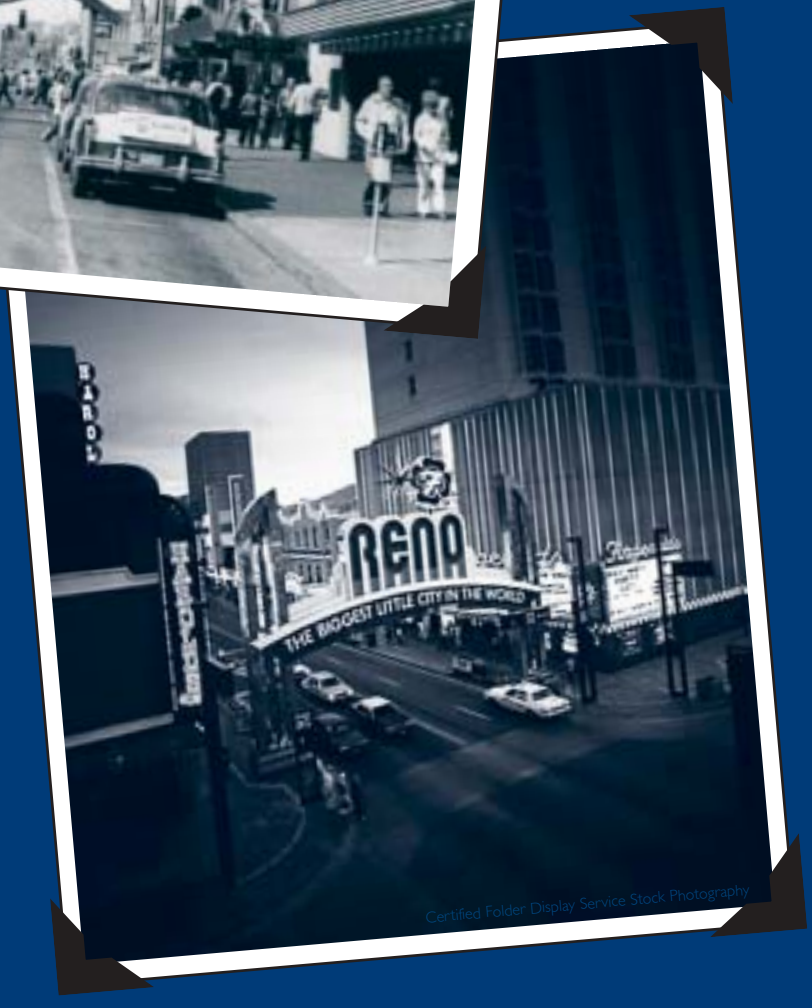
RENO 2006

CMG

Preliminary Agenda



CMG 2006

December 3rd–8th

The Grand Sierra Resort

Reno, Nevada

Letter From the CMG2006 General Chair, Shana Bereznay

The Computer Measurement Group invites you to be part of **CMG2006**, the **32nd** International Conference for the Resource Management and Performance Evaluation of Enterprise Computing Systems held by CMG, Inc. The conference brings together industry visionaries, technology experts, practicing engineers, architects and managers to share ideas and experiences in the performance optimization, resource management, and capacity planning fields. Held in Reno, Nevada **December 3rd - 8th, 2006** at the Grand Sierra Resort, **CMG2006** is your opportunity to engage in an invaluable information exchange.

The Conference Committee's goal this year is to deliver an outstanding conference with increased educational content and value for your dollar. We want to be your one stop for performance and capacity education. I hope that you will find the conference offerings as exciting as I do and that they will convince you that this is ***the*** conference to attend for all of your educational needs.

Highlights of what you can expect at the conference this year are:

- CMG has partnered with Pink Elephant to bring you **ITIL Foundations training** Saturday and Sunday.
- A fantastic slate of **Sunday workshops** including a full day of LINUX training, a full day of zSeries training, sessions on UNIX, on virtualization and much more.
- A half day of exhibitor sponsored **Monday User Group** sessions (MUGs)
- The **CMG2006** conference will **start Monday afternoon** with the Keynote speaker and a full compliment of regular sessions.
- An **outstanding program** of submitted papers – the foundation of the CMG conferences.
- **Poster sessions**, a regular in academia, a first at CMG. This is an opportunity to read a paper and discuss it one on one with the author.
- An **exhibitor technical product training track** running alongside the regular conference sessions. These are intended to be technical how to type sessions where you can get the training you need on the products you use every day.
- Our exhibitors will be demonstrating their products in the **exhibit hall** Tuesday through Thursday. You can see and discuss the latest products to make you more successful in your job.
- The **EXPO Sweepstakes** where you can win great prizes just by visiting the participating exhibitors.
- **Conference within a Conference** offerings; APDEX@CMG2006 and Keynote@CMG2006
- **PARS** (Performance Analyst Relaxation Session) where you can relax, visit with your colleagues, enjoy entertainment, fun and some great food.

As you can see there is a lot going on this year at **CMG2006**. But wait. There's more…Your **CMG2006** value does not end with the end of the conference week. You will receive a CD of the conference papers and a one-year membership in CMG. This membership includes:

- Four issues of the CMG Journal per year
- Three issues of the CMG Bulletin per year
- Access to the "Members Only" section of the new CMG Web Site
- A discount on next year's conference fee

I am pleased, along with the conference committee to offer you an educational opportunity that is truly unique and affordable. You will have the chance to network with your peers, participate in panels and birds-of-a feather sessions, talk with exhibitors, and hear the best speakers and practitioners in the industry.

This is a week you can't afford to miss. We look forward to seeing you at **CMG2006.**

Shana Bereznay
CMG2006 General Chair

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

Business Performance Management (BPM)
Business Performance Management (BPM) raises the focus of performance beyond the IT infrastructure and addresses the overall performance of the business. This includes the identification, measurement, analysis and reporting of Key Performance Indicators (KPIs), using business intelligence (BI), business activity monitoring (BAM) and executive dashboards. It also includes corporate governance issues, such as HIPPA, SOX and HEPA.

zSeries (zOS)
The IBM mainframe is a complex and ever-changing environment . This environment, inclusive of the operating system and its components, has evolved over time. The operating system has gone from MVS and VM to Z/OS. Long time components, such as CICS, IMS, DB2 and Batch have also evolved, are still ever-changing and continue to play a mission-critical role in mainframe usage. New advanced components such as WLM with its Enclave structure, Capacity on Demand, Software Licensing and zAAPs are further examples of the mainframe's evolution.

Unix/Linux (*nix)
Performance management of Unix has become crucial to large enterprises on various platforms including IBM, HP and Sun. The rapid adoption of Linux on the Intel platform is an important technology disrupter that is just starting to have an impact on enterprise-class installations. This subject area covers everything, from measurement and analysis to management and chargeback.

Windows (Win)
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.

Storage (Stor)
Storage continues to be a key factor in guaranteeing customer satisfaction and achieving required levels of service. This topic is inclusive of wherever information is stored, and encompasses NAS, SAN, iSCSi, Fibre Channel, Backup, Recovery, storage virtualization, tiered storage, the Storage Performance Council and SNIA as well.

Fundamentals/Core Competency (Core)
Fundamentals and core competency are topics that are the cornerstone to all that the CMG is about. Benchmarking and measurement techniques are at the heart of understanding performance inssues. Given the actual data, analysis, modeling, forecasting and "what-if" scenarios are an important contributor to the success of IT within the enterprise. In addition, core techniques, such as visualization and insightful reporting are key factors to achieving success.

Network/Internet (Net)
The internet continues to redefine world-wide commerce. Successful implemention of internet-based solutions rest in the proper management of capacity and performance. There are many aspects to this subject, including network components (hubs, routers and switches), systems and architectures (DNS, IP, proxies, redirection, content distribution and delivery, etc.) and internet-focused applications.

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

Letter From the CMG2006 Program Chair, Michael Salsburg

CMG Members,

I am happy to tell you that the program for **CMG2006** is now "in the can". We finalized the session scheduling just a few hours ago. As I look over the schedule, I am really proud of the hard work put in by all of the members of the Program Committee, the authors who worked diligently on their papers and the referees who helped select the best papers from over 140 submissions.

These submissions addressed various computing platforms including zSeries, Unix, Linux and Windows. The subject areas, their subject chairs and their themes for 2006 are:

- z/OS (Tom Halinski): "Share and Broaden your zSeries Knowledge"
- Windows (Clayton Ching): "Virtualization in the Windows World"
- Hot Topics (Michael Salsburg / Jaqui Lynch) – "IT Agility"
- BPM (Rick Lebsack) – "Taking Performance Measurement to the Business Level"
- Storage (Ted McGavin) – "Everything you always wanted to know about storage-but were afraid to ask"
- Unix/Linux (Tony Mungal) – "Simplifying the IT Infrastructure through Unix and Linux"
- Fundamentals (Shennon Shen / Bill Jouris) – "Back to Basics"

This year, in addition to our subject areas, we added emphasis on **Service Oriented Architectures, ITIL** and **Virtualization**, since these are new areas of interest that you asked for.

We have also scheduled over 20 hours of basic training, under the title of "CMG-T^{SM}". If you know "newbies" to our field who need a quick start, CMG2006 is where they should go for their basic training, provided by our top experts. All of this programming is included within the conference fee.

Starting on January, the SACs and I searched the industry to find 35 engaging, knowledgeable experts to come to CMG2006 as invited speakers.

Other than the SACs, there were a number of volunteers without whom this effort would have been impossible.

Assistant Program Chair – Linwood Merritt
Mentor Chair – Margaret Greenberg
Sunday Workshops Chair – Michael Recant
Invited Speaker Coordinator – Barry Sokolik
Volunteer Coordinator – Kathy Steffens

I look forward to seeing you all in Reno for an exciting conference.

Michael Salsburg
CMG2006 Program Chair

Robert Levy
BEA Systems
EVP & CTO

SOA: A Day in the Era of Composite Applications

How Do You Manage and Provide Capacity Planning for Composite Applications

Simply put, "Enabling Flexibility in IT and Flexibility with IT" is the most compelling message in the Service Orientation paradigm shift. Nonetheless, the SOA transformation journey from today's inflexible and brittle IT is a long and winding road. One of the most daunting challenges to the SOA based agile "nirvana" is the staggering complexity that is a byproduct of traditional one-off, point to point applications integration. The solution? In lieu of today's frozen monolithic applications, Composite Applications are formed by assembling services to mirror business processes and flexibly adapt to changing business needs on demand. For example, a composite application to process customer orders is an amalgamation of multiple services such as Check_Customer_Status, Verify_Customer_Credit, Lookup_Customer_History, Determine_Product_Availability, Calculate_Shipping_Charges, and Currency_Conversion. These may include both off-the-shelf and internally developed services, but more importantly, shared external 3rd party services hosted beyond the corporate firewalls.

The competitive edge of Composite Applications stems primarily from the flexibility to compose and decompose services derived from applications in real time. As you build up a portfolio of services, you can substantially increase the opportunities to mix and match and configure a wide array of business functionalities, thereby circumventing the traditional long software development cycle. However, you can see how this loosely coupled assembly can lead to "applications" that cross business boundaries. They will likely be federated, running on heterogeneous platforms and hence more challenging to measure, ensure good response, and plan for capacity. This talk will explore the emergence of Composite Applications as business solutions, the implications on today's IT infrastructure and the criticality of a service oriented management and capacity planning methodology.

Rob Levy is Executive Vice President and Chief Technology Officer of BEA Systems. He leads the company's efforts to align BEA's technology vision with its business strategy. He is responsible for developing and implementing technology initiatives within the company and fostering BEA's commitment to software innovation and open standards.

Previously, he was executive vice president of New Products Strategy, responsible for all aspects BEA's AquaLogic product lines, including research and development, product management, support, quality assurance, and strategic planning. Rob has over 25 years of experience in leading all aspects of the computer software and services business and a proven track record of running large development organizations.

Prior to BEA, Rob served as senior vice president and chief technology strategist at Computer Associates (CA), where he led CA's Center for Technology Strategy. He was responsible for defining, articulating and driving the execution of CA's technology vision and strategy. Previously at CA, Rob was senior vice president of development and brand executive for CA's CleverPath and AllFusion life cycle management solutions. In that role he was responsible for all aspects of CA's portal, business intelligence and application life cycle management product lines. He joined CA in 2002 as vice president of development responsible for CA's Unicenter application and Web infrastructure management divisions.

Previously, Rob served in executive management positions for several start-up ventures including ItemField Inc., a leading-edge XML transformation startup, and Nastel Technologies, a leading middleware management vendor. In addition, he was founder, Chairman and CEO of MQ Tech, Inc., a successful middleware services and consulting company.

Rob also held several management positions at Candle Corporation, where he was responsible for developing product strategies and product development activities for Candle's Enterprise System Management Automation product line.

Gene Leganza
Forrester Research
VP

How Will SOA Impact IT Practices?

For decades it has been common wisdom in capacity planning and performance management circles that IT needs to be business-driven. In other words, IT's resources, initiatives and metrics should align with business strategy. In the past, this was much easier said than done given business units' typical aversion to detailed planning. Over the last five years, economic doldrums drove most organizations to implement formal planning, prioritization, and governance processes, and organizations have significantly matured their planning processes. Meanwhile, service oriented architecture (SOA) has become hot, and effective SOA implementations require a detailed understanding of end-to-end business processes. Business units are coming to rely on IT architects' sophistication regarding formal analysis processes to take advantage of SOA-enabled technology. The net effect is a trend away from waterfall planning towards an increasing collaboration between business and IT stakeholders.

In addition, the flexibility provided by service-oriented architecture (SOA) enables the continuous optimization of business processes. But the traditional IT organization, which is oriented toward discrete business units and supported by vertically integrated applications, constrains this optimization rather than helps. To be effective, the IT organization must develop an orientation around end-to-end business processes. A number of existing IT roles need to be redefined to ensure that this process orientation is reflected in IT's strategies and plans.

Furthermore, the economic slowdown produced a new emphasis on clearly quantified business value for any resource expenditure. Therefore, IT will be held responsible for establishing the value of SOA and for analyzing tradeoffs in development, future enhancement and integration activity, runtime performance impact, or other areas that can affect the business value of IT investments.

Gene leads Forrester's government research group, researching best practices in the use of business technology in federal, provincial/state and local governments. Prior to this role, Gene covered IT management issues and was Forrester's lead analyst for enterprise architecture programs in both the public and private sectors.

Gene has 25 years of IT experience, including application development, system programming, performance management and capacity planning, product strategy, IT management, and enterprise architecture planning. Gene came to Forrester through its acquisition of Giga Information Group. Prior to joining Giga, he was director of capacity planning and infrastructure architecture at John Hancock Financial Services in Boston. Previously, he held senior IT positions at First Data Corporation and Fidelity Investments, as well as development and marketing management positions at BGS Systems (now BMC Software) and Bachman Information Systems (now Sterling Software).

Gene has published papers on various topics and has spoken at local and national Computer Measurement Group, DB2 Users' Group, and Sybase Users' Group conferences. He earned a B.A. in psychology and music from Wesleyan University in Middletown, Conn.

Seckin Unlu
Intel Corporation
Intel Fellow

Performance Validation by Design

Performance validation, evaluation and optimization all depend on measurement capabilities and precision. Recently it has become very difficult to instrument and measure performance indicators at the lowest levels of software. This is due to the bundling of increasing functionality into hardware and software, and the degrading effects caused by add-on measurement hardware and software. The industry trend has been to include instrumentation within products as they are being built, rather than trying to add complex tools after those products are built.

In the 1980's, there were several attempts to include hardware instrumentation into processors, as part of the design. In the 1990's, we saw hardware instrumentation included with processors produced in high volumes, and operating systems and development tools took advantage of that instrumentation. These additional capabilities have enabled hardware designers to check their design criteria against end-products, to make sure design assumptions were correct, and software designers to better measure the effects of their algorithms on actual systems, without requiring an EE degree or costly tools.

The future holds even more promise, making the performance validation and optimization process more automated and included in standard off-the shelf processors, rather than requiring pre-production test hardware or specialized test software. Hardware instrumentation has the capability to accelerate the development of more efficient and responsive software programs.

In this presentation, we will look at the history of processor instrumentation, we will provide hints about the futures, and we will give a few examples of what has worked well. We will summarize the benefits that are achievable today and what benefits can be expected in the future.

Seckin Unlu is an Intel Fellow, Software and Solutions Group and director of Systems Performance. Since 1995, he has been responsible for analyzing and improving processor and system performance for mid-range and high-end server and workstation products based on Intel's processors, chipsets and platforms.

Previously, he was a Senior Software Engineer and focused on systems development using several operating systems including iNDX, Xenix MultiServer, Unix SVR4 and Windows NT. Unlu joined Intel in 1982.

Unlu was awarded the Intel Achievement Award in 1997 for jointly developing the Application Solution Center methodology. He also represents Intel on the Transaction Processing Performance Council (TPC), which develops the industry's most prevalent processor benchmarks.

In 1979, Unlu received his master's degree in Computer Science and his bachelor's degree in Electrical Engineering from the Middle East Technical University (METU) in Ankara, Turkey. Prior to joining Intel, he continued post-graduate studies on database technologies, while working as the Senior System Analyst at the METU Computer Center from 1979 to 1982.

Unlu holds a patent for mutual exclusion for computer systems.

Quick Facts

- Responsible for analyzing and improving processor and system performance for mid-range and high-end server and workstation products
- Recipient of the Intel Achievement Award
- Represents Intel on the Transaction Processing Performance Council (TPC)
- 1 patent granted US Patent 5,438,677, Mutual exclusion for computer system, 8/1/1995

Invited Speakers

In addition to the presentations of the technical papers that are in the CMG 2006 Proceedings, a number of luminaries have been invited to discuss their thoughts and findings to CMG attendees. We have scoured the industry to find analysts and technicians that will address the most burning issues that are facing you today. This is the perfect opportunity to hear these speakers in action. Feel free to ask your specific questions during or after the session. The following list identifies these invited speakers.

Session	Subject	Author	Title
232	Hot	Rob Levy	SOA: A Day in the Era of Composite Applications - How Do You Manage and Provide Capacity Planning for Composite Applications
242	Net	Catherine H. Liu	Performance Monitoring and Reporting for the Edge of the Web: TCP/IP, Routing and Web Transactions
244	Stor	Dr. H. Pat Artis	Understanding the Performance Implications of MIDAWs
245	*nix	Srikanth Gopalaswami	A Common Foundational Platform for OpenSource Performance Montoring
254	Stor	Dr. H. Pat Artis	Workload Characterization Algorithms for Remote Copy
301	Hot	Gene Leganza	How Will SOA Impact IT Practices?
311	zOS	Bonnie K. Baker	DB2 for z/OS Performance and Tuning
313	Hot	William Malik	Performance and Capacity Issues in Service Oriented Architectures (SOA)
314	zOS	Glenn R. Anderson	WebSphere App Server for z/OS Ver 6 Measurement and Tuning
315	BPM	Don D. Chastain	Connecting Health of the Business Process with the Health of the IT Services
321	Net	Yori Lavi	SOA Monitoring & Performance Management Challenges
332	zOS	Peggy Zagelow	DB2 for z/OS Stored Procedures Performance Hot Topics
333	Hot	Brenda M. Michelson	Observations from the Field: Tackling the Hard Parts of SOA
342	zOS	Kathy Walsh	zIIPs and zAAPs - How Special Are They?
343	Core	Yori Lavi	Managing Performance of Clustered, Load balanced Applications
344	zOS	Martin Hubel	A Simple Approach to DB2 Index Redesign
345	Hot	JP Morgenthal	The Three A's of SOA
401	Hot	Seckin Unlu	Performance Validation by Design
411	Net	Laura J. Knapp	Network Performance in Load Balanced World
412	zOS	Kathy Walsh	The XCF Factor - Performance With A Practical Approach
413	zOS	Wendy Mead	Outsourcing: 4 ways to avoid buyer's remorse
415	Win	Kenneth Hu	Do CPUs Count? Understanding Resource Utilization on Virtualized Systems.
424	*nix	Debbie Sheetz	Performance Reporting/Modeling for AIX Partitioned Environments
431	*nix	Joakim Dahlstedt	Java on Bare Metal - Better Resource Control when Running Java on a Hypervisor
432	zOS	Peter Enrico	Understanding WLM SYSTEM and SYSSTC Service Classes
433	Win	Therron Powell	Microsoft Virtualization Directions and Roadmap
441	Net	Laura J. Knapp	End-End Performance Management
442	zOS	Glenn R. Anderson	Enterprise Workload Manager: What's the E All About in EWLM?
443	Win	Therron Powell	Microsoft's next generation virtualization architectures
453	Win	Alex Vasilevsky	Optimized Windows Server Virtualization on Xen
503	Net	Dr. Cathy A. Fulton	Best Laid Plans: Enterprise Network Performance Case Studies and Lessons Learned
533	zOS	Christian Schram	DB2 UDB for z/OS: Making Friends with the Optimizer
543	BPM	Cary V. Millsap	Accountability for System Performance
552	Stor	Greg Schulz	Storage System Update and Review
611	Stor	Tom Trainer	Storage Virtualization – The No Spin Zone!

Each year, we have a sizable number of new practioners at CMG. If you are new to CMG, this section should help you pinpoint the sessions that could give you a good grounding in the fundamentals of performance and capacity management. For the first year, we are formalizing CMG fundamentals within a set of training courses we call "CMG-T".

CMG-T starts with three "core" courses that focus on the basics. These core courses are platform-agnostic, meaning the information applies equally over all computing platforms. These courses are:

- The Art and Science of Measurement
- Statistics for Performance Analysis & Capacity Planning
- Modeling and Forecasting

After the three courses, platform-specific courses are offered:

- Introduction to z/OS Monitoring, Tuning, and the Workload Manager
- Unix/Linux CMG Quick Start Course
- Windows System Performance Measurement and Analysis

Finally, a general course on TCP/IP is provided:

- Introduction to TCP/IP Performance Management - Part 1

In addition to CMG-T[SM] courses, there are a number of sessions that present topics at the introductory level. Most of these sessions are presented by seasoned, experienced professionals. We suggest that you plan your education at CMG2006 using the following sessions as your guide.

Session	Subject	Author	Title
247	BPM	Russell A. Rogers	A Technology Cost Model for Server Infrastructure Management
256	Core	Gregory Dawe	Creating a Software Performance Engineering Team - Lessons Learned
316	Core	Mark B. Friedman	The Art and Science of Measurement - Part 1
322	BPM	Denise P. Kalm	The Minimum Daily Adult - The Right Metrics & the Wrong Metrics
322	Core	Adam Grummitt	Six Sensible Steps Towards Implementing ITIL Capacity Management
324	Core	Alexander Podelko	Load Testing: Points to Ponder
334	BPM	Robert E. Chaney	The ABCs (or should I say, CASs) of I/T Chargeback
336	Core	Ray Wicks	Statistics for Performance Analysis & Capacity Planning - Part 1
354	Core	James Holtman	Back of the Envelope, Rules of Thumb and Little's Law
416	Core	Dr. Michael A. Salsburg	Modeling and Forecasting - Part 1
421	zOS	Bruce Perkinson	Use Trending to Manage Application and System Performance
423	BPM	Chris Molloy	Virtualization - Inhibitors to Server and Storage Virtualization, and How to Mitigate Them
423	BPM	Chris Greco	Monitoring, Availability, and . . . Maslow?!
436	Net	Nalini J. Elkins	Introduction to TCP/IP Performance Management - Part 1
447	Hot	Yiping Ding	On the Number of Partitions
457	BPM	Rich Fronheiser	ITIL Capacity Management: More Than Charts Over Coffee
504	zOS	Glenn R. Anderson	Introduction to z/OS Monitoring, Tuning, and the Workload Manager - Part 1
505	*nix	Adrian A. Cockcroft	Unix/Linux CMG Quick Start Course - Part 1
506	Win	Jeffry A. Schwartz	Windows System Performance Measurement and Analysis - Part 1
511	Net	Nalini J. Elkins	Ten Commandments of TCP/IP Performance
517	BPM	Scott A. Chapman	An Implementation of a Business Metrics Database
537	BPM	Jon McKenzie	Beyond System Capacity Planning: Serving a Growing Environment and Customer Base without More Staff
542	Core	Brian Johnson	The Myth of Memory Utilization on Midrange Systems
544	Net	Peter Johnson	10 Steps to Securing Your Web Applications
545	BPM	Chris Molloy	What Performance and Capacity Management People Need to Know About Finance
547	zOS	William L. Shelden, Jr., Ph.D.	A Performance Analyst's Guide to the RMF Type 70 Record
603	Net	James H. Baxter	Achieving Practical Network Application Impact and Response Time Projections
605	*nix	Irvin G. Eiceman	AIX System Performance Experiences and Basic Tuning
613	Hot	Herb Van Hook	The Well-Managed Web Service
615	*nix	Peg McMahon	The Need for Speed: Simple Tested Techniques to Beef Up Performance of Your Solaris/Oracle Database
623	Core	Denise Arruda	The Bottleneck Cycle

Tuesday is SOA Day

This year, we have put a special focus on the emerging technology of Service-Oriented Architectures (SOA). We originally intended to have a single day dedicated to SOA presentations, but it "grew some". We are starting the CMG Conference with Keynote speaker, Rob Levy, CTO & EVP, BEA Systems, who will deliver the conference-wide presentation, "SOA: A Day in the Era of Composite Applications - How Do You Manage and Provide Capacity Planning for Composite Applications". Tuesday will be filled with relevant presentations addressing SOA, including another conference-wide presentation, this time by Gene Leganza from Forrester Research titled "How will SOA Impact IT Processes?". A number of thought-provoking sessions are planned, including two panels that will be populated by SOA experts. One is a panel representing a new organization called the "The SOA Alliance", while the other is a panel dedicated to real-world issues, "Lessons Learned From Real World SOA".

Session	Subject	Author	Title
232	Hot	Rob Levy	SOA: A Day in the Era of Composite Applications - How Do You Manage and Provide Capacity Planning for Composite Applications
252	Hot	Annie Shum	Panel: The SOA Alliance
301	Hot	Gene Leganza	How Will SOA Impact IT Practices?
313	Hot	William Malik	Performance and Capacity Issues in Service Oriented Architectures (SOA)
321	Net	Yori Lavi	SOA Monitoring & Performance Management Challenges
333	Hot	Brenda M. Michelson	Observations from the Field: Tackling the Hard Parts of SOA
335	BPM	Dr. Jeffrey P. Buzen	Achieving Business Agility with SOA: Governance & SLA Management of Shared Service Ecosystems
345	Hot	JP Morgenthal	The Three A's of SOA
355	Hot	Annie Shum	Panel: Lessons Learned from Real World SOA.

December 6th has been declared as "Virtual Wednesday" for CMG. During this day, experts representing the market leaders in server virtualization will discuss performance implications of virtualization, along with discussions of their future roadmaps. These discussions will be complemented by presentations of "real-world" deployment and lessons learned. Although server virtualization is new to the commodity computer platforms, our members are already benchmarking, analyzing and modeling its performance aspects. The following sessions provide rich content in various areas of virtualization.

