**zSeries Expo featuring z/OS, z/VM, z/VSE and Linux on zSeries**
**Sept. 19-23, 2005**

# Session Abstracts

**Session categories are arranged into these topic areas:**

**Keynote Session**

**General Sessions:**
- **zSeries Technology and the on demand Data Center**

**Back to the Basics:**
- **z/OS, zSeries, z/VM, Linux on zSeries and z/VSE**

**z/OS Sessions:**
ʟ **z/OS System Software and Parallel Sysplex**
ʟ **WLM and z/OS Performance Management**
ʟ **WebSphere for z/OS, CICS, DB2, Networking, and Security**

**z/VM Sessions:**
 **Basics**
 **Networking and Connectivity**
 **General Interest**
 **System Management**
 **Security**
 **Performance**

**Linux on zSeries Sessions:**
 **Basics**
ı **General Interest**
 **Installation**
ı **Networking**
 **Applications and Application Development**
 **User Experiences**
ı **Systems Management and Performance**
**\*Storage**

**z/VSE Sessions:**
 **Basics**
 **Connectors**
 **General Interest**

<u>**Key to session prefix:**</u>

**A -  Keynote**
**G – zSeries Technology and the on demand Data Center**
**B -  Back to the Basics**
**Z -  z/OS System Software and Parallel Sysplex**
**P -  WLM and z/OS Performance Management**
**W - WebSphere for z/OS, CICS, DB2, Networking, and Security**
**V -  z/VM and Virtualization**
**L -  Linux on zSeries**
**E -  z/VSE**
**Q -  ISV (Vendor) Sessions**

# <u>Keynote</u>

### A01   zSeries: Defining the direction of enterprise computing
*José Castaño, Manager, zSeries Software Strategy, IBM Systems*
*and Technology Group*

In the overall enterprise, zSeries is a server as well as a platform that can participate in a heterogeneous environment. This presentation will discuss the positioning of zSeries for new workloads and IBM plans and zSeries direction. José will discuss why data serving and OLTP (existing and new) belong on zSeries and how it complements the rest of the enterprise. We will discuss the integration play between Linux for zSeries and z/OS, and how both offer what the customer is seeking - efficiencies, resilience, and security. The session will also address the current status and future directions of z/VM and z/VSE. Begin your conference week with a sense of what is happening with zSeries.

José Castaño joined IBM in 1986 to develop TSO/E and later worked on MVS and z/OS components. After a decade he moved to Parallel Sysplex development and then on to technical support. José later joined Design and Architecture to work on various Ease-of-Use initiatives for z/OS and then moved to e-business where he was the strategy manager and co-inventor of the zAAP processor. Today, José manages the strategy department for z/OS and the zSeries On Demand initiative. He is the technical chair of the zSeries e-business Leadership Council.

# <u>zSeries Technology and the on demand Data Center</u>

### G01   Introducing the IBM System z9 109: Processor, Memory and System Structure
*Harv Emery, IBM*

Come to this session for a technical introduction to the IBM System z9 109, the newest IBM mainframe server. Learn about  the exciting new z9-109 system design, physical CEC structure, model structure and architectural changes that take z9-109 beyond z990 to support up to 54 configurable processor units, nearly twice maximum z990 capacity, up to 512 GB of memory, up to 60 LPARs, enhanced book availability, enhanced driver maintenance, and new cryptographic function. Get the latest information on new z9-109 support for the **on demand** era including Capacity Backup, On/Off Capacity on Demand and Customer Initiated Upgrade Express. This session and **Session G05**, the  following session, provide a  complete technical introduction to the z9-109. These sessions are new for zSeries Expo in San Francisco.

### G02    IBM zSeries 890 and 990 Processor Update
*Harv Emery, IBM*

Come to this session for an update on the features and functions provided on the IBM eServer zSeries 890.  Learn about  the exciting z890  processor design with 28 different capacity settings for CPs, physical CEC structure, and architectural changes introduced to support up to 30 LPARs, up to 421 channels, and the zAAP processors for JAVA. Get information on new z890 support for the **on demand** era including On/Off Capacity on Demand and Customer Initiated Upgrade Express capabilities. This session has been significantly updated to include announcements made since Expo 2004 in Miami.

### G03   Infrastructure Management in an On Demand Operating Environment
*Annette Miller, IBM*

Infrastructure Management in the On Demand Operating Environment combines the capabilities of automation and virtualization to help a customer build a heterogeneous, pooled environment.  A consolidated, logical view of resources connected to the network.  This environment requires capabilities such as:  availability, security, optimization, provisioning and resource virtualization across multiple systems in an environment. This session will overview some of the building blocks of the On Demand Operating Environment, then look at several approaches to solve business problems using this environment and the steps and tools to simplify the IT environment.  We will also discuss how new products and capabilities will help a customer to automate and virtualize their infrastructure, as well as discuss ways to begin the process.

### G04    FICON Enhancements - for the SAN Information Highway
*Connie Beuselinck, IBM*

A new generation of FICON has been introduced to continue to satisfy the bandwidth requirements of On Demand Business.  What is the history of FICON?  Why is it different than the Fibre Channel standard?  How does FICON compare with ESCON. What are the bandwidth capabilities in 2005?  What new functions have been introduced in 2005 on System z9 109?  What is the linkage between FICON on System z9 and zSeries and the switches, directors, and storage devices?  How can you configure a FICON feature?  How does FICON participate in an open environment?  What are the fiber optic requirements?  What distances does FICON support?  What are the software requirements?  All of these questions will be answered in this session.

**G05        Introducing the IBM System z9 109:  Channel Subsystem, I/O Infrastructure and Connectivity**
> *Harv Emery, IBM*

Come to this session for a technical introduction to the IBM System z9 109, the newest IBM mainframe server. Learn about  the exciting new z9-109 system design, I/O infrastructure and architectural changes that take z9-109 beyond z990  to support up to 54 configurable processor units, nearly twice maximum z990 capacity, up to 512 GB of memory, up to 60 LPARs, and enhanced book availability.  Get the latest information on new z9-109 I/O infrastructure and connectivity,  redundant I/O interconnect, multiple subchannel sets, up to 336 FICON Express2 channels, N_Port ID Virtualization for fibre channel, HiperSockets support of IPv6, OSA-Express2 1000BASE-T Ethernet, and the new hardware management console. This session and Session 2892, the preceding session, provide a  complete hardware overview and update on the new z9-109. This session and **Session G01**, the  preceding session, provide a  complete technical introduction to the z9-109. These sessions are new for zSeries Expo in San Francisco.


**G06    OSA-Express2 - The Latest Offerings for the LAN**
> *Connie Beuselinck, IBM*

What is new with OSA-Express2?  What performance can you expect?  What support is provided at the Layer 3 and Layer 2 levels?  What standards are supported by OSA?  What support is provided for VLANs and with the new support for GARP VLAN Registration Protocol (GVRP)?  What role does OSA play in 374x migration with the introduction of OSA-Express2 OSN (OSA for NCP)?  Come learn about the latest developments - System z9 and zSeries support of a Local Area Network infrastructure.


**G07    How to Define and Measure End-to-End Availability**
> *Mike Bonett, IBM*

Measuring availability from both the application and end users perspective - also known as **end-to-end availability** - is required to determine the true level of service being provided, and where improvements can be made. This session outlines the steps needed to define and measure end-to-end availability. These steps apply to any environment - especially when applications cross zSeries and distributed boundaries - regardless of the application platforms, middleware, and networking protocol(s) being used. The information presented will provide a process for defining what to measure, identifying where to find measurement data, accurately analyzing the data, and showing the business impact of the measurements.


**G08    System z9 Connectivity Snapshots - Coupling, Crypto, SANS, LANS**
> *Connie Beuselinck, IBM*

Come hear about the newest mainframe - System z9 109. We'll cover the availability enhancements and the changes in support of the I/O cage.  We'll discuss what uses I/O resources.  We'll discuss the STI (the path for data between memory and I/O and the new MBA fanout card.  We'll decipher the alphabet soup! We're 40 years old and counting, and continue to be the right place for mission-critical applications for On Demand Business.  We'll discuss the coupling options - ICs, ICBs, ISC-3; the Crypto options - CPACF enhancements, the configurable Crypto Express2, what is new with FICON for SANs, and what is new with OSA for LANs.  This session is a "snapshot" of all of the technologies that use I/O resources.  I'll have my "magic bag".

## G09      Getting started with XML, Web Services and Service Oriented Architectures: Part 1

*Mark Cathcart, IBM*

This session will be delivered in three sessions and will provide a complete introduction to and overview of the  XML, Web Services and Service Oriented Architectures. The session is a entry level or beginner session suitable for those with no knowledge of these topics and will take you from introduction to planning and implementation details. Examples will be given of use with zSeries.

The first section will overview the technologies and their benefits; this section will introduce the concepts and technologies behind XML and Web Services; the second section will look in more depth at XML and review some of the uses for XML in general; the third section will look at Web services, what it is and how it can be used and will discuss how web services relates and can be used to implement both a service oriented architectures and Grid services; the final section will provide planning and implementation details and review support requirements for zSeries - This workshop will help you answer questions like what is an enterprise services bus ? How do I integrate my legacy systems ? Can I leverage DB2 ? What are the performance considerations ? How do I build applications ?

Learning objectives:
+ Understand the basic use of XML, Web Services, SOA technologies
+ Describe the relationship between these technologies and their benefits
+ Identify the zSeries function and zSeries applications and data that can be used with these technologies

## G10      Getting started with XML, Web Services and Service Oriented Architectures: Part 2

*Mark Cathcart, IBM*

See abstract for Part 1

## G11   Getting started with XML, Web Services and Service Oriented Architectures: Part 3

*Mark Cathcart, IBM*

See abstract for Part 1

## G12    The Plumbing for Gigabit and Beyond - Are You ready for 4 or 10 Gbps?

*Connie Beuselinck, IBM*

The System z9 109 features and functions may mean additional infrastructure requirements.  Do you have an understanding of the impacts of the industry-standard Small Form Factor (SFF) connectors  on your data center infrastructure - on your plumbing?  Do you understand the implications of high-bandwidth throughput on your infrastructure?  Do you know if you are ready to implement a 4 Gigabit Fibre Channel infrastructure,  a 10 Gigabit Ethernet infrastructure?  Are you aware of the link budgets (light loss) associated with high data rate environments?  Are you aware of the cabling required to connect new and upgraded systems into the existing infrastructure?  Are you familiar with the variety of connectors used with the systems,  directors, switches, and control units?  Are you prepared for a successful, seamless installation?  This session will help you to answer "yes".  It will address the end-to-end fiber optic cabling requirements for the data center and the enterprise so that you may embrace speeds "beyond gigabit".  We'll help you plan, so that you can future-proof your infrastructure. We have some images of "scoped fiber" to share with you.  Samples of cabling and connectors are available for viewing and touching.


## G13    Measuring and Monitoring the Response Time of Web Applications

*Mike Bonett, IBM*

In today's environment, applications are either built with an integrated web interface, or have a web interface front end added onto them. These applications support processes that drive business revenue or provide customer service. Understanding the response time of these web applications is critical, since this can have a direct impact on business profitability. This presentation discusses techniques for monitoring web application response times from both the "external" (user view) and "internal" (application view) perspective. Both custom written and IBM product functions will be covered.


## G14    What Does the IBM Virtualization Engine Mean to zSeries?

*Annette Miller, IBM*

This session will give an overview of the IBM Virtualization Suite for Servers which was first introduced to the market in 2004.  Some of the experiences of early users will be discussed along with other scenarios.  Components such as Enterprise Workload Manager, Tivoli Provisioning Manager and IBM Director are part of this suite.  Working together, these technologies unite disparate systems together.  Examples of how these components are used across an infrastructure consisting of various operating systems will be illustrated, and you will be able to see how some of these work by viewing a short demonstration.  The next release of the product will contain more content relevant for zSeries.   Early users can now expand the capabilities of the Virtualization Engine to zSeries beginning in late 2005.  Come learn how this can be done.


## G15    LPAR Advanced Topics

*Harv Emery, IBM*

Come to this session to learn about the newest enhancements in logical partitioning (PR/SM LPAR) technology introduced on the newest IBM mainframe systems  especially the IBM System z9 109 and eServer zSeries 990 and 890.  The focus will be on support

for up to 60 partitions, up to 32 logical processors per partition, new weighting and dispatching capabilities introduced with z9-109, new LPAR controls and configuration in support of z/Architecture, Parallel Sysplex function, z/OS.e, z/OS IRD, z/OS WLC, Linux, and concurrent memory and processor upgrades (CUoD, CIU, CBU and On/Off CoD). Attendees should be familiar with PR/SM LPAR concepts.  This session has been significantly updated to include announcements made since Expo 2004 in Miami.

## G16    Business Continuity Basics
*Angelo Corridori, IBM*

The interest in disaster recovery and business continuity (BC) has never been greater. Driven by regulatory requirements, natural and man-made disasters and the need for even higher levels of availability, information technology organizations are often at the center of business continuity justification and implementation. This presentation will provide an overview of business continuity, IT issues that impact the planning for business continuity, approaches to the business justification of BC solutions, and three customer experiences. This is an introductory session; no prior knowledge of business continuity is assumed.

