161 (No Paper) **MIAMI**
HOT TOPICS INTRODUCTORY
NON-SPECIFIC

CMG: The Early Years

David R. Morley
Ian Roome
Bill Miller

A lighthearted but very interesting look at the beginnings and rapid growth of CMG. How did it begin, why did it grow so quickly, and what were some of the more interesting bumps in the road?

SESSION 544 **THURSDAY 3:45 PM - 4:45 PM**
PAPER 5192 **OSCEOLA 3/4**
STORAGE TECHNICAL
NON-SPECIFIC

Analytic Way for Performance Management of SAN

Chao Li, *Tsinghua University*
Li-zhu Zhou, *Tsinghua University*
Chun-xiao Xing, *Tsinghua University*

The infrastructure of SAN is complex, and finding a proper method to analyze and manage the performance of it in an efficient and economical way is very important for SAN performance management. This paper proposes an analytic method for performance management of SAN system, the way to apply the method, and illustrates the method by analyzing a living example. The comparison of analysis and experiment results shows that they are in agreement. So we can consider this method a sound solution for the performance management or control of SAN.

SESSION 545 **THURSDAY 3:45 PM - 4:45 PM**
PAPER 5033 **OSCEOLA 5/6**
NETWORK ADVANCED
NON-SPECIFIC

Workload Modelling of Stateful Protocols Using HMMs

Dr. Swami Ramany, *Network Appliance*
Richard Honicky
Darren Sawyer, *Network Appliance, Inc.*

Supporting stateful protocols like CIFS and NFSv4 in a workload model (or a benchmark) requires accurate capture of the order of operations observed in various traces as this has a significant impact on the performance of the storage device.

One common tool for analyzing streams of discrete values that depend on an underlying stateful process is a Hidden Markov Model (HMM). This paper clearly illustrates how HMMs can be used effectively to capture the state behavior of CIFS and NFSv4 traffic.

SESSION 546 **THURSDAY 3:45 PM - 4:45 PM**
PAPER 5060 **OSCEOLA 1/2**
HOT TOPICS ADVANCED
WINDOWS NT/XP/ETC.

Modeling VMware ESX Performance

William L. Shelden, Jr., Ph.D., *ISM, Inc.*

The performance implications of consolidating Windows systems under VMware ESX Server are analyzed using a simulation model. First VMware ESX Server overhead is measured based on data from Windows systems running as virtual machines under VMware ESX Server. Then a simulation model is used to estimate the contention for the physical CPUs by the virtual CPUs being dispatched from the Windows virtual machines. The simulation results are compared to some benchmark runs to validate the assumptions of the simulation model.

SESSION 547 **THURSDAY 3:45 PM - 4:45 PM**
PAPER 5072 **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
NON-SPECIFIC

Using Principal Component Method for Performance Data Compression and Analysis

Dr. Anatoliy Rikun, *BMC Software*

Modern performance monitoring tools allow the collecting of a vast amount of metrics for many dozens or even hundreds of nodes. In most cases, there is neither the necessity nor real opportunity to take into account all of the redundant measurements. In this paper we demonstrate how the method of principal components helps in the analysis of such multi-dimensional systems, and in particular, how it facilitates managing the collected data in a compressed form, without losing important information about the system.

SESSION 603 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 5003 (No Paper) **MIAMI**
MAINFRAME (Z/OS) INTRODUCTORY
Z/OS

Mining Performance Gold From CICS Statistics

Ivan L. Gelb, *Gelb Information Systems Corp.*

This session includes presentation of the essential CICS statistics for performance management and capacity planning activities. For maximum effectiveness on the job, attendees will learn (a) important considerations for parameters affecting the data collection, (b) the minimum set of reports required to support a particular activity, (c) what are the important fields on the key reports, and (d) how to avoid some potential pitfalls. Samples of the most useful reports will be presented. The emphasis will be on quick techniques that help us "mine" the mountain of information collected by CICS.

SESSION 604 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 5198 (No Paper) **OSCEOLA 3/4**
MAINFRAME (Z/OS) TECHNICAL
NON-SPECIFIC

Central Europe CMG Best Paper: J2EE & Mainframes

Wolfram Greis, *TPS DATA AG*

The main objective of this paper is to help you select the best deployment platform for your e-business applications. J2EE is THE platform for vendor-independent application development. When your applications are ready for production, you have to select the deployment platform which is best suited to host them. E-Business applications are only valuable if its accessibility, currency, consistency, security and integrity are guaranteed.

The topics covered are: Mainframes and e-Business, Java 2 Enterprise Edition (J2EE), The Mainframe as a Deployment Platform, WebSphere on zLinux or WebSphere on zSeries?, Practical Experiences.

SESSION 605 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 5182 **OSCEOLA 5/6**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Bandwidth and Latency: Their Changing Impact on Performance

Yiping Ding, *BMC Software*

Bandwidth and latency are familiar topics for IT. Both relate to system performance, but in a different fashion; both have improved significantly over the years, but at a very different pace. Their performance impact is also changing as hardware and software technology progresses. We may have to update design strategies in hardware, software, and protocols to cope. This paper examines their impact to response time from a performance analysis perspective and sheds some new light on how to manage the bandwidth imbalance at different devices and imbalance between bandwidth and latency.

SESSION 606 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 5011 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY ADVANCED
NON-SPECIFIC

Distributed Resource Reclamation: Enterprise Shared Servers

Stuart Plotkin, *MetLife*

Summer 2004, our company brought together all of our Capacity Planners under one roof. From this group, our team was asked to lead a high priority effort that was chartered with finding unused resources and reclaiming them. These resources could then be earmarked for redeployment. This paper focuses on the first domain we choose to begin with consisting of 36 multi-processsor shared servers. All projects had been rolled out to new hardware within the past couple of years. This paper will have plenty of good ideas that YOU will be able to use at your shop to do a lot with a little.

SESSION 607 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 5163 **DAYTONA**
NETWORK INTRODUCTORY
NON-SPECIFIC

CMG Austria Best Paper: ePatent Project – a new Approach in Accessing Patent Data

Dr. Dietmar Trattner, *Austrian Patent Office*

Patent information is a basis for technical and strategic decisions in enterprises. Due to the huge amount of data and the complexity of the information in different languages carrying out comprehensive searches is burdensome for the inexperienced user. The system allows an easy access to patent information by using natural language processing and a semantic network of terms together with a dictionary specially developed for the patent area. This interface is used for accessing patent data as well as the International Patent Classification by entering search terms in one of the languages.