SESSION	SUBJECT	AUTHOR	TITLE
253	zOS	Dr. Brian K. Wade	Effect of Parallel Access Volumes (PAV) Technology on z/VM Guest Disk I/O Performance
414	Win	Mark B. Friedman	The Reality of Virtualization for Windows Servers
415	Win	Kenneth Hu	Do CPUs Count? Understanding Resource Utilization on Virtualized Systems.
423	BPM	Chris Molloy	Virtualization - Inhibitors to Server and Storage Virtualization, and How to Mitigate Them
424	Core	James F. Brady	Traffic Capacity Testing a Web Environment With Transaction Based Tools
424	*nix	Debbie Sheetz	Performance Reporting/Modeling for AIX Partitioned Environments
427	Hot	Adrian Cockcroft	Utilization is Virtually Useless as a Metric!
428		Amichai Lesser	Shunra: A Virtual Network Helps IT Staff Predict End User Experience Globally
429		Rich Fronheiser	Metron-Athene: Extending Capacity Planning: End to End and Virtualization
431	*nix	Joakim Dahlstedt	Java on Bare Metal - Better Resource Control when Running Java on a Hypervisor
433	Win	Therron Powell	Microsoft Virtualization Directions and Roadmap
434	Hot	Dr. Neil J. Gunther	The Virtualization Spectrum from Hyperthreads to GRIDs
443	Win	Therron Powell	Microsoft's next generation virtualization architectures
444	Hot	Jie Lu	Measuring and Modeling the Performance of the Xen VMM
445	Hot	Dr. Anatoliy Rikun	Optimization with Service Level Objectives in Virtual Environment
447	Hot	Yiping Ding	On the Number of Partitions
453	Win	Alex Vasilevsky	Optimized Windows Server Virtualization on Xen
454	Hot	Peter J. Weilnau	Real World Adventures in Server Virtualization
455	Hot	Dr. Michael A. Salsburg	It May Be Virtual, ... But the Overhead Isn't
541		Mark Cohen	CMG Italy - Best Paper: AIX Micro-Partitioning
611	Stor	Tom Trainer	Storage Virtualization – The No Spin Zone!
621	Stor	Kathleen N. Hodge	Database Backups Using Virtual Tape Volumes

Focus on ITIL

Believe it or not, Information Technology is still in its infancy. We have finally reached a plateau where we see the need to define business processes within IT so that we can achieve repeatable, predictable, high-quality results. These processes have been outlined in the Information Technology Infrastructure Library (ITIL). As performance and capacity management professionals, our activities are captured within the ITIL reference model. Therefore, ITIL is of key importance to every CMG member. Take advantage of the high quality sessions that are provided this year. We offer sessions that explore various facets of ITIL, including automation, lessons learned, its relationship with "Agile Programming", "Six Sigma" and more. A special three-hour seminar, "ITIL Capacity Management Appreciation", is a high quality introduction to ITIL that is rarely available within a conference.

Session	Subject	Author	Title
322	Core	Adam Grummitt	Six Sensible Steps Towards Implementing ITIL Capacity Management
327	Core	Martha S. Hays	Bringing ITIL® to Life: Automating IT Capacity Management
329	Hot	Amy Spellman	HyPerformix, Inc.: Automating the Holistic ITIL Capacity Management Process
337	BPM	Adam Grummitt	ITIL Capacity Management Appreciation Seminar - Part 1
457	BPM	Rich Fronheiser	ITIL Capacity Management: More Than Charts Over Coffee
529		Adam Grummitt	Metron-Athene: Implementing Capacity Management
537	BPM	Jon McKenzie	Beyond System Capacity Planning: Serving a Growing Environment and Customer Base without More Staff
545	BPM	Chris Molloy	What Performance and Capacity Management People Need to Know About Finance
551	Hot	Charles Hoover	ITIL vs. Agile Programming: Is The Agile Programming Discipline Compatible With The ITIL Framework?
553	BPM	Rick Lebsack	Panel: Measuring Business Performance — Can IT bridge the Chasm?

ITIL Foundation Training Course conducted by Pink Elephant

Class Description: Based on principles described in ITIL's *Service Support and Service Delivery* books, this course focuses on taking a holistic approach to IT Service management through the use of processes, their respective relationships, and workflows. This course also prepares participants for the examination leading to the Foundation Certificate in IT Serice Management, the prerequisite for the Practioner and Service Manager levels of ITIL certification.

Class Objectives: Participants will understand how ITIL processes can improve IT operations. In particular, participants will:

- Understand ITIL's five operational processes, single funtion, and five tactical processes
- Comprehend the main activities of each process
- Be aware of key ITIL definitions
- Understand the scope and operation of an ITIL compatible Service Desk
- Be prepared to take the Foundation Certificate in IT Service Management examination

This two day class is being offered on Saturday and Sunday December 2nd & 3rd, see the registration form details.

KEYNOTE@CMG2006 - TUESDAY 9:15 AM - 5:15 PM

Web Performance Management Today

Building and maintaining effective online business applications demands a systematic commitment to delivering levels of quality that can be measured and managed. This effort touches every phase of the application lifecycle — site design, application development, testing, systems management, and network management. Companies must address many related management and technical issues, including:

- What level of performance do our customers really expect?
- How can we match, even stay ahead of, the competition?
- How will we prepare for our next big sales event (or season)?
- How will we measure site and application responsiveness?
- How will we know when our customers experience a drop in service levels?
- How do we diagnose and fix problems quickly?
- How will we monitor, quantify, and report on our success?

Tackling these issues systematically involves a set of activities that are collectively called Web performance management or service level management (SLM). Technologies and best practices in this area have evolved rapidly over the past ten years. Based on their experiences working with many major online businesses, experts from Keynote Systems will provide an update on the situation today, and discuss the latest trends and directions.

SESSION	AUTHOR	TITLE
31A	Chris Loosley	Fundamentals of Web Performance Management
32A	Donald Foss	Testing Web Applications: Can You Cope With Success?
33A	Shawn White	Monitoring Applications Worldwide: Behind the Scenes in Network Operations
34A	Chris Loosley	Rich Internet Applications: Design, Measurement, and Management Challenges
35A	Chris Loosley	Panel: Online Business: Emerging Trends and Technologies

APDEX@CMG2006 - THURSDAY 8:00 AM - 5:15 PM

The Application Performance Index (Apdex) is a numerical measure of user satisfaction with enterprise application performance that shows how effectively IT investments support business objectives. Apdex is an open standard that is managed by the Apdex Alliance as an IEEE-ISTO program (see www.apdex.org). It provides the simplest language by which businesses and IT departments can discuss requirements, set expectations, and define operating agreements.

Peter Sevcik, Apdex Alliance Executive Director, will lead a full day symposium on application performance management and how Apdex links IT and business goals. Speakers will provide practical information on how to implement and improve Apdex reports. Conference attendees will learn about the technologies and processes that make applications perform well, and they will learn how to apply Apdex methodology to measure and assess performance in a business context.

The day is split into two major themes: *technology* in the morning followed by *process* in the afternoon. The program will also serve as the first Apdex users meetings. Anyone who is planning, experimenting, or managing applications using the Apdex method is encouraged to attend.

SESSION	AUTHOR	TITLE
50A	Peter Sevcik	Defining Performance and the Apdex Standard
51A	Peter Sevcik	Applying Apdex to Your Enterprise
52A	Peter Sevcik	Tools to Measure and Improve Performance
53A	Peter Sevcik	The Apdex Management Process
54A	Peter Sevcik	Case Studies Using Apdex
55A	Peter Sevcik	Open Meeting of the Apdex Alliance

Acknowledgements

The CMG2006 Program Committee wishes to extend a huge thank you to the following individuals who have volunteered their assistance in making the up-coming conference a success. From the referees who have reviewed submitted papers, to the mentors who worked so hard with potential authors, to Editorial Review Board members who will have edited accepted papers, and on to the on-site session chairs and monitors who will work sessions during the conference: Without your assistance and hard work, this conference would not occur! Thank you very, very much!!

Kathy Steffens
CMG2006 Volunteer Coordinator

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James Yaple

CMG2006 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

Adrian Cockcroft & Mario Jauvin
Performance Management with Free and Bundled Tools

Mark Friedman
Microsoft .NET Framework Application Scalability and Performance

Dr Odysseas Pentakalos
Web Services, Service Oriented Architecture and the Enterprise Service Bus

Susan Schreitmueller
Virtualization - Managing your Enterprise through Dynamic Resource Allocation

Kathy Walsh
zPCR Hands On Lab

Dr. Boris Zibitsker
Proactive Performance Management for Multi-tier Parallel Processing Environment

Afternoon Workshops

Robert Andresen
Monitoring Linux Hands-on Lab

Peter Enrico
z/OS WLM Check Up

Chris Loosley
Load Testing for Web Applications

Jaqui Lynch
Linux Performance Tuning

George Spalding
ITIL 101: An Introduction To ITIL's IT Service Management Process Model

Robert Stinnett
The Right Information for the Right People

DECEMBER • 3-8

Robert Andresen
MQSoftware Inc.

Afternoon 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. We will look 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.

Updated to use Knoppix 5.0 and the 2.6 Linux kernel. New topics include KSysGuard, ntop, mrtg, nmap, Ethereal and IPTraf.

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 Q Pasa! and Q Nami!, which provide business transaction assurance and middleware management. His areas of expertise include UNIX/Linux, Windows, Websphere MQ, Message Broker, z/OS, CICS, DB2, and Networking.

Adrian Cockcroft
eBay Inc

Mario Jauvin
Independant Consultant

Morning only

Performance Management with Free and Bundled Tools

Computer system and Network performance data collection, analysis, modelling and capacity planning on any platform 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 modelling packages comprehensive analysis, modelling and archival storage can now be assembled. Free and bundled 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.

Adrian Cockcroft - formerly at Sun for many years, well known author and presenter. Now at eBay.

Mario Jauvin - formerly at Nortel, now an independent consultant

Peter Enrico
Enterprise Performance Strategies, Inc.

Afternoon only

z/OS WLM Check Up

This Sunday workshop is a great opportunity to roll up your sleeves and get some real work done while learning more about the z/OS Workload Manager.

During this Sunday workshop, Peter Enrico will teach you some simple and advanced WLM service definition and WLM measurement analysis through hands-on exercises. These WLM analysis exercises are targeted to help you clean and tune your WLM service definition. Through these exercises, you are sure to learn more about the z/OS workload manager. Think of this workshop not just as instruction, but as a period of time set aside to actually analyze real data.

Peter will bring to the workshop sample service definitions and measurement reports to give you some real-world doing a WLM analysis. You can get additional, immediate value from this workshop if you bring some of your own data to analyze during the session. If you think you might be interested in attending this workshop during CMG week, please send an email to Peter Enrico (peter.enrico@epstrategies.com) for data gathering instructions so that you can come prepared to spend time analyzing your own data.

Peter Enrico, of Enterprise Performance Strategies, Inc. has strong and diverse experience with the zArchitecture platform, and a solid background in the many z/OS areas of z/OS performance including WLM, Sysplex, WebSphere, J2EE architecture.

Peter teaches seminars on a wide array of performance and tuning topics including z/OS, Parallel Sysplex, WLM, USS, WebSphere, J2EE, MQ, and much more. All classes have drawn great praise from many customers and corporations.

More information about Peter Enrico, his class descriptions and schedules, please visit www.epstrategies.com.

Mark Friedman
Demand Technology Software

Morning only

Microsoft .NET Framework Application Scalability and Performance

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 one day workshop focuses on the scalability and performance of .NET Framework applications, from design, development, testing through to deployment. It relies heavily on case studies showcasing examples of real world .NET Framework applications.

Using the discipline of Performance Engineering as a conceptual framework, the workshop features a variety of practical techniques to assist enterprise 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. He was the recipient of the Computer Measurement Group's prestigious A. A. Michelson lifetime achievement award in 2005.

Chris Loosley
Keynote Systems

Afternoon only

Load Testing for Web Applications

For any business, a poorly performing online application can drive away customers. For online retail businesses, reputations can be made or destroyed during the holiday season, or other important times of the year when the application is in demand. For these reasons, it is vital to know the capacity and scalability of an online application, and proper load testing is the best way to acquire this knowledge.

As a result, almost everyone does some kind of testing to see how their Web site and online applications behave under peak loads. Yet many of these tests, in-house or outsourced, still produce misleading results, causing a company to either underestimate or overestimate a site's capacity. The results are either excess costs, or lost revenues.

This tutorial will discuss how to avoid common problems that severely affect the realism and accuracy of so many Web site load tests, including:

- Failure to objectively quantify the volumes and mixes of site traffic to be tested
- Unrealistic emulation of user behavior as the traffic load grows and site responsiveness slows down
- Inadequate testing of the capacity of the site's Internet connectivity

This tutorial will explain the various factors that contribute to the responsiveness of Web applications, and discuss rigorous, systematic, and repeatable ways to measure and test Web sites. This proven approach to measurement and testing allows companies to collect realistic, useful, and reliable data about their site's capacity and scalability.

Chris Loosley is the Sr Director for SLM Technologies at Keynote Systems Inc. He has over 30 years experience in performance engineering and service level management.

At IBM, Chris worked as a developer on the first releases of IMS/VS and DB2, specializing in performance measurement and tuning. For Codd and Date, he taught the first public classes on DB2 performance. As a founding partner of Database Associates, he taught seminars worldwide on client/server and distributed systems. Since 1999, he has specialized in the performance of Web-based applications.

Jaqui Lynch
Mainline Information Systems

Afternoon only

Linux Performance Tuning

Linux is becoming more pervasive in many datacenters, whether it be as appliances, test servers or full-blown production systems. Linux is being run on everything from the desktop to the mainframe and we, as performance tuning specialists, need to be able to manage and plan for Linux systems.

This workshop will introduce the UNIX systems administrator to Linux and will also cover some of the concepts and free tools for monitoring and managing performance on LINUX systems. It will provide a guideline for how to diagnose and fix performance problems in that environment. Rules of Thumb will also be provided.

For over 28 years, Jaqui has been responsible for projects across multiple platforms, including mainframes and UNIX/LINUX systems. From 1991 till May 1999, Jaqui worked at Boston College as the Manager of Systems Services. Jaqui spent 4 years freelance consulting on UNIX and Performance and Capacity Planning and now works for Mainline Information Systems as a Senior Systems Engineer focusing on pSeries and Linux.

Jaqui has been involved in CMG since 1988 when she was a founding member of the New Zealand CMG group. She was the President of CMG in 2004 and 2005.

Dr Odysseas Pentakalos
SYSNET International, Inc.

Morning only

Web Services, Service Oriented Architecture and the Enterprise Service Bus

Web Services first appeared on the scene in 2000 and since then have quickly gained momentum in the industry. Almost every Fortune 500 company has incorporate Web Services in their IT strategy and small companies are using Web Services to integrate into the supply chains of their larger partners. Soon after Web Services started to gain traction, people started talking about Service Oriented Architecture (SOA) as being the key architectural pattern for achieving an agile IT infrastructure that enables ease of integration. More recently the concept of an Enterprise Service Bus, which builds on Web Services and a Service Oriented Architecture, has emerged as the solution to the problem of distributed and heterogenous application integration.

This workshop will provide an introduction to Web Services, Service Oriented Architectures and the Enterprise Service Bus. We will start by describing Web Services and its basic building blocks. After reviewing the current state of Web Services in the industry, we will discuss the SOA architectural model and its relationship to Web Services. In the last part of the workshop we will focus on the concept of an Enterprise Service Bus, how it builds on Web Services to create a fabric for integrating disparate applications.

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 of large distributed systems. 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 Guidethat is published by O'Reilly. Odysseas can be reached at odysseas@sysnetint.com.

Susan Schreitmueller
IBM

Morning only

Virtualization - Managing your Enterprise through Dynamic Resource Allocation

Attendees will gain insight into IBM's Virtualization Engine on each of the four IBM SYSTEM hardware platforms: IBM System X, I, P and Z. This session will explore the framework for virtualization technologies and will lay a foundation for virtualization and availability. Methodologies for increasing productivity and utilization along with ideas for linking infrastructure performance to business goals will be presented and discussed. Availability and its role in building a foundation for virtualization along with performance tuning and capacity disciplines will be examined. Our session will close with a participant round table-type discussion on how to position the necessity of strong capacity and performance teams as IT becomes vital to meeting business goals.

Susan Schreitmueller is a Sr. Consulting I/T Specialist with IBM. She joined IBM 10 years ago as a professional hire, specializing in IBM System p and AIX. Susan has been a system's administrator on IBM System p, i, and z and she specializes in resource management and system's management. She travels extensively to customer locations and has a passion for mentoring new hires and working to create a cohesive technical community that shares information at IBM and with IBM's clients.

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George Spalding
Pink Elephant

Afternoon only

ITIL 101: An Introduction To ITIL's IT Service Management Process Model

The OGC (Office of Government Commerce) in the UK developed the IT Infrastructure Library (ITIL®) in the mid 1980s. Put simply, ITIL is a series of books that outline a comprehensive set of best practices for IT Service Management. The guidance provided in the books is relevant to all organizations: public or private, large or small, centralized or distributed.

Already, numerous IT organizations worldwide have already improved the credibility and effectiveness of their IT operations by using this best practice framework.

In this three-hour workshop, George will outline the eleven key ITIL service delivery and support disciplines, and how they relate to each other and to wider business issues. He will also explain how ITIL provides guidance for:

- Improved quality of service provision
- Improved bottom line
- Cost justifiable service quality
- Service that meets business, customer and user demands
- Documented roles and responsibilities
- Integrated, centralized processes
- Ties to ISO9000, and in 2006 the new ISO20000

Key learning objectives for attendees include:

- General introduction to the ITIL framework
- Overview of ITIL service support and delivery processes
- Better understanding of IT service management best practices

George Spalding is one of North America's most insightful and engaging IT service management and support experts. In addition to his decade-long commitment to improving the industry, George spent several years as a consultant to the White House on technical presentations and White House conferences. He also coordinated technical presentations for members of the President's cabinet, the Smithsonian Institution, and the Federal Bureau of Investigation. George has also achieved ITIL's IT Service Manager Certification and was recently selected by the Office of Government Commerce (OGC) as an author for the next version of ITIL.

Robert L. Stinnett
CARFAX, Inc.

Afternoon only

The Right Information for the Right People

People get lost in data, and too much data can be worse than not having any at all. All too often technical people forget that management only wants to know the high-level details, and not the exact numbers for each component of a system. The same applies to people throughout the entire company. Customer service may only be interested in knowing is the website up or down, they don't need to know which process is broken that is caused the website to be down.

Dashboards allow you to take technical data and present it to management and other non-IT personnel in an easy-to-read manner. It allows them to focus on the system they care about, giving them the data they need to know without overwhelming them with details.

In this workshop we'll walk you through creating a dashboard system to help display data to management personnel. By using open-source tools and showing you how to connect up to backend systems we'll design a simple, easy to use dashboard that you can use as a springboard for your own dashboard project.

CD's will be handed out with all the tools used, as well as the complete sample dashboard project.

A 30-something computer analyst from mid-Missouri who spent most of his early career working in the mainframe world of COBOL and IMS and now finds himself trapped in a Windows/Unix world doing capacity planning and automation. He's an avid book reader as well as an automotive enthusiast. More often than not his evenings are spent either browsing eBay for that steal of a deal car or outside tinkering on his own cars.

Kathy Walsh
IBM

Morning only

zPCR Hands On Lab

Capacity Planning has never faced as many challenges as seen today on IBM System z9 processors. These large processors have the ability to support 60 different LPARs running traditional z/OS workloads, like CICS and IMS, and new workloads, like zLinux and Websphere. z/OS itself now supports 32 CPs in an LPAR and can be run with specialty processors like the zAAP which runs z/OS Java based workloads, and the new IBM System z9 zIIP which runs z/OS Enclave SRB based workloads. Add to this mix the capacity issues from using other specialty CPs like an IFL used to run zLinux environments, and ICFs used to run Coupling Facility partitions.

This workshop will introduce you to the methods IBM uses to describe processor capacity for IBM System z9 and IBM zSeries processors. We will discuss the use of LSPR data and the ability to easily use the LSPR data via a new tool, free from IBM, called zPCR. This hands-on lab will provide attendees with a copy of zPCR and several different capacity planning scenarios will be taught using the tool. Attendees are expected to bring their own laptops on which to run the exercises. Whether planning a processor migration or just changing your LPAR configurations learn how to use zPCR to understand the capacity impacts of the change.

Kathy is an internationally recognized speaker and author on the zSeries platform. With extensive experience consulting on the use, deployment, performance and management of z/OS environments Kathy is a sought after expert on the management of large System z9 environments. She has written numerous articles on z/OS performance and on capacity planning approaches for large mainframe environments. She is the team leader of the performance team at IBM's Washington Systems Center.

Dr. Boris Zibitsker
BEZ Systems

Morning only

Proactive Performance Management for Multi-tier Parallel Processing Environment

Hands on Workshop on Performance Prediction and Proactive Performance Management for Multi-tier Parallel Processing Environments

Target Audience

An intensive hands onworkshop for performance management professionals who would like to learn how to build and apply analytical models to proactively manage the performance of applications in multi-tier environments including Web Logic and Web Sphere Application Servers as well as DB2 UDB ESE, Oracle 10g RAC and Teradata parallel processing Database Servers.

Objective

During the workshop you will learn how to build and apply analytical models to predict the impact of growth in workload volume and database size, as well as the impact of implementing new applications and upgrading hardware.

You will load our Excel spreadsheet with exercises to your notebook computer covering data aggregation, workload characterization, building simple analytical queueing network models, and applying modeling results to justify performance management and capacity planning recommendations

At the end of the workshop you will summarize results and prepare a report with capacity management recommendations.

Dr. Boris Zibitsker is the Founder, CTO and Chairman of BEZ Systems. He is responsible for research and development of predictive performance modeling technology.

Boris and his colleagues have developed proactive performance management tools which are used by many Fortune 100 companies to plan, manage and control performance of applications based on very large databases incorporating parallel processing. Dr. Zibitsker has consulted with many of the largest enterprises in the world and taught seminars in North America, Europe, Africa and Asia.

CMG2006 Monday Schedule

Meeting Schedule

Monday User Groups	7:30 AM - 12:00 PM
Vice President's Regional, International Officers, and Advisory Council Meeting	9:00 AM - 12:00 PM
Session Monitors & Chairs Meeting	12:30 PM - 1:30 PM
First-Time Attendee Orientation	12:30 PM - 1:30 PM
International Officers Meeting	1:00 PM - 3:00 PM
Keynote Speaker Session	1:30 PM - 2:30 PM
Technical Sessions	3:00 PM - 5:15 PM
Annual Business Meeting / Welcoming Session	6:00 PM -
PARS	Immediately Following Business Meeting

Monday User Groups

AQMSolutions, Inc.	8:00 AM	- 12:00 PM
BMC Software	7:30 AM	- 12:00 PM
Compuware Corporation	7:30 AM	- 12:00 PM
ISM (the Information Systems Manager)	7:30 AM	- 12:00 PM
MVS Solutions Inc.	7:30 AM	- 12:00 PM
SAS Institute Inc.	7:30 AM	- 12:00 PM
TeamQuest Corporation	8:00 AM	- 12:00 PM

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Monday User Group Meetings & Descriptions

AQMSolutions, Inc.

Suite 1100 28 State Street Boston, MA 02108
Phone: 1-617-875-4214 Fax: 1-866-878-9274
www.aqm-solutions.com

The TriTune and APC for TriTune User's Group will provide an update on the evolution of InTune and APC for InTune to the enhanced products TriTune and APC for TriTune. TriTune and APC together now constitute the market's most powerful solution for Automated Application Quality & Performance Management. The product update for TriTune will focus on the new functional enhancements, incl. Java under WebSphere, DB2 DDF, and DB2 Stored Procedures Support. The product update for APC will focus on the new features APC CICS SMF Feature, APC Server SMF Spooling and Job Query. The group will then review all existing enhancement requests for TriTune and prioritize these. Case studies and customer testimonials as well as a question and answer session will conclude the User Group session.

BMC Software

2101 City West Blvd. Houston, TX 77042
Phone: 713-918-3609 Fax: 713-918-3460
www.bmc.com

Join BMC Software for the 8th Annual Performance Conference at CMG 2006.

Gain insight into the latest market trends and learn how BMC solutions can help you optimize costs, virtualize your resources and control IT complexity in your data center. APC is the place to meet new contacts, connect with old friends, and increase your knowledge to be more successful in today's demanding business climate. www.bmc.com/apc

Compuware Corporation

One Campus Martius Detroit, MI 48226
Phone: 800-521-9353
www.compuware.com

Compuware is hosting a Strobe user group on Monday, December 4, 2006. This informative briefing will show you the latest advances in Strobe and ways to improve Application Performance Management (APM). Learn how other Strobe users are improving their performance, and hear from industry expert Bonnie Baker on the latest information about performance tuning DB2 applications. In addition, you will have the opportunity to ask Compuware professionals specific product questions and share experiences with other Compuware product users.

ISM (the Information Systems Manager)

One Bethlehem Plaza 8th Floor Bethlehem, PA 18018-5784
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 / VMware / UNIX / Linux).

If you'd like to attend ISM's 2006 User Group Meeting, please pre-register at our website:
http://www.perfman.com/CMGregistration

MVS Solutions Inc.

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

You're invited to the 15th annual ThruPut Manager CMG User Group session, to be held from 8:00 am to 1:00 pm. We can promise you a half day of ThruPut Manager 'how to' sessions and technical news, especially feedback on our first implementations of the Automation Edition, as well as 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

SAS Institute Inc.

100 SAS Campus Drive Cary, NC 27513
Phone: 919-531-0324 Fax: 919-531-9441
www.sas.com

SAS invites you to attend our Monday User Group Dec. 4 from 8 a.m. to 12 p.m. Hear how SAS customers use SAS® IT Management Solutions to create and deliver real IT intelligence. SAS experts will share insights on the next generation of SAS IT intelligence solutions. Join us and learn how SAS IT Management Solutions enable you to align IT delivery with business demands and attain the IT intelligence you need to optimize performance, capacity, service and profitability through:

* The creation of an integrated and enterprisewide IT data mart.
* Sophisticated analysis of IT data mart measurements.
* Advanced analytic reporting, Web-based IT intelligence, and on-demand reporting capabilities.
* A wide range of integrated SAS products that advance The Power to Know®.

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 Dec. 4. Gain insight into the trends, issues and solutions of capacity planning, performance management, IT Service Optimization (ITSO) and how TeamQuest Performance Software can complement your ITIL efforts.

Real-world examples will be discussed by TeamQuest technical staff, product managers and engineers that will provide the information needed to increase ROI and decrease TCO.

TeamQuest Performance Software helps organizations meet IT service levels while minimizing infrastructure costs and mitigating risks. TeamQuest solutions are focused on ITSO, a process supported by tools aimed at optimizing the planning and delivery of IT services.

Improve your IT optimization efforts at the TeamQuest Users Group Meeting Dec. 4.