## G17    Rexx PARSE: It Slices! It Dices!.........
*William Sheckler, IBM*

PARSE is the most powerful keyword instruction in Rexx. Using a PARSE template, a Rexx programmer can process character or hex strings by words, columns, search strings, or any combination of them all. Most programmers are unaware of the more powerful features of the PARSE instruction or intimidated by their apparent complexity. This presentation will step through increasingly complex templates, demonstrating the simple but elegant structure beneath. By the end of this presentation, you will be able to slice and dice your data like a sushi chef, extracting exactly the data you need.

## G18    Rexx Compound Variables vs. the Data Stack
*William Sheckler, IBM*

Rexx compound variables are a unique type of variable in the Rexx language. They have some properties that simple Rexx variables don' have. They can be confusing to use and difficult to get used to, even for experienced Rexx programmers. The data stack is a dynamically allocated buffer in storage, which Rexx programs can access to temporarily store data records for later retrieval. Often programmers find themselves in a quandary over which to use when both are viable choices. This session describes both the data stack and compound variables and how to use them. The advantages and disadvantages of each will also be discussed.

## G19    Configuring and Provisioning IBM eServer with the IBM Virtualization Engine
*Mark Cathcart, IBM*

Using some sample scenarios, this session will cover planning for and exploitation of the IBM Virtualization Engine. It will provide technical information on the use of Director Multi-Platform, Provisioning Manager ( including TPM  and MYSAP IDI solution) and Console services with the IBM Virtualization offering.

Objectives of the session: Understand the contents of the IBM Virtualization Engine with focus on Tivoli Provisioning Manager, Director MP, VE console and Planning Advisor and how this key STG technology leverages and delivers on strategic SWG initiatives and why VE builds on and is key to enabling customers for on demand Learn the technical profiles of a VE customer with focus on Systems Provisioning.

## G20 The Hitchhiker's Guide to a Flawless zSeries CPU Installation
*Rod Williams, First Data Corporation*

In the year 2004, First Data Corporation in Omaha, performed sixteen zSeries CPU swaps. Each was completed with less than 2.5 hours of down time and posted no errors during the IPL. We have been doing our CPU installations virtually the same way since we put in our first CMOS processor, and have yet to back out an install. Planning, standardized documentation, and good communication between the First Data Hardware staff and the IBM CPU installation team are the backbone to repeated success with these complex installations. I'd like to share this process, and some of the documentation that we use to make these installations fast and accurate. I'd like to center this discussion on the Z990 processor, as its installation is the most complex. But with some minor modifications the process will work on any CMOS box.

## G21 Foundation for Disaster Recovery: Are You Building Your House on Sand?
*Janet Sun, Mainstar*

Planning for disaster recovery needs to start from the ground up. Just as a house needs a good foundation, so does your disaster recovery plan. Most of us have an existing IT infrastructure that we have inherited. The speaker will discuss changes to be considered in your z/OS environment to better suit an effective disaster recovery plan. This may involve gutting your current house and starting over. We'll look at ways to do that without significant impact to your day to day operations.

## G22 IBM TotalStorage Portfolio - Part 1
*Scott Drummond, IBM*

This session will review the IBM TotalStorage offerings - Disk and Tape Storage Control Units, Storage Virtualization solutions, SAN Fabric, NAS gateways and the Storage Software to help enhance your storage value. We will cover mainframe and open systems solutions. Part 1 will cover Disk and Tape Storage Control Units and Part 2 will cover SAN Fabric, NAS Gateways, Storage Virtualization, DFSMS, Tivoli Storage Software and Business Continuance.

## G23 IBM TotalStorage Portfolio - Part 2
*Scott Drummond, IBM*

See abstract for Part 1.

**G24    WebSphere App Server TCO: Comparing zSeries and Distributed**
*Marlin Maddy, IBM*

This presentation compares  the cost complexities of implementing WebSphere on zSeries and distributed servers.  Using several real customer case studies, this presentation  compares the cost of ownership for  implementing z/OS based e-business applications and focuses on the key differentiators for each platform.  The topics of hardware, software, people, migration,  outage costs, utilization, zAAP engines, and quality of service  are all addressed, as well as the impacts of the latest z9 announcement.


**G25     SAN Basics for Mainframers**
*Scott Drummond, IBM*

The speaker will present the basics of SAN using mainframe references to explain the technologies. He will explore the Fibre Channel standard, SAN hardware, SAN software and other appropriate items related to SAN.


**G26    Linux on zSeries: The Business Case for Server Consolidation**
*Marlin Maddy, IBM*

This presentation focuses on the cost of ownership advantages of implementing a Linux server consolidation strategy on zSeries as compared with racks of Intel and Unix servers.  The proliferation of infrastructure, application, and database servers in customer environments is causing significant increases in cost and complexity.  IT executives are looking for a simpler and more cost-effective solution and zSeries may be the answer.  The presentation will include real customer consolidation examples and will address the improvements from the z9 announcement.


**G27    HMC for zSeries Processors**
*Mo McCullough, IBM*

Need a quick review? Or just new to the HMC? Have you ever used HMC remotely? This session will provide an quick overview look at the different panels on the OS2 HMC, the session will focus on features for z/Series processors. Also a live demo will be done to show how to use the HMC remotely  (like for home access.)


**G28    DS8000 and DS6000 Overview**
*Bob Halem, IBM*

IBM TotalStorage disk systems DS series combines the high-performance of the IBM TotalStorage DS6000 and DS8000 series enterprise servers.  Learn about the performance enhancements and new Logical Partition (LPAR) capabilities of the DS8000.  We'll also be covering the affordable DS6000 family designed to help medium and large enterprises to simplify their storage infrastructures, support business continuity and optimize information lifecycle management.

**G29    Storage Networking Trends and Directions**
   *Scott Drummond, IBM*
In this session we will review the recent Storage Networking (SAN, NAS, iSCSI, Software) trends in the industry.  We will also cover upcoming technology trends & directions to help customers plan for the future.  In this session we'll use the 6 "S"'s of SAN  to explore what's going on in the industry.


**G30    IBM z/Transaction Processing Facility (z/TPF)**
   *Jeff Van Minde, IBM*
IBM z/Transaction Processing Facility (z/TPF), announced in October 2004, is available in September 2005.  As the next generation, z/TPF can manage extreme transaction volumes, processing tens of thousands of transactions per second from hundreds of thousands of end users.  Additionally, a z/TPF loosely coupled complex (a single 30 terabyte database clustering solution) can scale to as many as 32 zSeries servers. z/TPF supports the IBM 64-bit architecture with the use of 64-bit addressing enabling large-scale memory spaces for applications and memory tables.  In addition, z/TPF provides an open development environment using the GNU tool chain.  z/TPF can share applications, tooling and development infrastructure (including C/C++) with Linux and use Linux as the z/TPF build environment.  These new capabilities are creating exciting new opportunities for cost-effective operating environments which demand management of extreme transaction volumes, high reliability and availability, fast response time, low operating costs per transaction, efficiency and an open development environment.


**G31    Got ISV Solutions on zSeries?**
   *Jeff Noel, IBM*
Everyone likes choices and zSeries customers are no exception.  They want more solutions/applications on zSeries!   Learn why  zSeries is an attractive opportunity for ISV solutions.   Find out how IBM assists ISVs in getting solutions enabled on the zSeries platform.  This session will give the audience an overview of  what is happening in the zSeries ISV marketspace, describe what technical support programs are available to ISVs for porting solutions on zSeries, and discuss future plans for making it easier for ISVs to get their products on zSeries.   Come to this session to learn how IBM is working with ISVs to bring more choices to the zSeries platform!


**G51    Virtualization Comparison: zSeries, pSeries, and VMware**
   *Reed Mullen, IBM*
IBM zSeries servers virtualization capabilities have a pedigree that goes back over 35 years. This presentation will compare today's zSeries virtualization capabilities *vs.* the virtualization capabilities offered by other IBM eServer platforms relatively new to this arena, namely the POWER5 base technologies (iSeries and pSeries) and VMware on the xSeries servers. This presentation will also explain why virtualization is seen to be a key technology in today's server environment and also introduce a newcomer into this arena in the form of MS Virtual Server.

### G52    Intro to Rexx:  Hands-on lab - Part 1

*Christine Casey, IBM and John Franciscovich, IBM*

The REXX Language has been with us for more than two decades.  It was designed to be easy (and fun!)  to use, and continues to be popular across many computing platforms.  Would you like to boost your skills by learning the basics of the  powerful REXX Language?       This two-part hands-on-lab is for you.    We'll begin with the basic syntax and expressions, continue with class exercises, and progress to more advanced topics.  This lab continues with Part 2 in session **G53**.

### G53    Intro to Rexx:  Hands-on lab - Part 2

*Christine Casey, IBM and John Franciscovich, IBM*

This session is a continuation of Session G52.

### G54     Negotiation Skills

*Will Roden, IBM*

Everybody negotiates. Some do it well and some don't. I have found that it takes years to learn to negotiate well and that different techniques are needed depending on the situation. This presentation will discuss some of the basics of negotiating along with several techniques and considerations. This session is your first step on the road to conducting better negotiations.

### G55     How to Lead a Team

*Will Roden, IBM*

Everyone is a team leader.  Some have a team of many and some have a team of one. Regardless, you will never stop building team leader skills since there are many aspects to being a team leader.  We will discuss several of the basic skills. This will include: planning, estimating, running a project, how to get out of trouble, and many more. Join us and we will focus on  several new skills and you will receive many useful references to continue your study

# Back to the Basics

### B01    zMainframe Concepts (The Big Picture) - Part 1

*Brian Hatfield, IBM*

Are you new to the mainframe or recently returned to the large system environment after a several year absence? New terminology and technology got you confused? Ever ask what is the difference between a small and large server, or wonder why a mainframe? Have you been told that it's necessary to move and process large amounts of  data and I/O, but never given a clear explanation as to how it works?  Want an overview of the latest zSeries technology, processing power, terminology and how the hardware architecture is utilized to achieve massive I/O throughput in the IBM mainframe environment?. This session will help you to understand those concepts and more. We will be putting together the pieces from data and I/O processing to configuration and LPAR activation process to identify the mainframe Big Picture. Many acronyms such as;

PR/SM, SE, IOCDS, HCD, PU, STI, MBA and many more will be discussed and defined during this session.

### B02    zMainframe Concepts (The Big Picture) - Part 2
*Brian Hatfield, IBM*
See abstract for Part 1.

### B03    Getting Started with SMS
*Ruth Ferziger, IBM*
Do you have the DFSMS product in your shop but you've never activated SMS? If so, then this session may be for you. It will cover the nuts and bolts of setting up SMS and how to establish a minimal SMS configuration to get you up and running. After that, it's up to you! You have total  control to make as much data or as little data as you want to be SMS managed. In addition, once you've brought up SMS, you can take advantage of some of the features that are only available to SMS managed data, such as automatic back up and migration, management of generation data groups, and even VSAM record level sharing.

### B04    Why FICON - the Basics
*Brian Hatfield, IBM*
IBM recently introduced the fourth generation of FICON for the z990 and z890 servers. If you don't have FICON, find out what it is, why you need it, what it can do for you. This session will discuss the basics of FICON on zSeries. Available hardware, shortwave, longwave, cable connectivity options and what you need to be aware of  from a planning and operating perspective.

### B05    On Demand Operating Environment for Dummies
*Annette Miller, IBM*
The on demand operating environment can be perceived as a very complex architecture and strategy.  The direction of the on demand operating environment is to create a Services Oriented Architecture for an  IT infrastructure.  This session will introduce managers and systems programmers to the concepts used for this and will discuss how some IBM products are beginning to add features that deliver these kinds of services. IBM is focusing on two fronts to optimize this environment.  The first is increasing business flexibility through capabilities designed to simplify integration of people, processes and information in a way that allows companies to become more flexible to the dynamics of the markets, customers, and competitors.  The other priority is infrastructure management, creating an infrastructure that is easier to provision and manage through automation and the creation of a single, logical view and access to all of the available resources in the environment.

### B06    Introduction to Parallel Sysplex
*Riaz Ahmad, IBM*
New to Parallel Sysplex and clustering? Parallel Sysplex has provided industry leading clustering for over a decade.  Catch up on a decade worth of technology in just one hour. Learn why businesses are more interested in the value provided by Parallel Sysplex than ever before. Get familiar with Parallel Sysplex concepts, terminology, and the key hardware and software components that provide the Parallel Sysplex infrastructure. Then see how the middleware and networking components exploit the

infrastructure to deliver business value. Familiarity with zSeries and z/OS helpful, but not required.

## B07    Introduction to SMF and RMF Data Collection
*Mary Astley, IBM*

Collecting measurement data on z/OS system performance requires planning and setup to gather the desired information.   RMF and SMF data are two key providers of measurement data for a z/OS system. This session will discuss the SMF and RMF parameters which control how many records and how often records are written to the SMF data sets.  This is an introductory session.

## B08    z/OS WLM - The Basics Every Performance Analyst Should Know
*Glenn Anderson, IBM*

Whether you are just beginning that long-awaited journey to goal mode, or you are just beginning that long journey to success as a z/OS performance analyst, or you are just looking for a refresher on WLM basics, you are welcome here! The speaker, who has taught WLM classes since day 1, will serve as your tour guide through the sometimes tricky and confusing world of WLM goals, service classes, classification, and more.