SESSION 613 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 5138 **MIAMI**
FUNDAMENTALS/CORE COMPETENCY INTRODUCTORY
NON-SPECIFIC

Dashboards, Black Boxes and the Database or Data as the Foundation for Correlative Analysis

Chris Greco, *Social Security Administration*

This presentation will show the challenge of attempting to consolidate almost 30 monitoring tools into one cogent and predictive tool using off-the-shelf software products. The idea here is to show not a success but a process through which companies are contacted, interviewed and in some cases provided a demo to try and establish a link between somewhat disparate troubleshooting solutions. It will show what is needed is a standardization of the database; the framework of every monitoring tool. Once databases are standardized, the overall monitoring of these tools, will be realized.

SESSION 614 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 5091 **OSCEOLA 3/4**
MAINFRAME (Z/OS) TECHNICAL
Z/OS

DDF Performance Analysis - Does it Really Have to be This Complicated?

Robert E. Chaney, Delta Technology, Inc.

DB2 DDF processing, where the database is centralized and the application is distributed, offers some interesting challenges when diagnosing ''End-To-End'' performance problems. This paper uses a number of different sources (from SMF to UNIX log files to web reports), to create a single view of a distributed workload as part of a performance problem diagnosis. Warning: Success is NOT guaranteed!

SESSION 615 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 5057 **OSCEOLA 5/6**
NETWORK TECHNICAL
NON-SPECIFIC

Performance Modeling and Analysis of Web Switch

Jie Lu, BMC Software
Jie Wang, University of Massachusetts Lowell

Web switch is a key component of the Web cluster architecture. It is often built on a network processor (NP). This paper presents an analytic performance model for analyzing performance of NP-based Web switches. The model contains parameters of system configurations, dispatching algorithms, and workload characterizations, allowing users to trouble shoot performance bottlenecks and provision the capacity of the Web switch.

SESSION 616 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 5076 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY TECHNICAL
UNIX/LINUX

A Methodology for Predicting the Scalability of Distributed Production Systems

Dr. Charles A. Letner, ALLTEL Communications, Inc.
Richard Gimarc, HyPerformix, Inc.

A methodology is presented for developing a capacity-planning model for a highly distributed production environment in which Enterprise Application Integration (EAI) is a significant architectural element. The methodology is demonstrated by building and validating a model using data collected from a production system. The level of abstraction is described, along with a variation on the traditional model validation technique. The results demonstrate the usefulness of the methodology and the resulting models for predicting hardware scalability in highly distributed production environments.

SESSION 617 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 5141 **DAYTONA**
NETWORK TECHNICAL
Z/OS

Network Performance & Availability Reporting: Someone Has to Start It.

Catherine H. Liu, AES
T. Leo Lo, IBM

Network service levels have long been a neglected practice due to the lack of standard measurement & reporting definitions & the fast pace of emerging technologies. However, some TCP/IP utilities (PING & TRACEROUTE) present a practical opportunity to proactively measure network service level goals. Despite arguments as to their accuracy, or even validity, with nominal coding effort and collaboration of other network tools, these TCP/IP utilities are indeed useful. This paper shares ways to use some of these utilities to gather network service level statistics. Sample reports are also provided.

SESSION 623 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 5162 **MIAMI**
FUNDAMENTALS/CORE COMPETENCY HOW-TO
NON-SPECIFIC

Making Your Web Portal a Dynamic Website

Frank Bereznay, Kaiser Permanente

This paper examines the evolution of one reporting portal from a static to a dynamic mode of operation. The benefits of a user-customizable, data driven, webpage authoring capability will be demonstrated using ASP to create dynamic HTML and a z/OS HFS to store large quantities of reporting objects created from an MXG PDB. The distinction between dynamic HTML and dynamic report generation will be explored along with a look at some SAS and non-SAS tools that can be used to dynamically create reporting objects from a SAS data source in response to user requests.

SESSION 624 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 5168 **OSCEOLA 3/4**
MAINFRAME (Z/OS) ADVANCED
Z/OS

LSPR Benchmark Converter

Charles E. Hackett, IBM

A set of trained neural networks are used as mapping functions to translate the published LSPR benchmarks between the zOS 1.4 and OS/390 v2.10 sets. The neural networks provide an estimate of the latest zSeries performance under the old benchmarks. Capacity planners using previously validated LSPR workload distributions can provide an estimate directly comparable to the older machines being replaced.

SESSION 625 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 5187 **OSCEOLA 5/6**
HOT TOPICS TECHNICAL
NON-SPECIFIC

Managing J2EE Applications with Application Response Measurement (ARM)

Dr. Carl J. De Pasquale, *ADP*

What should not be surprising, especially to anyone who has attempted to implement J2EE application management, is that performance data collection is difficult. The goal of this paper is to describe how to use ARM to instrument J2EE applications so that they can provide performance data, and implement self-discovery and self-monitoring capabilities, which when integrated with existing system management facilities effect an adaptive J2EE Application Management Framework (AMF).

SESSION 626 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 5108 **OSCEOLA 1/2**
FUNDAMENTALS/CORE COMPETENCY HOW-TO
NON-SPECIFIC

It's All About Statistics!

Rupa S. Joshi, *Bank Of America*

How can statistical analysis bring new insight to process management? Six Sigma, which means six standard deviations from the arithmetic mean, is a measurement-based methodology for eliminating defects, or errors from any process. This paper is an introduction to the statistics commonly used in Six Sigma's DMAIC phases. A case study highlights the use of statistical tests and the appropriate use of confidence intervals, P value and control charts to validate the data and determine its statistical significance. Finally, a road map to select the appropriate tests is discussed and outlined.