CONFERENCE AT-A-GLANCE

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Monday, December 4th At-a-Glance

Time	Session	Subject	Author	Title
1:30 PM	232	Hot	Rob Levy	SOA: A Day in the Era of Composite Applications - How Do You Manage and Provide Capacity Planning for Composite Applications
3:00 PM	242	Net	Catherine H. Liu	Performance Monitoring and Reporting for the Edge of the Web: TCP/IP, Routing and Web Transactions
3:00 PM	243	zOS	Ned A. Diehl	Measurement and Modeling of DB2 zIIP Workloads
3:00 PM	244	Stor	Dr. H. Pat Artis	Understanding the Performance Implications of MIDAWs
3:00 PM	245	*nix	Srikanth Gopalaswami	A Common Foundational Platform for OpenSource Performance Montoring
3:00 PM	246	Core	Richard Gimarc	Quantitative Techniques to Improve Your Application Profile
3:00 PM	247	BPM	Russell A. Rogers	A Technology Cost Model for Server Infrastructure Management
4:15 PM	252	Hot	Annie Shum	Panel: The SOA Alliance
4:15 PM	253	zOS	Dr. Brian K. Wade	Effect of Parallel Access Volumes (PAV) Technology on z/VM Guest Disk I/O Performance
4:15 PM	254	Stor	Dr. H. Pat Artis	Workload Characterization Algorithms for Remote Copy
4:15 PM	255	Net	Dr. Jozo J. Dujmovic	Evaluation and Comparison of Search Engines Using the LSP Method
4:15 PM	256	Core	Gregory Dawe	Creating a Software Performance Engineering Team - Lessons Learned
4:15 PM	257	Win	Dr. Insung Park	Core System Event Analysis on Windows Vista

SUBJECT AREAS

BPM	= Business Performance Management	**Net**	= Network / Internet
Core	= Fundamentals / Core Competency	**Stor**	= Storage
Hot	= Hot Topics	***nix**	= Unix / Linux
zOS	= zSeries	**Win**	= Windows

Tuesday, December 5th At-a-Glance

Time	Session	Subject	Author	Title
8:00 AM	301	Hot	Gene Leganza	How Will SOA Impact IT Practices?
9:15 AM	311	zOS	Bonnie K. Baker	DB2 for z/OS Performance and Tuning
9:15 AM	312	Core	Robert E. Chaney	Measuring DDF Capacity and Performance
9:15 AM	313	Hot	William Malik	Performance and Capacity Issues in Service Oriented Architectures (SOA)
9:15 AM	314	zOS	Glenn R. Anderson	WebSphere App Server for z/OS Ver 6 Measurement and Tuning
9:15 AM	315	BPM	Don D. Chastain	Connecting Health of the Business Process with the Health of the IT Services
9:15 AM	316	Core	Mark B. Friedman	The Art and Science of Measurement - Part 1
9:15 AM	317	Core	Dick Arnold	A Nifty Little Technique for Finding the Trancodes that Caused A Performance Problems
9:15 AM	319		TBD	CPT Global Limited: Implementing Sustainable Operational Management Cost Reductions
9:15 AM	31A		Chris Loosley	Keynote Systems: Fundamentals of Web Performance Management
10:30 AM	321	Net	Dr. Curtis Hrischuk	A Tutorial on SIP Application Server Performance and Benchmarking
10:30 AM	321	Net	Yori Lavi	SOA Monitoring & Performance Management Challenges
10:30 AM	322	BPM	Denise P. Kalm	The Minimum Daily Adult - The Right Metrics & the Wrong Metrics
10:30 AM	322	Core	Adam Grummitt	Six Sensible Steps Towards Implementing ITIL Capacity Management
10:30 AM	322	Core	Carol M. Petroski	Case Study of Modeling Performance in a Politically Charged Environment
10:30 AM	323	zOS	Stephen R. Guendert	Designing and Managing FICON Inter-Switch Link Infrastructures
10:30 AM	324	Core	Alexander Podelko	Load Testing: Points to Ponder
10:30 AM	325	Stor	Edward L. Tretel	Forecasting Database Disk Space Requirements:
10:30 AM	325	Stor	James A. Yaple	Benchmarking Storage Subsystems at Home Using SPC Tools
10:30 AM	325	Stor	James A. Yaple	Can You Afford Low Cost Storage?
10:30 AM	326	Core	Mark B. Friedman	The Art and Science of Measurement - Part 2
10:30 AM	327	Core	Martha S. Hays	Bringing ITIL® to Life: Automating IT Capacity Management
10:30 AM	328		TBD	Captell Developments: Capacity Reporting - automated, accurate and affordable
10:30 AM	329		Amy Spellman	HyPerformix, Inc: Automating the Holistic ITIL Capacity Management Process
10:30 AM	32A		Donald Foss	Keynote Systems: Testing Web Applications: Can You Cope With Success?
1:30 PM	331		John Watson	UKCMG - Best Paper: Experiences in Capacity Management of Shared UNIX Infrastructure
1:30 PM	332	zOS	Peggy Zagelow	DB2 for z/OS Stored Procedures Performance Hot Topics
1:30 PM	333	Hot	Brenda M. Michelson	Observations from the Field: Tackling the Hard Parts of SOA
1:30 PM	334	BPM	Robert E. Chaney	The ABCs (or should I say, CASs) of I/T Chargeback
1:30 PM	335	BPM	Dr. Jeffrey P. Buzen	Achieving Business Agility with SOA: Governance & SLA Management of Shared ...
1:30 PM	336	Core	Ray Wicks	Statistics for Performance Analysis & Capacity Planning - Part 1
1:30 PM	337	BPM	Adam Grummitt	ITIL Capacity Management Appreciation Seminar - Part 1
1:30 PM	338		Tony Hughes	ASG: Focus on Success - What's New in ASG-TMON DB2 V4.0 - V4.1
1:30 PM	339		Joel Goldstein	Responsive Systems: Tuning your DB2 System with the Buffer Pool Tool for DB2
1:30 PM	33A		Shawn White	Keynote Systems: Monitoring Applications Worldwide: Behind the Scenes in Network ...
3:00 PM	341	*nix	Tony Mungal	Panel: Unix/Linux in the new Infrastructure
3:00 PM	342	zOS	Kathy Walsh	zIIPs and zAAPs - How Special Are They?
3:00 PM	343	Core	Yori Lavi	Managing Performance of Clustered, Load balanced Applications
3:00 PM	344	zOS	Martin Hubel	A Simple Approach to DB2 Index Redesign
3:00 PM	345	Hot	JP Morgenthal	The Three A's of SOA
3:00 PM	346	Core	Ray Wicks	Statistics for Performance Analysis & Capacity Planning - Part 2
3:00 PM	347	BPM	Adam Grummitt	ITIL Capacity Management Appreciation Seminar - Part 2
3:00 PM	34A		Chris Loosley	Keynote Systems: Rich Internet Applications: Design, Measurement, and Management ...
4:15 PM	351	Net	Garland Kan	Softswitch Testing
4:15 PM	352	zOS	Thomas A. Halinski	Panel: DB2 Q&A
4:15 PM	353	BPM	Oliver E. Cole	ARM Using Eclipse TPTP
4:15 PM	354	Core	James Holtman	Back of the Envelope, Rules of Thumb and Little's Law
4:15 PM	355	Hot	Annie Shum	Panel: Lessons Learned from Real World SOA.
4:15 PM	356	Core	Ray Wicks	Statistics for Performance Analysis & Capacity Planning - Part 3
4:15 PM	357	BPM	Adam Grummitt	ITIL Capacity Management Appreciation Seminar - Part 3
4:15 PM	35A		Chris Loosley	Keynote Systems: Panel: Online Business: Emerging Trends and Technologies

Wednesday, December 6th At-a-Glance

Time	Session	Subject	Author	Title
8:00 AM	401	Hot	Seckin Unlu	Performance Validation by Design
9:15 AM	411	Net	Laura J. Knapp	Network Performance in Load Balanced World
9:15 AM	412	zOS	Kathy Walsh	The XCF Factor - Performance With A Practical Approach
9:15 AM	413	zOS	Wendy Mead	Outsourcing: 4 ways to avoid buyer's remorse
9:15 AM	414	Win	Mark B. Friedman	The Reality of Virtualization for Windows Servers
9:15 AM	415	Win	Kenneth Hu	Do CPUs Count? Understanding Resource Utilization on Virtualized Systems.
9:15 AM	416	Core	Dr. Michael A. Salsburg	Modeling and Forecasting - Part 1
9:15 AM	417	BPM	Igor A. Trubin	System Performance Management by Exception, Part 6
9:15 AM	418		Pete Weilnau	ISM: Automating Capacity Management Reporting with PerfMan
9:15 AM	419	Hot	Unknown Unknown	VMWare Invited Speaker
10:30 AM	421	zOS	Bruce Perkinson	Use Trending to Manage Application and System Performance
10:30 AM	421	zOS	Rich Olcott	Dials for an PM Dashboard: Velocity's Missing Twin, and Quantifying Surprise
10:30 AM	422	Core	Suhas Sudheendra	Approach to Build Performance Model for a Web-Based System from its Application Server Logs
10:30 AM	422	Win	Jeffry A. Schwartz	Utilizing Performance Monitor Counters to Effectively Guide Windows and SQL Server Tuning Efforts
10:30 AM	423	BPM	Chris Molloy	Virtualization - Inhibitors to Server and Storage Virtualization, and How to Mitigate Them
10:30 AM	423	BPM	Chris Greco	Monitoring, Availability, and . . . Maslow?!
10:30 AM	424	Core	James F. Brady	Traffic Capacity Testing a Web Environment With Transaction Based Tools
10:30 AM	424	*nix	Debbie Sheetz	Performance Reporting/Modeling for AIX Partitioned Environments
10:30 AM	425	Stor	Dave Wagoner	Bertha: A Benchmark Tool for High-Performance Storage Subsystems
10:30 AM	425	Stor	David Raften	Remote Copy 100 km testing
10:30 AM	426	Core	Dr. Michael A. Salsburg	Modeling and Forecasting - Part 2
10:30 AM	427	Core	Dr. Dominique A. Heger	A Cohesive Framework to Quantify Computer Systems Assurance
10:30 AM	427	Hot	Dr. Dominique A. Heger	Grid Technology – Vision, Architecture, and Node Capacity Considerations
10:30 AM	427	Hot	Adrian Cockcroft	Utilization is Virtually Useless as a Metric!
10:30 AM	428		Amichai Lesser	Shunra: A Virtual Network Helps IT Staff Predict End User Experience Globally
10:30 AM	429		Rich Fronheiser	Metron-Athene: Extending Capacity Planning: End to End and Virtualization
1:30 PM	431	*nix	Joakim Dahlstedt	Java on Bare Metal - Better Resource Control when Running Java on a Hypervisor
1:30 PM	432	zOS	Peter Enrico	Understanding WLM SYSTEM and SYSSTC Service Classes
1:30 PM	433	Win	Therron Powell	Microsoft Virtualization Directions and Roadmap
1:30 PM	434	Hot	Dr. Neil J. Gunther	The Virtualization Spectrum from Hyperthreads to GRIDs
1:30 PM	435	Stor	Mark Friedman	Storage Performance Measurement Panel
1:30 PM	436	Net	Nalini J. Elkins	Introduction to TCP/IP Performance Management - Part 1
1:30 PM	437	Core	Robert D. Andresen	Build a Home Computer Lab, Change Your Life and Save the Earth.
3:00 PM	441	Net	Laura J. Knapp	End-End Performance Management
3:00 PM	442	zOS	Glenn R. Anderson	Enterprise Workload Manager: What's the E All About in EWLM?
3:00 PM	443	Win	Therron Powell	Microsoft's next generation virtualization architectures
3:00 PM	444	Hot	Jie Lu	Measuring and Modeling the Performance of the Xen VMM
3:00 PM	445	Hot	Dr. Anatoliy Rikun	Optimization with Service Level Objectives in Virtual Environment
3:00 PM	446	Net	Nalini J. Elkins	Introduction to TCP/IP Performance Management - Part 2
3:00 PM	447	Hot	Yiping Ding	On the Number of Partitions
4:15 PM	451		TBD	CMG Australia - Best Paper
4:15 PM	452	zOS	Ivan L. Gelb	Panel: zSeries Performance Q & A
4:15 PM	453	Win	Alex Vasilevsky	Optimized Windows Server Virtualization on Xen
4:15 PM	454	Hot	Peter J. Weilnau	Real World Adventures in Server Virtualization
4:15 PM	455	Hot	Dr. Michael A. Salsburg	It May Be Virtual, ... But the Overhead Isn't
4:15 PM	456	Net	Nalini J. Elkins	Introduction to TCP/IP Performance Management - Part 3
4:15 PM	457	BPM	Rich Fronheiser	ITIL Capacity Management: More Than Charts Over Coffee

Thursday, December 7th At-a-Glance

Time	Session	Subject	Author	Title
8:00 AM	501		TBD	CMG AE (Austria and Eastern Europe) - Best Paper
8:00 AM	502	Core	Dr. Charles A. Letner	Getting to Know Your Production Response Time
8:00 AM	503	Net	Dr. Cathy A. Fulton	Best Laid Plans: Enterprise Network Performance Case Studies and Lessons Learned
8:00 AM	504	zOS	Glenn R. Anderson	Introduction to z/OS Monitoring, Tuning, and the Workload Manager - Part 1
8:00 AM	505	*nix	Adrian A. Cockcroft	Unix/Linux CMG Quick Start Course - Part 1
8:00 AM	506	Win	Jeffry A. Schwartz	Windows System Performance Measurement and Analysis - Part 1
8:00 AM	507	Core	Jim Horne	The LOWE Down on Capacity Planning
8:00 AM	50A		Peter Sevcik	Apdex: Defining Performance and the Apdex Standard
9:15 AM	511	Net	Nalini J. Elkins	Ten Commandments of TCP/IP Performance
9:15 AM	512	Core	Amy C. Spellmann	The Roadmap for Full Lifecycle Performance Engineering
9:15 AM	513	Stor	Bruce McNutt	Cache Management of Competing I/O Workloads
9:15 AM	514	zOS	Glenn R. Anderson	Introduction to z/OS Monitoring, Tuning, and the Workload Manager - Part 2
9:15 AM	515	*nix	Adrian A. Cockcroft	Unix/Linux CMG Quick Start Course - Part 2
9:15 AM	516	Win	Jeffry A. Schwartz	Windows System Performance Measurement and Analysis - Part 2
9:15 AM	517	BPM	Scott A. Chapman	An Implementation of a Business Metrics Database
9:15 AM	51A		Peter Sevcik	Apdex: Applying Apdex to Your Enterprise
10:30 AM	521	Core	Frank M. Bereznay	Did Something Change? Using Statistical Techniques to Interpret Service and Resource Metrics.
10:30 AM	522	Hot	Robert E. Ritchie	Performance Tuning and Resource Management in Java Applications
10:30 AM	522	BPM	Charles Hoover	A Methodology For Determining Response Time Baselines
10:30 AM	522	Hot	Dipto Chakravarty	Security and Compliance Incident Response
10:30 AM	523	Core	Dr. Xianneng Shen	Panel: The Scalability Challenge - Methods to Cope with Scalability
10:30 AM	524	zOS	Glenn R. Anderson	Introduction to z/OS Monitoring, Tuning, and the Workload Manager - Part 3
10:30 AM	525	*nix	Adrian A. Cockcroft	Unix/Linux CMG Quick Start Course - Part 3
10:30 AM	526	Win	Jeffry A. Schwartz	Windows System Performance Measurement and Analysis - Part 3
10:30 AM	527	BPM	Chris Molloy	The Future of Peformance Management and Capacity Planning
10:30 AM	527	BPM	John Yennie	ARMing the Enterprise
10:30 AM	528		TBD	Compuware Strobe: Application Performance Management for the Mainframe
10:30 AM	529		Adam Grummitt	Metron-Athene: Implementing Capacity Management
10:30 AM	52A		Peter Sevcik	Apdex: Tools to Measure and Improve Performance
1:30 PM	531	Net	Mark W. Johnson	Instrumentation and Analysis of Web Transactions in a Large Multi-Tier Banking Services Application
1:30 PM	532	Hot	Dr. Bernard Domanski	Ever Feel As If The World Is Passing You By? Wanna Catch Up Fast?
1:30 PM	533	zOS	Christian Schram	DB2 UDB for z/OS: Making Friends with the Optimizer
1:30 PM	534	Core	Peter Johnson	Java Performance Analysis 301
1:30 PM	535	BPM	Scott A. Chapman	Adding Value to Performance Management with Business Metrics
1:30 PM	536	BPM	Sam Nokes	Application of Supply Chain Mechanisms to an On Demand Operating Environment
1:30 PM	537	BPM	Jon McKenzie	Beyond System Capacity Planning: Serving a Growing Environment and Customer Base ...
1:30 PM	53A		Peter Sevcik	Apdex: The Apdex Management Process
3:00 PM	541		Mark Cohen	CMG Italy - Best Paper: AIX Micro-Partitioning
3:00 PM	542	Core	Brian Johnson	The Myth of Memory Utilization on Midrange Systems
3:00 PM	543	BPM	Cary V. Millsap	Accountability for System Performance
3:00 PM	544	Net	Peter Johnson	10 Steps to Securing Your Web Applications
3:00 PM	545	BPM	Chris Molloy	What Performance and Capacity Management People Need to Know About Finance
3:00 PM	546	Hot	Dr. Odysseas I. Pentakalos	Performance Evaluation of Java Persistence Frameworks
3:00 PM	547	zOS	William Shelden Jr., PhD	A Performance Analyst's Guide to the RMF Type 70 Record
3:00 PM	54A		Peter Sevcik	Apdex: Case Studies Using Apdex
4:15 PM	551	Hot	Charles Hoover	ITIL vs. Agile Programming: Is The Agile Programming Discipline Compatible With The ITIL Framework?
4:15 PM	552	Stor	Greg Schulz	Storage System Update and Review
4:15 PM	553	BPM	Rick Lebsack	Panel: Measuring Business Performance — Can IT bridge the Chasm?
4:15 PM	554	Net	Sidney W. Soberman	Panel: Performance at the Edge of the Web
4:15 PM	555	BPM	Dr. Thomas E. Bell	Measuring and Projecting Power for High Density Computing
4:15 PM	556	zOS	Steven R. Hackenberg	CICS Open Transaction Environment And Other TCB Performance Considerations
4:15 PM	557	Core	Linda J. Carroll	The Straight Capacity Line
4:15 PM	55A		Peter Sevcik	Apdex: Open Meeting of the Apdex Alliance
5:15 PM	5PC		*Multiple Speakers*	*Poster Sessions*

Friday, December 8th At-a-Glance

Time	Session	Subject	Author	Title
8:00 AM	601	Stor	Mel Boksenbaum	Panel: Storage Performance Council Update
8:00 AM	602	Core	Margaret A. Churchill	Forecasting + Modeling: A Partnership to Predict and Prevent Capacity Bottlenecks
8:00 AM	603	Net	James H. Baxter	Achieving Practical Network Application Impact and Response Time Projections
8:00 AM	603	Net	Paolo Cremonesi	Identifying Network Failures and Evaluating Link MTBF from Utilization Logs
8:00 AM	604	BPM	Jon E. Schmidt	Managing Financial Systems: The Peak Experience
8:00 AM	605	*nix	Irvin G. Eiceman	AIX System Performance Experiences and Basic Tuning
8:00 AM	605	*nix	Timothy P. Cook	Out-of-the-box Performance of OLTP on High-end Servers - A Comparison of File Systems & Configuration
8:00 AM	606	Core	Dr. Henry H. Liu	Applying Queuing Theory to Optimizing the Performance of Enterprise Software Applications
8:00 AM	607	Core	Robert Hamilton	A Practical Approach to a Processor Migration Capacity Analysis
9:15 AM	611	Stor	Tom Trainer	Storage Virtualization – The No Spin Zone!
9:15 AM	612	Core	Dr. James Bouhana	Active Baselining in Passive Data Environments
9:15 AM	613	Hot	Herb Van Hook	The Well-Managed Web Service
9:15 AM	614	Net	Jeff Fried	Performance and Quality Monitoring for Interactive Voice Services Using the CPL
9:15 AM	615	*nix	Peg McMahon	The Need for Speed: Simple Tested Techniques to Beef Up Performance of Your Solaris/Oracle Database
9:15 AM	616	Core	Todd R. Bourne	An Internet Business Capacity Model - More Tiers, Less Tears!
9:15 AM	617	BPM	Gregory V. Caliri	Performance Reporting in the 21st Century - Changes in Scope and Direction
10:30 AM	621	Stor	Kathleen N. Hodge	Database Backups Using Virtual Tape Volumes
10:30 AM	622	zOS	Tom Moulder	The Effect of Distribution and Correlation Statistics on the DB2 Optimizer
10:30 AM	623	Core	Denise Arruda	The Bottleneck Cycle
10:30 AM	624	Core	Todd Schmitter	Encouraging Wider Use of Performance Metrics through Web Technologies
10:30 AM	624	Core	Alex Gilgur	Apriori Evaluation of Data and Selection of Forecasting Model
10:30 AM	625	Net	Mike Tsykin	Measurement of Transaction-Based End-To-End Response Time in Un-Armed Environments
10:30 AM	626	Core	Rico Mariani	Performance Signatures: A Qualitative Approach to Dependency Guidance
10:30 AM	627	BPM	Mark M. Maccabee	Transaction Processing using J2EE Application: Performance with Tens of Millions of Users

SESSION DESCRIPTIONS

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SESSION DESCRIPTION LEGEND

SESSION NUMBER — **DAY START TIME - END TIME**
PAPER NUMBER — SESSION TYPE
SUBJECT AREA — PLATFORM
No Paper *

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***

RENO 2008 CMG

SESSION 232 **MONDAY 1:30 PM - 2:30 PM**
PAPER 6406 NON-SPECIFIC
HOT TOPICS No Paper

SOA: A Day in the Era of Composite Applications - How Do You Manage and Provide Capacity Planning for Composite Applications

Rob Levy, BEA Systems

Simply put, "Enabling Flexibility in IT and Flexibility with IT" is the most compelling message in the Service Orientation paradigm shift. Nonetheless, the SOA transformation journey from today's inflexible and brittle IT is a long and winding road. One of the most daunting challenges to the SOA based agile "nirvana" is the staggering complexity that is a byproduct of traditional one-off, point to point applications integration. The solution? In lieu of today's frozen monolithic applications, Composite Applications are formed by assembling services to mirror business processes and flexibly adapt to changing business needs on demand. For example, a composite application to process customer orders is an amalgamation of multiple services such as Check_Customer_Status, Verify_Customer_Credit, Lookup_Customer_History, Determine_Product_Availability, Calculate_Shipping_Charges, and Currency_Conversion. These may include both off-the-shelf and internally developed services, but more importantly, shared external 3rd party services hosted beyond the corporate firewalls.

The competitive edge of Composite Applications stems primarily from the flexibility to compose and decompose services derived from applications in real time. As you build up a portfolio of services, you can substantially increase the opportunities to mix and match and configure a wide array of business functionalities, thereby circumventing the traditional long software development cycle. However, you can see how this loosely coupled assembly can lead to "applications" that cross business boundaries. They will likely be federated, running on heterogeneous platforms and hence more challenging to measure, ensure good response, and plan for capacity. This talk will explore the emergence of Composite Applications as business solutions, the implications on today's IT infrastructure and the criticality of a service oriented management and capacity planning methodology.

SESSION 242 **MONDAY 3:00 PM - 4:00 PM**
PAPER 6524 NON-SPECIFIC
NETWORK/INTERNET No Paper

Performance Monitoring and Reporting for the Edge of the Web: TCP/IP, Routing and Web Transactions

Catherine H. Liu, AES

Burgeoning mission-critical applications are heavily dependent on Internet technologies. Users demand more and more functionality, with near zero downtime. These ever-increasing demands make the management of enterprise networks extremely challenging. When there is a response time issue, the user needs to know where to look for information and then exactly what to look for in order to resolve the problem. Most networks have a limited set of shared resources and there are always potential performance bottlenecks elsewhere in the network. It is counter-productive to simply eliminate a performance bottleneck, only to have it move to some other resource. The presentation will demonstrate how superior data collection and analysis of mainframe-based TCP/IP networks, TCP/IP routes and Web transaction performance can provide valuable input to address not only the short-term problems, but also prepare to meet enterprise network long-term growth objectives.

SESSION 243 **MONDAY 3:00 PM - 4:00 PM**
PAPER 6086 TECHNIQUES AND TECHNOLOGIES
ZSERIES ZSERIES

Measurement and Modeling of DB2 zIIP Workloads

Ned A. Diehl, ISM Inc.

IBM System z9 Integrated Information Processors (IBM zIIP) provide very attractive price / performance options for appropriate DB2 environments. They also add complexity to performance management and capacity planning. This paper will discuss data sources that can be used to estimate the amount of current DB2 workload eligible for zIIP processors. Modeling techniques using that data will show approaches to evaluating the benefits of various zIIP processor configurations. Also discussed will be some of the data changes that will result from implementation. DDF will be the primary focus.

SESSION 244 **MONDAY 3:00 PM - 4:00 PM**
PAPER 6502 ZSERIES
STORAGE No Paper

Understanding the Performance Implications of MIDAWs

Dr. H. Pat Artis, Performance Associates, Inc.

Modified Indirect Data Address Words (MIDAWs) are a new feature of z9 processors, enabled by z/OS 1.7, that can substantially improve the performance of FICON connected storage subsystems. This session will provide an overview of MIDAWs and discuss how they can be employed to restructure complex channel programs. After this introduction, the session will focus on the analysis of measurement results for a number of structured experiments designed to demonstrate the performance benefits of MIDAWs.

SESSION 245 **MONDAY 3:00 PM - 4:00 PM**
PAPER 6552 LINUX
UNIX/LINUX No Paper

A Common Foundational Platform for OpenSource Performance Montoring

Srikanth Gopalaswami, Groundworkk

A number of monitoring tools such as Nagios, RRD, Ganglia, MRTG exist in open source and have generated significant traction with enterprises who want to lower IT monitoring costs associated with running and maintaining their IT infrastructure. Companies leverage these tools for their specific capabilities in monitoring availability and performance across a variety of systems, networks and applications. Individually, each of these tools provides specific advantages to IT Operations Managers and System Administrators. For example, Nagios offers strong system availability monitoring capabilities whereas Ganglia provides an ideal solution for monitoring performance of large clusters or grids. Enterprises often have to install, configure and maintain a number of these disparate tools, albeit separately, to even attempt to cohesively manage the availability and performance of their IT infrastructure.

In this session, we will examine how enterprises can benefit from integrating best of breed monitoring tools into a common foundational platform to gain a scalable and comprehensive monitoring solution that provides them with centralized IT visibility and control while addressing most of their availability and performance management needs.

SESSION 246 **MONDAY 3:00 PM - 4:00 PM**
PAPER 6147 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Quantitative Techniques to Improve Your Application Profile

Richard Gimarc, HyPerformix, Inc.

The starting point for any application performance study is to develop a profile of your application. The resulting application profile serves as the foundation for further performance tuning or capacity planning studies. This session will illustrate the use of a number of techniques from statistics and operational analysis to develop, refine, and verify the elements of your application profile.

SESSION 247 **MONDAY 3:00 PM - 4:00 PM**
PAPER 6027 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

A Technology Cost Model for Server Infrastructure Management

Russell A. Rogers, Bank of America

Today, the method used most often for budgeting server growth is linear gross estimation. The method is simple, a manager applies the percentage increase in business growth to the total number of severs they currently have in production. However this method can create significant distortions. This session reviews an approach to defining a technology cost model using principals from Activity Based Costing. The model is designed to give managers the data they need to make better decisions regarding server budgets.

SESSION 252 **MONDAY 4:15 PM - 5:15 PM**
PAPER 6546 PANEL
HOT TOPICS NON-SPECIFIC
No Paper

Panel: The SOA Alliance

Annie Shum, BEA

This panel consists of founding members of the SOA Alliance, which focuses on gathering and communicating best known methods and reference implementations for SOA. They are dedicated to the development of one voice for the vendor community and standards bodies regarding needs of real enterprises. In this panel, officials of the SOA alliance will discuss the real world challenges they face every day, along with some potential solutions.

Panelists include: John Schmidt of Bank of America, Yogish Pai of BEA Systems, Ashok Kumar of Avis Budget, Tom Gibbs of Intel, and Jeff Pendleton of SOA Allinace.

SESSION 253 **MONDAY 4:15 PM - 5:15 PM**
PAPER 6153 EXPERIENTIAL
ZSERIES ZSERIES

Effect of Parallel Access Volumes (PAV) Technology on z/VM Guest Disk I/O Performance

Dr. Brian K. Wade, IBM

In May 2006 IBM equipped its z/VM operating system to exploit IBM storage servers' Parallel Access Volumes (PAV) technology, so as to expedite virtual machine disk I/O. This session briefly describes how z/VM uses PAV. It also gives the results of measurements illustrating the effect of the PAV exploitation on virtual machine disk I/O performance. The measurements show that z/VM's use of PAV can provide performance improvements for virtual machine disk I/O.

SESSION 254 **MONDAY 4:15 PM - 5:15 PM**
PAPER 6501 ZSERIES
STORAGE No Paper

Workload Characterization Algorithms for Remote Copy

Dr. H. Pat Artis, Performance Associates, Inc.

The planning and implementation of synchronous and asynchronous z/OS remote copy solutions present a myriad of workload characterization problems as well as risks to the enterprise. This presentation will discuss algorithms for calculating write data and I/O rates, identifying problem volumes, and present a methodology for testing and certifying a remote copy environment before committing your production workload.

SESSION 255 **MONDAY 4:15 PM - 5:15 PM**
PAPER 6128 TECHNIQUES AND TECHNOLOGIES
NETWORK/INTERNET NON-SPECIFIC

Evaluation and Comparison of Search Engines Using the LSP Method

Dr. Jozo J. Dujmovic, San Francisco State University
Haishi Bai, San Francisco State University

We present a comprehensive model for quantitative evaluation and comparison of search engines. The model is based on the LSP method for system evaluation. The basic contribution of our approach is the aggregation of all relevant attributes that reflect functionality, usability, and performance of search engines. In this respect our model is fully consistent with the ISO 9126 standard for software product evaluation. Performance analysis of search engines is based on our search engines benchmarking tool that is also described in the paper.