## B09    Getting Started with Unix System Service, HFS, Shared HFS, and zFS
*Joe Linn, State of Minnesota*

Are you an MVS person who is new to Unix System Services under z/OS?  This session will introduce you to the concepts of HFS, shared HFS, and zFS and show you how to use them at your shop.  You will see how to access Unix System Services both through the ISHELL and through the OMVS shell.  You will learn some handy Unix commands. The speaker will provide an overview of how shared HFS works and discuss some of the differences between HFS and zFS.

## B10    Software Pricing Basics
*Kay Adams, IBM*

Do you know the difference between model based pricing and MSU based pricing?  Or how bottom line prices are actually calculated using the price level tables in the SW Announcement Letters?  Or what the differences are between Usage Pricing and LPAR Workload Utilization pricing?  You probably did know once upon a time.  This session will offer review of these and other basic IBM software pricing principles and underlying pricing structures.

## B11    Introduction to WebSphere for z/OS Version 6
*Hugh Watson, IBM*

This session will introduce the WebSphere for z/OS V6 environment and the infrastructure that support it. The basic implementation steps will also be presented along with the two configurations available for your WebSphere for z/OS environment.

## B12    zSeries Automation Basics for Autonomic Computing
*Mike Bonett, IBM*

Automating the zSeries environment is critical for efficient operations, and to take advantage of the benefits of Autonomic Computing, which is a critical component of the

On Demand Computing Environment. This session provides a basic, tutorial introduction to automation, and the technologies available in the zSeries environment to implement automation functions. It is designed for those new to zSeries, who do not have any background in or understanding of zSeries automation.

### B13    ICF Catalog Management Fundamentals
*Janet Sun, Mainstar*

ICF Catalogs are an integral part of the z/OS operating system.  Without them, data cannot be accessed.  The speaker will provide an overview of catalog structures and provide an introduction of how to efficiently manage your catalog environment.  Day-to-day activities including backup, recovery and various diagnostic options will be discussed.

### B15    DFSMShsm Basics
*Sean McMillen, IBM*

Are you a new user to DFSMShsm or need a good review of the DFSMShsm functions? This is your chance to hear about the functions available to you in DFSMShsm such as migration, backup, recall, recovery and aggregate backup and recovery from a DFSMShsm developer.

### B31   Virtualization Basics
### (Dr. Brian Wade, IBM)

The latest buzz word in the industry seems to be "virtualization". As we have learned over the years, one needs to be careful with buzzwords. This presentation will not cover all the possible definitions for virtualization. It will give you a strong understanding of what virtualization means in the context of the z/VM operating system, and this can be used to contrast with what others are calling virtualization. Key topics covered in this presentation include: the virtual machine model, the key components of z/VM, the role of the SIE instruction, and the virtualization and management of various resources (processor, memory, and I/O).

### B32    The z/VM Control Program (CP): Part 1- Useful Things to Know
### (John Franciscovich, IBM)

Come to this session for an introduction to the z/VM Control Program (CP) and to learn about some of the things ("what") it does for you. After an overview of CP and how it uses disk space, storage, and devices, we'll cover starting (IPLing) your z/VM system, defining virtual machines, virtual networking, and various ways you can interact with CP.

This session continues in Part 2 (session B33) where we'll take a look at "how" CP does its work.

### B33   The z/VM Control Program (CP): Part 2 – Under the Covers
### (John Franciscovich, IBM)

In Part 1 (session B32), we looked at "what" the z/VM Control Program (CP) does for you.

Come to this session for a look under the covers at "how" CP operates, including the steps it takes to IPL and shut down CP and how CP manages storage (memory) and processor resources among virtual machines so they can do their work efficiently. We'll also cover diagnostic information that can be useful for testing and problem determination.

## B34   The Basics of Using z/VM
### (Christine Casey, IBM and Will Roden, IBM)

If you are new to z/VM, with either a Linux and/or z/OS background, or if you had  simply stepped  away from VM for a while and want a VM refresher,  this is the session for you!

 We will show you which VM commands to use, how data is stored, what the file system looks like, how to edit files, and introduce some of the many tools available for you to be productive in this new environment.

## B36   z/VM TCP/IP Stack Configuration                  (Miguel Diaz, IBM)

This presentation is an in-depth look at configuration of the z/VM TCP/IP server.  Basic and advanced configuration topics will be discussed, with an emphasis on practical examples.  Topics such as elementary routing, network hardware, and security are discussed in as much depth as necessary to provide an understanding of how to configure them on the z/VM TCP/IP server.  Common configuration errors will also be addressed.  While prior experience with z/VM TCP/IP is not necessary for attendees, some basic knowledge of z/VM minidisk structure is assumed.

## B37 Introduction to VM Performance                  (Dr. Brian Wade, IBM)

If you are just getting started understanding VM performance, this presentation will give you the foundation and tools you need to tackle various performance problems. We will talk about configuration guidelines, monitoring, and tuning, and look at a simple case study, with pointers to additional information so that you can learn even more on your own.

## B41      Running z/VM to Host Linux - Installation and Customization Part 1
### (Richard Lewis, IBM and Chuck Morse, IBM)

With the rapid growth and popularity of Linux on zSeries, many businesses are faced with the challenge of deploying a z/VM system to support the planned Linux workload. This 4 part hands-on lab is designed to begin the process of developing z/VM system programming skills. The seminar will begin with an overview of z/VM and virtualization concepts. Following this, attendees will watch a complete z/VM installation in an LPAR. The remainder of the lab will be devoted to giving each student the opportunity to perform the various system programming tasks necessary to configure a new z/VM installation for use and cloning Linux virtual machines in a z/VM environment.  Each team of attendees at a workstation will have a complete z/VM system running in a virtual machine to configure and work with. Skills developed through

**B42    Running z/VM to Host Linux - Installation and Customization Part 2
(Richard Lewis, IBM and Chuck Morse, IBM)**

This session is a continuation of Session B41.


**B43    Running z/VM to Host Linux - Installation and Customization Part 3
(Richard Lewis, IBM and Chuck Morse, IBM)**

This session is a continuation of Session B42.


**B44    Running z/VM to Host Linux - Installation and Customization Part 4
(Richard Lewis, IBM and Chuck Morse, IBM)**

This session is a continuation of Session B43.


**B51   LAB: Linux for Beginners Hands-On Lab   Part 1**

*Neale Ferguson, Sine Nomine Associates*

What is this thing called Linux? How is it organized? What are its key technologies? How do you start using it? These hands-on lab sessions are designed to allow you to answer these questions.

If you are a Linux and UNIX neophyte who would like to start down the Linux path, then plan on attending these sessions. If you are familiar with UNIX already then these labs are probably not for you. This session is continued in session B52.

**B52   LAB: Linux for Beginners Hands-On Lab   Part 2**

*Neale Ferguson, Sine Nomine Associates*

This is a continuation of session B51.

**B53   Linux for S/390 System Management for the Mainframe System Programmer - Part 1**

*Mark Post, EDS*

More and more, mainframe systems programmers are being asked to install and manage Linux/390. They have years of experience in installing and managing 'traditional' IBM mainframe operating systems such as MVS and VM, but they don't know where to start with Linux for S/390. Installation is covered by other sessions, so this one will concentrate instead on 'translating' typical system management tasks to the Linux for S/390 environment by comparing and contrasting the familiar with the new.

**B54   Linux for S/390 System Management for the Mainframe System Programmer - Part 2**

*Mark Post, EDS*

This is a continuation of session B53.

**B55   NFS Introduction**

*Neale Ferguson, Sine Nomine Associates*

This session will discuss the use of Linux as a network file server. With its popularity and pure multiprocessing design it make a very fast and reliable file server. Installation and configuration will be explained as well as a look at some of the workings of RPC and

Portmapper. A comparison of differences between version 2 and version 3 will be given as well as a brief look at the version 4 implementation.

Note: This session will start at 8:00 AM.


### B56    zSeries Linux Planning: Where to begin?
*John Schnitzler, IBM*

This short session will address some of the basic planning topics that you should look at when considering Linux on zSeries. This session will be used to spark interest in other in depth presentations being given during this conference.

Note: This session will start at 8:00 AM.

### B57    A Novices Guide to the Mainframe
*Ed Gauthier, IBM*

Are modern applications like Linux and Java based workloads being excluded from your mainframe because your CIO or other C level executive just doesn't understand modern mainframes? This presentation is designed to show executives with little or no mainframe background the value and benefits of hosting mission critical workloads on IBM System z9 ™ and eServer ™ zSeries ® systems. The benefits of modern mainframe scalability, security, cost of operation, flexibility, and virtualization are highlighted.

Note: This session will start at 8:00 AM.


### B71    VSE/POWER  - From Basic POWER to z/VSE
*Steve Gracin, IBM*

Some functions in POWER from its beginning like QUEUE and DATA allocation and access have basically always been the same, we'll look at this. Then move on to features like PNET and Shared Spooling. Finally we will take a look at a few line items changed in POWER to make life easier in z/VSE.

### B72   VSE/VSAM Basics
*Tom Grossheider, IBM*

An Introduction to the VSE/VSAM Components, Data Organization, and Catalogs.

Note: This session will start at 8:00 AM.


# z/OS System Software and Parallel Sysplex


### Z01    z/OS Update:  Release 7 and Directions
*Mary Moore, IBM*

In 2005, IBM is providing a broad range of innovation for z/OS customers.   Much of this is delivered with z/OS 1.7, but significant new function will be available for older z/OS

releases.  So there is something new for all z/OS customers.   We are advancing z/OS leadership in security, availability and networking.   We are also beginning a strong initiative to simplify z/OS management for the new generation of IT professionals.  We'll cover this and other directions for z/OS in coming releases.  Come and explore which advancements will help you and your organization benefit from the latest advancements in z/OS.

## Z02    Migrating to z/OS R7 Part 1:  Planning
*Marna Walle, IBM*
Thinking about migrating to z/OS 1.7? This session will cover many of the installation requirements for preparing for your z/OS migration. Included will be:
- Content of the z/OS R7 - what is new, changing, and removed. And what's being removed in the future!
- Ordering and deliverables
- Coexistence requirements - including the coexistence/migration/fallback/service policy
- Driving and target system requirements - including both software and hardware
- Migrating to z/Architecture - recommended paths

Attend session 'Migrating to z/OS R7 Part 2:  Migration Actions' for migration tasks for z/OS R7. Preparing for your z/OS migration can be started today, with this session's important information!

## Z03    Migrating to z/OS R7 Part 2:  Migration Actions
*Marna Walle, IBM*
Want to know about the migration tasks for the latest and greatest z/OS release? Come to this session, where the migrations actions new for z/OS R7 will be covered with a focus on migrating from z/OS R4. Included will be required migration tasks which were introduced in z/OS R7 from selected elements - BCP, C/C++, Communications Server, HLASM, DFSMS, Language Environment, SMP/E, and z/OS UNIX. Also included are highlights of some enhancements you'll see in z/OS R7 for system programmers.

This session will be of interest to systems programmers and their managers who are migrating to z/OS R7. It is strongly recommended that you attend 'Migrating to z/OS R7 Part 1: Planning' before attending this session.

## Z04    Parallel Sysplex Update
*Angelo Corridori, IBM*
The evolution of Parallel Sysplex technology continues with exciting new additions to the capabilities of the hardware and software infrastructure as well as new support in the middleware. This session will cover recently announced and shipped Parallel Sysplex functions as well as provide a glimpse of new technology directions. Also included will be a look at recent GDPS capabilities for disaster recovery and business continuity. This session assumes the audience is familiar with Parallel Sysplex concepts and terminology.

**Z05** **What's New in zSeries Software Pricing?**
  *Kay Adams, IBM*
Come and hear the latest news about zSeries software pricing.


**Z06** **z/OS System Programmer's Goody Bag**
  *Robert Rogers, IBM*
This presentations cover the "little goodies" (new functions) included in the MVS element of z/OS that are of interest to systems programmers (most do not require Sysplex). You can benefit from many of these items by just installing/customizing z/OS once you know that they are available. This rendition of the presentation covers z/OS Release 7 and includes:

  - Console Restructure Stage 1B
  - Program Compression
  - Support for Cross-CSECT Relative Branches
  - Service Aids Enhancements
  - USS Latch Contention Analysis
  - USS Dynamic Service Activation
  - JES2 Resource Monitor
  - Health Checker integration and enhancement
  - Other miscellany as time permits

**Z07** **DFSMS/MVS Update**
  *Scott Drummond, IBM*
This session will review the DFSMS 1.6 functions and features  It will also introduce the new DFSMS 1.7 release.


**Z08** **Workload License Charges for 2005 – A Consultant's View**
  *Al Sherkow,* I/S Management Strategies, Ltd.

Workload License Charges evolves one or two times per year. This session will review the WLC changes in 2005 including 'Select Application License Charges (SALC)'. The System z9 servers again offer a "technology benefit" resulting in reduced Software MSUs. The session demonstrate how to evaluate the software savings of moving a workload from a zSeries machine to a System z9 machine. The August 2004 Sub-Capacity IPLA announcement will be presented as many sites do not yet fully understand the impact of zSeries Sub-Capacity IPLA on their software charges. Analysis of how the announcements change the software charges at actual sites will be described. The information you need to analyze the continuing WLC evolution and to understand the impact on your site's software charges are presented in this unique session.