SESSION 627 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 5426 (No Paper) **DAYTONA**
FUNDAMENTALS/CORE COMPETENCY

CMG Poland Best Paper: TBD

Sebastian Bienkiewicz

Session Cross Reference

Subject Areas

- Fundamentals / Core Competency
- Hot Topics
- ITIL
- Mainframe (z/OS)
- Network / Internet
- Storage
- Unix / Linux
- Windows

Platforms

- Non-Specific
- Unix / Linux
- Windows NT / XP etc.
- z/OS

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FUNDAMENTALS / CORE COMPETENCY

PLAT.	SESSION	ROOM	AUTHOR	TITLE
*nix	335	Osc. 5/6	Shanti Subramanyam	Performance Management of a J2EE Application to Meet Service Level Agreements
*nix	345	Osc. 5/6	Peter Johnson	Java Garbage Collection Performance Analysis 201
*nix	447	Daytona	Chandra Lanka	Capacity Planning for Shared Middleware Environments; A Methodology
*nix	616	Osc. 1/2	Dr. Charles A. Letner	A Methodology for Predicting the Scalability of Distributed Production Systems
Non	301	Osc. A	K. Mani Chandy	Sense and Respond Systems
Non	317	Daytona	Dr. James Bouhana	Analysis of Workload Alerts in Consolidated Servers
Non	327	Daytona	Dr. Thomas E. Bell	Determining Architectures of Existing Systems
Non	331	Osc. A	Henry H. Liu	Service Demand Models for Enterprise Software Applications
Non	337	Daytona	Michael Wiener	Calculating Expected Reliability of Systems and Hardware
Non	341	Osc. A	Michael D. Maddox	Using Fuzzy Logic to Automate Performance Analyses
Non	344	Osc. 3/4	Prof. Ethan Bolker	Virtual Performance Won't Do: Capacity Planning for Virtual Systems
Non	415	Osc. 5/6	Denise P. Kalm	Survivor - The Corporate Jungle
Non	416	Osc. 1/2	Alexander Podelko	Workload Generation: Does One Approach Fit All?
Non	425	Osc. 5/6	Jack B. Woolley	Want to Know WHY Response Time is So Long? Listen to the Wire.
Non	426	Osc. 1/2	G Jay Lipovich	Is It Time for Capacity Planners to Hang Up Their Cleats?
Non	427	Daytona	Kevin Mobley	Using Six Sigma to Define the Focus of Software Performance Engineering
Non	431	Osc. A	Dr. Jeffrey P. Buzen	Workload Characterization for Parallel Processing Environments
Non	437	Daytona	Irving Smith	Wholesale Distributed Capacity Planning
Non	441	Osc. A	Dr. Jozo J. Dujmovic	QNS - an Online System for the Study of Queuing Models
Non	506	Osc. 1/2	Dr. Pierre M. Fiorini	Software Performance Engineering Considerations in Unreliable Computing Environments
Non	514	Osc. 3/4	Linwood Merritt	Closing the Gaps – Understanding Capacity Summarization
Non	517	Daytona	James A. Yaple	Benchmarking 101
Non	526	Osc. 1/2	Mary R. Hesselgrave	Underground SPE: Moving from Performance QA to SPE
Non	526	Osc. 1/2	Klaus Fellner	Choosing a Load Testing Strategy
Non	547	Daytona	Dr. Anatoliy Rikun	Using Principal Component Method for Performance Data Compression and Analysis
Non	605	Osc. 5/6	Yiping Ding	Bandwidth and Latency: Their Changing Impact on Performance
Non	606	Osc. 1/2	Stuart Plotkin	Distributed Resource Reclamation: Enterprise Shared Servers
Non	613	Miami	Chris Greco	Dashboards, Black Boxes and the Database or Data as the Foundation for Correlative Analysis
Non	623	Miami	Frank Bereznay	Making Your Web Portal a Dynamic Website
Non	626	Osc. 1/2	Rupa S. Joshi	It's All About Statistics!
Win	315	Osc. 5/6	Peter Johnson	Scaling up the JBoss Application Server
Win	324	Osc. 3/4	Gene P. Fernando	To V or not to V: A Practical Guide to Virtualization
Win	413	Miami	Peter Sevcik	The Application Performance Index (Apdex) Standard+
Win	512	Osc. B	Ellen M. Friedman	Measuring Performance in the Lab and Validating it in Production
z/OS	311	Osc. A	Dr. Lloyd G. Williams	QSEM: Quantitative Scalability Evaluation Method
z/OS	417	Daytona	Dick Arnold	Reactive Capacity Planning – An Alternative
	316	Osc. 1/2	TBD	Are Integrated Management Solutions the Recipe for an Invisible and Secure IT Infrastructure?
	326	Osc. 1/2	Glenn O'Donnell	Making Sense of the Performance Riddle
	436	Osc. 1/2	Tony Allan	CMG Australia Best Paper: The Holy Grail: Building Applications That Can Survive the Unpredictable Web
	542	Osc. B	Andrea Giudici	CMG Italia Best Paper: Excellence in Operations, Why Bother?

PLATFORMS

***nix**	= UNIX / LINUX	**Win**	= Windows NT/XP/etc.
Non	= Non-Specific	**z/OS**	= z/OS

HOT TOPICS

PLAT.	SESSION	ROOM	AUTHOR	TITLE
Non	314	Osc. 3/4	Daniel A. Menasce	Virtualization: Concepts, Applications, and Performance Modeling
Non	334	Osc. 3/4	Peter J. Weilnau	Measuring Up for Server Virtualization
Non	347	Daytona	Chris Molloy	Introduction to Data Center Markup Language (DCML)
Non	411	Osc. A	Dr. Jeffrey P. Buzen	SOA and the Social Order - City Planning, Post Office & Business Protocols
Non	446	Osc. 1/2	Dr. Annie W. Shum	Through the Prism of Fractals: Why SOA Should Reflect the Natural Order
Non	513	Miami	Marina Cismas	Redefining Capacity Planning for Grid Computing
Non	516	Osc. 1/2	Dr. Connie U. Smith	A Performance Model Web Service
Non	537	Daytona	John C. Becsi	Encryption Primer: An Introduction to Data Protection
Non	543	Miami	David R. Morley	CMG: The Early Years
Non	625	Osc. 5/6	Dr. Carl J. De Pasquale	Managing J2EE Applications with Application Response Measurement (ARM)
Win	546	Osc. 1/2	William L. Shelden, Jr.	Modeling VMware ESX Performance
	325	Osc. 5/6	Dr. Toufic Boubez	Policy Driven SOA
	336	Osc. 1/2	Herb VanHook	Opportunities and Challenges of the SOA World
	346	Osc. 1/2	Eric Pulier	Learning to Play Nicely
	435	Osc. 5/6	Ken Traub	Radio-Frequency Identification at Enterprise Scale
	507	Daytona	Nick Gall	Reflection: The Next Big Thing After SOA
	536	Osc. 1/2	Richard Soley	The Model-Driven (R)evolution