SESSION 256 **MONDAY 4:15 PM - 5:15 PM**
PAPER 6126 BASICS/INTRODUCTORY
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Creating a Software Performance Engineering Team - Lessons Learned

Gregory Dawe, RSA Security

''I can do that job''. Those were my closing words in the job interview with the VP of Engineering who was looking for a manager to create a software performance team. Not that I knew what I was really getting myself into. The audience for this paper is the uninitiated - the software professionals who find themselves in the arena with no prior performance experience. Lessons recounting what worked for the team's charter, overall business approach, staffing, philosophy behind lab spending, workflow, and testing policies are discussed.

SESSION 257 **MONDAY 4:15 PM - 5:15 PM**
PAPER 6176 TECHNIQUES AND TECHNOLOGIES
WINDOWS WINDOWS

Core System Event Analysis on Windows Vista

Dr. Insung Park, Microsoft Corp.

Event Tracing for Windows (ETW) has been the key instrumentation technology on Windows platforms for years. Many core operating system components have been instrumented with ETW, providing a basis for system activity analysis and problem diagnosis for developers and tools. The upcoming Windows Vista® operating system contains many new events, in response to the growing need to diagnose and tune various system and application activities. We describe the system events that are available on Vista and provide a few correlation techniques that can be used to analyze them.

SESSION 301 **TUESDAY 8:00 AM - 9:00 AM**
PAPER 6510 NON-SPECIFIC
HOT TOPICS No Paper

How Will SOA Impact IT Practices?

Gene Leganza, Forrester Research

For decades it has been common wisdom in capacity planning and performance management circles that IT needs to be business-driven, that is, that IT's resources, initiatives and metrics should align with business strategy. In the past, that was much easier said than done given business units' typical aversion to detailed planning. Over the last five years, economic doldrums drove most organizations to implement formal planning, prioritization, and governance processes, and organizations have significantly matured their planning processes. Meanwhile, service oriented architecture (SOA) has become hot, and effective SOA implementations require a detailed understanding of end-to-end business processes. Business units are coming to rely on IT architects' sophistication regarding formal analysis processes to take advantage of SOA-enabled technology. The net effect is a trend away from waterfall planning towards an increasing collaboration between business and IT stakeholders.

In addition, the flexibility provided by service-oriented architecture (SOA) enables the continuous optimization of business processes. But the traditional IT organization, which is oriented toward discrete business units and supported by vertically integrated applications, constrains this optimization rather than helps. To be effective, the IT organization must develop an orientation around end-to-end business processes. A number of existing IT roles need to be redefined to ensure that this process orientation is reflected in IT's strategies and plans.

Finally, the economic slowdown also produced a new emphasis on clearly quantified business value for any resource expenditure. IT will be held responsible for establishing the value of SOA and for analyzing tradeoffs in development, future enhancement and integration activity, runtime performance impact, or other areas that can affect the business value of IT investments.

SESSION 311 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6533 ZSERIES
ZSERIES No Paper

DB2 for z/OS Performance and Tuning

Bonnie K. Baker, Bonnie Baker Corp.

Every DB2 subsystem needs a periodic health check. This session will provide a performance check list to guide you and will offer recommendations for fixing any problems that are found. The focus will be on improving application performance and ensuring data integrity. War stories and analogies will illustrate how DB2 works and how to make it work better.

SESSION 312 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6078 EXPERIENTIAL
FUNDAMENTALS/CORE COMPETENCY ZSERIES

Measuring DDF Capacity and Performance

Robert E. Chaney, Delta Technology, Inc.

The DDF (Distributed Data Facility) environment provides the capability for remote access to large DB2 databases by many remote application servers. While much of the application activity occurs outside the zseries complex, there are many measurements that can be used to understand not only the internal but also the remote activity that drives performance and capacity. This paper will explore those measurements for a large Enterprise Data Store that interacts with many various application servers.

SESSION 313 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6548 NON-SPECIFIC
HOT TOPICS No Paper

Performance and Capacity Issues in Service Oriented Architectures (SOA)

William Malik, Malik Consulting, LLC

This session will describe an approach to SOA perfomance management. It will first show how traditional application architecture gave rise to SOA. It will address performance and capacity planning "hot spots" in prospective SOA developments along with potential constraints in processors, network, memory and disk storage. Immediate and longer-range perfromance issues will also be discussed.

SESSION 314 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6519 ZSERIES
ZSERIES No Paper

WebSphere App Server for z/OS Ver 6 Measurement and Tuning

Glenn R. Anderson, IBM

Now that you've installed WebSphere Application Server for z/OS Ver 6, how do you know that your system has been tuned for optimal performance? This session will provide performance tuning recommendations for WebSphere on z/OS, including application topology and configuration considerations, using WLM to manage WAS workloads, WebSphere tuning, JVM tuning, and z/OS system tuning . The session will also provide information about tools and techniques which can be used for performance analysis, such as RMF and the ITCAM for Websphere monitoring product.

SESSION 315 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6539 NON-SPECIFIC
BUSINESS PERFORMANCE MANAGEMENT No Paper

Connecting Health of the Business Process with the Health of the IT Services

Don D. Chastain, Hewlett Packard

As business operations teams make the decision to automate their business processes, a new level of complexity is being introduced to IT Operations. It is common for a business reengineering project to be sponsored by the business operations staff for a given business function. Even though these are business-based projects, great amounts of IT are required to enable the automation desired. As these projects exit the development phase and enter operations, a new set of technologies are introduced to IT Operations. The challenge often lies in how well IT can respond to supporting these new requirements by business operations. One method to overcome this challenge is to connect two management disciplines, Business Process Management and Business Service Management.

Connecting health of the business process with the health of the IT services provides a level of transparency between business and IT that hasn't yet been possible, until now.

CMG-T

SESSION 316 **TUESDAY 9:15 AM - 10:15 AM**
SESSION 326 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 6508 NON-SPECIFIC
FUNDAMENTALS/CORE COMPETENCY No Paper

The Art and Science of Measurement

Mark B. Friedman, Demand Technology

This basic tutorial in the CMG-T foundation curriculum introduces the measurement techniques that are employed in monitoring computer performance. It focuses on the two major types of measurement procedures – interval-based sampling and event-driven measurements. It discusses the relative advantages and disadvantages of these two approaches, comparing and contrasting them in terms of their accuracy, validity, and reliability. The clock and timer facilities that interval-based sampling measurements rely upon are also described. Common measurement anomalies including missing or incomplete data capture, are also discussed, along with overhead considerations. The class draws heavily on examples from the IBM mainframe hardware and software environment as well as Intel server hardware and the Windows operating system.

SESSION 317 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6159 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

A Nifty Little Technique for Finding the Trancodes that Caused A Performance Problems

Dick Arnold, JP Morgan Chase Bank

So you check the weekly stats for your online systems and discover that response time, or CPU usage, or whatever, suddenly shot up last week. So you delve into the trancode level stats to take a look at the big trancodes and discover that their usage went down. Now what? Well, there's only 397 more trancodes to review, shouldn't take long. Yeah right. If you could use an easier way to isolate the cause of these sudden changes, then this easy and fairly unknown technique could be a big help.

VENDOR TRAINING

SESSION 319 **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6802 No Paper

CPT Global Limited: Implementing Sustainable Operational Management Cost Reductions

TBD

The operational management of production systems is a significant cost to an organization due to their increasing percentage of the IT budget

In this presentation we will cover:
- The most common areas of inefficiencies in the production environment
- The root causes for these
- Frameworks, processes and techniques that lead to sustainable cost reductions
- Key IT governance issues that can hinder implementation of sustainable cost reductions.

In this session we will include a discussion on frameworks such as ITSM/ITIL and CobiT

KEYNOTE@CMG2006

SESSION 31A **TUESDAY 9:15 AM - 10:15 AM**
PAPER 6451 No Paper

Keynote Systems: Fundamentals of Web Performance Management

Chris Loosley, Keynote Systems

This session introduces the subject matter for the day and provides a foundation for subsequent sessions. It will review the factors that contribute to the responsiveness and availability of Web applications, and introduce a universally applicable framework for systematic service level management (SLM). This framework will provide a model of the essential organizational structures and activities required to define objectives for Web application performance, measure actual performance, and keep services meeting agreed goals. The framework will show how SLM activities are divided among business areas (management, marketing, engineering, IT/operations), and are intrinsically connected to the business goals for the application.

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

PAPER 6084 TECHNIQUES AND TECHNOLOGIES
NETWORK/INTERNET NON-SPECIFIC

A Tutorial on SIP Application Server Performance and Benchmarking

Dr. Curtis Hrischuk, IBM

The Session Initiation Protocol (SIP) is an internet protocol for establishing sessions between two or more parties. It is becoming ubiquitous in uses ranging from Voice over IP, instant messaging, Internet TV, and others. The Java community has even provided a standardized API so that SIP applications can now be built within J2EE application servers. These new capabilities also bring with them new performance engineering methods, tools, and benchmarking needs. This paper describes the experiences and processes for the performance engineering of SIP applications in a J2EE environment.

PAPER 6531 NON-SPECIFIC
NETWORK/INTERNET No Paper

SOA Monitoring & Performance Management Challenges

Yori Lavi, OpTier

By design, SOA monitoring, performance and routing management assumes that all the information necessary for the management of a service or instances of a service (i.e. transactions) are served up in the description of the service. The internal workings of the service, including any dependencies on system components and performance metrics are hidden by design. This separation obscures the transaction's invocation chain and presents a plethora of management challenges.

Successful deployment of SOA requires effective management of SOA. To effectively manage SOA from a quality of service as well as resource usage perspective requires a business-context-driven view of a service's components and how they function and interact among themselves in the SOA and across its borders to legacy environments. This presentation will cover the challenges in managing a production SOA and how business transaction tracking helps you get the most of your move to SOA by allowing you to see your business process performance, taking you beyond monitoring hardware and software application performance, and actively maintaining Service Level Agreements based on business priorities.

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

PAPER 6051 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

The Minimum Daily Adult - The Right Metrics & the Wrong Metrics

Denise P. Kalm, CA, Inc. (formerly Cybermation)

In capacity planning and performance analysis, we are inundated with metrics that purport to measure performance, but how we display them and understand them is what matters. Many metrics we take for granted are actually not that useful, and yet, permeate our world. Understand why the same-old, same-old metrics aren't good enough, and what works better in this brief paper.

PAPER 6090 BASICS/INTRODUCTORY
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Six Sensible Steps Towards Implementing ITIL Capacity Management

Adam Grummitt, Metron

This session describes the core approach used by a number of sites in the pragmatic implementation of Capacity Management. It describes the use of ITIL and the Capability Maturity Model to help assess current levels of implementation and strategic targets for improvement. It also discusses the use of Six Sigma techniques to improve the measures of performance. It gives guidelines for successful implementation and incorporates some of the "business as usual" practices and reports necessary to maintain the capacity management regime in terms of both performance management and capacity planning.

PAPER 6169 EXPERIENTIAL
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Case Study of Modeling Performance in a Politically Charged Environment

Carol M. Petroski, BAE Systems AIT

Modeling performance can be extremely difficult, particularly when an outsider does the analysis. The modeling methodology and overall approach can make a significant difference to the success of such an effort. This session discusses a user experience creating a simple simulation model. This model led to the identification of a serious coding flaw in the application.

SESSION 323 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 6056 TECHNIQUES AND TECHNOLOGIES
ZSERIES ZSERIES

Designing and Managing FICON Inter-Switch Link Infrastructures

Stephen R. Guendert, McDATA
H. Pat Artis, Performance Associates, Inc.

FICON Inter-Switch Links (ISLs) provide an elegant solution to the bandwidth requirements of complex parallel sysplex environments. This session will review basic ISL concepts, how they are defined in HCD, focus on design principals for fault tolerance, and examine the measurement data available for performance management and capacity planning.

SESSION 324 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 6143 BASICS/INTRODUCTORY
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Load Testing: Points to Ponder

Alexander Podelko, Aetna

Testing of multi-user applications under realistic stress loads remains the only way to ensure appropriate performance and reliability in production. The author outlines some issues to consider for performance testing of distributed business applications and presents the typical pitfalls from the practical point of view. While the original objective was to contrast load testing with functional testing, the paper touches many important points of performance testing.

SESSION 325 **TUESDAY 10:30 AM - 12:00 PM**

PAPER 6004 TECHNIQUES AND TECHNOLOGIES
STORAGE UNIX

Forecasting Database Disk Space Requirements:

Edward L. Tretel, Northwest Airlines

In the absence of special purpose monitoring and/or modeling software designed specifically for forecasting database disk space requirements, a solution was developed using general purpose database facilities and office suite products. The results achieved were (1) an understanding of the heretofore unknown trends and patterns in the use of disk space by individual databases (2) the ability to accurately and proactively forecast the additional disk space needed for individual databases, and (3) the ability to reclaim the forecast unused disk space, all based upon linear regression analyses

PAPER 6081 EXPERIENTIAL
STORAGE NON-SPECIFIC

Benchmarking Storage Subsystems at Home Using SPC Tools

James A. Yaple, Austin Automation Center - Department of Veteran's Affairs
James Barton, Austin Automation Center - Department of Veteran's Affairs

Storage vendors routinely benchmark their products in a lab for marketing or internal development. Realizing enterprise storage procurements can run into the millions of dollars, how can an end user organization evaluate various storage subsystems in their environments before signing on the bottom line? Using Storage Performance Council (SPC) benchmarks, we tested multiple storage subsystems and will share their unaudited results.

PAPER 6080 EXPERIENTIAL
STORAGE NON-SPECIFIC

Can You Afford Low Cost Storage?

James A. Yaple, Austin Automation Center
Greg Lee, Austin Automation Center - Department of Veteran's Affairs
James Barton, Austin Automation Center

With discount computer stores selling disk drives for a dollar per GB, how can enterprise storage systems be more than 100 times that? What are the advantages of enterprise storage arrays? What role can low cost storage play in the information life cycle? Initiatives from companies such as Oracle are promoting lower cost storage alternatives in departmental and enterprise environments. This session examines these questions and present performance results of various arrays using the ORION benchmarking tool.

*Session descriptions continued on page **43***

CMG2006 at the Grand Sierra Resort

Grand Sierra Resort and Casino would like to announce the transformation of the Reno Hilton into something spectacular! The sale of the Reno Hilton to Grand Sierra Resort and Casino is now complete and the 145-acre property is about to be transformed with an extraordinary vision. Our new master plan features many enhancements including one of the industry's most sought after condominium-hotel projects. We look forward to sharing the exciting changes ahead with you.

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Registration Fees: Options 1-2 and 6-7 include attendance to all sessions, BOFs, Exhibitor Presentations, Exhibit access Tuesday-Thursday, Breakfasts and Lunches Tuesday-Friday, and PARS (Options 3 & 4 include the same functions for those days registered). Options 1, 5 & 6 include attendance to the Sunday Workshops, Breakfast and Lunch on Sunday. All registration options (EXCEPT options 6, 7, and 8) include a one year CMG membership for the year immediately following the conference.

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Option 1	Full Week Conference & Sunday Workshops	$1,650.00❑	$1,850.00❑	$1,900.00❑	$2,100.00❑
Option 2	Full Week Conference Only	$1,375.00❑	$1,575.00❑	$1,625.00❑	$1,825.00❑
Option 3	One Day Conf. ❑ Mon. ❑ Tue. ❑ Wed. ❑ Thu. ❑ Fri.	$475.00❑	$525.00❑	$550.00❑	$600.00❑
Option 4	Two Day Conf. ❑ Mon. ❑ Tue. ❑ Wed. ❑ Thu. ❑ Fri.	$775.00❑	$875.00❑	$900.00❑	$1,000.00❑
Option 5	Sunday Workshops Only	$475.00❑	$475.00❑	$475.00❑	$475.00❑
Option 6	Corporate (shared) Badge - Full Week & Workshops	N/A	$1,850.00❑	N/A	$2,100.00❑
Option 7	Corporate (shared) Badge - Full Week	N/A	$1,575.00❑	N/A	$1,825.00❑
Option 8	Guest Registration: Breakfast and PARS tickets				$350.00❑
CMG2006 CD-Rom Proceedings: All registered attendees will receive on site with their collectibles					*FREE* ☒
CMG2006 Printed Proceedings - 2 Volume					$60.00❑
ITIL Foundation Training Course conducted by Pink Elephant (Sat. & Sun.)					$1395.00❑
				GRAND TOTAL	

Payment Options: Full payment in US dollars, check, money order or credit card must accompany the registration form or the registration cannot be processed.

❑ Check Enclosed (payable to The Computer Measurement Group, Inc.) ❑ VISA ❑ Mastercard ❑ American Express

Credit Card #: _____ Expiration Date: _____ Zip Code: _____

Name of Cardholder (*please print*) _____ Signature of Cardholder (*signifies authorization to charge credit card account*)

Note: Monies paid to the Computer Measurement Group are not deductible as charitable contributions but may be deductible as ordinary & necessary business expenses. See your tax consultant for advice.

REGISTRATION OPTIONS

OPTION 1 FULL CONFERENCE & SUNDAY WORKSHOPS

Includes entry to all **CMG2006** sessions, BOFS, exhibitor presentations, exhibit hall access, meals/PARS, Proceedings, Sunday Workshops, and 2007 CMG membership.

OPTION 2 FULL WEEK CONFERENCE

Includes entry to all **CMG2006** sessions, BOFS, exhibitor presentations, exhibit hall access, meals/PARS, Proceedings, and 2007 CMG membership. (Sunday Workshops are not included)

OPTION 3 ONE-DAY CONFERENCE

Includes entry on the day specified to all **CMG2006** sessions, BOFS, exhibitor presentations, exhibit hall access, meals/PARS, Proceedings, and 2007 CMG membership. (Sunday Workshops are not included)

OPTION 4 TWO-DAY CONFERENCE

Includes entry on the days specified to all **CMG2006** sessions, BOFS, exhibitor presentations, exhibit hall access, meals/PARS, Proceedings, and 2007 CMG membership. (Sunday Workshops are not included)

OPTION 5 SUNDAY WORKSHOP ONLY

Includes entry to Sunday Workshops including handouts for the Sunday Workshops, breakfast and lunch on Sunday, Proceedings, and a 2007 CMG Membership.

OPTION 6 CORPORATE BADGE – FULL WEEK AND SUNDAY WORKSHOPS

Each Corporate Badge specifies a company name, not an attendee name. Includes entry to all **CMG2006** sessions, BOFS, exhibitor presentations, exhibit hall access, meals/PARS, Proceedings, and Sunday Workshops. This provides local companies and **CMG2006** exhibitors the opportunity to send more associates to a variety of conference sessions at different times during conference week. **There is no 2007 CMG membership with this option.**

OPTION 7 CORPORATE BADGE – FULL WEEK

Each Corporate Badge specifies a company name, not an attendee name. Includes entry to all **CMG2006** sessions, BOFS, exhibitor presentations, exhibit hall access, meals/PARS, and Proceedings (Sunday Workshops are not included). This provides local companies and **CMG2006** exhibitors the opportunity to send more associates to a variety of conference sessions at different times during conference week. **There is no 2007 CMG membership with this option.**

OPTION 8 GUEST REGISTRATION

Includes Full Breakfast and evening PARS. Guests are only permitted in Exhibit Hall on Thursday.

ITIL FOUNDATION COURSE

Breakfast, lunch and refreshments will be provided on Saturday ans Sunday for those registered for the ITIL Foundation Course conducted by Pink Elephant. To be eligible to register for this course, one must also be a registered CMG2006 attendee. more details can be found on page **12** as well as the registration form.

CANCELLATION & REFUND INSTRUCTIONS

All cancellations must be in writing on company letterhead and be received at CMG HQ by November 17, 2006. CMG will deduct the cost of a one-year membership and a $150.00 processing fee from all refunds.

SUBSTITUTION INSTRUCTIONS

Requests must be in writing on company letterhead, identifying the pre-registered attendee and the substitute. The substituted individual must complete a registration form. You can make a substitution at anytime. CMG allows only one substitution per registration.

3 EASY WAYS TO REGISTER FOR CMG2006

1. **Register online**
   Visit the CMG homepage, www.cmg.org. Click the "Register for CMG2006" link, complete the forms, and submit. Online registration requires a valid Visa, Mastercard, or American Express account.

2. **Register by fax**
   Complete the CMG2006 Registration Form and fax it back to CMGHQ at: 856-401-1708.

3. **Register by mail**
   Complete the CMG2006 Registration Form and mail it back to:
   Computer Measurement Group, Inc.,
   P.O. Box 8500-5545,
   Philadelphia, PA 19178-8500.

For more information, call:
1 800 4ForCMG or 856-401-1700

SESSION 327 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 6021 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Bringing ITIL® to Life: Automating IT Capacity Management

Martha S. Hays, SAS

The ever growing complexity and increasing size of current IT infrastructures are the top challenges for today's IT Capacity Managers. Facing hundreds of servers supporting vital business functions makes Capacity Management automation a must. This paper outlines how to overcome the challenges of modern large-scale environments by implementing an ITIL (IT Infrastructure Library) compliant best-practice Capacity Management methodology based on advanced analytics and business intelligence tools.

VENDOR TRAINING

SESSION 328 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 6805 No Paper

Captell Developments: Capacity Reporting - automated, accurate and affordable

TBD

Captell Development's flagship product is Captell V6 an enterprise wide capacity management reporting systems which automates data storage and report generation from data collected by proprietary management packages. Captell V6 was designed for the capacity manager in response to the specific needs of the capacity management community. It was a cross platform solution. It provides a rich variety of publishing options for print or web based reporting.

VENDOR TRAINING

SESSION 329 **TUESDAY 10:30 AM - 12:00 PM**
PAPER 6809 No Paper

HyPerformix, Inc.: Automating the Holistic ITIL Capacity Management Process

Amy Spellman, HyPerformix, Inc.

The ITIL Capacity Management process is crucial for ensuring that the right infrastructure is available to deliver required service levels. Managing capacity by focusing on the utilization of traditional infrastructure silos won't prevent many performance issues; a holistic end-to-end viewpoint is necessary to ensure SLAs can be met. This session examines how scenario-based modeling tools can be used to create a holistic capacity management plan, balancing performance, cost and risk across the entire supporting infrastructure.

KEYNOTE@CMG2006

SESSION 32A **TUESDAY 10:30 AM - 12:00 PM**
PAPER 6452 No Paper

Keynote Systems: Testing Web Applications: Can You Cope With Success?

Donald Foss, Keynote Systems

A poorly performing Web application can drive away customers. Load testing is supposed to reveal how online applications will behave under peak loads, but many such tests produce misleading results, causing companies to either underestimate or overestimate their site's capacity. The results are either excess costs, or lost revenues. Using examples drawn from seven years of experience testing some of the most heavily used Web sites, the speaker will discuss how to design realistic tests that produce reliable data about a site's capacity and scalability.

SESSION 331 **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6400

UKCMG - Best Paper: Experiences in Capacity Management of Shared UNIX Infrastructure

John Watson

This session looks at some of the experiences at the National Australia Group (Europe) with the Capacity Management of a large distributed shared infrastructure running on Sun Solaris. In particular, the paper focuses on our Oracle and Websphere infrastructures, both of which are supporting multiple applications, services and business units on the same sets of hardware. The challenges faced include setting up effective monitoring, data collection, workload classification and the determination of some new methodologies for the Capacity Management of multiple applications running on horizontally scaled UNIX hosts.

SESSION 332 **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6540 ZSERIES
ZSERIES No Paper

DB2 for z/OS Stored Procedures Performance Hot Topics

Peggy Zagelow, IBM

Tips and tricks for making sure a stored procedures' environment has the best possible performance. This talk will describe the most common pitfalls affecting SP performance and how to avoid them, as well as how to ensure the peak performance for the most critical SP applications. Java stored procedure performance will also be covered, as well as the implications of the zIIP processor on stored procedure workloads.

SESSION 333 **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6515 NON-SPECIFIC
HOT TOPICS No Paper

Observations from the Field: Tackling the Hard Parts of SOA

Brenda M. Michelson, Elemental Links, Inc.

Enterprise architects and technical leaders consistently state the hardest part of SOA is not the technology. Rather, the real work is in service definition, semantics, establishing an SOA program (evangelism, planning, governance, infrastructure and tools) and wading through the industry hype. This presentation delves into the hard parts of SOA, and shares real-world practitioner tips for success.

SESSION 334 **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6029 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

The ABCs (or should I say, CASs) of I/T Chargeback

Robert E. Chaney, Delta Technology, Inc.

I/T chargeback systems have been in place for decades in the mainframe environment and in many companies they are deployed for the entire I/T department. There are also companies that have no chargeback system. This paper uses guidelines from the Cost Accounting Standards Board (CASB) as a means to understand the components of an I/T Chargeback System (ITCS), and explains how those Components interact to accomplish I/T chargeback.

SESSION 335 **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6162 TECHNIQUES AND TECHNOLOGIES
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

Achieving Business Agility with SOA: Governance & SLA Management of Shared Service Ecosystems

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

While the SOA promise of business agility leading to competitive advantage is truly compelling, there is a growing concern among skeptics and proponents alike that pursuit of this agile nirvana may turn out to be a fruitless exercise. This session takes an objective look at the key ingredients required to unlock the promise of business agility with SOA. The conclusion is sobering but will have far-reaching implications for tomorrow's IT: namely, leading edge technology alone is inadequate. Service life cycle governance and SLA Management make the difference between success and failure of SOA.

CMG-T

SESSION 336 **TUESDAY 1:30 PM - 2:30 PM**
SESSION 346 **TUESDAY 3:00 PM - 4:00 PM**
SESSION 356 **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6503 NON-SPECIFIC
FUNDAMENTALS/CORE COMPETENCY No Paper

Statistics for Performance Analysis & Capacity Planning

Ray Wicks, IBM

This session reviews some of the statistical techniques which can be useful in performance analysis and capacity planning. The introduction of basic statistical concepts will emphasize the relationship between what you see in a graph and the statistical formulae. Topics will include the following:

- Descriptive Statistics:
  - o The Basics: average, variance, coefficient of variation, standard deviation, etc.
  - o Graphic Techniques: linear plots, distributions, histogramme, box plot, etc.
  - o T-test : comparing averages.
- Predictive Statistics:
  - o Linear regression, multivariate regression as an approximation for time series analysis.

The selection of a single number to represent the behavior of a variable, given in a set of values, requires some statement about the representative-ness of the single number. This examination looks at the statistical value of the input and output as seen in any modeling process.

ITIL SEMINAR

SESSION 337 **TUESDAY 1:30 PM - 2:30 PM**
SESSION 347 **TUESDAY 3:00 PM - 4:00 PM**
SESSION 357 **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6506 NON-SPECIFIC
BUSINESS PERFORMANCE MANAGEMENT No Paper

ITIL Capacity Management Appreciation Seminar

Adam Grummitt, Metron

When embracing ITIL as a discipline, Service Delivery and Capacity Management in particular should be high on the agenda for implementation to gain quick returns and meet all IT governance and compliance issues. ITIL describes the Capacity Management process in terms of three sub-processes at resource, service and business levels. They incorporate traditional functions of performance management and capacity planning and activities such as monitoring, analysis, tuning, modelling and application sizing. Performance management entails the day-to-day addressing of the performance aspects of an IT service. Capacity planning is a strategic function used to predict IT resource requirements to meet predicted workload scenarios arising from defined business needs. It is a proactive performance assurance extension of performance management, bringing order to chaos and performance predictability to IT Service Management. This seminar addresses all of the activities involved within the Capacity Management process.

VENDOR TRAINING

SESSION 338 **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6811 No Paper

ASG: Focus on Success - What's New in ASG-TMON DB2 V4.0 - V4.1

Tony Hughes, ASG

Learn detailed information about how the latest enhancements to ASG-TMON for DB2 and SQL Analyzer can help you meet your DB2 performance goals.

VENDOR TRAINING

SESSION 339 **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6804 No Paper

Responsive Systems: Tuning your DB2 System with the Buffer Pool Tool for DB2

Joel Goldstein

Effective buffer pool tuning offers great opportunities for improving system and application performance. Aside from the elapsed time and cpu savings from I/O elimination, the process often finds significant application performance problems. This presentation will take you through the step of analysis and tuning using the industry standard Buffer Pool Tool for DB2 from Responsive Systems, show you how to analyze and tune your system, and evaluate the payback. Converting I/O savings to elapsed time, dollar savings, and improved productivity.