**Z09** **Configuring and Using the zFS File System**
  *Scott Marcotte, IBM*

This will cover all the issues of how to configure and use the zFS file system.  It will cover defining and formatting aggregates (including issues like re-format and multi-volume format, and log file sizes).  We will discuss HFS-compat file systems versus multi-file system aggregates and discuss briefly each of the available zFS admin commands.   Details will be provided on how to use zFS in a Sysplex environment, how to configure/use security features like ACLs and MLS.   Topics on recovery, error handling and serviceability will be presented.  Finally, we will discuss how to monitor zFS performance, zFS performance issues, and how to tune zFS for optimal performance. This session will reflect the latest zFS function at the z/OS R7 level.

## Z11    What's New with ServerPac Installation?
*Marna Walle, IBM*
ServerPac has been changing to allow you to perform your system installs easier and quicker. This session will describe enhancements to ServerPac in z/OS V1.7 (and earlier releases).  Come hear how ServerPac automatically optimizes blocksize, automatically detects volume information, allows for zFS exploitation (even for the root), and best of all how you can obtain your ServerPac over the Internet!

## Z12    Enhancing Parallel Sysplex Availability with Improved Data Availability
*Noshir Dhondy, IBM*
Many customers have built a Parallel Sysplex configuration with redundant hardware and software to achieve very high levels of availability. But key application data can still be a single point of failure in such configurations. A new GDPS offering, GDPS/PPRC HyperSwap™ Manager enhances the availability of existing Parallel Sysplex configurations so that disk failures or planned disk outages are transparent to applications running in the Parallel Sysplex. This presentation will provide an overview of the new offering, the underlying HyperSwap technology, and examples of use and benefits for a single site Parallel Sysplex and multi-site Parallel Sysplex configurations.

## Z13    Parallel Sysplex CF  Operation, Management and Recovery Options
*Brian Hatfield, IBM*
This session will discuss Coupling Facility (CF) and CF structure management and recovery options in a parallel Sysplex. Command usage will be discussed to rebuild structures and  empty Cfs for maintenance or upgrade. Commands to identify if a structure is in a problem or potential problem state will be listed along with potential actions for those structures. CFRM policy pending conditions will also be identified and explained. CF Duplexing operation and configuration will be identified and explained. Msys for operations will also be over viewed.

## Z14    z/OS Language Environment Update
*Mary Astley, IBM*
This session will discuss recent new function and enhancements to z/OS Language Environment. It will include any recent changes to run-time options.

## Z15    DFSMShsm Update
*Sean McMillen, IBM*

This presentation will cover what new functionality had been introduced to DFSMShsm in z/OS V1R5, V1R6 and preview V1R7. The line items covered are RACF Facility Class Support, CDS/EA, ABARS Catalog Search Interface implementation, Fast Replication, Multitasking Secondary Space Management and a preview of 6 line items from V1R7 related to Customer Satisfaction, Usability and Serviceability. V1R7 will become Generally Available in September, come see what's heading to a z/Series shop near you.

## Z16    What's New with GDPS is 2005?
*Angelo Corridori, IBM*

GDPS continues to provide industry leading continuous availability (CA) and disaster recovery (DR) capabilities. This session will cover GDPS enhancements made in 2005 that make GDPS relevant to more businesses. GDPS has been enhanced to manage a heterogeneous environment of z/OS and Open Systems data and can also provide a coordinated CA/DR solution for applications running across z/OS and Linux for zSeries. In particular, this session will discuss GDPS/PPRC Multiplatform  Resiliency for zSeries, HyperSwap,  and Open LUN Management. Of interest to all Parallel Sysplex installations is a new offering, GDPS/PPRC HyperSwap Manager, which can enhance Parallel Sysplex availability even in a single data center. Planned enhancements that will be available later in 2005 will also be discussed.

## Z17    z800 / z890 Software Pricing
*Kay Adams, IBM*

The z800/z890 processors offer the most flexible pricing options in the zSeries product line. While these z8xx processors can take advantage of and fully participate in all of the z900/z990 Sysplex metrics, there are a unique set of z8xx "standalone" pricing options that offer very attractive entry level pricing and flexibility. This session will focus on the pricing options unique to the z800/z890 series. Topics include:
    * Entry Workload License Charge (EWLC)
    * zSeries Entry License Charge (zELC)
    *Tiered Entry Workload License Charge (TWLC)
    * z/OS.e
    * Divide-a-Box
Information on z800/z890 participation in standard zSeries SW pricing metrics, e.g., PSLC & Workload License Charge, will be included in the z900/z990 SW Pricing session.

## Z18    Checklist for a Successful Migration to z9-109, z990, z890, zAAP and Beyond
*Bette Brody, IBM*

Keeping all the tasks straight and performing them in the correct order can be over whelming for a migration to IBM's latest zSeries eServers, the z990 and z890 and the latest server System z9-109.  IBM has also introduced a new zSeries Application Assist

Processor for the z890 and z990 and z9-109 servers.  There are migration and planning actions which are critical to a successful implementation.  This session will identify critical tasks for a successful implementation and putting together an implementation plan.

## Z19    Save More Money with WLC and Soft Capping
*Al Sherkow,* I/S Management Strategies, Ltd.

Controlling your LPARs means controlling your software costs!  Come learn how to leverage all the various LPAR settings to control your workloads and optimize throughput! This is an advanced session for those with an understanding of Workload License Charges, and Defined Capacity. Many sites are asking questions about WLC including:

How do I use Hard and Soft Capping to Control Software Charges?

What Value Should the Defined Capacity be set to?

What is the Impact of Changing the Defined Capacity?

How Do I Set Defined Capacity After an Upgrade Or a Replacement Machine?

It is possible to compute an optimal Defined Capacity value based on historical data. This session will describe a new analysis process that integrates WLM Service Class Goals with 4 hour rolling averages to help you determine optimal defined capacity values for your LPARs. This session will provide examples from a site using Defined Capacity and Saving Money!

## Z20    z/OS Rel 6 64-bit Virtual for Applications
*Robert Rogers, IBM*
z/OS has reached its destination on the 64-bit virtual roadmap. With Release 6 it is possible to write and execute a C/C++ program in 64-bit addressing mode to take advantage of the nearly unlimited virtual addressing above 2GB. This presentation provides an overview of what you need to know about 64-bit C/C++ programming to accomplish this, including:
- 64-bit virtual System Structure
- Compiler options,
- Language Environment,
- DLLs and Binder support, and
- DBX debugger.
There is also some mention of 64-bit Java.

## Z21    HFS vs. zFS and Migrating from HFS to zFS
*Scott Marcotte, IBM*
A discussion will be provided on how HFS functions, how zFS functions and the differences between the two file systems.  This will have a fair amount of technical detail on how the file systems work.  We will talk about performance differences between the two file systems for various types of workloads.  The officially documented procedure for migrating an HFS file system to a zFS file system will be provided.  Migration issues to

consider will be discussed for customers planning on undergoing a migration. This session will cover zFS at the z/OS R7 level. Finally, we will discuss future planned work for the zFS file system.

## Z22    How to Acquire Service  (with a focus on new options)
*Greg Daynes, IBM*

There are a myriad of ways to get service. Some have been around since the dawn of time, while others have sprouted up in the past few years. Each of the different methods has their own unique advantages. Come to this session to learn:
- How to get corrective service without missing any of its requisites
- How to get service from a hardware or software PSP bucket
- How to get service for a specific product or FMID
- How to get preventive service

The speaker will compare and contrast the numerous service acquisition tools (e.g., CBPDO, ESO, Service Link, ShopzSeries, SMP/E, SUF, TechSupport portal, and requesting service from the IBM Support Center), as well as hint at future service delivery directions.

## Z23    Even More of "What You Do When You're a CPU"
*Robert Rogers, IBM*

In our further explorations into the somewhat secret life of the IBM zSeries instruction processor, we take a peek at two particularly non-intuitive areas. The first is "millicode", the nearly magical mechanism by which so much function, as well as RAS, is added to the zSeries processor. It is used to implement most of the truly unique instructions of the z/Architecture instruction set, and to glue together different elements of the system. The other major topic is the behavior of the processor cache hierarchy in a "multi-book" system like the IBM eServer z990. As processor cycle times get faster, the latency in the cache hierarchy gets ever greater, when measured in processor cycles. Latency in accessing data is the dominant factor in determining program execution time - and it's going to get worse. A few smaller topics added in to round out the session.

## Z24    z900 / z990 Software Pricing
*Kay Adams, IBM*

This session will focus on the SW Pricing options available to IBM's zSeries processors. We will discuss Monthly License Charge metrics including: PSLC (Parallel Sysplex License Charge) vs. WLC (Workload License Charge, ULC (Usage License Charge), and NALC (New Application License Charge) as well as the "one time charge" IPLA pricing.

## Z25    Introduction to the z/OS Language Environment Storage Report
*Mary Astley, IBM*

How much storage is the application using?  Are the default values for the storage run-time options good values for this application?   For applications running in the Language Environment run-time, the storage report can help to answer these questions.  This session will discuss the information provided on the Language Environment storage report. It will also provide examples of using the storage report information to "tune" the values specified on the stack and heap run-time options.

## Z26   z/OS Installation and Maintenance Trends and Directions
*Greg Daynes, IBM*

The graying of the system programmer is real.  It is critical that we make it easier to install, maintain, and migrate systems. Come to this session to learn what IBM is doing, and planning on doing, to automate and simplify many of the complex tasks manually performed today. The speaker will give you a glimpse of the future, as well as provide a roadmap on how we all will get there.


## Z27   An Apple a Day Keeps the Outages Away:  IBM Health Checker for z/OS
*Marna Walle, IBM*

This session will discuss the very popular potential problem catcher - IBM Health Checker for z/OS.  Originally delivered as a  web prototype, the IBM Health Checker for z/OS has matured into a z/OS R7 base function that is also available for z/OS R4, R5, and R6.  It provides a very robust framework for automating the identification of potential problems. Topics will include how to set up and start IBM Health Checker for z/OS in a live demo (connection willing!).  Also included is a suggested implementation for reviewing check output, resolving exceptions and providing your own overrides. In addition, the new SDSF CK pane, which simplifies check management will be included in the demo.


## Z28   HCD for z/OS
*Maurice McCullough, IBM*

This session will provide update information  on the concept of coding Z Series processors. Session will focus on  new Z990 & Z890 features like multiple LCSS's and greater then 15 LPARS, new HCD definitions for PCHIDS and Spanned channels. Session will also takes a look at new items on HCD panels and briefly discuss FICON channels, FICON CTC's,  Cascaded Directors,  SYSPLEX tips and 2105 PAV's coding in HCD.


## Z29   HCM for z/OS
*Maurice McCullough, IBM*

This session will provide update information  on the concept of coding Z Series processors. Session will focus on  new Z990 & Z890 features like multiple LCSS's and greater then 15 LPARS, new HCM definitions for PCHIDS and Spanned channels. Session will also takes a look at new items on HCM GUI panels and briefly discuss FICON channels, FICON CTC's,  Cascaded Directors,  SYSPLEX tips and 2105 PAV's coding in HCM.


## Z30   SMS Volume Selection
*Ruth Ferziger, IBM*

Have you ever wondered why your data set ended up in a particular storage group? Have you ever wondered why SMS picked a particular volume on which to place your data set? If so, here's your chance to learn the ins and outs of SMS volume selection. This session will cover how SMS classifies volumes and go through the process SMS uses select volumes for data sets. This includes how SMS selects its primary candidates as well as a discussion of why SMS might reject a volume. This presentation has just been updated with the latest and greatest from the newest release.

### Z31    Server Time Protocol
*Noshir Dhondy, IBM*

On July 26, 2005 IBM previewed a new time synchronization feature, Server Time Protocol (STP). STP is designed to provide time synchronization for multiple IBM System z9™ and eServer zSeries™ servers, and is planned to be the follow-on to the Sysplex Timer (9037-002). Note that IBM has also announced plans to withdraw the 9037-002 from marketing in 2006.

STP is designed to support a multisite timing network of up to 100 km (62 miles) over fiber optic cabling, allowing a Parallel Sysplex to span these distances. This session will describe the key functional capabilities of STP, the configurations STP is designed to support, and the Implementation Assistance Program (IAP) being offered to allow you to accelerate the adoption of  STP with IBM's assistance.

### Z32    Planning for and Using System Managed CF Structure Duplexing
*Riaz Ahmad, IBM*

Systems Managed Coupling Facility Duplexing (or CF Duplexing for short) is a technology which provides even greater resilience and higher availability to your mission critical environment. This session will describe how CF Duplexing works, what it can be used for, when it should and when it should not be used, and how it can benefit your business.

### Z33    The Case For and Value of Transactional VSAM
*Ruth Ferziger, IBM*

Transactional VSAM, a new licensed feature of the DFSMS storage product family, is the next generation "follow on" product to VSAM Record Level Sharing (RLS).  The purpose of this high-level, technical and business overview is to discuss the "how's" and "why's" of  Transactional VSAM in your installation.  More importantly, this session will give you an overview of the product and explain the added value and business vision that it embraces.  Furthermore, this session will give you an understanding of Transactional VSAM to enable its capabilities to address the demanding needs of your mission critical business applications.

### Z34    Transactional VSAM:  A System Programmer's Perspective
*Ruth Ferziger, IBM*

Transactional VSAM, a new licensed feature of the DFSMS storage product family, is the next generation "follow on" product to VSAM Record Level Sharing (RLS).  VSAM RLS changed the granularity of sharing for VSAM data sets from the control area or control interval level down to the record level.  VSAM RLS enables CICS to read and update VSAM data sets, while batch jobs concurrently read those same data sets.