ITIL

PLAT.	SESSION	ROOM	AUTHOR	TITLE
Non	313	Miami	Chris Molloy	ITIL Capacity Management Deep Dive
Non	327	Daytona	Jim Waring	Achieve IT Agility by Integrating SOA with ITIL Based BSM

MAINFRAME (z/OS)

PLAT.	SESSION	ROOM	AUTHOR	TITLE
Non	422	Osc. B	Glenn R. Anderson	A Large Systems Guy Implements the Enterprise Workload Manager (EWLM)
Non	604	Osc. 3/4	Wolfram Greis	Central Europe CMG Best Paper: J2EE & Mainframes
Win	322	Osc. B	Dr. Bernard Domanski	Speaking SOA and Web Services: .NET and the Mainframe
z/OS	312	Osc. B	Dr. Annie W. Shum	A Multi-Tiered Approach With Data Normalization To Analyzing CPU Metrics
z/OS	322	Osc. B	Kenneth D. Williams	MVS Application Performance Management
z/OS	332	Osc. B	Craig Hodgins	Java Performance on z/OS: A Report from the Front Lines
z/OS	342	Osc. B	Don Deese	Introduction to zSeries Application Assist Processor (zAAP)
z/OS	412	Osc. B	Robert R. Rogers	How Do You Do What You Do When You're a CPU?
z/OS	432	Osc. B	Tony Ruberry	UKCMG Best Paper: zSeries Capacity Management - a True Story
z/OS	442	Osc. B	Ian C. Baldwin	Migrating to z-990 - A User Experience
z/OS	501	Osc. A	Cheryl Watson	z990 Performance and Capacity Planning Issues
z/OS	502	Osc. B	Stephen R. Guendert	Taking FICON to the Next Level-Cascaded High Performance FICON
z/OS	504	Osc. 3/4	Michael P. Swanson	8 Great Myths of Software Asset Management
z/OS	511	Osc. A	Ned A. Diehl	DB2 CPU and Response Metrics
z/OS	521	Osc. A	Kathy Walsh	The Mechanics of Developing a High Quality Capacity Plan
z/OS	522	Osc. B	Thomas A. Halinski	Unveiling of DB2's DDF: SQL Revealed via the Gestalt Perspective
z/OS	531	Osc. A	Peter Enrico	WLM Sysplex Management
z/OS	541	Osc. A	Ivan L. Gelb	Panel: zSeries Performance Q & A
z/OS	603	Miami	Ivan L. Gelb	Mining Performance Gold From CICS Statistics
z/OS	614	Osc. 3/4	Robert E. Chaney	DDF Performance Analysis - Does it Really Have to be This Complicated?
z/OS	624	Osc. 3/4	Charles E. Hackett	LSPR Benchmark Converter

NETWORK / INTERNET

PLAT.	SESSION	ROOM	AUTHOR	TITLE
*nix	445	Osc. 5/6	Prof. James Westall	Performance Tuning of Gigabit Network Interfaces
Non	425	Osc. 5/6	Neil Carter	Intrusion Detection/Prevention Devices — Are They Protecting Your Network - or Hampering It?
Non	545	Osc. 5/6	Dr. Swami Ramany	Workload Modelling of Stateful Protocols Using HMMs
Non	607	Daytona	Dr. Dietmar Trattner	CMG Austria Best Paper: ePatent Project – a new Approach in Accessing Patent Data
Non	615	Osc. 5/6	Jie Lu	Performance Modeling and Analysis of Web Switch
z/OS	525	Osc. 5/6	Nalini J. Elkins	One-Minute TCP Stack Analysis
z/OS	617	Daytona	Catherine H. Liu	Network Performance & Availability Reporting: Someone Has to Start It.
	505	Osc. 5/6	Bernie Davidovics	Measuring End User Response Time - With a Passive Network Probe
	515	Osc. 5/6	Laura Knapp	Introduction to Simple Network Management Protocol (SNMP) Version 3
	535	Osc. 5/6	Chris Loosely	Measuring Actual and Perceived User Experience on the Web

STORAGE

PLAT.	SESSION	ROOM	AUTHOR	TITLE
*nix	323	Miami	TBD	TBD
*nix	434	Osc. 3/4	Dan W. Yee	I/O Performance Characteristics for Volume Managers on Linux 2.6 Servers
*nix	534	Osc. 3/4	Prof. Robert Geist	Enhancing Web Server Performance Through the Use of a Drop-In, Statically Optimal Disk Scheduler
Non	333	Miami	Mel Boksenbaum	Storage Performance Council Panel Discussion
Non	343	Miami	Bruce McNutt	Disk Arm Management of Competing Workloads
Non	414	Osc. 3/4	Charles T. McGavin Jr.	Smoke and Mirrors – A Survey of Remote Replication Technologies
Non	424	Osc. 3/4	Kathleen N. Hodge	Database Disk to Disk Backups Using ATA Disk
Non	444	Osc. 3/4	Robert Rogers	Information Classification and Service Level Objectives for Information Lifecycle Management
Non	544	Osc. 3/4	Chao Li	Analytic Way for Performance Management of SAN
Win	424	Osc. 3/4	Michael A. Salsburg	A Management Framework For Petabyte-Scale Disk Storage
z/OS	524	Osc. 3/4	Stephen R. Guendert	Proper Sizing and Modeling of ESCON to FICON Migrations

UNIX / LINUX

PLAT.	SESSION	ROOM	AUTHOR	TITLE
*nix	321	Osc. A	Mark M. Maccabee	Testing Scalability of a WebLogic Application
*nix	421	Osc. A	Jaqui Lynch	Linux Performance Tuning
*nix	523	Miami	Brian Johnson	Designing a Fairer Round Robin Scheduling Algorithm
*nix	523	Miami	Serge Tessier	Capacity Planning for UNIX System Metrics
*nix	527	Daytona	Robert F. Patterson	Capturing System Data Using Native Commands
*nix	527	Daytona	Igor A. Trubin	Capturing Workload Pathology by Statistical Exception Detection System
*nix	533	Miami	James Holtman	Visualization of Performance Data
Non	532	Osc. B	Rick Lebsack	Facilitated Discussion: Future of the Performance Field 2005
z/OS	321	Osc. A	William R. Sullivan	Overcoming Limitations to Java Application Scalability