KEYNOTE@CMG2006

SESSION 33A **TUESDAY 1:30 PM - 2:30 PM**
PAPER 6453
No Paper

Keynote Systems: Monitoring Applications Worldwide: Behind the Scenes in Network Operations

Shawn White, Keynote Systems

Monitoring a web application is always a challenge. With less control over end-user environments and a huge variety of client environments, understanding the health of a website is a complex task that's as much art as science. This session will look behind the scenes at Keynote's network operations center. The speaker will describe how he manages a worldwide network of over 2500 testing systems in dozens of countries, and provide insights that are relevant to anyone responsible for monitoring and reporting on web performance.

SESSION 341 **TUESDAY 3:00 PM - 4:00 PM**
PAPER 6526 PANEL
UNIX/LINUX NON-SPECIFIC
No Paper

Panel: Unix/Linux in the new Infrastructure

Tony Mungal

Enterprise computing relies on an infrastructure of resources and foundational software systems for support the business. This infrastructure has changed dramatically over the last few years. Workloads that were once run on mainframes are being replaced by Unix and Linux implementations. This panel will discuss the change in the infrastructure and the manner in which the infrastructure's architecture is now expected to support new portions of the business.

SESSION 342 **TUESDAY 3:00 PM - 4:00 PM**
PAPER 6537 ZSERIES
ZSERIES No Paper

zIIPs and zAAPs - How Special Are They?

Kathy Walsh, IBM

As z/OS introduces new speciality CPs like the zAAP and the zIIP, the performance analyst and the capacity planner need to understand these technologies and how to integrate them into their current environments. This session will describe the latest planning information for zIIPs/zAAPs and will discuss their impacts on processor capacity and performance. Where appropriate the impacts of specialty CPs like ICFs and IFLs will also be covered. This session will also share information and lessons learned by the IBM Washington Systems Center through participation in the zIIP Early Support Program.

SESSION 343 **TUESDAY 3:00 PM - 4:00 PM**
PAPER 6530 NON-SPECIFIC
FUNDAMENTALS/CORE COMPETENCY No Paper

Managing Performance of Clustered, Load balanced Applications

Yori Lavi, OpTier

Managing performance requires good visibility into current activity, a way to interpret and understand if there is a problem, and then active tools to control in near real-time and remediate any problem. Clustering enables higher hardware availability, more redundancy and better load balancing. This is why lots of applications today use clustering. With improved load balancing and redundancy comes a higher level of abstraction: where do my transactions run, what resources do they consume? The nature of distributed and clustered applications obscure and hinder visibility. With lower visibility, our ability to manage is diminished. How do we solve this conundrum? This presentation will walk you through a holistic approach to measure, monitor and manage clustered and distributed applications and will cover current practices, gaps in existing tools and how to bridge the gap.

SESSION 344 **TUESDAY 3:00 PM - 4:00 PM**
PAPER 6529 NON-SPECIFIC
ZSERIES No Paper

A Simple Approach to DB2 Index Redesign

Martin Hubel, MHC Inc.

Many applications enter production with sub-optimal indexing strategies. Regardless of the reasons for this, performance can be substantially improved if indexes are redesigned to better match the needs of the application.

This presentation will review index structure, and discuss a number of ways to redesign indexes without affecting application integrity. This presentation applies to all DB2 platforms, and examples will come from the presenter's experience. The use of IBM's Explain will also be shown.

SESSION 345 **TUESDAY 3:00 PM - 4:00 PM**
PAPER 6513 NON-SPECIFIC
HOT TOPICS No Paper

The Three A's of SOA

JP Morgenthal, Avorcor, Inc.

Service-Oriented Architectures provide three key benefits: Agility, Alignment, and Architecture. With regard to agility, SOA lets organizations respond to the needs of business much more quickly than ever before. SOA provides a common set of semantics that can be shared by the business and IT, which helps to form alignment. And SOA provides an architecture that can be used to model everything from the enterprise to a single application. This session will examine the three A's of SOA as applied to real world implementations.

KEYNOTE@CMG2006

SESSION 34A **TUESDAY 3:00 PM - 4:00 PM**
PAPER 6454
No Paper

Keynote Systems: Rich Internet Applications: Design, Measurement, and Management Challenges

Chris Loosley, Keynote Systems
Donald Foss, Keynote Systems

The Rich Internet Application (RIA) reflects the gradual but inevitable transition of Web applications from the simple thin-client model of a traditional Web browser to a richer distributed-function model that behaves more like the desktop in a client/server model. These richer user experiences are being implemented with technologies such as Flash, Ajax, and Java, using standard Internet and Web protocols. Significantly more complex than traditional browser-based Web applications, RIAs pose new management challenges. This session will explain the key differences and their implications for design, testing, measurement, and management.

SESSION 351 **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6168 TECHNIQUES AND TECHNOLOGIES
NETWORK/INTERNET NON-SPECIFIC

Softswitch Testing

Garland Kan, Spirent Communications

Without testing the true real world capacity, performance, and voice quality of a Softswitch, these metrics cannot be quantified. Testing Softswitches is new to the industry. Softswitches has only been around around 5 years and new techniques has to be employed find the capacity, performance, and voice quality it will provide. Using various tests, all of these metrics can be found and a one to one comparison between Softswitches can be made using the results. This session will go into details on what types of tests to perform and what results will come out of those test and what they mean.

SESSION 352 **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6543 PANEL
ZSERIES ZSERIES
No Paper

Panel: DB2 Q&A

Thomas A. Halinski, Compuware Corporation

If you have a DB2 question regarding performance tips, functionality, insights, or DB2 special features such as stored procedures, then this is THE panel to ask. The members will be able to answer your questions and enlighten you with their valuable expertise. Come prepared with questions that affect your work life.

Panelists include: Joel Goldstein of Responsive Systems, Martin Hubel of MHC, Inc., Michael Wingfeild of Compuware, Peggy Zagelow of IBM, and Bonnie Baker of Bonnie Baker Corp.

SESSION 353 **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6092 EXPERIENTIAL
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

ARM Using Eclipse TPTP

Oliver E. Cole, OC Systems, Inc.
Ashish Patel, IBM Toronto Software Lab

The Eclipse Test and Performance Tools Project is releasing an open source, fully functional ARM 4.0 implementation in June 2006 (Eclipse TPTP version 4.2). This session will describe the TPTP project and explain how ARM has been implemented in TPTP. The tradeoffs involved in getting to this point will be discussed, along with the challenges in moving forward. Specific examples will show how to get started using ARM for your application with Eclipse TPTP.

SESSION 354 **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6022 BASICS/INTRODUCTORY
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Back of the Envelope, Rules of Thumb and Little's Law

James Holtman

Performance analysis starts on `day 1' of the project. There are some `rules of thumb' that can be used to start estimating the performance and to determine a `resource budget' for the components (how much can be spent to process a unit of work). There are some simple `back of the envelope' calculations that can be done (and should be continuously recalculated throughout the life of the project) that will provide targets against which the software can be tested. This testing should begin as soon as the developer has a working copy for "unit testing".

SESSION 355 **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6547 PANEL
HOT TOPICS NON-SPECIFIC
No Paper

Panel: Lessons Learned from Real World SOA.

Annie Shum, BEA

This panel will feature a powerhouse of SOA experts with first-hand experience in Government, Banking/Finance, Multi-Channel Retail, Health Care/Medical, and Telecommunications. They will discuss critical SOA success factors and share experiences. It's sure to be a lively, insightful discussion.

Panelists include: Dr. Jeff Buzen, Sean Hickman of Aetna, Gene Leganza of Forrester Research, Brenda Michelson of Patricia Seybold Group, and JP Morganthal of Avorcor.

KEYNOTE@CMG2006

SESSION 35A **TUESDAY 4:15 PM - 5:15 PM**
PAPER 6455 PANEL
No Paper

Keynote Systems: Panel: Online Business: Emerging Trends and Technologies

Chris Loosley, Keynote Systems

Keynote staff and other qualified conference attendees will form a panel to discuss emerging trends and technologies affecting the management of Web-based business applications. Among the topics that may be covered are: • Managing mobile applications • Measuring the quality of streamed content, • Measuring VoIP quality • Implementing ITIL for e-business applications • Computing ROI for e-business SLM. Topics may be added or removed from the panel agenda based on the earlier sessions.

SESSION 401 **WEDNESDAY 8:00 AM - 9:00 AM**
PAPER 6500 NON-SPECIFIC
HOT TOPICS No Paper

Performance Validation by Design

Seckin Unlu, Intel Corporation

Performance validation, evaluation and optimization all depend on measurement capabilities and precision. Recently it has become very difficult to instrument and measure performance indicators at the lowest levels of software. This is due to the bundling of increasing functionality into hardware and software, and the degrading effects caused by add-on measurement hardware and software. The industry trend has been to include instrumentation within products as they are being built, rather than trying to add complex tools after those products are built.

In the 1980's, there were several attempts to include hardware instrumentation into processors, as part of the design. In the 1990's, we saw hardware instrumentation included with processors produced in high volumes, and operating systems and development tools took advantage of that instrumentation. These additional capabilities have enabled hardware designers to check their design criteria against end-products, to make sure design assumptions were correct, and software designers to better measure the effects of their algorithms on actual systems, without requiring an EE degree or costly tools.

The future holds even more promise, making the performance validation and optimization process more automated and included in standard off-the shelf processors, rather than requiring pre-production test hardware or specialized test software. Hardware instrumentation has the capability to accelerate the development of more efficient and responsive software programs.

In this presentation, we will look at the history of processor instrumentation, we will provide hints about the futures, and we will give a few examples of what has worked well. We will summarize the benefits that are achievable today and what benefits can be expected in the future.

SESSION 411 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6527 NON-SPECIFIC
NETWORK/INTERNET No Paper

Network Performance in Load Balanced World

Laura J. Knapp, IBM

So you implemented Load Balancing and you thought your performance problems would dissappear! Why didn't they? This session looks at the major reasons and the corrective actions that can be taken to ensure your load balanced network performs effectively at all times.

SESSION 412 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6536 ZSERIES
ZSERIES No Paper

The XCF Factor - Performance With A Practical Approach

Kathy Walsh, IBM

Well defined XCF environments are key to providing a well running parallel sysplex. XCF is responsible for providing the heartbeat and communications of a z/OS system. XCF signaling becomes more critical as either workloads peak or when recovery actions hit. Will your system fail because some basic XCF configuration guidelines were not followed? This session will discuss the latest information in the areas of XCF performance tuning. It will include practical approaches to understanding the RMF XCF reports and SETXCF commands which can be used for performance tuning. The session will discuss the things you need to know in the areas of XCF performance and capacity planning, and will discuss current performance data as it relates to FICON CTCs and Coupling Facilities.

SESSION 413 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6523 ZSERIES
ZSERIES No Paper

Outsourcing: 4 ways to avoid buyer's remorse

Wendy Mead, Compuware Corporation

Global outsourcing of computer software promises savings in the neighborhood of 25-40%. That's too significant of a cost reduction for companies to ignore—but with half of all offshoring operations falling short of expectations, and cost overruns in the range of 15-57% of the total price tag, buyer's remorse is rampant.

This session will share 4 common causes of these overruns, and how to avoid them — by using tools you may already own.

- Provide automated knowledge about the target application to offsite teams
- Use automated metrics to compare performance, complexity, and failure statistics between out-bound and in-bound code
- Remove the risk of security breaches with minimal but robust test data
- Confirm that changed code has been tested

SESSION 414 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6187 EXPERIENTIAL
WINDOWS WINDOWS

The Reality of Virtualization for Windows Servers

Mark B. Friedman, Demand Technology Software

This paper discusses the performance and capacity concerns that arise when Windows servers are run as virtual machine guests on current virtualization solutions. It reviews the advantages and disadvantages of virtualization as a server consolidation strategy. It describes the major sources of performance degradation that applications running on guest machines face today and discusses the prospects to resolve these problems as new hardware emerges in the near future.

SESSION 415 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6532 NON-SPECIFIC
WINDOWS No Paper

Do CPUs Count? Understanding Resource Utilization on Virtualized Systems.

Kenneth Hu, BMC Software

Distributed systems vendors have adopted partitioning and virtualization technologies that allow application servers to run in a shared processor environment. The benefits include more flexibility in administration and deployment as well as increased overall utilization of the underlying resources with significant reductions in the cost of the IT infrastructure.

However, managing virtualized hardware environments requires some adjustment to analysis and definition of resources compared to what was done on dedicated server systems. Understanding what is real vs. virtual is critical in reducing risks on service delivery.

This presentation covers technical overview of vendor technology, product workflow and interpretation of results for UNIX Virtual Servers and VMware.

CMG-T

SESSION 416 **WEDNESDAY 9:15 AM - 10:15 AM**
SESSION 426 **WEDNESDAY 10:30 AM - 12:00 AM**
PAPER 6504 NON-SPECIFIC
FUNDAMENTALS/CORE COMPETENCY No Paper

Modeling and Forecasting

Dr. Michael A. Salsburg, Unisys

Although most computing environments are heterogeneous, computer system modeling is, in most ways, platform neutral. The same techniques and tools can be used to model zSeries, Unix / Linux, and Windows. At the heart of these models is the essential queueing network. This course provides the details of the essential queueing network, including the necessary statistics that need to be collected from the system, as well as various modeling techniques that yield insights that cannot be gleaned from observing the actual computer system. Once the model is validated, it can be used to explore what-if scenarios where either the workload or the underlying configuration can be changed in the model so that the resulting service levels can be observed.

SESSION 417 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6120 TECHNIQUES AND TECHNOLOGIES
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

System Management by Exception, Part 6

Igor A. Trubin, Capital One

Statistical Exception Detection System (SEDS) has been successfully used for more than six years to automatically produce web-based exception reports against SAS/ITRM performance data warehouse for a large, multi-platform environment. Adding some application specific metrics, including middleware traffic and response times, made SEDS an excellent tool for application performance management. This paper also describes how to create statistical control charts using a spreadsheet in order to capture a performance issue without using expensive tools such as SAS or BMC.

Vendor Training

SESSION 418 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6808
No Paper

ISM: Automating Capacity Management Reporting with PerfMan

Pete Weilnau, ISM

Many Capacity Planners spend a significant amount of time producing web-based reports for different people within the organization. These reports provide usage, resource availability and service quality information updated daily, weekly or monthly. This session will focus specifically on automation technology available within ISM's PerfMan family of capacity and performance management solutions. It will be an introductory level session.

Vendor Training

SESSION 419 **WEDNESDAY 9:15 AM - 10:15 AM**
PAPER 6549 NON-SPECIFIC
HOT TOPICS No Paper

VMWare: TBD

TBD

TBD

SESSION 421 WEDNESDAY 10:30 AM - 12:00 PM

PAPER 6010 BASICS/INTRODUCTORY
ZSERIES ZSERIES

Use Trending to Manage Application and System Performance

Bruce Perkinson, ON-TEC Services

In the IT world we are all feeling the effects of some form of cost reduction. While companies may be successful in reducing staff costs they are also sacrificing legacy knowledge and technical expertise. This makes simplifying Performance Management more critical than ever. By collecting and trending a few key statistics, we can monitor the performance and identify important trends for everything from batch cycle elapsed times to Netview CPU consumption. We will review how trending helped identify opportunities to reduce CPU consumption, shorten batch run times, and reduce cost of ownership.

PAPER 6042 TECHNIQUES AND TECHNOLOGIES
ZSERIES ZSERIES

Dials for an PM Dashboard: Velocity's Missing Twin, and Quantifying Surprise

Rich Olcott, IBM Technology Services

This session will discuss what should and should not be in a PM dashboard, what is missing from the zOS displays we have now, and an efficient, platform-agnostic way to track and highlight what is happening in our systems.

SESSION 422 WEDNESDAY 10:30 AM - 12:00 PM

PAPER 6077 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Approach to Build Performance Model for a Web-Based System from its Application Server Logs

Suhas Sudheendra, Infosys Technologies Ltd
Mitesh V.. Patel, Infosys Technologies Ltd.
Pratik Kumar, Infosys

Developers today have to ensure that their applications do not violate the Service Level Agreement at any point in time. Stringent requirements and dynamic workloads have exposed the need for predictive performance models that can be used for a 'What-if' analysis and Capacity Projections. However, some applications continue to be put into production without going through the required performance tests. This paper proposes an approach to build performance models of such applications without any exclusive performance testing, by extracting relevant and required data from its production logs.

PAPER 6209 TECHNIQUES AND TECHNOLOGIES
WINDOWS WINDOWS

Utilizing Performance Monitor Counters to Effectively Guide Windows and SQL Server Tuning Efforts

Jeffry A. Schwartz, Unisys Corp.

Windows and the SQL Server database management system provide many performance counters. However, the vast number of counters, and the fact that numerous explanations provided via the Windows Performance Monitor simply restate the name of the counter, make resolving performance problems in this environment a daunting task. This paper discusses methodologies, metrics, and techniques that can be utilized during a performance crisis to ascertain the cause(s) of the problem and determine an appropriate solution.

SESSION 423 WEDNESDAY 10:30 AM - 12:00 PM

PAPER 6070 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT ZSERIES

Virtualization - Inhibitors to Server and Storage Virtualization, and How to Mitigate Them

Chris Molloy, IBM

Virtualization is becoming one of the leading technologies being implement in IT environments in order to decrease costs thru increased equipment utilization. Virtualization can occur at the server, storage, network, and application levels. The purpose of this paper is to review the benefits of server and storage virtualization and some of the implementation technologies that are out in the industry today. The paper will then go into further detail on the inhibitors to implementing those virtualization techniques. The paper will conclude with mitigation recommendations for those inhibitors

PAPER 6140 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

Monitoring, Availability, and . . . Maslow?!

Chris Greco, Social Security Administration

Abraham Maslow was a pioneer in the area of enlightened management and psychology. One of his contributions to the work of social scientists everywhere was his Hierarchy of Needs (HON). This familiar pyramid is used and applied everywhere from the boardroom to the backroom. Managers have relied on it for motivating their employees since the concept was founded. This paper will associate the HON to both the computer and the technician, as well as show that the processes that currently exist in our fields are also governed by this very pervasive and persuasive concept.

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

PAPER 6025 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY WINDOWS

Traffic Capacity Testing a Web Environment With Transaction Based Tools

James F. Brady, State Of Nevada

One of the common server configurations that has emerged for supporting Web based applications is the Web Server, Application Server, and Database Server in a single frame arrangement. This paper discusses a specific traffic capacity testing experience with this server arrangement for a Windows environment using a transaction oriented load generator instead of a traditional virtual user script based tool. Both challenges encountered and insights gained are described.

PAPER 6538 UNIX
UNIX/LINUX No Paper

Performance Reporting/Modeling for AIX Partitioned Environments

Debbie Sheetz, BMC Software

IBM's dynamic logical partitions (LPARs) provide powerful tools for managing complex computing environments (e.g. AIX on pSeries processors). Along with the power and flexibility come new concepts, new measurements, new terminology. So how do you:

- understand what is really going on?
- report performance results to others who do not understand the new technology?
- do capacity planning for this environment?

Examples of Performance Assurance for Virtual Servers tools applied to actual customer situations will be presented, demonstrating 'best practices' for successful performance management techniques for this environment.

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

PAPER 6024 TECHNIQUES AND TECHNOLOGIES
STORAGE LINUX

Bertha: A Benchmark Tool for High-Performance Storage Subsystems

Dave Wagoner, Lexis-Nexis

The popular I/O benchmark tool "Bonnie" has been modified to form a distinct benchmark tool called "Bertha". The features of Bertha that distinguish it from Bonnie, as well as most other benchmark tools, are 1) it generates substantially more I/O to better measure capabilities of contemporary storage subsystems, 2) it offers a unique facility to "replay" I/O, "transactions" from actual production applications or simulations, to more accurately suggest performance that will be experienced when using particular applications, and 3) it providesextensive metric reporting that provides considerable insight.

PAPER 6179 EXPERIENTIAL
STORAGE ZSERIES

Remote Copy 100 km testing

David Raften, IBM

Measurements were done to look at the performance impact of synchronous storage remote copy as distances increase from 0 to 100 km. Three environments were looked at: Single site only workload, with DB2 GBP CF structure duplexing, and with dual site workload. This summarizes the results seen. It is also published on the IBM web site.

SESSION 427 WEDNESDAY 10:30 AM - 12:00 PM

PAPER 6011 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY UNIX

A Cohesive Framework to Quantify Computer Systems Assurance

Dr. Dominique A. Heger, Fortuitous Technologies
Phil A. Carinhas, Fortuitous Technologies

This study introduces a systems-engineering and evaluation methodology that focuses on the stability of an entire computing infrastructure. The conducted research elaborates on the cohesive systems assurance (CSA) methodology, which encapsulates the concepts and methods of product assurance (reliability, availability, and maintainability), performance and scalability, and dependability (security and safety). This approach substantially deviates from the pervasive systems analysis process in use today that treats the discussed dimensions individually in a vacuum.

PAPER 6044 TECHNIQUES AND TECHNOLOGIES
HOT TOPICS UNIX

Grid Technology – Vision, Architecture, and Node Capacity Considerations

Dr. Dominique A. Heger, Fortuitous Technologies
Phil A. Carinhas, Fortuitous Technologies
Greg Simco, Nova Southeastern University

The first part of this study introduces the vision of Grid networking. The study elaborates on the architecture and technologies that surround the Grid paradigm, and addresses some of the issues surrounding Grid applications. The second part elaborates on some of the challenges faced by the Grid scheduler, and introduces an analytical model that allows quantifying the capacity behavior of the Grid nodes. The study further proposes a Monte Carlo based probability estimation procedure that focuses on optimizing the communication behavior between a Grid node and the scheduler.

PAPER 6133 TECHNIQUES AND TECHNOLOGIES
HOT TOPICS NON-SPECIFIC

Utilization is Virtually Useless as a Metric!

Adrian Cockcroft, eBay Inc.

We have all been conditioned over the years to use utilization or percent busy as the primary metric for capacity planning. Unfortunately, with increasing use of CPU virtualization and sophisticated CPU optimization techniques such as hyperthreading and power management the measurements we get from the systems are virtually useless. This paper will explain many of the ways in which the data we depend upon is distorted, and proposes that we turn to direct measurement of the fundamental alternatives and express capacity in terms of headroom, in units of throughput within a response time limit.

VENDOR TRAINING

SESSION 428 **WEDNESDAY 10:30 AM - 12:00 PM**
PAPER 6803 No Paper

Shunra: A Virtual Network Helps IT Staff Predict End User Experience Globally

Amichai Lesser, Shunra

One of the biggest challenges for IT staff when rolling out new initiatives is knowing in advance how well new technology will work across the production network. Many times new business application deployments are accompanied with uncertainty around remote end user performance and in other cases infrastructure changes such as centralizing servers or IP network convergence may impact end users in unpredictable ways. This presentation will discuss the business motivation behind, and best practices, for developing a virtual network environment that can predict end user experience.

VENDOR TRAINING

SESSION 429 **WEDNESDAY 10:30 AM - 12:00 PM**
PAPER 6806 No Paper

Metron-Athene: Extending Capacity Planning: End to End and Virtualization

Rich Fronheiser, Metron-Athene

Lifecycle Capacity Management: The ability to incorporate an end to end view of application performance into capacity planning, both end to end in terms of the performance as experienced by the user and the end to end lifecycle of an application from development through to production.

Virtualization: Rapidly becoming the prevalent technology for supporting business applications, vitualization offers new challenges for the capacity planner. The session offers practical advice and training to how to manage these issues from a capacity planning perspective.

SESSION 431 **WEDNESDAY 1:30 PM - 2:30 PM**
PAPER 6522 NON-SPECIFIC
UNIX/LINUX No Paper

Java on Bare Metal - Better Resource Control when Running Java on a Hypervisor

Joakim Dahlstedt, BEA Systems

This session presents a promising research project at BEA Systems around server virtualization. The project has three goals: First, make it easy to migrate existing Java to a virtual infrastructure on top of hypervisors (VMWare, Xen or similar solution). Second, provide mainframe-grade resource metering and control to Java on general purpose hardware. Third and finally, improve the efficiency of execution in Java in these environments.

SESSION 432 **WEDNESDAY 1:30 PM - 2:30 PM**
PAPER 6534 ZSERIES
ZSERIES No Paper

Understanding WLM SYSTEM and SYSSTC Service Classes

Peter Enrico, Enterprise Performance Strategies, Inc.

All WLM environments have two critical and statically defined service classes named SYSTEM and SYSSTC. What are the specifics of the SYSTEM and SYSSTC service classes? How does WLM manage them? How can a WLM performance analyst verify that the correct set of address spaces are in SYSSTEM and SYSSTC, and how can the it be ensured that the wrong address spaces are not classified there? How would performance be affected if their setup is incorrect? Why did IBM announce 5 new SYSSTC oriented service classes (i.e. SYSSTC1 - 5)? This presentation will provide you with the information you need to know to effective setup of your SYSTEM and SYSSTC service classes.

SESSION 433 **WEDNESDAY 1:30 PM - 2:30 PM**
PAPER 6550 WINDOWS
WINDOWS No Paper

Microsoft Virtualization Directions and Roadmap

Therron Powell, Microsoft Corp.

This presentation provides insight into the direction that Microsoft is taking with platform virtualization technologies. The discussion focuses on the strategy and roadmap for Microsoft's virtualization services including Virtual Server, Virtual PC and the emerging Windows Virtualization infrastructure. We will focus on the expected enhancements to virtualization in the Windows Server Longhorn timeframe and discuss the scenarios and features that are used to define and prioritize Windows virtualization focus. It reviews the server consolidation, business continuity, development and test, and dynamic datacenter scenarios.

SESSION 434 **WEDNESDAY 1:30 PM - 2:30 PM**
PAPER 6019 TECHNIQUES AND TECHNOLOGIES
HOT TOPICS NON-SPECIFIC

The Virtualization Spectrum from Hyperthreads to GRIDs

Dr. Neil J. Gunther, Performance Dynamics

Virtualized systems remain opaque because they have surpassed the measurement paradigms of most performance management tools. We ameliorate that problem by (1) recognizing that the disparate forms of virtualization lie on a discrete spectrum bounded by hyperthreading at one extreme and GRID-like services at the other, (2) observing that the YGJPM TY frequency determines the relative position and performance of each system on this VM-spectrum. Several examples illustrate how this new insight can make each VM-spectral region more visible for performance management.

SESSION 435 **WEDNESDAY 1:30 PM - 2:30 PM**
PAPER 6553 PANEL
STORAGE NON-SPECIFIC
No Paper

Storage Performance Measurement Panel

Mark Friedman, Demand Technology Software

Storage performance management is rapidly-evolving area. Today, the rapid growth in data and availability requirements, together with the ongoing business need to manage more storage with the same or less staff poses a management challenge to the IT industry. In the performance area, you can't manage what you haven't measured first, so storage and software vendors wrote software to measure performance on different disk arrays. All this software made customer environments more complex, so open standards began to appear in the storage industry to reduce that complexity. In particular, the Storage Networking Industry Association (SNIA) began developing vendor-independent metrics. Today, we are in transition - some of the standards have been implemented, but the vendor-specific software is still available. This panel gathers several storage industry performance experts to discuss the current state of performance measurement and reporting.

Panelists include: Alexandre Brandwajn of Pallas International, Mel Boksenbaum of HDS, Bruce McNutt of IBM, Greg Schultz of StorageIO Group, and Bill Zahavi of EMC.

CMG-T

SESSION 436 **WEDNESDAY 1:30 PM - 2:30 PM**
SESSION 446 **WEDNESDAY 3:00 PM - 4:00 PM**
SESSION 456 **WEDNESDAY 4:15 PM - 5:15 PM**
PAPER 6509 NON-SPECIFIC
NETWORK/INTERNET No Paper

Introduction to TCP/IP Performance Management

Nalini J. Elkins, Inside Products

Today's Internet and corporate Intranets are based on the TCP/IP protocols suite. Do you know if your network is tuned? Are your TCP Profile parameters defined correctly? What errors is your TCP/IP stack encountering? What is the impact on CPU time of TCP/IP transmission, connection and errors?

This session will describe how you may be able to do a step-by-step performance check of the TCP/IP network. We will do the following:

1. Describe the workload and response time
2. Find tuning opportunities
3. Review profile parameters
4. Find trouble spots in stack / socket performance
5. Detail areas where further investigation is needed

In a recent Network Health Check, we were able to eliminate communications errors affecting the important production DB2 application, eliminate unnecessary traffic and lower the CPU usage of TCP/IP.