Transactional VSAM enables full sharing between CICS and batch.  Batch jobs may now read and update recoverable VSAM data sets while CICS is concurrently accessing those same data sets. This session will provide an introduction to  Transactional VSAM while providing the systems programmer with technical details on its installation, configuration, and product enablement.  An overview of the commands necessary for Transactional VSAM control and operation will also be discussed.


## Z35    System Programmer Productivity Toolbag
   *Bette Brody, IBM*

Do you have too much to do and not enough time to do it?  Then come to this session to hear the speaker describe system programmer tools and z/OS product enhancements to improve your productivity!  Included will be tools such as:

    - Announcements
    - Library Center
    - Interactive Planning and Installation
    - Parallel Sysplex  and z/OS Health Checker
    - Technical documentation/White Papers/RedPapers
    - SMP/E updates
    - ShopzSeries
    - Softcopy updates
    - Migration Aids
    - Logrec Viewer
    - XISOLATE
    - SoftCap
    - Web deliverables
    - PMA
    - z/OS SPEs
    - Extended Channel Measurement Block
    - BPXPRMxx Syntax Checker
    - Pointers to useful Information
    - Software Maintenance Strategy
    - Tools

and much more....


## Z36    System Automation for z/OS: Beginners Hands-On Lab  -  Part 1
   *Raimund Thielker and Roland Haibl, IBM*

How can I define my own automation policy ? How can work with my policy ? You will learn both. The first part of this lab will give you guidance to used the SA z/OS Customization Dialog and to load and operate your policy under NetView.
You will learn System Automation for z/OS's message automation technique and the new functionality to easily manage messages you need to automate.
In the second part, the lab environment is explained and you will start modeling your own automation policy for a simple z/OS application. It gives you the opportunity to exploit the class, grouping, relationships and message automation concepts. After a build of the automation policy you will have the chance to test it live on a z/OS system. You will be taught to do basic operations.

**Z37    System Automation for z/OS: Beginners Hands-On Lab  -  Part 2**
*Raimund Thielker and Roland Haibl, IBM*
See abstract for Part 1.


**Z38    System Automation for z/OS: Performance Automation Hands-On Lab  -  Part 1**
*Roland Haibl and Raimund Thielker, IBM*
How can I define my own monitors in my automation policy ?  How can I tie them to a resource I want to monitor ? The first part of this lab will give you guidance of how to define monitors using the SA z/OS Customization Dialog and how to load and operate your policy under NetView. In the second part, the lab environment is explained and you will start defining your own automation policy for a monitor and a z/OS application. It gives you the opportunity to exploit the monitoring concept. After a build of the automation policy you can test it live on a z/OS system.


**Z39    System Automation for z/OS: Performance Automation Hands-On Lab  -  Part 2**
*Roland Haibl and Raimund Thielker, IBM*
See abstract for Part 1.



**Z40    End-to-End Automation**
*Joachim Schmalzried, IBM*
A dream comes true: end-to-end automation of on demand applications spanning multiple sysplexes or even platforms. The new IBM Tivoli System Automation for Multiplatforms V2.1 (SA) can interface with SA running on z/OS, Linux, AIX and potentially other platforms and automation products. SA can resolve cross-platform dependencies and offers cross-platform application monitoring and management from a single graphical interface based on the latest IBM interface technology. This allows you to further increase application availability, to ease operations and to have a single team managing all supported platforms.



**Z41    SA z/OS News: GDPS, WebSphere And New Release**
*Roland Haibl, IBM*
A new release of SA z/OS will deliver exciting new functions and enhancements. How is the integration with GDPS progressing? How can SA z/OS help to automate my WebSphere Application Server Environment on z/OS? How does Easy-Message-Management evolve? What's new with the monitors? What else is going to come? This session will give you an insight of the hot candidates of the new SA z/OS release.



**Z42   Performance Automation using OMEGAMON and SA z/OS**
*Raimund Thielker, IBM*
How can health information be used for automation? Can I use OMEGAMON performance information for automation? Tivoli System Automation for  z/OS introduced

a new concept of integrating monitors in application automation. Existing monitors as well as new user written monitors can be integrated in the automation policy. Sophisticated monitoring can be integrated which not just tells you if an address space is active or not, but it tells you how vital an application or a collection of applications is. Thus the health can permanently be controlled. Automated actions can be taken upon predefined health states. This session will introduce you into the new monitor functionality of SA z/OS.

## Z43    Best Practices for z/OS Automation - Using IBM Tivoli System Automation for z/OS

*Roland Haibl, IBM*

What is the best way to automate z/OS applications? How can I minimize the time to implement application automation? Are there predefined automation solutions available with SA z/OS?  IBM Tivoli System Automation for  z/OS provides  Best Practices sample policies for a variety of z/OS products. Besides Best Practices, you will get valuable hints and tips of how to use SA z/OS more efficiently. This session also addresses z/OS users, who want to get solutions for z/OS automation as well as those, who are migrating from other automation products to SA z/OS.

## Z44   z/OS, zSeries, Parallel Sysplex and GDPS: Q & A with the Experts

This session is a chance for you to ask the experts any questions in the areas of z/OS systems programming issues, zSeries hardware, and parallel Sysplex technology.

## Z45    A z/OS System Programmer's Guide to Migrating to a New IBM System z9 109 (z9-109)

*Greg Daynes, IBM*

Are you planning on installing a IBM System z9 109 (z9-109) server? Is it possible that your company will be considering upgrading to a new server in the next year?  If so, come hear about how to upgrade to a zSeries server! This informative session can help you get to a z9-109 server. The discussion will describe the software required to run on a new server (including cryptographic software), compatibility code required on other systems that share resources with systems running on the new server, and migration actions associated with the new software. This session will be of interest to systems programmers and their managers who will upgrade to a z9-109 server.

## Z46    The Point-and-Shoot Method and Other Finer Points of Report Distribution

*Louis Hanna, IBM*

This session will review the point-and-shoot method of selecting options for report distribution along with a discussion of the finer details of recalling HSM-migrated data sets, searching for captured and archived reports, viewing report pages with index

values, viewing archive SYSOUT, viewing custom reports, and retrieving query information.


## Z47    Methodology for System Standard Establishment and Enforcement and Optimizing System Throughput
*Tim Humphreys, Trident Services*

This presentation will discuss a methodology for establishing & enforcing system standards and optimizing system throughput.  This methodology uses tools that eliminate the need for users to create custom program code to achieve these objectives. Specific points that will be addressed in this session include:
   * User Exit management and elimination
   * Software upgrade management
   * JCL standards enforcement
   * Batch Throughput Optimization
   * DFSMShsm Tuning
   * Controlling system resource usage
   * Containing software licensing costs


# WLM and z/OS Performance Management


## P01    z/OS Workload Manager: The Latest and Greatest
*Ulrich Hild, IBM*

Find out what's new in z/OS WLM. You will hear about WLM managed batch initiators, queue/server management enhancements, zAAP support, enhancements in WLM Sysplex Routing support and WLM Contention Management, the all new Workstation based policy editor and other new WLM features.


## P02   RMF: The Latest and Greatest
*Harald Bender, IBM*

RMF is IBM's strategic product for z/OS performance management. It is the base product to collect performance data of z/OS systems and it provides reporting capabilities for Sysplex-wide monitoring, performance analysis and capacity planning. During this session, the speaker will point out how RMF supports you in major areas such as:

   - zSeries Application Assist Processors
   - UNIX File System Performance (zFS)
   - Disk Space Monitoring
   - DS8000 Link Performance Statistics

- Analysis of In-Ready Queue Distribution

Additionally, the following features will be discussed:

- CIM Performance Data Provider
- The RMF Monitor III Data Portal

and a lot more.....This session includes the details of the latest functions provided with z/OS V1R5 RMF up to z/OS V1R7 RMF.


## P03    Understanding the OMEGAMON Architecture
*Bill Davis, IBM*

As IBM moves to utilizing the OMEGAMON architecture for mainframe solutions, understanding the key components, how they fit together, and the overall flows of information will be critical for the successful installation, trouble shooting, and overall planning process.  The speaker will focus on how information is gathered, the Portal technologies, data storage and data retrieval details.  The information gathered in this session can be used as a base for any of the OMEGAMON family of products.


## P04    Performance of MVS I/O Subsystems 2005
*Thomas Beretvas, Beretvas Performance Consultants*

This paper summarizes the I/O subsystem measurements for some MVS (z/OS) installations with the intention of determining *current* I/O performance parameter values. Once the range of customary values is determined, then they can be used for capacity planning, design and setting future objectives. These parameters also yield an idea of how much tuning is still required in the I/O area, and where the emphasis should be. With these objectives in mind, measurement data of recent vintage for about 70 installations are examined. Interesting observations include average and worst installation DASD response time values.


## P05    WLM Caused Pain and Pleasure
*Ivan Gelb, Gelb Information Systems*

Workload Manager (WLM) can intentionally or unintentionally deliver pain, manifested as severe performance degradation, or pleasure, manifested as better than expected performance. For optimum and cost effective operation, attendees will learn how to insure that pain and pleasure is delivered as intended and required for the business critical applications. This session will dig into (a) the WLM service policy options by which such pain and pleasure can be controlled, (b) how to tailor these options for the results one seeks, (c) actual examples that delivered unintended results, and (d) the recommended solutions for the discussed problems. Examples will include processor configuration, disk IO, and main storage configuration caused performance degradation that could have been avoided with proper use of WLM controls.


## P06    WSC z/OS Performance "Hot" Topics
*Kathy Walsh, IBM*

This fast paced, always new, presentation will cover the latest information on recent z/Series, z/OS, and OS/390 performance and capacity planning issues. Recent performance enhancements, gotcha's, and recommendations will be reviewed.  Also covered will be the latest information relating to recent performance APARs and WSC performance offerings.

### P07    RMF Monitor III:  Hands-on Lab
*Joanne Brown, IBM*

Do you know how to use RMF Monitor III to verify the performance of your system?  This hands-on lab will walk the user through the different Monitor III panels as well as how to use Monitor III for performance management tasks.  The lab session will include how to save Monitor III data to VSAM data sets, which reports to use to monitor System information, workflows and response times.

### P08    The RMF Monitor III Data Portal
*Harald Bender, IBM*

Did you already know that RMF z/OS performance data can be accessed on demand by simply using of a web browser? The RMF Distributed Data Server (DDS) has been enhanced to respond directly to HTTP requests. Without the installation of any client software is now possible to explore the configuration and performance of your z/OS system immediately. You need only one HTTP session per Sysplex - and this is all graphical!

The session will take you through the following topics:

- initial connection and Sysplex health check
- Sysplex configuration accordingly to the RMF data model
- resources and attributes
- single metrics and list valued metrics
- define your own personal view

This session is suited for beginners as well as for experienced RMF users, who have not exploited the Web Browser GUI so far.

### P09    Enterprise Workload Management: Overview
*Hiren Shah and Jim McCoy, IBM*

The Enterprise Workload Manager (EWLM) is an innovative product developed by IBM to help installations manage complex multi-tiered computing environments built of servers based on various IBM as well as non-IBM platforms, applications running on those servers, and the work requests that are processed by these applications. EWLM applies the goal oriented, policy based approach to performance management developed for the z/OS Workload Manager to the broader heterogeneous environment. EWLM 2.0 release supports various IBM platform such as z/OS, AIX, OS/400 and non-IBM platform such as Windows, Solaris, Linux and HP-UX. This session discusses the motivation for the EWLM work, how the z/OS WLM approaches to performance management can be applied to a multi-tiered heterogeneous environment, the basic

structure of the solution, and the LPAR CPU management and load balancing functionality of EWLM.


## P10 Enterprise Workload Manager (EWLM): A Demo

*Hiren Shah and Jim McCoy, IBM*

See the IBM Enterprise Workload Manager (EWLM) in action. This session demonstrates on a live system, how you can define, manage and monitor a goal-oriented service policy for business applications running in a multi-tier environment. The demo reveals the heterogeneous cross-platform (both IBM and non-IBM) workload manager based on the goal oriented philosophy of the z/OS Workload Manager. During the session you will learn how EWLM dynamically discovers transaction topology and monitors the live workload that is running on multi-tier environment. You will also learn how EWLM monitoring data can be used to isolate performance problems associated with heterogeneous multi-tiered workload.


## P11 Around the World in Search of z/OS Performance

*Linda August, IBM*

What are the key z/OS performance indicators?  What areas should you be checking? What measurement data is available in the subsystems to help you validate your findings in z/OS?    Take a journey through a performance checklist  as the various metrics are explored.  Stop at places such as WLM, CPU, LPAR, storage, DASD, CF, and IO as we search for performance to help meet your goals.   We will also make a quick stop at CICS and DB2 to look at the subsystem measurement data from a z/OS perspective.


## P12 Online CICS Performance Management in a z/OS World

*Marty Moroch, IBM*

On-line Performance Management is more than just looking at CICS data.  Additional data must be taken into consideration:  z/OS,  system logger,  WLM policies,  DASD I/O storage subsystems,  transaction managers and database managers all have an impact on your end user response time.  This presentation will take you through samples what type of data that you need to collect and how to tie it together to improve your on-line performance.