WINDOWS

PLAT.	SESSION	ROOM	AUTHOR	TITLE
Win	423	Miami	Mark B. Friedman	Virtual Memory Constraints in 32-bit Windows: an Update
Win	433	Miami	Kevin Kline	Performance Baselining, Benchmarking and Monitoring for Microsoft SQL Server
Win	443	Miami	Michael A. Salsburg	Panel: IT's Role in Business Performance Management
Win	503	Miami	Jeffry A. Schwartz	Understanding and Interpreting SQL Server Performance Counters
	401	Osc. A	Amy D. Wohl	The China Era

PLATFORMS

***nix** = UNIX / LINUX
Non = Non-Specific
Win = Windows NT/XP/etc.
z/OS = z/OS

Platform Cross Reference

Non-Specific

Sub.	Session	Room	Author	Title
*nix	532	Osc. B	Rick Lebsack	Facilitated Discussion: Future of the Performance Field 2005
Core	301	Osc. A	K. Mani Chandy	Sense and Respond Systems
Core	317	Daytona	Dr. James Bouhana	Analysis of Workload Alerts in Consolidated Servers
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Core	431	Osc. A	Dr. Jeffrey P. Buzen	Workload Characterization for Parallel Processing Environments
Core	437	Daytona	Irving Smith	Wholesale Distributed Capacity Planning
Core	441	Osc. A	Dr. Jozo J. Dujmovic	QNS - an Online System for the Study of Queuing Models
Core	506	Osc. 1/2	Dr. Pierre M. Fiorini	Software Performance Engineering Considerations in Unreliable Computing Environments
Core	514	Osc. 3/4	Linwood Merritt	Closing the Gaps – Understanding Capacity Summarization
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Core	526	Osc. 1/2	Dr. Mary R. Hesselgrave	Underground SPE: Moving from Performance QA to SPE
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Core	547	Daytona	Dr. Anatoliy Rikun	Using Principal Component Method for Performance Data Compression and Analysis
Core	605	Osc. 5/6	Yiping Ding	Bandwidth and Latency: Their Changing Impact on Performance
Core	606	Osc. 1/2	Stuart Plotkin	Distributed Resource Reclamation: Enterprise Shared Servers
Core	613	Miami	Chris Greco	Dashboards, Black Boxes and the Database or Data as the Foundation for Correlative Analysis
Core	623	Miami	Frank Bereznay	Making Your Web Portal a Dynamic Website
Core	626	Osc. 1/2	Rupa S. Joshi	It's All About Statistics!
Hot	314	Osc. 3/4	Daniel A. Menasce	Virtualization: Concepts, Applications, and Performance Modeling
Hot	334	Osc. 3/4	Peter J. Weilnau	Measuring Up for Server Virtualization
Hot	347	Daytona	Chris Molloy	Introduction to Data Center Markup Language (DCML)
Hot	411	Osc. A	Dr. Jeffrey P. Buzen	SOA and the Social Order - City Planning, Post Office & Business Protocols
Hot	446	Osc. 1/2	Dr. Annie W. Shum	Through the Prism of Fractals: Why SOA Should Reflect the Natural Order
Hot	513	Miami	Marina Cismas	Redefining Capacity Planning for Grid Computing
Hot	516	Osc. 1/2	Dr. Connie U. Smith	A Performance Model Web Service
Hot	537	Daytona	John C. Becsi	Encryption Primer: An Introduction to Data Protection
Hot	543	Miami	David R. Morley	CMG: The Early Years
Hot	625	Osc. 5/6	Dr. Carl J. De Pasquale	Managing J2EE Applications with Application Response Measurement (ARM)
ITIL	313	Miami	Chris Molloy	ITIL Capacity Management Deep Dive
ITIL	327	Daytona	Jim Waring	Achieve IT Agility by Integrating SOA with ITIL Based BSM
Net	425	Osc. 5/6	Neil Carter	Intrusion Detection/Prevention Devices — Are They Protecting Your Network - or Hampering It?
Net	545	Osc. 5/6	Dr. Swami Ramany	Workload Modelling of Stateful Protocols Using HMMs
Net	607	Daytona	Dr. Dietmar Trattner	CMG Austria Best Paper: ePatent Project – a new Approach in Accessing Patent Data
Net	615	Osc. 5/6	Jie Lu	Performance Modeling and Analysis of Web Switch
Stor	333	Miami	Mel Boksenbaum	Storage Performance Council Panel Discussion
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Stor	414	Osc. 3/4	Charles T. McGavin Jr.	Smoke and Mirrors – A Survey of Remote Replication Technologies
Stor	424	Osc. 3/4	Kathleen N. Hodge	Database Disk to Disk Backups Using ATA Disk
Stor	444	Osc. 3/4	Robert Rogers	Information Classification and Service Level Objectives for Information Lifecycle Management
Stor	544	Osc. 3/4	Chao Li	Analytic Way for Performance Management of SAN
zOS	422	Osc. B	Glenn R. Anderson	A Large Systems Guy Implements the Enterprise Workload Manager (EWLM)
zOS	604	Osc. 3/4	Wolfram Greis	Central Europe CMG Best Paper: J2EE & Mainframes

UNIX / LINUX

SUB.	SESSION	ROOM	AUTHOR	TITLE
*nix	321	Osc. A	Mark M. Maccabee	Testing Scalability of a WebLogic Application
*nix	421	Osc. A	Jaqui Lynch	Linux Performance Tuning
*nix	523	Miami	Brian Johnson	Designing a Fairer Round Robin Scheduling Algorithm
*nix	523	Miami	Serge Tessier	Capacity Planning for UNIX System Metrics
*nix	527	Daytona	Robert F. Patterson	Capturing System Data Using Native Commands
*nix	527	Daytona	Igor A. Trubin	Capturing Workload Pathology by Statistical Exception Detection System
*nix	533	Miami	James Holtman	Visualization of Performance Data
Core	335	Osc. 5/6	Shanti Subramanyam	Performance Management of a J2EE Application to Meet Service Level Agreements
Core	345	Osc. 5/6	Peter Johnson	Java Garbage Collection Performance Analysis 201
Core	447	Daytona	Chandra Lanka	Capacity Planning for Shared Middleware Environments; A Methodology
Core	616	Osc. 1/2	Dr. Charles A. Letner	A Methodology for Predicting the Scalability of Distributed Production Systems
Net	445	Osc. 5/6	Prof. James Westall	Performance Tuning of Gigabit Network Interfaces
Stor	323	Miami	TBD	TBD
Stor	434	Osc. 3/4	Dan W. Yee	I/O Performance Characteristics for Volume Managers on Linux 2.6 Servers
Stor	534	Osc. 3/4	Prof. Robert Geist	Enhancing Web Server Performance Through the Use of a Drop-In, Statically Optimal Disk Scheduler

WINDOWS NT / XP ETC.