The session will address the z/OS, Windows, and Linux platforms.

SESSION 437 **WEDNESDAY 1:30 PM - 2:30 PM**
PAPER 6099 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Build a Home Computer Lab, Change Your Life and Save the Earth.

Robert D. Andresen, MQSoftware

As IT technologies continue to change and evolve it can be difficult to keep your skills current. Training classes alone won't help build new expertise. Unless you are able to keep working with the new technology over time, knowledge gained in a class can be quickly forgotten. Companies are selling equipment that is no longer powerful enough to run production workloads, but is quite serviceable to learn new technology. We'll look at options for obtaining hardware and software to set up a small home network to build expertise in new technologies, to keep your current job or find a better one.

SESSION 441 **WEDNESDAY 3:00 PM - 4:00 PM**
PAPER 6528 NON-SPECIFIC
NETWORK/INTERNET No Paper

End-End Performance Management

Laura J. Knapp, IBM

Everyone wants J2EE applications because the end user experience is very high; however, the trouble shooting of these applications and systems has led many a trouble shooter to want to give up the data center world. Why is this and does it need to be so difficult to trouble shoot J2EE applications? This sessions looks at the J2EE environment, what you need to lool for, and the tools you should use.

SESSION 442 **WEDNESDAY 3:00 PM - 4:00 PM**
PAPER 6518 ZSERIES
ZSERIES No Paper

Enterprise Workload Manager: What's the E All About in EWLM?

Glenn R. Anderson, IBM

Enterprise Workload Manager (EWLM) provides a way to monitor and respond to workload processing across multiple systems in a distributed heterogeneous environment - z/OS WLM technology migrated out to distributed platforms. This session covers EWLM policies that define the expected performance; middleware equipped for Application Response Measurement; and the Domain Manager that monitors and reports. Also described will be EWLM transaction routing and POWER5 LPAR management. Finally, z/OS WLM now supports a link between EWLM Service Classes and zWLM Service Classes.

SESSION 443 **WEDNESDAY 3:00 PM - 4:00 PM**
PAPER 6551 WINDOWS
WINDOWS No Paper

Microsoft's next generation virtualization architectures

Therron Powell, Microsoft Corp.

The powerful new Windows Virtualization infrastructure will be a fundamental role and core capability for Windows Server Longhorn and in subsequent OS release. This session provides an architectural overview of the three pillars of Windows virtualization: the hypervisor, the virtualization stack, and device virtualization. This new architecture allows for much more dynamic operations with the ground breaking new ability to hot add processors, memory and devices to partitions without suspending their operations. The session will also discuss industry standards directions in virtualization management, I/O virtualization opportunities from IOMMUs and new PCI IOV initiatives as well as Microsoft's virtual hard disk (VHD) directions. The new I/O architecture, security and manageability facilities afford for a much higher performing virtualization experience, extending reliability, availability, serviceability, scalability, and security.

SESSION 444 **WEDNESDAY 3:00 PM - 4:00 PM**
PAPER 6034 EXPERIENTIAL
HOT TOPICS LINUX

Measuring and Modeling the Performance of the Xen VMM

Jie Lu, BMC Software
Lev Makhlis, BMC Software Inc.
Jianjiun R. Chen, BMC Software, Inc

Server virtualization technology provides an alternative for server consolidation by creating a set of logical resources that share underlying physical resources. Xen virtual machine monitor, a popular virtualization solution in Linux world, supports execution of multiple guest operating systems with unprecedented levels of performance and resource isolation. Performance modeling of virtual servers faces challenges of obtaining meaningful measures as the operating system deals with virtual resources. This paper presents a practical approach for measuring and modeling the performance of Xen.

SESSION 445 **WEDNESDAY 3:00 PM - 4:00 PM**
PAPER 6200 EXPERIENTIAL
HOT TOPICS NON-SPECIFIC

Optimization with Service Level Objectives in Virtual Environment

Dr. Anatoliy Rikun, BMC Software
Yiping Ding, BMC Software

In this paper we analyze important problem of distributing a set of applications among physical servers. Taking into account the factor that different applications may have different peak times, different resource consumption patterns, and different importance levels may significantly improve overall system performance and QoS. This paper presents a mathematical model and some case-study examples for this problem. We also discuss some optimization aspects of tuning the applications parameters after their deployments.

SESSION 447 **WEDNESDAY 3:00 PM - 4:00 PM**
PAPER 6199 BASICS/INTRODUCTORY
HOT TOPICS NON-SPECIFIC

On the Number of Partitions

Yiping Ding, BMC Software

Virtualization is still today the hot topic it's been for several years. It has entered production environment both for server consolidation and for the rollout of new applications. Several implementations are available to choose from. In this session we address one of the first questions you must ask: how many virtual systems can comfortably run on a particular physical system, with known processor, memory and disk resources? We introduce a statistical model that helps you answer this important question.

SESSION 452 **WEDNESDAY 4:15 PM - 5:15 PM**
PAPER 6401 PANEL
ZSERIES Z/OS
No Paper

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: Peter Enrico of Enterprise Performance Strategies, Kathy Walsh of IBM, Norman Hollander of Computer Associates, Jane Sedgwick of Compuware, and Ivan Gelb of Gelb Information Systems.

SESSION 453 **WEDNESDAY 4:15 PM - 5:15 PM**
PAPER 6514 WINDOWS
WINDOWS No Paper

Optimized Windows Server Virtualization on Xen

Alex Vasilevsky, Virtual Iron Software, Inc

Virtual machines were developed by IBM in the 1960's to provide concurrent, interactive access to a mainframe computer. Each virtual machine is a replica of the underlying physical machine and users are given the illusion of running directly on the physical machine. In today's data centers virtual machines have emerged as the key ingredient for allocating server resources. Major benefits that virtual machines provide are isolation and resource sharing, and the ability to run multiple operating systems. However, such resource sharing must be done while preserving virtual machine performance guarantees. Thus, one important requirement in this environment is effective performance and in particular effective performance of the I/O devices.

This paper focuses on Virtual's Iron approach to virtualizing I/O devices in the Xen architecture when running Windows Server 2003 guest operating system. The Xen hypervisor directly provides high-performance CPU virtualization, while a privileged guest is used to virtualize I/O devices and shield the hypervisor from the variety of devices. A critical question is whether virtualizing devices via such architecture can meet the performance required of high throughput, low latency devices.

To this end, this paper studies the virtualization and performance of an Ethernet and storage adapter on Virtual Iron EX (Enterprise Xen Edition). Our performance results indicate that our accelerated driver architecture can match native I/O throughput for a variety of workloads and configurations on industry standard server hardware.

SESSION 454 **WEDNESDAY 4:15 PM - 5:15 PM**
PAPER 6038 EXPERIENTIAL
HOT TOPICS WINDOWS

Real World Adventures in Server Virtualization

Peter J. Weilnau, ISM
Stephen J. Marksamer, Aetna

Server Virtualization continues to be one of the hottest topics of 2006. Join our quest for enlightenment as we explore the performance data of a large enterprise environment. We'll look closely at data captured from VMware ESX, its virtual machines and Windows servers seeking correlations between activity levels, response times and other key measurements both before and after virtualization. When our quest for enlightenment is complete, we'll provide recommendations to aid in your virtualization endeavors.

SESSION 455 **WEDNESDAY 4:15 PM - 5:15 PM**
PAPER 6119 EXPERIENTIAL
HOT TOPICS LINUX

It May Be Virtual, ... But the Overhead Isn't

Dr. Michael A. Salsburg, Unisys
Peter Karnazes, Unisys
William Maimone, Unisys

This paper presents the results of benchmarks that were designed to measure and observe the performance behavior of server virtualization. Results are published for both Xen and VMWare virtualization technologies. It includes a study of the effects of various I/O and CPU intensities. The benchmarks were designed to observe the overhead of virtualization and the affects of technology and workload mixes on that overhead.

SESSION 457 **WEDNESDAY 4:15 PM - 5:15 PM**
PAPER 6032 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

ITIL Capacity Management: More Than Charts Over Coffee

Rich Fronheiser, Metron

Many organizations are embracing ITIL as a model for best practices. This paper provides a brief background of ITIL and the ITSM processes, with particular attention paid to Capacity Management. The author also considers two different organizations and discusses Capacity Management as practiced in those environments, comparing and contrasting those practices with ITIL Capacity Management. Finally, recommendations are made for implementing ITIL Capacity Management in any environment, with additional focus given to the interfaces between ITIL Capacity Management and the other ITSM processes.

SESSION 502 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 6064 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Getting to Know Your Production Response Time

Dr. Charles A. Letner, ALLTEL Communications, Inc.

An important aspect of managing performance is managing response time extremes, particularly transactions with longer response times. To effectively manage the extremes requires an understanding of response time distributions. In this session response time distributions obtained from production are analyzed. The results demonstrate that response times are not normally distributed. Techniques to analyze the resulting distributions are presented. Additionally, discrete-event simulation techniques are presented that produce simulation results that approximate production distributions.

SESSION 503 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 6517 NON-SPECIFIC
NETWORK/INTERNET No Paper

Best Laid Plans: Enterprise Network Performance Case Studies and Lessons Learned

Dr. Cathy A. Fulton, NetQoS, Inc.

Dr. Fulton will share real-world case studies that demonstrate how well-intentioned network and systems engineering efforts can sometimes produce unexpected results. Dr. Fulton will examine these case studies, gleaned from her years as a leading network engineering consultant and the science behind them. Examples will include the results of implementing caching devices to improve application response times for remote users, improper application of QoS techniques, active agent monitoring software running amuck, and others. Dr. Fulton's deep knowledge of network performance and capacity management, in-the-trenches experience working in large enterprise network environments, and irreverent sense of humor will make this CMG session both valuable and memorable.

CMG-T

SESSION 504 **THURSDAY 8:00 AM - 9:00 AM**
SESSION 514 **THURSDAY 9:15 AM - 10:15 AM**
SESSION 524 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 6505 ZSERIES
ZSERIES No Paper

Introduction to z/OS Monitoring, Tuning, and the Workload Manager

Glenn R. Anderson, IBM

Build your z/OS measurement and tuning skills through this fast-paced seminar, jam-packed with information you can use today. First up we take a look at monitoring z/OS performance using SMF and RMF. Next, dive into the world of System z shared LPARs, including the new specialty engines like zAAPs and zIIPs. What do the terms mean, and how does your configuration manifest itself in the RMF reports? Next, a review of the basics of DASD performance, z/OS paging, and GRS. What are the important metrics to watch, and what do they mean? Finally, jump into the world of z/OS Workload Manager, as we delve into assigning goals and importances for your workload, proper use of WLM classification, and an introduction to advanced WLM services like enclaves and application environments. Of course any discussion of WLM would not be complete without a look at the current RMF Workload Activity Report. A steady stream of important information awaits you, but trust that your instructor Glenn Anderson will keep the proceedings lively, interesting and highly useful.

CMG-T

SESSION 505 **THURSDAY 8:00 AM - 9:00 AM**
SESSION 515 **THURSDAY 9:15 AM - 10:15 AM**
SESSION 525 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 6525 UNIX
UNIX/LINUX No Paper

Unix/Linux CMG Quick Start Course

Adrian A. Cockcroft, eBay Inc

This course focusses on the measurement sources and tuning parameters available in Unix and Linux, including TCP/IP measurement and tuning, complex storage subsystems, and a deep dive on advanced Solaris metrics such as microstates and extended system accounting. The meaning and behavior of metrics is covered in detail. Common fallacies, misleading indicators, sources of measurement error and other traps for the unwary will be exposed. Free tools for Unix/Linux are covered in detail by this presenter in a CMG06 Sunday Workshop, and they will be mentioned briefly in this class.

CMG-T

SESSION 506 **THURSDAY 8:00 AM - 9:00 AM**
SESSION 516 **THURSDAY 9:15 AM - 10:15 AM**
SESSION 526 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 6511 WINDOWS
WINDOWS No Paper

Windows System Performance Measurement and Analysis - Part 1

Jeffry A. Schwartz, Unisys Corp.

This basic tutorial in the CMG-T foundation curriculum introduces the metrics that are available from the Windows operating system and its most prevalent applications. The sheer number of available metrics makes it difficult for anyone, even those analysts who are well versed in performance analysis measurements on other platforms, to discern the most important performance counters. This course will provide the necessary information to enable the Windows performance analyst to ascertain what the most important metrics are, how to interpret them, and the most appropriate collection mechanisms. It will also highlight those measurements that are not easily obtainable. Performance data collection and analysis issues using standard tools will be discussed.

SESSION 507 **THURSDAY 8:00 AM - 9:00 AM**
PAPER 6035 EXPERIENTIAL
FUNDAMENTALS/CORE COMPETENCY ZSERIES

The LOWE Down on Capacity Planning

Jim Horne, Lowe's Companies, Inc.

This paper will take you through the way I perform CPU capacity planning at Lowe's Companies to forecast our continuing CPU upgrades. You will go through the SAS programs, the spreadsheet and the human interaction I use to predict what size machine Lowe's will need and when we will need it. The SAS part will take you through collecting and summarizing the data. The Excel part will show how I use linear trending along with some human factors modification (you know, tweaking) to predict the future in six month increments.

APDEX@CMG2006

SESSION 50A **THURSDAY 8:00 AM - 9:00 AM**
PAPER 6812

No Paper

Apdex: Defining Performance and the Apdex Standard

Peter Sevcik, NetForecast

User-level performance is often very poorly understood, measured, or managed. Furthermore, new business initiatives can inadvertently degrade user performance, making it harder to manage new and existing applications. This session will provide an overview of the problem and a proven model that quantifies the issues. It will describe the Application Performance Index (Apdex), a new standard method for measuring and reporting user performance. Apdex is an open standard that businesses and IT departments can use to discuss requirements, set expectations, and define operating agreements.

SESSION 511 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 6149 BASICS/INTRODUCTORY
NETWORK/INTERNET ZSERIES

Ten Commandments of TCP/IP Performance

Nalini J. Elkins, Inside Products

The ten commandments of TCP/IP performance are a distillation of hard-won experience. Monitoring and tuning TCP networks on the mainframe is complex for the basic reason that each network is a mixture of many applications and pieces of hardware. Each connection contains layers of protocols and subprotocols which must be decoded to make sense of the traffic patterns. Making sense of it all is the first step to tuning and improving performance.

SESSION 512 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 6202 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

The Roadmap for Full Lifecycle Performance Engineering

Amy C. Spellmann, HyPerformix, Inc.
Richard Gimarc, HyPerformix, Inc.

In this paper we describe and demonstrate Performance Engineering methods and techniques that apply across the software development lifecycle. This methodology, which is based on reusable tools and repeatable processes, can be applied at any stage of the lifecycle. The session includes a case study of a retail banking application where Performance Engineering was successfully applied during design, test and production.

SESSION 513 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 6127 TECHNIQUES AND TECHNOLOGIES
STORAGE UNIX

Cache Management of Competing I/O Workloads

Bruce McNutt, IBM

Recent developments in the SCSI-3 standard make it possible for a storage system to develop performance management strategies, based in part, upon the relative importance of competing applications. The compelling benefits of such management, applied to physical disks, were the subject of a companion paper, presented one year ago. This paper extends this discussion to another key storage system resource: the cache memory. We present a strategy for such management, and illustrate its potential advantages.

SESSION 517 **THURSDAY 9:15 AM - 10:15 AM**
PAPER 6122 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT ZSERIES

An Implementation of a Business Metrics Database

Scott A. Chapman, American Electric Power

This session will present one possible BMDB design and discuss a simple web-based reporting architecture based on XML and Javascript that could be extended to other applications as well. Potential sources for both the technical measures and business metrics of mainframe applications will be discussed.

SESSION 51A **THURSDAY 9:15 AM - 10:15 AM**
PAPER 6813 No Paper

Apdex: Applying Apdex to Your Enterprise

Peter Sevcik, NetForecast

This session describes the technology and business choices an enterprise must make in order to apply Apdex. It describes several approaches to defining the Apdex target response time. The session will also provide an overview of several instrumentation approaches along with their values and pitfalls. Attendees will learn how to integrate Apdex reports from various sources, track Apdex over time, and use Apdex to make decisions about improving performance. The session ends with a brief overview of application performance improvement technologies.

SESSION 521 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 6139 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Did Something Change? Using Statistical Techniques to Interpret Service and Resource Metrics.

Frank M. Bereznay, Kaiser Permanente

In a perfect world, one would always know the answer to this question. Unfortunately, nobody works in a perfect world. This session will explore statistical techniques used to look for deviations in metrics that are due to assignable causes, as opposed to the period to period variation that is normally present. Hypothesis Testing, Statistical Process Control, and Analysis of Variance will be explained and analyzed. SAS code to perform the analysis will be provided along with suggested reporting packages. Exploratory analysis techniques will be used to help build populations for analysis purposes.

SESSION 522 THURSDAY 10:30 AM - 12:00 PM

PAPER 6114 BASICS/INTRODUCTORY
HOT TOPICS NON-SPECIFIC

Performance Tuning and Resource Management in Java Applications

Robert E. Ritchie, Bank of America

More and more mission critical and large scale applications are now running on Java. With the rapid increase in market share of application servers like Websphere and Weblogic, performance management of Java applications continues to be a challenge. As Java applications continue to evolve, tuning performance and managing server and network resources becomes even more overwhelming. This session explores high level philosophies for performing these tasks throughout the development life cycle and for pro-actively monitoring Java applications in a production environment.

PAPER 6195 TECHNIQUES AND TECHNOLOGIES
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

A Methodology For Determining Response Time Baselines

Charles Hoover, CARFAX, Inc.

For a long time the 8-second rule has been the norm for setting response time on web pages. But how accurate is this rule in our new high-speed, broadband era of the Internet? By looking at the previous research done on user expectations and collecting response time data from a variety of data sources, it has been possible for us to come up with basic baselines. Then utilizing the Application Performance Index (Apdex) we were able to compare the response times of various pages to see how well they performed.

PAPER 6207 TECHNIQUES AND TECHNOLOGIES
HOT TOPICS ZSERIES

Security and Compliance Incident Response

Dipto Chakravarty, Novell

This paper presents a manifesto for handling incident response related to compliance breach in corporate governance, which is an emerging software infrastructure for managing compliance and security. Public companies are failing to meet compliance because the vital cross-sections of data that is supposed to help companies meet the regulatory criteria are not readily available and what is available is insufficient to meet the regulations. This session, in a 3-part approach, introduces: a set of primitives, the concept of a “unit of work”, and characterizes its incident response workload.

SESSION 523 THURSDAY 10:30 AM - 12:00 PM
PAPER 6175 PANEL
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC
No Paper

Panel: The Scalability Challenge - Methods to Cope with Scalability

Dr. Xianneng Shen, Veritas Software

There are increasing demands for mastering the complexity of datacenters, with their ever growing number of heterogeneous servers and storage devices. It is very challenging to create a scalable solution.

Panelists include: Adrian Cockroft of eBay, Neil Gunther of Performance Dynamics Inc, and Siamak Arya of Symantec

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

PAPER 6069 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT ZSERIES

The Future of Peformance Management and Capacity Planning

Chris Molloy, IBM

Providing performance and capacity management (PCM) service is an integration of people, process, and products. The purpose of this session is to explore each of these areas with respect to future industry direction. We will discuss the labor strategy of PCM, a combination of on site, off site, near shore and off shore resources. We will discuss IT process models and their implications on PCM. We will discuss how the new product technology is affecting the PCM space. The session will conclude with recommendations on how PCM personnel should proceed, in response to these changes.

PAPER 6060 EXPERIENTIAL
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

ARMing the Enterprise

John Yennie, ECS
Oliver E. Cole, OC Systems, Inc.
Steve M. Sturtevant, OC Systems, Inc.

Many large corporations and government agencies are modernizing their computer systems to use network and web-based technologies. These applications have many components and are interfaced to legacy systems as well as newer commercial, off-the-shelf packages. Response time measurements are a necessary part of the final system and ARM is a logical choice for obtaining those measurements. This session describes the ARM strategy pursued and results obtained by the e-Customs Partnership for the ACE project, a multi-billion dollar web-based customs modernization effort.

VENDOR TRAINING

SESSION 528 THURSDAY 10:30 AM - 12:00 PM
PAPER 6810 No Paper

Compuware Strobe: Application Performance Management for the Mainframe

TBD

Strobe is Compuware’s Application Performance Management (APM) tool that enables you to optimize application performance throughout the enterprise and help you determine the precise nature and causes of performance bottlenecks. Join us to learn about the most beneficial and proven application performance management techniques. You will also learn how we support emerging technologies such as Java, WebSphere Application Server (WAS) and Distributed Data Facility (DDF). In addition, you will hear how iStrobe and AutoStrobe can make your APM efforts more productive.

VENDOR TRAINING

SESSION 529 **THURSDAY 10:30 AM - 12:00 PM**
PAPER 6807 No Paper

Metron-Athene: Implementing Capacity Management

Adam Grummitt, Metron-Athene

ITIL (V2) describes the sub-processes and activities involved in the ITSM Service Delivery process of Capacity Management. This session extends these descriptions to cover implementation and process enhancement (which are likely to be in V3 of ITIL). Thus it covers issues such as data sources, instrumentation, scalable performance reporting, logical views of virtualization environments and automated interpretation of trends and alerts as well as speedy modeling to provide answers by lunchtime. Athene is used to demonstrate implementations based on consultancy projects and case studies.

APDEX@CMG2006

SESSION 52A **THURSDAY 10:30 AM - 12:00 PM**
PAPER 6814 No Paper

Apdex: Tools to Measure and Improve Performance

Peter Sevcik, NetForecast

Modern distributed computing and networked application systems impose new challenges to measuring and improving performance. Furthermore, the ability to instrument new applications is becoming limited as both servers and users are outsourced. Representatives from innovative vendors tackling these issues will discuss current and future products that are designed to address them. The session Moderator will keep the session focused on enterprise requirements and technical solution and not permit marketing hype. The session will include open questions from the audience.

SESSION 531 **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6201 EXPERIENTIAL
NETWORK/INTERNET NON-SPECIFIC

Instrumentation and Analysis of Web Transactions in a Large Multi-Tier Banking Services Application

Mark W. Johnson, IBM
Bret Patterson, IBM

Transactions in mission-critical applications are monitored and analyzed to avoid performance and availability problems that impact end-users, and to tune application and resource performance. This session explores a large European banking service's requirements for managing the transactions of a new multi-tier web application, the approach taken to address the requirements, and the technical solution employed for instrumentation, monitoring, and reporting.

SESSION 532 **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6026 TECHNIQUES AND TECHNOLOGIES
HOT TOPICS WINDOWS

Ever Feel As If The World Is Passing You By? Wanna Catch Up Fast?

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

PDAs, Webcams, RSS feeds, podCasting, Windows Mobile, iPods, Torrents, RAR Compression, digital movies, mp3s, mp4s ... not exactly the buzzwords we were using 5 years ago. This entertaining session will focus on these and other 'hot' technologies. Hopefully, you'll walk away with knowledge to apply back at the office ... or at the very least, some cool toys to add to your Christmas gift list!

SESSION 533 **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6521 ZSERIES
ZSERIES No Paper

DB2 UDB for z/OS: Making Friends with the Optimizer

Christian Schram, Compuware Austria GmbH

The DB2 optimizer has got two faces when dealing with access paths: sometimes a powerful souvereign, sometimes a weak dwarf, depending on the information received with and how it is forced to make the correct choices. The most effective way is to design appropriate indexes for SQL statements. This session discusses common mistakes in table and index design and provides algorithms to design perfect indexes. Since it is not always possible to implement the perfect index, this session also deals with criteria for evaluating tradeoffs and discusses possible enhancements to existing indexes based on examples from the "real world".

SESSION 534 **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6033 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Java Performance Analysis 301

Peter Johnson, Unisys

The Java Platform provides a variety of mechanisms for monitoring the performance of Java applications. There are several tools that are freely available that can be used to monitor Java applications. This session describes some of those tools, and the Java Management Extensions (JMX) technology on which those tools are built. Additionally, the paper shows how custom tools can be built using JMX.

SESSION 535 **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6052 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

Adding Value to Performance Management with Business Metrics

Scott A. Chapman, American Electric Power

A great deal of system and human effort is expended to collect detailed technical measurements. These measurements are usually stored in some form of a Performance Database, or PDB. However, these data do little to help us understand the purpose of those systems: supporting our business. These basic performance measures, tell us very little about the systems' business value. To understand that business value we need to collect data about the work being performed in business terms. That data could be stored, along with selected technical measurements, in a Business Metrics Database, or BMDB.

SESSION 536 **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6050 EXPERIENTIAL
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

Application of Supply Chain Mechanisms to an On Demand Operating Environment

Sam Nokes, IBM
Dave Cohen, Merrill Lynch

With the introduction of the On Demand Operating Environment, traditional capacity planning methodologies are being replaced by just in time resource allocation. This session examines the application of supply chain mechanisms to an ODOE. After reaching the ideal condition with a complete adaptation of the capacity offer to the dynamic capacity demand, the tasks of managing the ODOE systems are reduced to a simple order scheduling and to the logistical configuration and supervision (or monitoring) of service flow.

SESSION 537 **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6066 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT WINDOWS

Beyond System Capacity Planning: Serving a Growing Environment and Customer Base without More Staff

Jon McKenzie, National City Corporation

With data centers growing at staggering rates, capacity planners find themselves in a Catch-22 situation. Adding servers presents physical and environmental capacity issues, yet while many proposed solutions check physical growth, logical hosts continue to explode, making system capacity planning critical. IT departments continue to be told to ''do more with less.'' This paper discusses ways that any size capacity planning team can leverage ITIL and automation to allow continued growth while adding features demanded by dashboard-driven business and support customers.

APDEX@CMG2006

SESSION 53A **THURSDAY 1:30 PM - 2:30 PM**
PAPER 6815 No Paper

Apdex: The Apdex Management Process

Peter Sevcik, NetForecast

Successful adoption of Apdex requires good management processes. This session will describe a step-by-step process that can be modified for your enterprise including how to start by getting the right people involved. Key stages of the process use the Apdex methodology to define business objectives and establish service level agreements (SLAs). This session shows how Apdex-based reporting is linked to values that are important to the business. The session ends with a discussion of using Apdex as a foundation for ongoing IT quality improvement.

SESSION 541 **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6402

CMG Italy - Best Paper: AIX Micro-Partitioning

Mark Cohen

Starting from year 2000 IBM announced the possibility to partition the pSeries family systems. Initially it was only possible to run dedicated processors in a logical partition. Now p5 series has integrated new virtual engine system technologies into their hardware and software. This introduced new features as Micro-Partitioning which provides the ability to share physical processors amoung logical partitions, Virtual Lan which provides network utilization features capabilities that permit you to prioritize traffic on shared networks and allows secure communication between logical partitions without the need of a physical network adapter, Virtual I/O which provides the abitility to dedicate I/O adapters and devices to a virtual server. It allows a single physical I/O adapter to be used by multiple logical partitions on the same server. This allows consolidation of I/O servers and minimizes the amount of I/O adapters required.

New concepts of shared partitioning have been implemented in the p5 series compared to the IBM mainframe. This session I will provide a detailed overview of shared partitioning and its performance metric considerations.

SESSION 542 **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6208 BASICS/INTRODUCTORY
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

The Myth of Memory Utilization on Midrange Systems

Brian Johnson, Bank Of America

This session discusses the widespread use of the memory utilization metric on midrange systems and why it's both misleading and ill-advised to report and use it.

SESSION 543 **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6516
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC
No Paper

Accountability for System Performance

Cary V. Millsap, Hotsos Enterprises, Ltd.

Businesses are commonly organized in such a manner that the departments held accountable for making application systems fast and efficient don't have enough leverage to get the job done. The result is painful. Users suffer from slow applications, and system costs spiral while organizations expend energy deflecting blame. This session describes how the right measurements and a few process changes can produce a culture of performance accountability across departments, resulting in faster, cheaper, more efficient systems.