## P13 WLM - The Top Ten Mistakes and Questions 2005

*Peter Enrico, Enterprise Performance Strategies, Inc.*

Have you ever wondered about the most common WLM mistakes and mishaps that performance administrators make or the most common questions they have? Having examined many dozens (probably hundreds) of WLM service definitions, Peter Enrico has compiled a list of the most common WLM misses people make. Some mistakes and questions are holdovers from 2004 since the mistakes are still commonly being made, but the presentation will be interjected with different mistakes and questions not previously discussed. During this session Peter will outline these WLM mistakes and why they are mistakes. Peter will also recommend some corrective actions.

**P14    WLM Known Unknowns**

*Jim McCoy, IBM*

You've read the manuals, been to the web sites, heard a lot of presentations, yet there still seems to be a number of things you just don't know about because you don't know you should know about them. They are documented somewhere but it beats the heck out of you where that was (and even if you did find them it didn't make much sense anyway). Come to this session to hear about these various WLM features and functions, how they work and what they do. Some ideas and suggestions for reporting WLM/performance metrics will also be covered. This session was given at the last EXPO but has been updated with additional new items.

**P15    Statistics for Analysis in Performance Analysis & Capacity Planning**

*Ray Wicks, Independent Consultant*

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

- q   Descriptive Statistics**.**
  - o   The Basics**:** average, variance, coefficient of variation, harmonic average, etc.
  - o   Graphic Techniques**:** linear plots**,** distributions, histogramme, box plot, etc.
  - o   T-test : comparing averages.
- q   Predictive Statistics: linear regression, multivariate regression as an approximation for Time Series Analysis

The techniques shown in this session will be implemented in Excel. The development of the analysis will be shown in the Excel for Statistical Analysis Workshop.

**P16   Using EXCEL for Statistical Analysis Workshop: Hands-on Lab**

*Ray Wicks,* Independent Consultant

This session will build the Excel examples shown in the "Statistics for Analysis in Performance Analysis & Capacity Planning" session. It introduces the Excel implementations of standard statistical formula, how to use the examples on data provided in the session, and demonstrates how to build simple graphs. This is a hands-on session. Input data will be provided as necessary.

**P17    Understanding IBM's LSPRs, MIPs and Processor Sizing**

*Peter Enrico, Enterprise Performance Strategies, Inc.*

During this presentation Peter Enrico will take you into the world of IBM's LSPRs. The speaker will provide an overview processor measurement the concepts of ETR, ITR, ITRR, LSPR, and MIPS. Peter will then go on to explain different workloads and different processor configurations (such as LPAR) influence IBM's LSPR processor capacity ratings for a processor, and why it is nearly impossible to rate a processor with just a single capacity number. Peter will also explain the basic concepts behind IBM's current

processor sizing techniques so you have a better understanding of your processor's capacity.

### P18   Batch in the Morning, Batch in the Evening, Batch at Suppertime
*Marty Moroch and Linda August, IBM*

In this new world of internet commerce, many companies still rely heavily on batch processes that were created in the heyday of legacy systems.  However, as e-business grows, there is increasing pressure to keep on-line systems up longer, leaving a shorter window for batch processing to complete. These batch programs have been around for years, making application changes often difficult.  There are still many ways to eliminate or tune processes to exploit new technology and reduce batch elapsed times. This presentation offers a process for selecting the right combination of tuning techniques to reduce the batch window and provides some helpful tips based on the presenters' experiences tuning a variety of batch environments.

### P19   A Few Interesting DASD Tuning Problems
*Thomas Beretvas, Beretvas Performance Consultants*

Presentation begins with a review of tuning approach used. This is followed by a discussion of some interesting DASD tuning problems encountered in the presenter's consulting practice. The problems observed are presented together with the analysis and potential solution.

### P20   Much Ado About CPU
*Martin Packer, IBM*

zSeries processors have in recent years introduced a number of capabilities of real value to mainframe customers. These capabilities have, however, required changes in the way we think about CPU management. This presentation describes these capabilities and how to evolve your CPU management to take them into account. It is based on the author's experience of evolving his reporting to support these changes.

### P21   Understanding Performance in Your z/OS IP Stack
*Laura Knapp, IBM*

Whether you're an Internet company with exponential growth or an old line 'brick and mortar' enterprise transforming your business, your success depends on how well you optimize your IT assets. Investigate the key elements in your z/OS IP stack that must be managed in order for your system and network to work smoothly providing the needed services to applications.  Also, learn more about the key issues impacting an IP site and how to best manage your site in the face of worldwide pressures.

### P22   A Large Systems Guy Implements Enterprise Workload Manager (EWLM)
*Glenn Anderson, IBM*

Enterprise Workload Manager (EWLM) provides a way to monitor and respond to workload processing across multiple systems in a distributed heterogeneous

environment. Now there are three words that strike fear into the heart of an old MVS guy - distributed heterogeneous environment!  However, EWLM is an example of mainframe technology (z/OS WLM) migrated out to distributed platforms, so that is a bit comforting. This detailed session will walk through the implementation and usage of the components of an EWLM domain. These include policies that define the expected performance; middleware equipped for ARM (Application Response Measurement), such as WebSphere and DB2; and the EWLM Domain Manager that monitors, tracks and reports on performance against goals.

### P23   DB2 Memory Performance in a 64-bit World
*Martin Packer, IBM*

DB2 Version 7 exploits 64-bit real memory, whereas Version 8 also exploits 64-bit virtual. This presentation focuses on managing both real and virtual memory, with an emphasis on DB2. It enables z/OS and DB2 performance people to work together to manage both the real and virtual memory usage by DB2. It assumes at least a basic understanding of how memory works on zSeries processors.

### P24    A z990 Performance Update
*Walt Caprice, IBM*

The z990 processor has been well received.  However, it is still important to make sure a valid capacity plan is developed to set correct performance and capacity expectations. This presentation will provide important information to make sure you understand all the issues involved when developing your capacity plan.

### P25    Everything zAAP!
*Kathy Walsh, IBM*

This session will discuss the zSeries Application Assist Processor and will discuss the latest information on performance and capacity planning topics related to zAAPs.  Use of the projection tool will be covered as well as updated information on RMF reporting of zAAPs,  Information on capacity planning and performance reporting for zAAP environments will be covered and the impacts to chargeback accounting will be discussed.

### P26   Trading zSpaces
*Linda August and Marty Moroch, IBM*

You have been putting off remodeling your system all summer.  What can be done to improve your performance with the resources you currently have and with your budget. Join Linda and Marty as they use the tools of the trade to do several makeovers and show how you too can improve your on-line and batch performance.

### P27    z/OS WLM - Workload Manager Mid-Term Exam
*Peter Enrico, Enterprise Performance Strategies, Inc.*

The z/OS Workload Manager (WLM) has been around for over 10 years now. Although it is will most likely be around for many more years to come, Peter Enrico felt it was time for a 'mid-term exam'. Now, of course this title is a play on words, and you will not actually be tested. However, it would be sort of fun if you challenge yourself by

confirming your knowledge of WLM. Prior to this presentation a list of questions will be made available to you. During this session Peter Enrico will provide you with the answers and explanations for these questions. The entire point of the session is to provide you with practical information and tidbits about WLM that you might not already know.

### P28  Framework for Doing Capacity Sizing for zSeries Processors
*Kathy Walsh, IBM*

This session will discuss and highlight the steps needed for successful capacity planning exercises in a zSeries environment. She will discuss how and when to use MIPS correctly, understand available capacity planning tools and IBM resources available to assist in this effort. Time will also be spent discussing issues after a new processor is installed to ensure the capacity upgrade meets expectations.

### P29  Incorporating Performance Data into Enterprise Automation
*Mike Bonett, IBM*

Automating a computing environment requires taking events from various sources available to an automation product. Advanced automation requires monitoring and detecting performance indicators that may indicate a potential problem, and invoking automation to take action, or to correlate performance information from several sources. This presentation will cover methods of surfacing performance information from RMF and IBM OMEGAMON products for use within automation products such as NetView, System Automation for z/OS, and AF/Operator.

### P30  DASD I/O Performance on FICON Channels
*Thomas Beretvas, Beretvas Performance Consultants*

The advent of FICON channels in the MVS (z/OS) world is probably quite as revolutionary as ESCON was when it was introduced and parallel channels disappeared. Some of the old, well established DASD measurement concepts changed as a result of the introduction of FICON channels.  We look at the change in the meaning of the measurement parameters, such as response time components, and at some new performance metrics reported in RMF. We also look at some of the new measures to be considered as Open Exchanges and their impact. In order to show performance results it is worthwhile examining some FICON vs. ESCON performance measurements.  Thus, we look at some published benchmark results and also at actual installation measurements.

### P31  Understanding the CPU Activity Report with zAAPs
*Joanne Brown, IBM*

Having trouble understanding your RMF reports and interpreting what the data collected means. This presentation will address how to analyze the measurement data on the RMF CPU Activity Report.  The discussion will include, which SMF records and JCL statements which are needed to generate the RMF CPU Activity report.  Examples of the RMF CPU Activity reports will be discussed along with what fields to monitor and what red flags to look for.  The following topics are included in the presentation:
• LPAR Busy

- MVS Busy
- I/O Total Interrupt rate
- Distribution of Queue Lengths
- Partition Data Report
- LPAR Cluster Report
- System Address space analysis
- zAAPs

## P32  RMF Spreadsheet Reporter Reloaded:  Hands-on Lab
*Harald Bender, IBM*

RMF SMF records are the most important data source for z/OS related performance management and capacity planning activities and the RMF Postprocessor
is used to prepare this data for analysis. The RMF Spreadsheet Reporter is well known as a graphical and flexible performance reporting and analysis extension for Postprocessor reports on the workstation. With the new Java Edition, the concept of the RMF Spreadsheet Reporter has been enhanced significantly:

- ease of use - manage the related resources by means of an Explorer-like GUI!
- fast path to graphical representation - prepare the SMF raw data in one single step!

In the lab you will learn how to use the new RMF Spreadsheet Reporter GUI and batch interfaces efficiently. Come to see how easy it is to submit Postprocessor jobs, to convert and load the output into your spreadsheet application. Analyze the data immediately with the provided spreadsheet macros - everything on your PC!

## P33  WLM Advanced Topics:  IRD, Defined Capacity, and zAAP Support
*Ulrich Hild, IBM*

Are you interested in using z/OS Intelligent Resource Director (IRD)? Curious about the technical details behind 'Defined Capacity' and some pitfalls to avoid when exploiting it? Would you like to hear about the concepts of the new WLM zAAP support? Then this session is for you! The speaker will explain the concepts of the Intelligent Resource Director, Defined Capacity and zAAP support in detail.

## P34  Fuzzy Logic:  A Tutorial
*Ray Wicks, Independent Consultant*

In a course in switching theory or traditional symbolic logic, one studies a form of logic which has existed from the early Greeks, notably Aristotle. This session reviews the principles of this crisp symbolic logic (negation, and, or, if-then, etc.) and then proceeds to introduce Fuzzy logic and Fuzzy sets. This new logic has interesting ramifications in fuzzy thinking and neural networks. An example using fuzzy rules in a control system will be introduced. You don't need a logic background for this session.

## P35  Tuning "New World" DB2 Applications for MVS Performance Specialists
*Martin Packer, IBM*

MVS Performance specialists are used to handling the quirks of SMF records. They are therefore well placed to support DB2 Application tuning efforts. This presentation introduces MVS Performance specialists to the DB2 SMF 101 Accounting Trace record, outlining many of its major quirks. Reference is made to other types of instrumentation that complement SMF 101. After some "vocabulary and syntax" how records from different application types look is presented.

## P36   An Introduction to the IBM Processor Capacity Reference for zSeries (zPCR)

*Walt Caprice, IBM*

The zPCR tool has been used for years by IBM'ers and Business Partners to accurately estimate the capacity difference between different zSeries processors.  This tool is scheduled to be made available to customers as a no charge tool on October 10, 2005. This session will provide an overview of the tool itself as well as where to get further information on the tool once it is generally available.

## P37   Mining Gold from the RMF Data Mountain

*Ivan Gelb, Gelb Information Systems*

This session includes presentation of the essential RMF reports 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 important and useful reports will be presented. The emphasis will be on quick techniques that help us "mine" the wealth of information collected by RMF.

## P38   Top Ten Best Practices for Improved z/OS Performance and Lower TCO

*Ivan Gelb, Gelb Information Systems*

Yes, it is possible to improve performance of a z/OS environment while also lowering the TCO (Total Cost of Ownership). The areas covered in this session include: CICS, DB2, IRD, PR/SM, VWLC, WLM, and zAAP, just to name a few. This Top-10 collection is based on the experience of over 50 major installations. Attendees of this session will learn proven best practices on how to set up, customize, report, and analyze the performance and capacity of z/OS and its major subsystems while never loosing sight of the effects on the TCO.

## P39  WLM and z/OS Performance:  Q & A with the Experts

This session is a chance for you to ask the experts any questions in the areas of WLM and general z/OS performance issues.

## P40  Mainframe Global and Workload Level Statistical Exception Detection System, Based on MASF

*Igor Trubin, Capital One*

The session describes one site's experience of using Multivariate Adaptive Statistical Filtering (MASF) to produce web based exception reports against SAS/ITRM performance databases for MVS, Unisys and Tandem mainframe platforms. In addition to global exceptions, the system can capture workload level detail. The advantages of using a home made SAS based Statistical Exception Detection System for this purpose vs. usage of MASF build into BMC Visualizer are discussed.