SUB.	SESSION	ROOM	AUTHOR	TITLE
Core	315	Osc. 5/6	Peter Johnson	Scaling up the JBoss Application Server
Core	324	Osc. 3/4	Gene P. Fernando	To V or not to V: A Practical Guide to Virtualization
Core	413	Miami	Peter Sevcik	The Application Performance Index (Apdex) Standard+
Core	512	Osc. B	Ellen M. Friedman	Measuring Performance in the Lab and Validating it in Production
Hot	546	Osc. 1/2	William L. Shelden, Jr.	Modeling VMware ESX Performance
Stor	424	Osc. 3/4	Michael A. Salsburg	A Management Framework For Petabyte-Scale Disk Storage
Win	423	Miami	Mark B. Friedman	Virtual Memory Constraints in 32-bit Windows: an Update
Win	433	Miami	Kevin Kline	Performance Baselining, Benchmarking and Monitoring for Microsoft SQL Server
Win	443	Miami	Michael A. Salsburg,	Panel: IT's Role in Business Performance Management
Win	503	Miami	Jeffry A. Schwartz	Understanding and Interpreting SQL Server Performance Counters
zOS	322	Osc. B	Dr. Bernard Domanski	Speaking SOA and Web Services: .NET and the Mainframe

SUBJECT AREAS

Core = Fundamentals / Core Competency
Hot = Hot Topics
ITIL = ITIL
zOS = Mainframe (z/OS)
Net = Network / Internet
Stor = Storage
***nix** = Unix / Linux
Win = Windows

Platform Cross Reference

z/OS

Sub.	Session	Room	Author	Title
*nix	321	Osc. A	William R. Sullivan	Overcoming Limitations to Java Application Scalability
Core	311	Osc. A	Dr. Lloyd G. Williams	QSEM: Quantitative Scalability Evaluation Method
Core	417	Daytona	Dick Arnold	Reactive Capacity Planning – An Alternative
Net	525	Osc. 5/6	Nalini J. Elkins	One-Minute TCP Stack Analysis
Net	617	Daytona	Catherine H. Liu	Network Performance & Availability Reporting: Someone Has to Start It.
Stor	524	Osc. 3/4	Stephen R. Guendert	Proper Sizing and Modeling of ESCON to FICON Migrations
zOS	312	Osc. B	Dr. Annie W. Shum	A Multi-Tiered Approach With Data Normalization To Analyzing CPU Metrics
zOS	322	Osc. B	Kenneth D. Williams	MVS Application Performance Management
zOS	332	Osc. B	Craig Hodgins	Java Performance on z/OS: A Report from the Front Lines
zOS	342	Osc. B	Don Deese	Introduction to zSeries Application Assist Processor (zAAP)
zOS	412	Osc. B	Robert R. Rogers	How Do You Do What You Do When You're a CPU?
zOS	432	Osc. B	Tony Ruberry	UKCMG Best Paper: zSeries Capacity Management - a True Story
zOS	442	Osc. B	Ian C. Baldwin	Migrating to z-990 - A User Experience
zOS	501	Osc. A	Cheryl Watson	z990 Performance and Capacity Planning Issues
zOS	502	Osc. B	Stephen R. Guendert	Taking FICON to the Next Level-Cascaded High Performance FICON
zOS	504	Osc. 3/4	Michael P. Swanson	8 Great Myths of Software Asset Management
zOS	511	Osc. A	Ned A. Diehl	DB2 CPU and Response Metrics
zOS	521	Osc. A	Kathy Walsh	The Mechanics of Developing a High Quality Capacity Plan
zOS	522	Osc. B	Thomas A. Halinski	Unveiling of DB2's DDF: SQL Revealed via the Gestalt Perspective
zOS	531	Osc. A	Peter Enrico	WLM Sysplex Management
zOS	541	Osc. A	Ivan L. Gelb	Panel: zSeries Performance Q & A
zOS	603	Miami	Ivan L. Gelb	Mining Performance Gold From CICS Statistics
zOS	614	Osc. 3/4	Robert E. Chaney	DDF Performance Analysis - Does it Really Have to be This Complicated?
zOS	624	Osc. 3/4	Charles E. Hackett	LSPR Benchmark Converter

SUBJECT AREAS

Core	= Fundamentals / Core Competency	**Net**	= Network / Internet
Hot	= Hot Topics	**Stor**	= Storage
ITIL	= ITIL	***nix**	= Unix / Linux
zOS	= Mainframe (z/OS)	**Win**	= Windows

EXHIBITOR INFORMATION

- **EXHIBIT HALL HOURS ***

Tuesday	11:30 AM	–	4:00 PM
Wednesday	11:30 AM	–	4:00 PM
Thursday	11:30 AM	–	2:00 PM