SESSION 544 **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6031 BASICS/INTRODUCTORY
NETWORK/INTERNET NON-SPECIFIC

10 Steps to Securing Your Web Applications

Peter Johnson, Unisys

You set up a firewall, run anti-virus and anti-spyware software, and regularly patch security holes in your operating system. Therefore your data is secure, right? Wrong! Sloppy programming practices can leave your data open to prying eyes. This paper describes the top 10 security vulnerabilities that can be found in today's web-based applications, and how those applications can be changed to avoid these security issues. The paper also provides a brief survey of commercial products that claim to catch several of these vulnerabilities without having to change the applications.

SESSION 545 **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6068 BASICS/INTRODUCTORY
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

What Performance and Capacity Management People Need to Know About Finance

Chris Molloy, IBM

Performance and capacity management (PCM) personnel need to be aware of the financial implications of their actions. IT Business models such as ITIL have a financial management discipline included in the model which interacts with the ITIL capacity management discipline. The purpose of this paper is to describe the relationship between finance and capacity management, using the ITIL as a framework for this description. The paper will extend these relationships using projects that a capacity planner may lead. It will conclude with financial mistakes made in PCM, and how one can avoid them.

SESSION 546 **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6210 EXPERIENTIAL
HOT TOPICS NON-SPECIFIC

Performance Evaluation of Java Persistence Frameworks

Dr. Odysseas I. Pentakalos, SYSNET International, Inc.
Ramanand Singh

A number of persistence frameworks exist to support the mapping of the object domain model of a Java enterprise application to a relational database schema. In addition to automating the task of mapping the object model to the relational database model, these frameworks include advanced features such as caching of data, transaction management, and lazy loading of related objects. In this paper, three ORM frameworks are evaluated based on their performance characteristics using a sample domain model and a stress testing tool.

SESSION 547 **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6112 BASICS/INTRODUCTORY
ZSERIES ZSERIES

A Performance Analyst's Guide to the RMF Type 70 Record

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

The evolution of the performance data in the RMF type 70 record is described from the earliest MVS systems running on uniprocessors to current z/OS systems running in logically partitioned systems, on CECs with various types of CPs, in LPARs with combinations of shared and dedicated logical processors under the control of Workload Manager using the functionality of the Intelligent Resource Director. Techniques for analyzing and reporting on the metrics in the RMF type 70 record will be discussed along with techniques for using the data to address issues of CPU contention and latent demand.

APDEX@CMG2006

SESSION 54A **THURSDAY 3:00 PM - 4:00 PM**
PAPER 6816

No Paper

Apdex: Case Studies Using Apdex

Peter Sevcik, NetForecast

In its short history Apdex has enjoyed tremendous interest. Pioneering enterprises have started to apply Apdex measurement and reporting. Representatives from enterprises and consulting companies with hands-on experience will discuss initial Apdex projects. We will hear firsthand about the goals, implementations, and benefits of Apdex. The session will include an open forum with questions and answers from the audience.

SESSION 551 **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6014 EXPERIENTIAL
HOT TOPICS NON-SPECIFIC

ITIL vs. Agile Programming: Is The Agile Programming Discipline Compatible With The ITIL Framework?

Charles Hoover, CARFAX, Inc.

Information Technology Infrastructure Library (ITIL) is an approach to IT Service Management that is being widely accepted across the industry. Agile programming methodologies like Extreme Programming (XP) are new ways of developing software. The question is: Can these two processes work together in the same organization successfully?

SESSION 552 **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6520
STORAGE NON-SPECIFIC
No Paper

Storage System Update and Review

Greg Schulz, The StorageIO Group

There are many different options available to meet various storage requirements from mainframe to Open Systems, from primary to secondary, from SAN to NAS and so forth. This session takes a brief look at different storage system architecture options in a vendor and technology neutral format to help position what type of storage to use for different applications and requirements. This is not a product or vendor comparison session, rather, the attendees will re-enforce what they may already know about what type of storage to use including different types of disk drive options to meet their specific needs as well as learn about new trends and directions pertaining to primary, secondary, and tertiary disk based storage solutions. Some technologies and techniques include tiered storage in a box, clustered storage, SAN, NAS, CAS, IP storage, primary and secondary storage, grid and peer based storage among many others including SAS, SATA, Fibre Channel, InfiniBand, and iSCSI to name a few. Some other emerging and new techniques that will be discussed include among others:

- Single instance repositories (aka data differencing, compaction, compression, factoring, normalization, deduplication)
- Data base archiving and pruning
- Automated data movement and migration to tiered storage
- I/O virtualization (IOV), PCI-Express, and server related improvements
- Self tuning and optimizing storage systems

SESSION 553 **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6170 PANEL
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC
No Paper

Panel: Measuring Business Performance — Can IT bridge the Chasm?

Rick Lebsack, IBM

The bottom line of business performance has always revolved around financial measures. IT measures performance based on utilization and struggles to directly link those utilizations to the businesses financial measures. SOA, ITIL, ODOE, RTI, Balanced Scorecard, ARM, Chargeback... on and on the acronyms swirl but the linkage grows further apart. This panel will discuss approaches that have been tried - what worked, what didn't, and why. The purpose is not to build the bridge but rather to start the foundation SO...come prepared to listen, ask, and share your experiences.

Panelists include: Michael Salsburg of Unisys Corporation, Rick Lebsack of IBM, and Sid Finehirsh of CMX Group.

SESSION 554 **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6535 PANEL
NETWORK/INTERNET NON-SPECIFIC
No Paper

Panel: Performance at the Edge of the Web

Sidney W. Soberman, H W Wilson

The challenge of managing Web based systems is extremely more complex than your father's mainframe environment. How does a performance analyst look at today's architecture to diagnose and pinpoint bottlenecks and delays? Is it the server or the middleware software or the data base server or perhaps the network or the Internet or a communication device?

Panelists include: Chris Loosely of Keynote Systems, Nalini Elkins of Inside Products, Mike Tyskin of Fujitsu Australia Limited, Laura Knapp of IBM, and Mark Johnson of IBM.

SESSION 555 **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6129 TECHNIQUES AND TECHNOLOGIES
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

Measuring and Projecting Power for High Density Computing

Dr. Thomas E. Bell, Rivendel Consultants

Power consumption of computers has been a minor concern for years, but even that level of concern has declined over the last decade due to increased efficiency. Lately, however, power demands have increased as the use of blade computing has become popular. Inexpensive measurement tools can determine the actual situation, and some vendor specifications can be used to project demand. However, typical power engineers are not familiar with the changing characteristics of computers, so computer technologists need to be deeply involved in plans and computations in order to state requirements.

SESSION 556 **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6130 TECHNIQUES AND TECHNOLOGIES
ZSERIES ZSERIES

CICS Open Transaction Environment And Other TCB Performance Considerations

Steven R. Hackenberg, IBM

With the introduction of the CICS Open Transaction Environment (OTE) architecture introduced with CICS Transaction Server 1.3, we now have much more flexibility for CICS to exploit more CPU engines without the need to split a single region into multiple regions, with the added benefit of reducing CPU consumed per transaction. The implementation of this architecture is fairly simple, but improper specifications can have ramifications which diminish or even hamper the advantages of the new approach.

SESSION 557 **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6073 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY ZSERIES

The Straight Capacity Line

Linda J. Carroll, IBM Global Services

The trend line for a capacity forecast tends to be a boring, straight line. Most capacity reports feature this same linear regression line, year after year after year. What this author proposes is that there is a different way of developing the capacity forecast trend line to have it show the seasonal affects and/or cyclical effects while improving the accuracy of the capacity forecast.

APDEX@CMG2006

SESSION 55A **THURSDAY 4:15 PM - 5:15 PM**
PAPER 6817 No Paper

Apdex: Open Meeting of the Apdex Alliance

Peter Sevcik, NetForecast

Apdex is an open standard that is managed by the Apdex Alliance as an IEEE-ISTO program (see www.apdex.org). This session will describe how to use the Alliance web site to get more information about Apdex and how to become a participating member of the Apdex online community. This session will also serve as the first open meeting of the Alliance supporting members. However, everyone is welcome to attend this session. The Apdex Alliance Management Board will present plans for next year and solicit input on how to make the Alliance more valuable to its members.

POSTER SESSIONS

SESSION 5PC THURSDAY 5:15 PM - 6:15 PM

PAPER 6148 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

New Perspectives on Benchmarking, Modeling and Monte Carlo Simulation: Operational Analysis 2.0

Dr. Jeffrey P. Buzen, Independent Consultant

By providing equations that characterize the precise trajectories of physical bodies traveling through 3 dimensional space, classical Newtonian mechanics represents a “gold standard” for performance modeling. Modern analysts study the “logical trajectories” that computer systems follow as they operate over time, traveling through multi-dimensional state spaces. With Monte Carlo simulation, random number generators are used to trace out these logical trajectories. Operational analysis provides a rationale and a set of procedures for modifying such trajectories to improve simulation accuracy.

PAPER 6152 EXPERIENTIAL
FUNDAMENTALS/CORE COMPETENCY WINDOWS

Experiances of Using LQN and QPN tools for Performance Modelling of a J2EE Application

Nidhi Tiwari, Infosys Technologies Limited
Prabhakar Mynampati, Infosys Technologies Limited

Performance of a J2EE application is influenced by the underlying infrastructure, operating system and middleware parameters. Usually reactive approach of testing is used to configure these, which is costly and time consuming. Consequently a proactive approach of performance modeling is required. Layered Queuing Networks and Queuing Petri Nets are two such effective techniques for tuning environment. This paper articulates our experiences with these techniques for a J2EE application. The relative attributes of two techniques are listed to provide an insight on their suitability in a context.

PAPER 6411 INTRODUCTORY
ZSERIES ZSERIES

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 601 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 6017 PANEL
STORAGE NON-SPECIFIC
No Paper

Panel: Storage Performance Council Update

Mel Boksenbaum, Hitachi Data Systems

The Storage Performance Council (SPC) is a cross-vendor team of storage performance experts that has built the industry's first benchmarks for storage which have become the standard for decision making. The SPC has sought real-world workloads to become benchmarks that are vendor-neutral, platform independent, network storage capable. A significant number of both SPC-1 and SPC-2 results have been published to date. This panel session will discuss the status of the SPC and the Storage Industry standard performance benchmarks available and under development.

Panelists include: Walter Baker of Gradient Systems, Mel Boksenbaum of Hitachi, Bruce McNutt of IBM SSD, Craig Parris of Seagate Technology, Leah Schoeb of Sun Microsystems and C. A. (Sandy) Wilson of Fujitsu Computer Systems.

SESSION 602 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 6151 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Forecasting + Modeling: A Partnership to Predict and Prevent Capacity Bottlenecks

Margaret A. Churchill, HyPerformix
Martha S. Hays, SAS

Capacity Management includes the monitoring of critical applications to understand when servers and service levels are close to or exceeding performance thresholds. Adding forecasting and modeling to the capacity management process allows the IT organization to anticipate when a problem will occur in the future, and prescribe the right solution, effectively preventing IT fires. This paper will compare and contrast various forecasting techniques for predicting when bottlenecks will occur. Once a prediction is made, modeling can be used to determine the impact and prescribe the right change.

SESSION 603 **FRIDAY 8:00 AM - 9:00 AM**

PAPER 6109 BASICS/INTRODUCTORY
NETWORK/INTERNET NON-SPECIFIC

Achieving Practical Network Application Impact and Response Time Projections

James H. Baxter, PacketIQ Inc.

Preparing for the successful deployment or expansion of a networked application that offers acceptable performance at remote locations often involves more than just ensuring adequate network bandwidth. This paper outlines the concepts, tools, and processes utilized to accomplish a practical network impact assessment that includes end-user response time projections. Elements of these techniques can also be employed to reveal the real source of poor application performance and eliminate finger-pointing between network and application support personnel.

PAPER 6065 TECHNIQUES AND TECHNOLOGIES
NETWORK/INTERNET NON-SPECIFIC

Identifying Network Failures and Evaluating Link MTBF from Utilization Logs

Paolo Cremonesi
Dr. Giuliano Casale, Neptuny
Stefano Visconti

Network failure detection techniques and link Mean Time Between Failure (MTBF) estimates are required to assess the reliability of large communication networks.

We present an experience based on utilization logs of a large ISP network comprising hundreds of links, and spreading over a geographic area. The complexity of the network requires to account also for the mutual dependencies between events on different links. Nevertheless, we show that robust non-parametric data mining methods offer a simple and effective way to accomplish the task.

SESSION 604 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 6138 TECHNIQUES AND TECHNOLOGIES
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

Managing Financial Systems: The Peak Experience

Jon E. Schmidt, Transaction Design, Inc.

The impact of a capacity shortfall affecting financial systems can be very expensive. If a stock trading system fails to keep up with a tumultuous day, or if a retail POS system can't keep up over Christmas, the organization operating the system can lose thousands of dollars from the bottom line for each minute that the system is down or degraded.

This paper discusses how some organizations track the impact of peak business demand on their servers, and how they use this information to be prepared for the next surge in demand.

SESSION 605 **FRIDAY 8:00 AM - 9:00 AM**

PAPER 6055 BASICS/INTRODUCTORY
UNIX/LINUX UNIX

AIX System Performance Experiences and Basic Tuning

Irvin G. Eiceman, Capital BlueCross

Recent conversion from a Mainframe environment to AIX/UNIX presented many interesting challenges. Fortunately, many of the fundamental performance tuning principles learned in the mainframe environment applied well in the sense that you are still balancing CPU memory and I/O. As such, much of this paper is derived from personal experiences in extensive tuning of AIX systems. The intent of this paper is to help make the transition from MAINFRAME to AIX/UNIX a bit friendlier for the Performance Specialist.

PAPER 6164 EXPERIENTIAL
UNIX/LINUX UNIX

Out-of-the-box Performance of OLTP on High-end Servers - A Comparison of File Systems & Configuration

Timothy P. Cook, Sun Microsystems

Discussion of results of a study into a high-end OLTP workload running on Oracle 10g on top of today's popular filesystems - UFS, VxFS, QFS and Oracle's ASM. What was seen from an out-of-the-box configuration, and what tunings were seen as beneficial and why.

SESSION 606 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 6076 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Applying Queuing Theory to Optimizing the Performance of Enterprise Software Applications

Dr. Henry H. Liu, BMC Software

Performance is one of the most stringent requirements for large scale enterprise software applications. It is crucial in determining the success or failure of a large project. It spans various stages of a software product life cycle from designing to developing, and to final delivering to the customer. In this paper, using the two most fundamental concepts, wait events and service demand, we demonstrate quantitatively how we can leverage well-known queuing theory to help achieve the best possible performance for large scale enterprise software applications, both efficiently and effectively.

SESSION 607 **FRIDAY 8:00 AM - 9:00 AM**
PAPER 6196 EXPERIENTIAL
FUNDAMENTALS/CORE COMPETENCY ZSERIES

A Practical Approach to a Processor Migration Capacity Analysis

Robert Hamilton, Fifth Third Bank

After installing the latest generation mainframe there is always a need for an analysis that will determine if the latest technology is meeting capacity expectations in a regular production environment. Such an analysis could face numerous technical challenges in a rather short period of time. This paper reviews an experience with a z9 processor migration capacity analysis in a large production environment.

SESSION 611 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 6512 NON-SPECIFIC
STORAGE No Paper

Storage Virtualization – The No Spin Zone!

Tom Trainer, Evaluator Group

Today, storage virtualization is ubiquitous. All of the major storage vendors offer some form of virtualization solution; however be aware, they have different value propositions and are not anywhere near the same from a technological standpoint.

This session will present a 'no spin' overview and technical discussion on the current virtualization solutions. You'll be surprised at what you will learn.

SESSION 612 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 6015 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Active Baselining in Passive Data Environments

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

To decide if systems are running according to their usual trend, it is necessary to compare against a performance baseline that defines an operating envelope. We describe how baselines can be derived from passive stores of performance data, which are typically flat text files or databases. Baselines can be built as needed by varying the baseline norm, granularity, update frequency, etc. Baselining outputs are sets of alert thresholds stratified by system, metric, and hour. The role and usage of baselines in automated alerting is discussed, with examples of reports that can be produced.

SESSION 613 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 6186 BASICS/INTRODUCTORY
HOT TOPICS NON-SPECIFIC

The Well-Managed Web Service

Herb Van Hook, BMC Software, Inc.

This paper discusses successful operational management of the emergent technologies represented by adopting Web Services for application integration. It is important to recognize that the next few years will be marked by significant trends in the packaged and custom application market.

These include:
- Alignment, convergence and consolidation among application logic
- Application integration and application servers
- Adoption of service-oriented architectures
- Adoption of Web Services
- Increased use of programmable business process languages
- Integrated and complete management of this environment

SESSION 614 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 6190 EXPERIENTIAL
NETWORK/INTERNET NON-SPECIFIC

Performance and Quality Monitoring for Interactive Voice Services Using the CPL

Jeff Fried, ROI

Interactive voice and multimedia capabilities are central to many organization's operations. We have formalized a metric called Customer Perceived Latency (CPL), which is a simple measure that captures much of the important behavior of voice self-service applications. This session outlines how CPL is related to customer satisfaction, how it can be used along with testing and system modeling to determine how to size and configure services, and how monitoring CPL over time can detect and avoid operation problems as well as providing data for calibration of models.

SESSION 615 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 6156 BASICS/INTRODUCTORY
UNIX/LINUX UNIX

The Need for Speed: Simple Tested Techniques to Beef Up Performance of Your Solaris/Oracle Database

Peg McMahon, Sprint
Bob Sneed, Sun Microsystems, Inc.

When their C-Level execs are calling your C-Level execs about performance problems with your application, it's time to act. The app needs an extreme makeover - but there's no time or money for a re-write. Instead, we took it to the lab. In about two weeks of testing, we reduced CPU utilization on the database more than 90 percent and cut transaction time in half. A lot of the problem turned out to be the file system. It was not write concurrent. This is not rocket science. If your Solaris/Oracle database needs fast response under high transactional loads, here is some news you can use.

SESSION 616 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 6003 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

An Internet Business Capacity Model - More Tiers, Less Tears!

Todd R. Bourne, CPT Global Inc
Mike Moroz, CPT Global Inc

Business is increasingly dependent upon the internet as a channel to customers. This is particularly true in finance, where the Internet can be the largest branch, turning away users for lack of resources is tantamount to closing the doors. The breadth of technologies (web, app and dbms through to traditional mainframe systems) further compounds the challenge of mapping business activity onto system utilisation. This paper reflects the real world lessons learned by CPT Global working across 16 countries building business focused capacity models to reduce costs for major financial institutions.

SESSION 617 **FRIDAY 9:15 AM - 10:15 AM**
PAPER 6108 TECHNIQUES AND TECHNOLOGIES
BUSINESS PERFORMANCE MANAGEMENT NON-SPECIFIC

Performance Reporting in the 21st Century - Changes in Scope and Direction

Gregory V. Caliri, BMC Software, Inc.

Performance and capacity reporting have been critical enterprise functions since the start of commercial computing. The reporting role has changed through the years. In the 21st century, there are often three audiences — the capacity, performance and business specialists. To further add to one's dilemma, there are more tools and report platforms today. Skill sets of the reporters have changed. The specialist must learn to adapt presentations, build confidence or ''zen'' in each audience, and still manage to communicate effectively. A modular approach to reporting is invaluable.

SESSION 621 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 6043 TECHNIQUES AND TECHNOLOGIES
STORAGE NON-SPECIFIC

Database Backups Using Virtual Tape Volumes

Kathleen N. Hodge, Storage Technology Corporation

The time it takes for the database administrator to conduct the database recovery process directly affects the company's bottom line. Database downtime impact can be measured in billions of dollars resulting in lost opportunity and disgruntled customers. This paper describes virtual tape technology and advantages which can be realized by the database administrator when database recovery efficiency is essential. Virtual tape offers an alternative to expensive disk storage and physical tape cartridge dependencies.

SESSION 622 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 6136 EXPERIENTIAL
ZSERIES ZSERIES

The Effect of Distribution and Correlation Statistics on the DB2 Optimizer

Tom Moulder, TREX Associates, Inc.

Ever wondered about DB2 performance? Why some statements work well and not others? This presentation will explain the difference between DB2 without help and DB2 with help. The particular help that will be discussed is the ability of DB2 to collect statistics concerning data content that can be used to improve performance. Don't let the title scare you. Nothing in the presentation will ever use anything more that addition, subtraction, multiplication and division. The longest calculation is of four values. Simple Math can be used to unlock the secrets of DB2.

SESSION 623 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 6016 BASICS/INTRODUCTORY
FUNDAMENTALS/CORE COMPETENCY WINDOWS

The Bottleneck Cycle

Denise Arruda, FMGlobal

The bottleneck cycle refers to the iterative process of finding a performance bottleneck, eliminating it, and finding the next one. The hope is that eventually the bottleneck falls outside of your application's performance requirements. This session will present a case study to illustrate how using the principles of application performance testing enabled us to traverse our way through the bottleneck cycle. It will discuss what types of data were collected and analyzed to identify each of the bottlenecks, and discuss the approach used to eliminate each of the bottlenecks, at a high level.

SESSION 624 **FRIDAY 10:30 AM - 12:00 PM**

PAPER 6074 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY ZSERIES

Encouraging Wider Use of Performance Metrics through Web Technologies

Todd Schmitter, JPMorgan Chase

The IBM mainframe environment provides a wealth of performance metrics, but the exploitation of these metrics is often limited due to the expertise required to access and understand the metrics. As a result, analysis and decisions can suffer from a lack of exploiting available metrics. This session discusses the use of intranet-based technologies for greatly increasing the accessibility of performance metrics to a wider audience. It includes a consideration of the challenges of managing and presenting the data in ways that aid the analysis process.

PAPER 6105 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Apriori Evaluation of Data and Selection of Forecasting Model

Alex Gilgur, MonoSphere, Inc
Mike Perka, MonoSphere Inc.
Bill Fuller

One should not have to be a statistician to evaluate whether the data are adequate and the model is good for the task at hand. The methodology used in the data evaluation tool we developed, allows us to influence the selection of the most adequate forecasting model. We shall discuss here our approach to data evaluation and how we use it for generating better models.

SESSION 625 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 6023 TECHNIQUES AND TECHNOLOGIES
NETWORK/INTERNET NON-SPECIFIC

Measurement of Transaction-Based End-To-End Response Time in Un-Armed Environments

Mike Tsykin, Fujitsu Autralia Ltd.
James Bouhana, Performance International, Inc.
Christofer D. Langshaw, Fujitsu Australia

Transaction-based response time is the key metric for assessment of SLA compliance, installation accounting and performance trouble-shooting. Both end-to-end measurement and breakdown by components of transaction path are required. This session reviews the available methods and focuses on environments that are not instrumented with ARM - the vast majority of installations. Theory and available tools are reviewed and a successful implementation is discussed in detail.

SESSION 626 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 6045 TECHNIQUES AND TECHNOLOGIES
FUNDAMENTALS/CORE COMPETENCY NON-SPECIFIC

Performance Signatures: A Qualitative Approach to Dependency Guidance

Rico Mariani, Microsoft Corporation

This session describes a simple qualitative approach, through approximate Performance Signatures, that allows prescriptive dependency guidance to be given in real time and facilitates improved analysis of measured results. Emphasis is placed on ease of adoption and preventing common large mistakes.

SESSION 627 **FRIDAY 10:30 AM - 12:00 PM**
PAPER 6030 EXPERIENTIAL
BUSINESS PERFORMANCE MANAGEMENT UNIX

Transaction Processing using J2EE Application: Performance with Tens of Millions of Users

Mark M. Maccabee, IBM

We examine performance issues that came in the process of benchmarking, measuring and analyzing an application executing under WebSphere. A lottery application (tens of millions of users) was stressed using a custom made benchmark. We describe the development of the benchmark (that involved the use of JCA). We show the dynamic of J2EE standards and how much of it is in production. Application structure, deployment and performance are presented as we found them on real running systems.

Sessions by Focus Area

The following pages contain lists of sessions that attendees with a specific technology focus may find useful in ensuring they receive the maximum "Training Value", from CMG's conference program.

The sessions listed in this section are not exhaustive. Please go to the CMG 2006 conference website for the complete and most up-to-date program and session information.

Our online agenda is at http://www.cmg.org/cgi-bin/agenda_2006.pl

In fact, **there are 90+ additional sessions** beyond these "focus area" lists that provide basic, intermediate and advanced level material on the performance management and capacity planning disciplines, as well as relevant and late-breaking industry trends and general technology management topics.

These "General Interest" sessions will not only round out your conference experience, they drive further increases in "Training Value" for attendees by providing the required context and industry perspectives that enable you to effectively contribute in your field and role, everyday.

You can jump right in and begin planning your conference schedule at http://www.cmg.org/cgi-bin/conf_sched.pl

The Conference Scheduler helps you plan which sessions you would like to attend during the CMG Conference. Sessions you "Add to your schedule" are saved to your daily itinerary that you can then print or import into your favorite calendar application.