## P41   zSeries, Sub Capacity Workload License Charges, Soft-Caps, and WLM

*Richard Ralston, Humana Inc.*

With the advent of zSeries processors and z/OS, IBM decided to offer a new software cost structure. The new pricing structure, Sub-Capacity Workload License Charges, attempts to reduce the cost of key IBM software in the z/OS environment. This session discusses the author's experiences with Sub-Capacity License Charges, the tools available to help manage the LPAR's running Sub-Capacity Workload License Charges, results, and benefits.

## P42   CICS Application Integration Using Web Services

*James Crew, Merrill Lynch*

Merrill Lynch is using Web Services to tackle onerous application integration challenges and reduce the burden of proprietary coding. Merrill Lynch created an integration tool called XML for Merrill Lynch (X4ML)that exposes mainframe applications as standard Web Services interfaces. The tool lets CICS programs participate in Web Services by accepting Simple Object Application Protocol (SOAP) requests from the web, converting the SOAP requests into formats accepted by the legacy programs, and then converting the results into SOAP responses. X4ML runs completely within CICS, requiring no middle-tier hardware. Come and listen to this success story and learn why Merrill Lynch is bullish on Web Services.

## P43   Reporting on I/O Configurations Using RMF Data: Connecting the Logical to the Physical

*Frank Bereznay, Kaiser Permanente*

Storage equipment in a zSeries environment contains hundreds of control units and channels. Logical mappings between channels and control units are well documented but the summarization of these entities into physical subsystems is not as straightforward. A hardware identifier is needed and it does not appear as a variable in any of the RMF record types. However, the Type 74 record does contain a field, SMF74DCT, which has a serial number within it. Extracting this data permits the mapping of logical entities to physical subsystems. A technique is demonstrated to perform this summarization .

**P44 Software Licensing Cost Reduction Strategies for Large Mainframe Environments**

*Mp Welch, Sprint and Chris Schreck, Sprint*

In large complex IBM Mainframe environments Software Licensing is the fastest growing but most controllable cost. If this trend continues, the large systems platform we know (and love) will be unable to compete for limited enterprise expenditures in the future. Product replacements, Sub-Capacity Pricing, Per Seat, and usage based pricing offer opportunities to reduce cost. This session shares the implementation of the Penalty Box concept used to control ISV software costs. Its advantages, disadvantages and implementation challenges will be explored.

**P45 Mainframe Capacity Planning Methodology**

*Marty Deitch, IBM*

This presentation will discuss a methodology for mainframe capacity planning. The methodology makes heavy use of a performance modeling tool and discusses how the output from this tool facilitates capacity planning. Included in the presentation will be an actual capacity planning study which illustrates many of the concepts presented in the methodology.

# WebSphere for z/OS, CICS, DB2, Networking, and Security

**W01 z/OS Security Configurations and Update**

*Jack Jones, IBM*

Security in this new e-business world, with J2EE applications and web services, requires a cross platform, enterprise wide framework. z/OS security must integrate into this demanding and changing environment. This session will introduce some of the latest changes in the z/OS security features, including the z/OS Communication Server and the z/OS Security Server, that are being used to interface with the myriad of different security tools on distributed platforms. The speaker will demonstrate how some of these tools and features are being, based upon the business requirements of the customers that the speaker has worked with, to provide security solutions.

**W02 Migrating your z/OS WebSphere App Server V.5 z/OS Runtime to WebSphere V.6**

*John Hutchinson, IBM*

You can migrate your WebSphere Application Server Version 5.1 for z/OS runtime to the new Version, using the ISPF Dialogs, and Migration Utilities.  This session describes how to use these tools and configure the new WebSphere V.6 on z/OS along with your existing applications and runtime configuration settings.  Coexistence of V5 and V6 servers within a cell, along with recommended practices will also be covered.

## W03    z/OS Communications Server Technical Update

*Alfred Christensen, IBM*

This session will present the latest and greatest capabilities of the Communications Server on z/OS.  The session will focus on recent enhancements and on functions that are planned for the upcoming z/OS V1R7 release.  Among the major areas of interest are new highly advanced integrated workload management for TCP/IP workload into a z/OS Sysplex environment that provides server-specific WLM and application health information to outboard load balancers, such as Cisco's Content Switching Module (CSM) in the Cisco Catalyst Switch.  Other TCP/IP enhancements include improvements in single-system image capabilities for outbound workload through new job-specific source IP addresses functions, a new API for programmed control of file transfer operations based on the FTP protocol, etc. The session will also discuss new SNA integration capabilities based on enhancements to Enterprise Extender.

## W04    Installing and Rolling Maintenance for WebSphere App Server on z/OS

*Bob Teichman, IBM*

Many WebSphere cells can be configured on a z/OS system or SYSPLEX. Applying maintenance in this environment without impacting production configurations will require some careful planning. Customers running SYSPLEX environments also need to understand the complexities involved in rolling WebSphere maintenance through the nodes in their SYSPLEX so as not to be disruptive. The good news is this is quite possible with WebSphere V5.1 or V6 for z/OS.  This session will cover the essential aspects of maintenance planning in environments with multiple WebSphere cells both in single system and in SYSPLEX configurations.

## W05    A CICS/TS Update for z/OS System Programmers

*Leigh Compton, IBM*

Come hear the very latest news!  CICS Transaction Server Version 3 delivers major new functions to enable easier access to CICS applications, transform the interfaces to existing applications, and manage the entire CICS environment.  Here are just some of the highlights you'll find in this session:

Version 3 provides support for Web services by an evolution of the functions previously provided in the optional SOAP feature for CICS. These capabilities allow CICS applications to be integrated within a Service Oriented Architecture (SOA), enabling them to be exposed as Web services. Distributed transaction coordination is provided for partners complying with the WS-AtomicTransaction specification. New HTTP capabilities are offered as part of CICS Web support, moving the level of specification supported to HTTP 1.1, and adding outbound HTTP function.

A new mechanism is provided for inter-program data transfer, which offers an alternative that is not subject to the 32KB restriction of the COMMAREA mechanism.  More efficient use of z/OS multiprocessor capabilities is enabled by extension of Open Transaction Environment (OTE) support to use open TCBs.


## W06   DB2 Version 8 for the z/OS Systems Programmer
   *Akiko Hoshikawa, IBM*
DB2 for z/OS Version 8 is the most significant new version of DB2 on the mainframe in fifteen years, delivering more than 100 new features, including 64-bit virtual addressing, enhanced data sharing performance, improved DASD space management, and many others.  Many of these features are achieved through synergy between DB2 and the operating system and hardware.  This presentation is an overview of Version 8 for MVS systems programmers, with the main focus being system performance.


## W07   WebSphere for z/OS Performance Management
   *Glenn Anderson, IBM*
Now that you've installed WebSphere Application Server for z/OS, 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, WLM settings, 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.


## W08   Connecting to CICS and DB2 from WebSphere App Server for z/OS Ver 6
   *John Cowel, IBM*
You have successfully installed and configured WebSphere for z/OS Version 6.  You have an application you would like to deploy to this environment, but all attempts have failed because definitions for connecting to CICS and DB2 are not in place or are not complete.  What definitions are required, you ask?  Come to this presentation to find out how to make the necessary definitions in WebSphere to facilitate connecting to CICS via CTG and DB2 via the Universal JDBC driver.  There will also be a discussion of what settings, both Application and WebSphere that affect the security context (USER id) that is sent to CICS and DB2 from your WebSphere application.


## W09   WebSphere for z/OS- Preparing your Environment for Global Security
   *Bob Teichman, IBM*
Building a WebSphere V6 for z/OS configuration can be rather daunting by itself. Once you have successfully created your WebSphere cell, you now realize that you must turn 'Global Security' on. Turning on 'Global Security' without the proper preparation and understanding of what is required will inevitably get you into trouble. This presentation will point out the necessary prerequisites for turning on 'Global Security', highlight the pitfalls and problems that customers typically run in to. The presentation will use RACF in its' examples, but will also discuss issues and problems discovered at customers

using  CA-ACF2 or CA-Topsecret. Most of the material is applicable to both Version 5 and Version 6 of WebSphere for z/OS.


## W10     Web Services for Dummies
### Hilon Potter, IBM
Just when you thought you understood WebSphere Application Server and application servers in general, they add new features and functions. SOA, UDDI, WSDL, MDB, SOAP! What do all these acronym's mean. This session is a high level overview of Web Services, what it is, what there used for, and what the infrastructure would look like. It will make use of customer examples, and analogies to older programming models.


## W11     Intro to WebSphere HATS
### Bill Flynn, IBM
WebSphere Host Access Transformation Services (HATS) makes your 3270 and 5250 applications available as HTML through the most popular Web browsers. Host screens are transformed to graphical user interfaces in real time using a rules-based engine. No changes to the host application are required. This session includes a lecture on HATS capabilities followed by demonstrations that show example HATS applications performing screen transformation,  combining data from multiple applications, and HATS portlets. The session will end with a live demonstration showing how to use WebSphere Studio Enterprise Developer to create and test a HATS application that provides access to a green-screen application with a transformed look and feel.


## W12     HTTP Server on z/OS Implementation and Customization
### Hugh Watson, IBM
This session will look at the initial implementation and customization of the IBM  HTTP Server on z/OS.


## W13     Real World Experiences Implementing Solutions using WebSphere Application Server
### Joe Linn, State of Minnesota
Hear about the State of Minnesota's experiences creating appropriate environments for applications using WebSphere on multiple platforms.  The speaker will discuss factors that must be evaluated for each application: choice of platform(s), topology, application security, network security, fail-over, application deployment, test/production issues, WebSphere/Java version migration issues, resource requirements, performance, and cost.  He will walk through several actual applications and show how understanding these critical factors resulted in the final implementation.  The session will not deal with designing the applications themselves, but on creating the infrastructure for the applications to operate.


## W14     Connecting to CICS: The Strategic Options
### Leigh Compton, IBM
Over the past 35 years, part of the success of CICS has been due to the fact it does supports many types of clients.  In recent years CICS has embraced a number of new

protocols, interfaces and APIs: SOAP, J2EE Connectors, Java RMI, HTTP, etc. However, choice can be overwhelming.  And not making the right choice can lead to over-taxing demands on clients, less than optimized networks and systems, and reduced flexibility for future access and re-use. This presentation aims to outline which connectors are industry best practice and therefore the strategic options for connecting to -- and from -- CICS.

## W15   What is WebSphere Business Integration Server Foundation for z/OS All About?

*Glenn Anderson, IBM*

WebSphere Business Integration Server Foundation for z/OS, V5.1 builds on the WebSphere Application Server for z/OS, V5.1 to provide a powerful standards-based integration platform for building and deploying services-oriented applications. This includes a Web services technology-based application environment. If you are not even sure what all this means.....terms like process choreography and enterprise server bus, then this session is designed for you. Here we will start at the very beginning, and explain what WBI SF for z/OS V5.1 is all about, and what it looks like running in a WebSphere for z/OS V5.1 runtime.

## W16    z/OS LDAP Implementation and Usage

*Jack Jones, IBM*

The z/OS LDAP server has gone through several major enhancements in the past few years. This session will briefly review what the LDAP is and how it can be used for security. It will then discuss the latest enhancements to the z/OS LDAP server and how these might be useful in the business environment.

## W17    WebSphere App Server for z/OS Ver 6 Hints and Tips

*Lyndon Bowlin, IBM*

Interested in practical hints and tips for successfully installing and running WebSphere, based on experience from many customer installations?  This session will discuss the structure of WebSphere V6 for z/OS environments and present a proposed naming convention to help manage the environment.  Presented is a "Top Ten" list of issues with getting WebSphere V6 for z/OS up and running including global security and maintenance upgrades.  The session will conclude with initial tuning tips for WebSphere V6 for z/OS.

## W18    Introduction to JZOS

*Hilon Potter, IBM*

Do you have a need to run Java in batch or as a started task?  Do you think BPXBATCH is the only choice?  This session will provide an overview of a set of shareware tools called JZOS, that will let you add Java to batch jobs without BPXBATCH.  Many companies have identified a need to use Java in batch.  To make calls to other Java programs or services, or to reuse Java code.

**W19   From Green Screens to Web Services Using WebSphere HATS**
   *Bill Flynn, IBM*

Do you have legacy "green-screen", z/OS 3270 or OS/400 5250, applications that you would like to integrate with other heterogeneous applications? If so, you should consider using Web services technology as the framework for the integration. In this session, you will see a demonstration using WebSphere Host Access Transformation Services, or HATS, to develop Web services interfaces for your "green-screen" applications. HATS macros, session pooling, integration objects, and Web services generation will be covered.

**W20   Secure IP Networking on z/OS**
   *Alfred Christensen, IBM*

One of the main attributes of the zSeries platform is security. This session will discuss how the zSeries platform and z/OS security is extended to include secure IP networking access to z/OS. The session will discuss how to protect the operating system platform from malicious attacks through the IP network and will also discuss how to secure the data that is transmitted over the network to/from IP applications running on the z/OS platform. Topics such as IPSec (secure Virtual Private Networks), IP filtering, Intrusion detection and prevention (IDS), securing application access through authentication and encryption using SSL/TLS - will be discussed.