- **EXHIBITOR DESCRIPTIONS**
- **EXHIBITOR LISTING WITH BOOTH NUMBERS**

** Hours are subject to change*

DECEMBER • 4-9

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509	Demand Technology Software, Inc.
512	HyPerformix, Inc.
517	PerfCap Corporation
518	Aptitune Corporation
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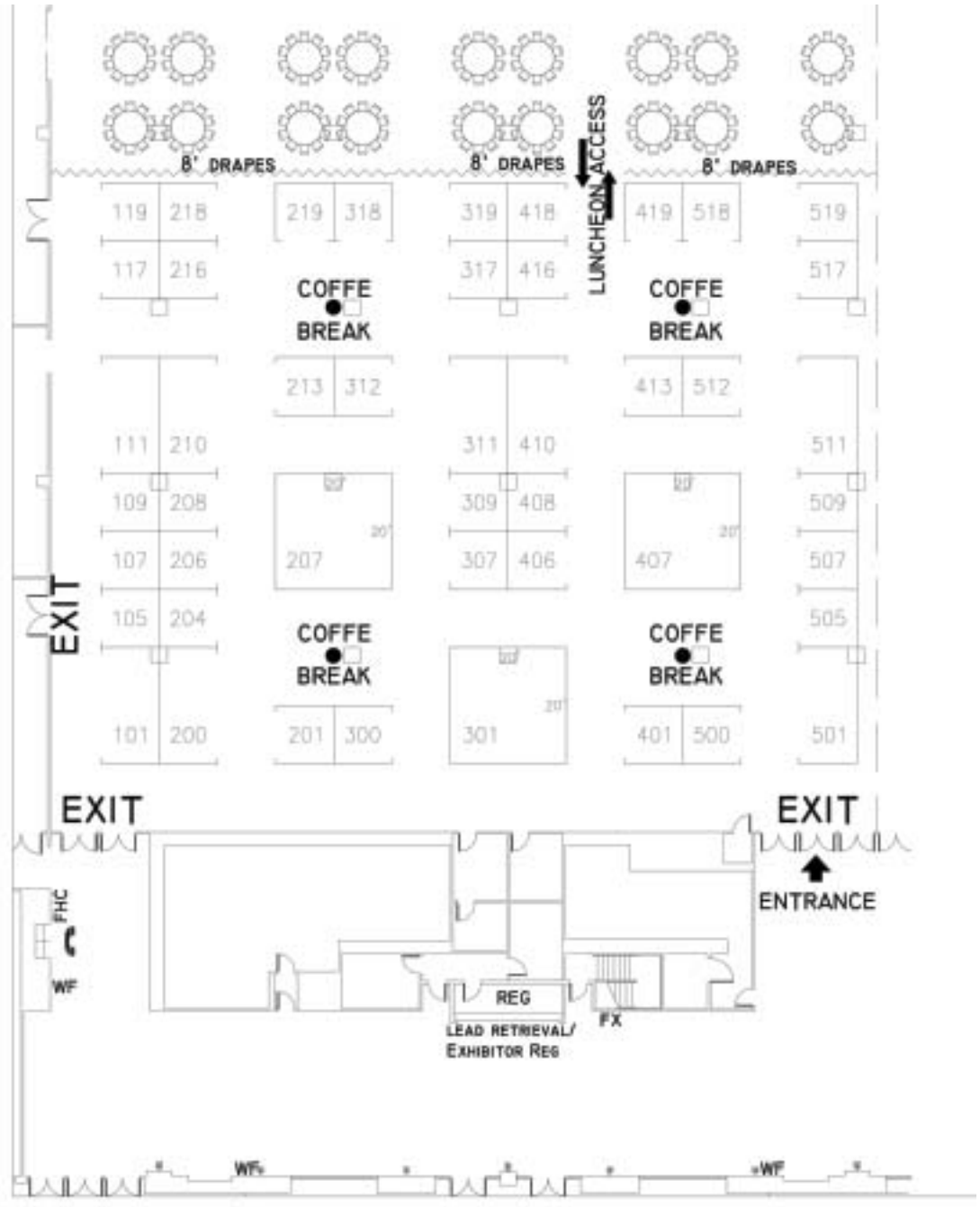
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EXHIBITOR REG
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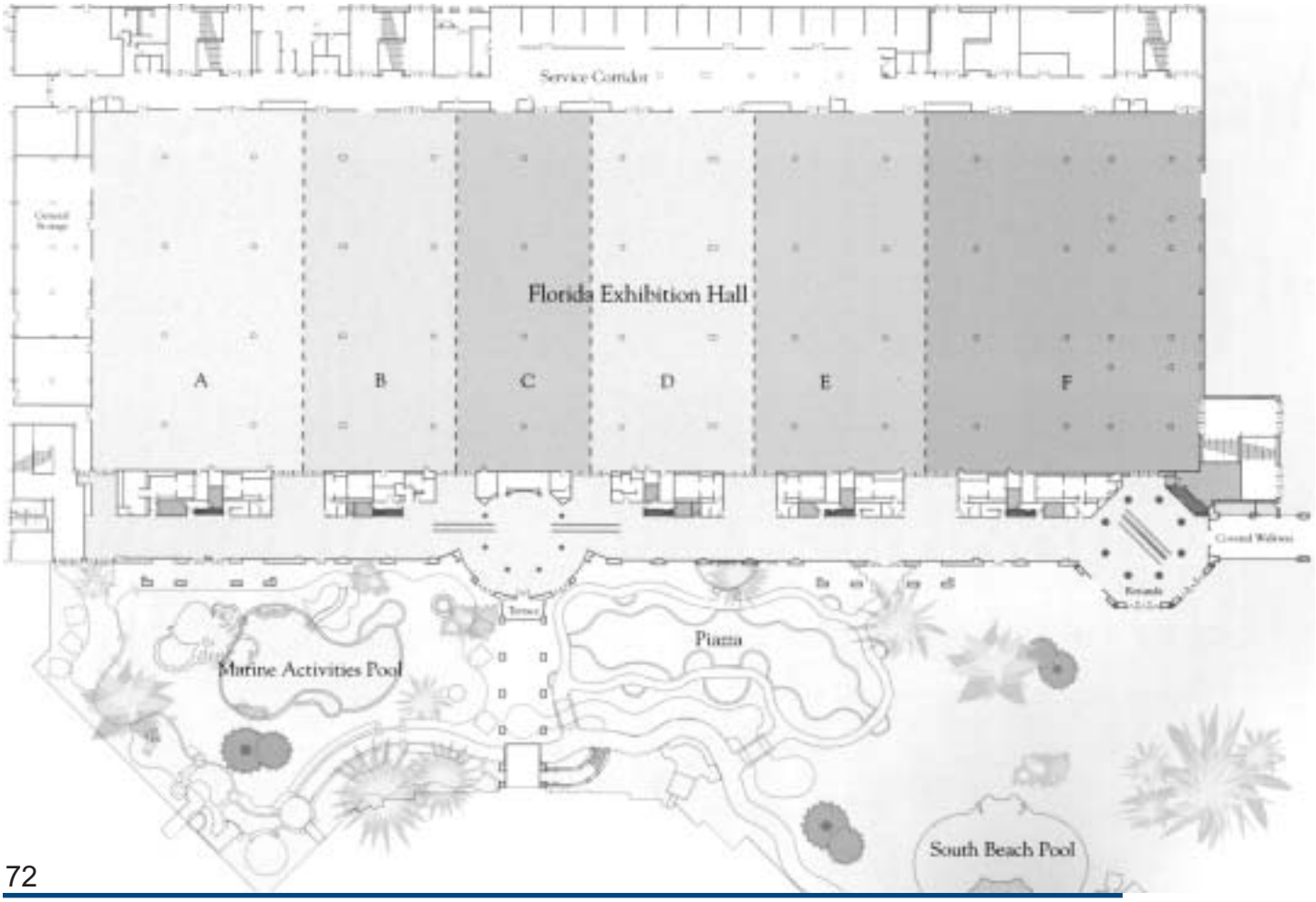
DECEMBER • 4-9