DECEMBER • 3-8

BUSINESS PERFORMANCE MANAGEMENT FOCUS AREA

SESSION	DAY	TIME	AUTHOR	TITLE
247	Mon.	3:00 PM	Rogers	A Technology Cost Model for Server Infrastructure Management
315	Tues.	9:15 AM	Chastain	Connecting Health of the Business Process with the Health of the IT Services
322	Tues.	10:30 AM	Kalm	The Minimum Daily Adult - The Right Metrics & the Wrong Metrics
334	Tues.	1:30 PM	Chaney	The ABCs (or should I say, CASs) of I/T Chargeback
335	Tues.	1:30 PM	Buzen	Achieving Business Agility with SOA: Governance & SLA Management of Shared Service Ecosystems
337	Tues.	1:30 PM	Grummitt	ITIL Capacity Management Appreciation Seminar - Part 1
347	Tues.	3:00 PM	Grummitt	ITIL Capacity Management Appreciation Seminar - Part 2
353	Tues.	4:15 PM	Cole	ARM Using Eclipse TPTP
357	Tues.	4:15 PM	Grummitt	ITIL Capacity Management Appreciation Seminar - Part 3
417	Wed.	9:15 AM	Trubin	System Management by Exception, Part 6
423	Wed.	10:30 AM	Molloy	Virtualization - Inhibitors to Server and Storage Virtualization, and How to Mitigate Them
423	Wed.	10:30 AM	Greco	Monitoring, Availability, and . . . Maslow?!
457	Wed.	4:15 PM	Fronheiser	ITIL Capacity Management: More Than Charts Over Coffee
517	Thurs.	9:15 AM	Chapman	An Implementation of a Business Metrics Database
522	Thurs.	10:30 AM	Hoover	A Methodology For Determining Response Time Baselines
527	Thurs.	10:30 AM	Molloy	The Future of Peformance Management and Capacity Planning
527	Thurs.	10:30 AM	Yennie	ARMing the Enterprise
535	Thurs.	1:30 PM	Chapman	Adding Value to Performance Management with Business Metrics
536	Thurs.	1:30 PM	Nokes	Application of Supply Chain Mechanisms to an On Demand Operating Environment
537	Thurs.	1:30 PM	McKenzie	Beyond System Capacity Planning: Serving a Growing Environment and Customer Base without More Staff
543	Thurs.	3:00 PM	Millsap	Accountability for System Performance
545	Thurs.	3:00 PM	Molloy	What Performance and Capacity Management People Need to Know About Finance
553	Thurs.	4:15 PM	Lebsack	Panel: Measuring Business Performance — Can IT bridge the Chasm?
555	Thurs.	4:15 PM	Bell	Measuring and Projecting Power for High Density Computing
604	Fri.	8:00 AM	Schmidt	Managing Financial Systems: The Peak Experience
617	Fri.	9:15 AM	Caliri	Performance Reporting in the 21st Century - Changes in Scope and Direction
627	Fri.	10:30 AM	Maccabee	Transaction Processing using J2EE Application: Performance with Tens of Millions of Users

SESSION	DAY	TIME	AUTHOR	TITLE
244	Mon.	3:00 PM	Artis	Understanding the Performance Implications of MIDAWs
325	Tues.	10:30 AM	Tretel	Forecasting Database Disk Space Requirements:
325	Tues.	10:30 AM	Yaple	Benchmarking Storage Subsystems at Home Using SPC Tools
325	Tues.	10:30 AM	Yaple	Can You Afford Low Cost Storage?
435	Wed.	1:30 PM	Friedman	Storage Performance Measurement Panel
513	Thurs.	9:15 AM	McNutt	Cache Management of Competing I/O Workloads
552	Thurs.	4:15 PM	Schulz	Storage System Update and Review
601	Fri.	8:00 AM	Boksenbaum	Panel: Storage Performance Council Update
611	Fri.	9:15 AM	Trainer	Storage Virtualization – The No Spin Zone!
621	Fri.	10:30 AM	Hodge	Database Backups Using Virtual Tape Volumes

UNIX & Linux Focus Area

Session	Day	Time	Author	Title
245	Mon.	3:00 PM	Gopalaswami	A Common Foundational Platform for OpenSource Performance Montoring
255	Mon.	4:15 PM	Dujmovic	Evaluation and Comparison of Search Engines Using the LSP Method
321	Tues.	10:30 AM	Hrischuk	A Tutorial on SIP Application Server Performance and Benchmarking
325	Tues.	10:30 AM	Tretel	Forecasting Database Disk Space Requirements:
325	Tues.	10:30 AM	Yaple	Benchmarking Storage Subsystems at Home Using SPC Tools
325	Tues.	10:30 AM	Yaple	Can You Afford Low Cost Storage?
331	Tues.	1:30 PM	Watson	UKCMG - Best Paper: Experiences in Capacity Management of Shared UNIX Infrastructure
341	Tues.	3:00 PM	Mungal	Panel: Unix/Linux in the new Infrastructure
344	Tues.	3:00 PM	Hubel	A Simple Approach to DB2 Index Redesign
411	Wed.	9:15 AM	Knapp	Network Performance in Load Balanced World
415	Wed.	9:15 AM	Hu	Do CPUs Count? Understanding Resource Utilization on Virtualized Systems.
419	Wed.	9:15 AM	TBD	VMWare: TBD
424	Wed.	10:30 AM	Brady	Traffic Capacity Testing a Web Environment With Transaction Based Tools
424	Wed.	10:30 AM	Sheetz	Performance Reporting/Modeling for AIX Partitioned Environments
425	Wed.	10:30 AM	Wagoner	Bertha: A Benchmark Tool for High-Performance Storage Subsystems
431	Wed.	1:30 PM	Dahlstedt	Java on Bare Metal - Better Resource Control when Running Java on a Hypervisor
441	Wed.	3:00 PM	Knapp	End-End Performance Management
444	Wed.	3:00 PM	Lu	Measuring and Modeling the Performance of the Xen VMM
454	Wed.	4:15 PM	Weilnau	Real World Adventures in Server Virtualization
455	Wed.	4:15 PM	Salsburg	It May Be Virtual, ... But the Overhead Isn't
505	Thurs.	8:00 AM	Cockcroft	Unix/Linux CMG Quick Start Course - Part 1
513	Thurs.	9:15 AM	McNutt	Cache Management of Competing I/O Workloads
522	Thurs.	10:30 AM	Ritchie	Performance Tuning and Resource Management in Java Applications
528	Thurs.	10:30 AM	TBD	Compuware Strobe: Application Performance Management for the Mainframe
534	Thurs.	1:30 PM	Johnson	Java Performance Analysis 301
541	Thurs.	3:00 PM	Cohen	CMG Italy - Best Paper: AIX Micro-Partitioning
542	Thurs.	3:00 PM	Johnson	The Myth of Memory Utilization on Midrange Systems
546	Thurs.	3:00 PM	Pentakalos	Performance Evaluation of Java Persistence Frameworks
605	Fri.	8:00 AM	Eiceman	AIX System Performance Experiences and Basic Tuning
605	Fri.	8:00 AM	Cook	Out-of-the-box Performance of OLTP on High-end Servers - A Comparison of File Systems & Configuration
613	Fri.	9:15 AM	Van Hook	The Well-Managed Web Service
615	Fri.	9:15 AM	McMahon	The Need for Speed: Simple Tested Techniques to Beef Up Performance of Your Solaris/Oracle Database
622	Fri.	10:30 AM	Moulder	The Effect of Distribution and Correlation Statistics on the DB2 Optimizer
627	Fri.	10:30 AM	Maccabee	Transaction Processing using J2EE Application: Performance with Tens of Millions of Users

zSERIES FOCUS AREA

SESSION	DAY	TIME	AUTHOR	TITLE
242	Mon.	3:00 PM	Liu	Performance Monitoring and Reporting for the Edge of the Web: TCP/IP, Routing and Web Transactions
243	Mon.	3:00 PM	Diehl	Measurement and Modeling of DB2 zIIP Workloads
244	Mon.	3:00 PM	Artis	Understanding the Performance Implications of MIDAWs
253	Mon.	4:15 PM	Wade	Effect of Parallel Access Volumes (PAV) Technology on z/VM Guest Disk I/O Performance
255	Mon.	4:15 PM	Dujmovic	Evaluation and Comparison of Search Engines Using the LSP Method
311	Tues.	9:15 AM	Baker	DB2 for z/OS Performance and Tuning
312	Tues.	9:15 AM	Chaney	Measuring DDF Capacity and Performance
314	Tues.	9:15 AM	Anderson	WebSphere App Server for z/OS Ver 6 Measurement and Tuning
321	Tues.	10:30 AM	Hrischuk	A Tutorial on SIP Application Server Performance and Benchmarking
323	Tues.	10:30 AM	Guendert	Designing and Managing FICON Inter-Switch Link Infrastructures
325	Tues.	10:30 AM	Tretel	Forecasting Database Disk Space Requirements:
325	Tues.	10:30 AM	Yaple	Benchmarking Storage Subsystems at Home Using SPC Tools
325	Tues.	10:30 AM	Yaple	Can You Afford Low Cost Storage?
332	Tues.	1:30 PM	Zagelow	DB2 for z/OS Stored Procedures Performance Hot Topics
338	Tues.	1:30 PM	Hughes	ASG: Focus on Success - What's New in ASG-TMON DB2 V4.0 - V4.1
339	Tues.	1:30 PM	Goldstein	Responsive Systems: Tuning your DB2 System with the Buffer Pool Tool for DB2
342	Tues.	3:00 PM	Walsh	zIIPs and zAAPs - How Special Are They?
344	Tues.	3:00 PM	Hubel	A Simple Approach to DB2 Index Redesign
352	Tues.	4:15 PM	Halinski	Panel: DB2 Q&A
411	Wed.	9:15 AM	Knapp	Network Performance in Load Balanced World
412	Wed.	9:15 AM	Walsh	The XCF Factor - Performance With A Practical Approach
415	Wed.	9:15 AM	Hu	Do CPUs Count? Understanding Resource Utilization on Virtualized Systems.
424	Wed.	10:30 AM	Brady	Traffic Capacity Testing a Web Environment With Transaction Based Tools
425	Wed.	10:30 AM	Raften	Remote Copy 100 km testing
432	Wed.	1:30 PM	Enrico	Understanding WLM SYSTEM and SYSSTC Service Classes
441	Wed.	3:00 PM	Knapp	End-End Performance Management
442	Wed.	3:00 PM	Anderson	Enterprise Workload Manager: What's the E All About in EWLM?
452	Wed.	4:15 PM	Gelb	Panel: zSeries Performance Q & A
504	Thurs.	8:00 AM	Anderson	Introduction to z/OS Monitoring, Tuning, and the Workload Manager - Part 1
511	Thurs.	9:15 AM	Elkins	Ten Commandments of TCP/IP Performance
522	Thurs.	10:30 AM	Ritchie	Performance Tuning and Resource Management in Java Applications
528	Thurs.	10:30 AM	TBD	Compuware Strobe: Application Performance Management for the Mainframe
533	Thurs.	1:30 PM	Schram	DB2 UDB for z/OS: Making Friends with the Optimizer
534	Thurs.	1:30 PM	Johnson	Java Performance Analysis 301
536	Thurs.	1:30 PM	Nokes	Application of Supply Chain Mechanisms to an On Demand Operating Environment
546	Thurs.	3:00 PM	Pentakalos	Performance Evaluation of Java Persistence Frameworks
547	Thurs.	3:00 PM	Shelden	A Performance Analyst's Guide to the RMF Type 70 Record
556	Thurs.	4:15 PM	Hackenberg	CICS Open Transaction Environment And Other TCB Performance Considerations
605	Fri.	8:00 AM	Eiceman	AIX System Performance Experiences and Basic Tuning
607	Fri.	8:00 AM	Hamilton	A Practical Approach to a Processor Migration Capacity Analysis
613	Fri.	9:15 AM	Van Hook	The Well-Managed Web Service
622	Fri.	10:30 AM	Moulder	The Effect of Distribution and Correlation Statistics on the DB2 Optimizer
627	Fri.	10:30 AM	Maccabee	Transaction Processing using J2EE Application: Performance with Tens of Millions of Users

Windows Focus Area

Session	Day	Time	Author	Title
255	Mon.	4:15 PM	Dujmovic	Evaluation and Comparison of Search Engines Using the LSP Method
257	Mon.	4:15 PM	Park	Core System Event Analysis on Windows Vista
321	Tues.	10:30 AM	Hrischuk	A Tutorial on SIP Application Server Performance and Benchmarking
325	Tues.	10:30 AM	Tretel	Forecasting Database Disk Space Requirements:
325	Tues.	10:30 AM	Yaple	Benchmarking Storage Subsystems at Home Using SPC Tools
325	Tues.	10:30 AM	Yaple	Can You Afford Low Cost Storage?
411	Wed.	9:15 AM	Knapp	Network Performance in Load Balanced World
414	Wed.	9:15 AM	Friedman	The Reality of Virtualization for Windows Servers
415	Wed.	9:15 AM	Hu	Do CPUs Count? Understanding Resource Utilization on Virtualized Systems.
419	Wed.	9:15 AM	TBD	VMWare: TBD
422	Wed.	10:30 AM	Schwartz	Utilizing Performance Monitor Counters to Effectively Guide Windows and SQL Server Tuning Efforts
424	Wed.	10:30 AM	Brady	Traffic Capacity Testing a Web Environment With Transaction Based Tools
431	Wed.	1:30 PM	Dahlstedt	Java on Bare Metal - Better Resource Control when Running Java on a Hypervisor
433	Wed.	1:30 PM	Powell	Microsoft Virtualization Directions and Roadmap
441	Wed.	3:00 PM	Knapp	End-End Performance Management
443	Wed.	3:00 PM	Powell	Microsoft's next generation virtualization architectures
453	Wed.	4:15 PM	Vasilevsky	Optimized Windows Server Virtualization on Xen
454	Wed.	4:15 PM	Weilnau	Real World Adventures in Server Virtualization
455	Wed.	4:15 PM	Salsburg	It May Be Virtual, ... But the Overhead Isn't
506	Thurs.	8:00 AM	Schwartz	Windows System Performance Measurement and Analysis - Part 1
522	Thurs.	10:30 AM	Ritchie	Performance Tuning and Resource Management in Java Applications
534	Thurs.	1:30 PM	Johnson	Java Performance Analysis 301
536	Thurs.	1:30 PM	Nokes	Application of Supply Chain Mechanisms to an On Demand Operating Environment
542	Thurs.	3:00 PM	Johnson	The Myth of Memory Utilization on Midrange Systems
546	Thurs.	3:00 PM	Pentakalos	Performance Evaluation of Java Persistence Frameworks
613	Fri.	9:15 AM	Van Hook	The Well-Managed Web Service

Network Focus Area

Session	Day	Time	Author	Title
242	Mon.	3:00 PM	Liu	Performance Monitoring and Reporting for the Edge of the Web: TCP/IP, Routing and Web Transactions
321	Tues.	10:30 AM	Hrischuk	A Tutorial on SIP Application Server Performance and Benchmarking
351	Tues.	4:15 PM	Kan	Softswitch Testing
411	Wed.	9:15 AM	Knapp	Network Performance in Load Balanced World
424	Wed.	10:30 AM	Brady	Traffic Capacity Testing a Web Environment With Transaction Based Tools
436	Wed.	1:30 PM	Elkins	Introduction to TCP/IP Performance Management - Part 1
441	Wed.	3:00 PM	Knapp	End-End Performance Management
503	Thurs.	8:00 AM	Fulton	Best Laid Plans: Enterprise Network Performance Case Studies and Lessons Learned
511	Thurs.	9:15 AM	Elkins	Ten Commandments of TCP/IP Performance
528	Thurs.	10:30 AM	TBD	Compuware Strobe: Application Performance Management for the Mainframe
603	Fri.	8:00 AM	Baxter	Achieving Practical Network Application Impact and Response Time Projections
603	Fri.	8:00 AM	Cremonesi	Identifying Network Failures and Evaluating Link MTBF from Utilization Logs
614	Fri.	9:15 AM	Fried	Performance and Quality Monitoring for Interactive Voice Services Using the CPLQ

Exhibitor Descriptions

- **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

** Hours are subject to change*

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www.wilytech.com Fax: 415-562-2169

CA's Wily Technology Division is the market-leading provider of Enterprise Application Management solutions. Wily's products enable companies to successfully manage their critical Web applications and infrastructure by providing real-time, end-to-end visibility into the performance and availability of these systems. Wily's collaborative management approach allows enterprises to rapidly detect and diagnose application slowdowns and failures, and better assess the impact of application performance on business success. This means better customer service, more stable revenue streams, and higher IT productivity.

CapTell Developments Pty Ltd

Suite 20, Level 1 Manuka Court Bouganville Street Booth: 213
Manuka, ACT 2603 Phone: +61(0) 2 6232 6364
www.captelldevelopments.com Fax: +61 (0) 2 6232 6365

Captell Development's flagship product is Captell V6 an enterprise wide capacity management reporting system which automates data storage and report generation from data collected by proprietary management packages. Captell V6 was designed for the capacity manager in response to the specific needs of the capacity management community. It is a cross platform solution working on mainframe, midrange and desktop environments

Compuware Corporation

One Campus Martius — Booth: 209
Detroit, MI 48226 — Phone: 800-521-9353
www.compuware.com

Compuware Corporation, recognized industry leader in enterprise software and IT services, takes pride in supporting new and emerging technologies at any stage in the lifecycle. While Compuware products solve many business challenges, Strobe, Compuware's application performance management solution, measures activity with mainframe applications and provides recommendations for reducing application inefficiencies that erode performance—even in complex applications that use technologies such as WebSphere MQ, DB2 DDF and Java.

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CPT Global Limited

Level 1 4 Riverside Quay — Booth: 317
Southbank, VIC 3006 — Phone: 917-650-1199
www.CPTglobal.com — Fax: +61 3 9690-3911

CPT Global is listed on the ASX with subsidiaries in US, UK & Germany. CPT Global's client list includes companies across the Teleco, Financial, Transport and Government sectors. Core Capabilities: Performance Tuning, Capacity Planning, Cost Reduction Services, Testing, Management of IT. CPT Global has 200 specialist IT consultants. This depth of experience allows CPT Global to quickly identify performance & capacity problems, & to implement effective solutions. CPT Global's Cost Reduction Services provide CPU savings of between15-30%. We offer the option of Risk/Reward (success fee) invoicing.

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HyPerformix, Inc.

4301 Westbank Drive Bldg. A, Suite 300 — Booth: 100
Austin, TX 78746 — Phone: 512-328-5544
www.hyperformix.com — Fax: 866-495-4293

HyPerformix products and services enable Global 1000 clients to predict and prevent critical application problems before they impact the business.

Our solutions cover the full application lifecycle from design to production and reduce the total cost of ownership of IT infrastructures by

- finding performance bottlenecks;
- preventing unnecessary firefighting of production systems;
- ensuring satisfactory end-user response times can be met;
- and verifying applications can successfully migrate from test to production.

ISAM

13863 Fleetwood Avenue — Booth: 212
St. Paul, MN 55124 — Phone: (952) 953-0140
www.isamgroup.com — Fax: (952) 953-0128

ISAM provides software financial benchmarking and analysis, usage analysis, and negotiation services that have enabled the largest data centers, corporations, outsourcers and U.S. governments to manage their software costs. ISAM's unique IBM pricing tool has saved over 90% of its customers in excess of 10% of their IBM software costs.

ISM (the Information Systems Manager)

One Bethlehem Plaza 8th Floor — Booth: 200
Bethlehem, PA 18018-5784 — Phone: 610-865-0300
www.perfman.com — Fax: 610-868-6277

Some of the world's most successful companies use ISM's PerfMan capacity management solutions to maintain superior quality, efficiency and dependability in Information Technology. ''ISM - The power behind great IT decisions.''

Mainline Information Systems

1700 Summit Lake Drive — Booth: 415
Tallahassee, FL 32317 — Phone: 850-219-5000
www.mainline.com — Fax: 850-219-5050

Mainline Information Systems is IBM's leading Premier Business Partner delivering software, hardware, and application solutions, as well as a comprehensive suite of services and financing options. There is no need for customers to segment their technology solutions among various vendors creating fragmented, ineffective results when Mainline offers comprehensive, integrated solutions.

Metron-Athene, Inc.

6320 Canoga Avenue Suite 1500 — Booth: 301
Woodland Hills, CA 91367 — Phone: 818-227-5019
www.metron-athene.com — Fax: 818-227-5099

Metron-Athene is a leading Performance Management, Capacity Planning and Capacity Forecasting software specialist. Athene, our flagship product is a widely adopted solution providing Performance Alerting, Automatic Reporting, Workload Characterization, Service Level Reporting, Trend Analysis and Server Consolidation. Athene supports UNIX, Linux, Windows, VMware and z/OS mainframes.

MVS Solutions Inc.

8300 Woodbine Avenue 4th Floor
Markham, L3R9Y7
www.mvssol.com

Booth: 112
Phone: 905-940-9404
Fax: 905-940-5308

If you've been given the task of improving your batch window processing, you must look at ThruPut Manager. ThruPut Manager 6 Automation Edition automates your batch processing, saving a great deal of elapsed processing time, shortening your batch window time and getting your reports out and your online up faster. If you're a CA-7 user, there's even more! Learn how we can empower CA-7 and help it get your schedule complete, on-time, every time. Look for our vendor presentation and visit our booth to learn how ThruPut Manager solves batch problems encountered by z/OS data centers everywhere.

NetQos

5001 Plaza on the Lake
Austin, TX 78746
www.netqos.com

Booth: 218
Phone: 877-835-9575
Fax: 512-407-8629

NetQoS' network performance management software and services help large organizations improve application delivery across the WAN. NetQoS is the only vendor that can provide global visibility into all three key metrics necessary to quantify network infrastructure performance: end-to-end response time, traffic flows and device performance. Global 2000 corporations rely on NetQoS' solutions to make informed decisions about network capacity and growth, eliminate inefficient network resource allocations, improve staff productivity and effectiveness, and deliver better services to end users.

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PerfCap Corporation

85 Perimeter Road
Nashua, NH 03063
www.PerfCap.com

Booth: 409
Phone: 603-594-0222
Fax: 603-594-0826

PerfCap offers out of the box, fully automated, web-based and highly scalable software for Performance, Capacity and Asset Management. PAWZ-Performance monitoring for historical and real-time data collection, analysis, reporting and alerting. PAWZ Planner-Automated Capacity Planning, every node, every day. eCAP-Capacity Planning with "What if" scenario using analytical queuing network modeling. FindIT-Asset Management and Change Tracking tool providing inventory of hardware, software and licenses. Platforms: HP-UX, Tru64, Sun-Solaris, IBM-AIX, Linux, OpenVMS, Windows NT/2000/2003.

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Pink Elephant

5575 North Service Road
Burlington, ON L7L 6M1
www.pinkelephant.com

Booth: 314
Phone: 905-331-5060
Fax: 905-331-5070

Pink Elephant is the world leader in IT management best practices, offering conference, education and consulting services to public and private businesses globally and many listed in the Fortune 500. The company specializes in improving the quality of IT services through the application of recognized best practice frameworks, including the Information Technology Infrastructure Library (ITIL®)

Platform Solutions, Inc.

501 Macara Ave Suite 101
Sunnyvale, CA 94085
www.platform-solutions.com

Booth: 215
Phone: 408-720-3537
Fax: 408-737-3444

Platform Solutions, Inc., (PSI) makes next-generation open mainframe computers compatible with the broadest set of datacenter environments and operating systems, including the IBM z/OS. Based on proven systems architecture acquired from Amdahl Corporation and industry-standard Intel Itanium 2 processor technology, PSI mainframes are the first mainframe computers that can run the z/OS, Linux, Windows and UNIX on a single server footprint.

www.platform-solutions.com

ProactiveNet, Inc.

2055 Laurelwood Road Suite 130
Santa Clara, CA 95054
www.proactivenet.com

Booth: 207
Phone: 408-454-4500
Fax: 408-454-4501

ProactiveNet, Inc. is the ''Time-to-Value'' leader in Business Services Management software solutions for Global 2000 and leading e-commerce companies. Achieving value within weeks, ProactiveNet customers measurably improve the availability and performance of business-critical IT services, shorten problem resolution time, and reduce SLA non-compliance while streamlining IT operations and reducing costs.

Responsive Systems

281 Hwy 79
Morganville, NJ 07751
www.responsivesystems.com

Booth: 101
Phone: 732-972-1261
Fax: 732-972-9416

Responsive Systems the industry standard Buffer Pool Tool &reg for DB2 and the Optimizer for tuning DB2 buffer pools, and Sysplex Group Buffer Pools. Many of our clients have achieved major performance improvements, some saving up to 1000 IO per second.

SAS Institute Inc.

100 SAS Campus Drive
Cary, NC 27513
www.sas.com

Booth: 107
Phone: 919-531-0324
Fax: 919-531-9441

SAS is the leader in business intelligence software and services. Customers at 40,000 sites use SAS software to improve performance through insight into vast amounts of data, resulting in faster, more accurate business decisions. Since 1976, SAS has been giving customers around the world The Power to Know(r). Join us at our Monday User Group, exhibitor presentation, and in the exhibit hall to learn how SAS® IT Management Solutions deliver the intelligence needed to make the IT performance, capacity, service and financial decisions that will enhance the bottom line.

SHUNRA

1375 Broadway 14th Floor
New York, NY 10018
www.shunra.com

Booth: 306
Phone: 212 279 8895

Shunra's solutions let users know exactly how their voice, video and business applications will perform over any production network – before they are deployed in production. Used by network experts, software developers and architects, and QA/testing professionals, Shunra VE's network simulation technology gives users a way to apply a working model of the production network environment to every phase of the application lifecycle – from design and development through QA and operations – so IT organizations can quickly and efficiently uncover and resolve problems before they impact the business.

Symmetricom

34 Tozer Rd.
Beverly, MA 01915
www.ntp-systems.com

Booth: 102
Phone: 978-232-1422
Fax: 978-927-4099

As a worldwide leader in precise time and frequency products and services, Symmetricom provides "Perfect Timing" to customers around the world. Symmetricom's Timing, Test and Measurement Division, provides comprehensive network time synchronization solutions. Products include dedicated network time servers, time displays and the necessary synchronization, management and monitoring software that synchronizes the time on IT devices such as workstations, servers and routers.

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TeamQuest Corporation

One TeamQuest Way
Clear Lake, IA 50428
www.teamquest.com

Booth: 201
Phone: 641-357-2700
Fax: 641-357-2778

TeamQuest Corporation is the global leader in IT Service Optimization (ITSO). Specializing in software that helps companies consistently deliver IT services to meet service levels at a minimum cost, TeamQuest provides quick and accurate capacity modeling and performance solutions. TeamQuest Performance Software also complements ITIL efforts.

TeamQuest is a trusted provider of software solutions that improve service delivery, proactively align business priorities with IT resources, reduce risk, and cut costs in their IT organizations.

Velocity Software, Inc.

196-D Castro St.
Mountain View, CA 94041
http://www.velocitysoftware.com/

Booth: 318
Phone: 650-964-8867
Fax: 650-964-9012

Don't play blind man's bluff integrating Linux on your IBM System z servers. Management and monitoring of Linux related performance issues presents unique challenges. Velocity Software's solutions help you clearly see how to manage and enhance the performance of most enterprise environments.

Hosted on z/VM, Velocity Software's Linux Performance Suite (ESALPS) is a comprehensive suite of products required for correctly deploying Linux under z/VM. Visit us at CMG to see how Velocity Software provides the complete solution to monitor and measure enterprise performance.

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VENDOR PRODUCT TRAINING

Another first at CMG2006! Vendor product training will run concurrently with the conference. Now you can participate in the conference and take technical and product courses-without another expensive trip.

SESSION	AUTHOR	TITLE
319	TBD	CPT Global Limited: Implementing Sustainable Operational Management Cost Reductions
328	TBD	Captell Developments: Capacity Reporting - automated, accurate and affordable
329	Amy Spellman	HyPerformix, Inc.: Automating the Holistic ITIL Capacity Management Process
338	Tony Hughes	ASG: Focus on Success - What's New in ASG-TMON DB2 V4.0 - V4.1
339	Joel Goldstein	Responsive Systems: Tuning your DB2 System with the Buffer Pool Tool for DB2
418	Pete Weilnau	ISM: Automating Capacity Management Reporting with PerfMan
419	TBD	VMWare: TBD
428	Amichai Lesser	Shunra: A Virtual Network Helps IT Staff Predict End User Experience Globally
429	Rich Fronheiser	Metron-Athene: Extending Capacity Planning: End to End and Virtualization
528	TBD	Compuware Strobe: Application Performance Management for the Mainframe
529	Adam Grummitt	Metron-Athene: Implementing Capacity Management

General Information

Attendees with Special Needs

If you have special needs addressed by the Americans with Disabilities Act, stop by the CMG2006 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? CMG2006 offers BOF sessions Tuesday, Wednesday and Thurdays evenings from 6:30 PM - 7:30 PM. following sessions, these informal gatherings allow attendees with similar concerns to exchange ideas in a small group setting.

CMG Headquarters Hours

Saturday, December 2, 2006	4:00 PM	–	8:00 PM
Sunday, December 3, 2006	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
Monday, December 4, 2006	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
Tuesday, December 5, 2006	7:00 AM	–	12:00 PM
	1:00 PM	–	6:00 PM
Wednesday, December 6, 2006	7:00 AM	–	1:30 PM
Thursday, December 7, 2006	7:00 AM	–	1:30 PM
Friday, December 8, 2006	7:30 AM	–	10:00 AM

Exhibitor Details

The **CMG2006** Exhibitor Hall will be located in Florida A.

Exhibit Hall Hours

Tuesday, December 5, 2006	11:30 AM	–	4:00 PM
Wednesday, December 6, 2006	11:30 AM	–	4:00 PM
Thursday, December 7, 2006	11:30 AM	–	2:00 PM

For more information on **CMG2006** Exhibitors, refer to the Exhibitor Section.

User Group Meetings

Some **CMG2006** exhibitors use Monday, December 4, to hold User Group Meetings. MUGs are scheduled from 7:30 AM to 12:00 PM, please see page **25** for details.

Exhibitor Presentations

Many of the **CMG2006** exhibiting companies will hold exhibitor presentations during conference week. Scheduled from 5:15 PM – 6:15 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 2, 2006	4:00 PM	–	8:00 PM
Sunday, December 3, 2006	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
Monday, December 4, 2006	7:00 AM	–	12:00 PM
	1:00 PM	–	8:00 PM
Tuesday, December 5, 2006	7:00 AM	–	12:00 PM
	1:00 PM	–	6:00 PM
Wednesday, December 6, 2006	7:00 AM	–	1:30 PM
Thursday, December 7, 2006	7:00 AM	–	1:30 PM
Friday, December 8, 2006	7:30 AM	–	10:00 AM

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Meal Schedules

Breakfast will be served Tuesday – Friday, in the Silver State Pavillion.

Lunch will be served Tuesday – Thursday in the Hilton Pavillion, Friday in the Silver State Pavillion. 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 CMG2006 CD-ROM. Additional copies of the CMG2006 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 CMG2006 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 3, 2006

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 CMG2006 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

Reno is a fun place for everyone! In order to attend various CMG2006 functions, guests must be registered by a CMG2006 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.

ITIL Foundation Course

Breakfast, lunch and refreshments will be provided on Saturday ans Sunday for those registered for the ITIL Foundation Course conducted by Pink Elephant. To be eligible to register for this course, one must also be a registered CMG2006 attendee. more details can be found on page **12** as well as the registration form.

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