BALLROOM LEVEL

EXHIBITION LEVEL



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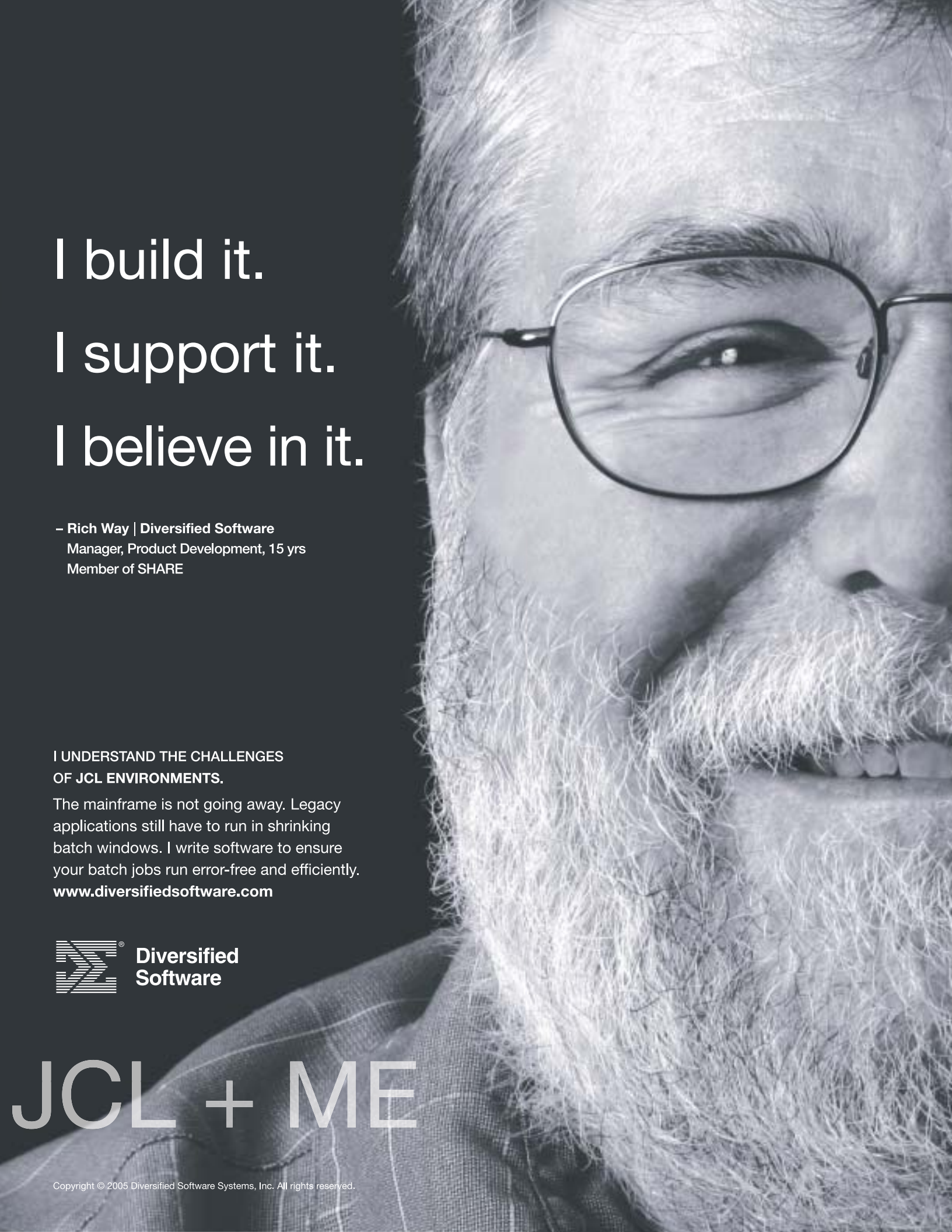

Capacity Management

Balancing effectiveness and efficiency in response to business change

What's YOUR worst case scenario?

Worst Case Scenario #1

Deploying a new application:

a. Fails to meet cost objectives
b. Fails to meet performance requirements
c. Fails to meet utilization objectives
d. Must be pulled from production
e. All of the above

HyPerformix software removes the risk of deploying enterprise applications by helping you understand their impact on performance, utilization, and cost - BEFORE deployment.

Worst Case Scenario #2

Making a change to your infrastructure:

a. Creates performance problems for your users
b. Creates over-utilized resources
c. Causes systems to crash
d. Impacts the performance of other applications
e. All of the above

HyPerformix software helps you understand the impact changes in your infrastructure will have on your users, applications, and resources BEFORE you make them.

Worst Case Scenario #3

Making a change to an application:

a. Causes the application to crash
b. Impacts the performance of other applications
c. Creates performance problems for your users
d. Requires a roll-back of the change
e. All of the above

HyPerformix software helps you avoid unnecessary application rework by evaluating proposed changes and predicting their impact BEFORE implementation.

Worst Case Scenario #4

Consolidating resources to reduce cost:

a. Causes application performance problems
b. Impacts the performance of other applications
c. Causes over-utilization of remaining resources
d. Requires the addition of resources in other areas
e. All of the above

HyPerformix software makes server consolidation possible by predicting the impact on users, applications, and resources prior to consolidation.

The key to success is the ability to manage change

HyPerformix software helps you avoid worst case scenarios and puts you on track to being proactive instead of reactive - optimizing the performance, utilization, and cost of your IT environment.

Hy·Perform·ix™

HyPerformix is a leading provider of performance and capacity management solutions for the enterprise

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