**W21   Useful z/OS Communications Server 'Magic Tricks' You May Have Missed on Your Way to z/OS V1R7**
   *Gwen Dente, IBM*

Well, a lot has happened with Communications Server since z/OS V1R2. But ... if you were like the rest of us, you were just scrambling to keep your head above water while simply trying to migrate to a supported release. In the process you probably heard or read a lot about all the enhancements in V1R2, V1R4, V1R5, V1R6 -- but did any of this news really register?? Well, probably the really big items did stick with you -- but did you know there were a lot of hidden gems in these releases that could make your life easier? This session presents practical examples of a potpourri of pearls for your Communications Server z/OS implementation. With this knowledge under your belt, you can stop feeling overwhelmed about the impending V1R7 upgrade and feel that playing "catch up" with the previous releases will be a "snap."

**W22   XML, Web Services, and CICS**
   *Leigh Compton, IBM*

Extensible Markup Language (XML) and Web Services architectures are being accepted rapidly as the way in which business systems will interoperate in future, both within enterprises and across enterprises. Unlike complex and proprietary solutions XML and Web Services provide for full integration with a simple and open standards-based connectivity to a trusted and scalable environment. This session will describe Web Service support now provided with CICS to provide interoperation and integration between CICS applications and those running in other environments.

## W23    Deploying Your Applications to WebSphere App Server Ver 6 for z/OS

*Lee-Win Tai, IBM*

There are several new features available in WAS v6 for application deployment.   This session discusses WebSphere Rapid Deployment, including free-form projects, automatic application installation / uninstallation, and batch installs.  We will also discuss annotation-based programming and how it integrates with the tooling (RAD, AST).  Fine grained updates will also be covered.


## W24    De-mystifying a z/OS Sockets Program

*Alfred Christensen, IBM*

Have you ever wondered what a TCP/IP application actually is or what a sockets program is? This session will cover the concept of sockets and TCP/IP applications - and discuss topics, such as: what are the characteristics of a TCP/IP application, what are the client and server roles of an application, what programming interfaces are available on z/OS, and how do applications interface to the underlying TCP/IP protocol suite? Even for non-programmers, the knowledge of basic sockets concepts have proven to be valuable in analyzing potential application problems, such as a server program not being able to initialize correctly, or a client program not being able to establish a connection to the server it wants to communicate with. The session will use Rexx sockets to illustrate a few basic sockets programming concepts.


## W25    Automating WebSphere V6 on z/OS Administration with WSADMIN, Jacl, and Jython

*Lee-Win Tai, IBM*

This session starts with a general overview of wsadmin usage, such as interactive and inline modes.  The main portion of this session will deal with using external scripts with wsadmin to automate WAS administration.   We will go through code samples of both Jacl and Jython for common administrative tasks, like installing and uninstall applications.  We'll also cover some more complex tasks - creating servers, data sources - using Jacl and Jython.


## W26    Introduction to Enterprise Batch

*Hilon Potter, IBM*

All these WebSphere developers have added new functions and services to their application server environment. How can you use them? This session will focus on examples of batch programs taking advantage of the new services that are available in your enterprise.


## W27    Superior I/O Performance on the System z9 with DB2, FICON and the DS8000

*Cathy Cronin, IBM*

The new z-series System z9 introduces a Modified Indirect Data Address Word (MIDAW) facility, which in conjunction with the DS8000 storage subsystem and the FICON Express2 channels that IBM started shipping earlier this year, delivers superior I/O performance for IBM DB2 software.  Come learn more about MIDAWs and see the

impressive performance measurement results of various DB2 software functions run on the new z9 hardware with FICON Express2 channels and the DS8000 storage subsystem.

## W28    Nursery School for the Enterprise-Extender Impaired -- Please Teach Me the Basics!
### Gwen Dente, IBM
In recent years the explosive growth of the internet has motivated customers to consolidate their SNA and IP networks to achieve cost and administrative savings, begging the question as to how to support both SNA and IP  users and applications over a single network protocol: IP. Enterprise Extender is one response to this question.  But here you are, with your head still swirling about other z/OS and network design topics. And everyone is talking about Enterprise Extender:  EE in z/OS, EE in Communications Server for Linux, EE in Cisco.  If you feel like an idiot, don't despair.  This session enlightens you so that you don't have to day-dream in those planning sessions anymore, and you'll leave this session feeling like an Einstein (maybe a "Baby Einstein")!

## W29    z/OS WebSphere WBISF Infrastructure Implementation
*John Hutchinson, IBM*
WebSphere Business Process Integration Server Foundation (WBISF) is built on top of WebSphere Application Server Version 5.1 for z/OS.  This session describes how to install the WBISF Programming Model Extensions on z/OS, and configure the Business Process Engine (BPE) for Process Choreography applications.   We will also describe how to deploy your business process applications in the WBISF runtime on z/OS.

## W30    How to Implement z/OS LDAP Server with RACF: Part 1
### Jack Jones, IBM
In this session, you gain hands-on experience implementing and configuring an LDAP server on a z/OS system. This will be using the LDAPCNG utility that as introduced in OS/390 2.10. The LDAP server will be set up with the TDBM (DB2) and the SDBM (RACF) backend stores and sample data will be loaded into the TDBM. There will be sample verification scripts to test that both the TDBM and SDBM data can be accessed correctly.

## W31    How to Implement z/OS LDAP Server with RACF:  Part 2
### Jack Jones, IBM
See abstract for Part 1

## W32    WebSphere for z/OS Real World Planning: Part 1
### Mike Cox, IBM
This session will cover installation planning considerations for WebSphere for z/OS Version 6.  The mechanics of creating a WebSphere for z/OS Network Deployment cell will be covered.  The  focus of this session are the considerations for a successful installation, including naming conventions,  TCPIP port management, HFS planning, security constructs and availability.

### W33   WebSphere for z/OS Real World Planning: Part 2
   *Mike Cox, IBM*
This session will cover advanced topics in considerations for WebSphere for z/OS Version 6 runtim.  A number of operational and performance topics will be discussed, including: heterogenous cells, threading, zAAPs, application logging, accounting for CPU time and miscellaneous performance tips.

### W34  Portal 5.1 Enable for z/OS  -  Overview
   *John Gates, IBM*
On Demand businesses require a Portal framework that provides integrated access to people, applications, processes, and information.  As customer requirements have moved beyond simple information access and transaction management to more sophisticated uses including collaboration and process driven navigation and control, support within the Portal market has matured.   With Portal 5.1 Enable for z/OS, IBM marries it's award winning Portal technology with its flagship eServer platform, z/OS. This session will describe the new features and functions in this release of Portal and how Portal can make a difference in your eBusiness plans for the future.

### W35   zSeries as a Native Siebel Platform
   *Svetlana Sicular, Siebel Systems and Steve Mowles, Siebel Systems*
Siebel's largest customers have zSeries support high on their list of requirements when assessing mission-critical applications.  The majority of Siebel customers, who have enterprise-wide deployments with users numbering in the tens of thousands on a single database server, select DB2 for z/OS for its availability, scalability, security, and low TCO.  This session will review the latest development of Siebel on IBM zSeries and feature highlighted Siebel products on DB2 for z/OS v8 and WebSphere on z/OS.

Note: This session will start at 8:00 AM.


# Z/VM Sessions -  Basics, Networking, General Interest, System Management, Security, and Performance


# B3 z/VM Basics TRACK

### B31  Virtualization Basics                                      (Dr. Brian Wade, IBM)

The latest buzz word in the industry seems to be "virtualization". As we have learned over the years, one needs to be careful with buzzwords. This presentation will not cover all the possible definitions for virtualization. It will give you a strong understanding of what virtualization means in the context of the z/VM operating system, and this can be used to contrast with what others are calling virtualization. Key topics covered in this presentation include: the virtual machine model, the key components of z/VM, the role of the SIE instruction, and the virtualization and management of various resources (processor, memory, and I/O).

**B32    The z/VM Control Program (CP): Part 1 - Useful Things to Know (John Franciscovich, IBM)**

Come to this session for an introduction to the z/VM Control Program (CP) and to learn about some of the things ("what") it does for you. After an overview of CP and how it uses disk space, storage, and devices, we'll cover starting (IPLing) your z/VM system, defining virtual machines, virtual networking, and various ways you can interact with CP.

This session continues in Part 2 (session B33) where we'll take a look at "how" CP does its work.

**B33   The z/VM Control Program (CP): Part 2 – Under the Covers (John Franciscovich, IBM)**

In Part 1 (session B32), we looked at "what" the z/VM Control Program (CP) does for you.

Come to this session for a look under the covers at "how" CP operates, including the steps it takes to IPL and shut down CP and how CP manages storage (memory) and processor resources among virtual machines so they can do their work efficiently. We'll also cover diagnostic information that can be useful for testing and problem determination.

**B34   The Basics of Using z/VM**
**(Christine Casey, IBM and Will Roden, IBM)**

If you are new to z/VM, with either a Linux and/or z/OS background, or if you had  simply stepped  away from VM for a while and want a VM refresher,  this is the session for you!

 We will show you which VM commands to use, how data is stored, what the file system looks like, how to edit files, and introduce some of the many tools available for you to be productive in this new environment.

**B36  z/VM TCP/IP Stack Configuration                    ( Miguel Diaz, IBM)**
This presentation is an in-depth look at configuration of the z/VM TCP/IP server.  Basic and advanced configuration topics will be discussed, with an emphasis on practical examples.  Topics such as elementary routing, network hardware, and security are discussed in as much depth as necessary to provide an understanding of how to configure them on the z/VM TCP/IP server.  Common configuration errors will also be addressed.  While prior experience with z/VM TCP/IP is not necessary for attendees, some basic knowledge of z/VM minidisk structure is assumed.

**B37 Introduction to VM Performance**              **(Dr. Brian Wade, IBM)**

If you are just getting started understanding VM performance, this presentation will give you the foundation and tools you need to tackle various performance problems. We will talk about configuration guidelines, monitoring, and tuning, and look at a simple case study, with pointers to additional information so that you can learn even more on your own..

# B4 z/VM Basics (continued) TRACK

### B41    Running z/VM to Host Linux - Installation and Customization Part 1
####        (Richard Lewis, IBM and Chuck Morse, IBM)

With the rapid growth and popularity of Linux on zSeries, many businesses are faced with the challenge of deploying a z/VM system to support the planned Linux workload. This 4 part hands-on lab is designed to begin the process of developing z/VM system programming skills. The seminar will begin with an overview of z/VM and virtualization concepts. Following this, attendees will watch a complete z/VM installation in an LPAR. The remainder of the lab will be devoted to giving each student the opportunity to perform the various system programming tasks necessary to configure a new z/VM installation for use and cloning Linux virtual machines in a z/VM environment.  Each team of attendees at a workstation will have a complete z/VM system running in a virtual machine to configure and work with. Skills developed through

### B42    Running z/VM to Host Linux - Installation and Customization Part 2
####        (Richard Lewis, IBM and Chuck Morse, IBM)
This session is a continuation of Session B41.

### B43    Running z/VM to Host Linux - Installation and Customization Part 3
####        (Richard Lewis, IBM and Chuck Morse, IBM)
This session is a continuation of Session B42.

### B44    Running z/VM to Host Linux - Installation and Customization Part 4
####        (Richard Lewis, IBM and Chuck Morse, IBM)
This session is a continuation of Session B43.

**For additional sessions of an introductory nature,  please see the "B" (Back to basics) sessions..**

# V2 z/VM Networking and Connectivity TRACK

**V21 TCP/IP for z/VM Update**                          **(Romney White, IBM)**

z/VM V5.1 includes TCP/IP Function Level 510, a new level of the TCP/IP Feature that delivers significant new functions. This session gives an overview of these enhancements, as well as describing the VM TCP/IP product and the changes to it that were introduced in Function level 440 with z/VM V4.4.

**V22 VM TCP/IP Routing (Part 1 of 2)**                 **(Alan Altmark, IBM)**

This presentation discusses the theory and implementation of static and dynamic routing. The mysteries of the GATEWAY and BSDRouting PARMS statements for VM TCP/IP are revealed. *While the syntax may be VM, the concepts apply to all operating systems, including VSE and Linux.*

 The second half of this presentation is session V23.

**V23 VM TCP/IP Routing (Part 2 of 2)**                 **(Alan Altmark, IBM)**

This session is the continuation of session V22**.**

**V24   MPRoute Configuration for z/VM**                **(Miguel Diaz, IBM)**

MPRoute is the strategic routing server for z/VM TCP/IP.  A lot has been happening lately in the world of MPRoute and this presentation will focus on these changes.  Topics include z/VM TCP/IP server configuration to work with MPRoute, configuration of the z/VM MPRoute server for the various routing protocols it supports, and MPRoute server operation.  Discussion of the routing protocols themselves is limited to how they affect configuration and operation of the server.

   While knowledge of OSPF and RIP specifics are not required, a basic knowledge of routing concepts is assumed (and can be obtained at sessions V22/V23 - VM TCP/IP Routing).  Prior knowledge of z/VM TCP/IP or attendance at session B36 (z/VM TCP/IP Stack Configuration) is recommended.

**V25 Virtual Networking with z/VM Guest LANs and the z/VM Virtual Switch (Alan Altmark, IBM)**

Did you know that you can create virtual LAN segments that connect your z/VM guests together without the need for all those messy point-to-point connections? And did you know you can do that without creating new subnets? Come to this session to hear the latest on how, and when, to use z/VM Guest LANs and the z/VM Virtual Switch. We'll also talk about z/VM 5.1.0 support for IEEE Virtual LANs (VLANs) and Layer 2 networks.

**V26 Using IPWIZARD and IFCONFIG to Configure TCP/IP Connections (Miguel Diaz, IBM)**

In this session you will learn how to become a WIZARD at configuring TCP/IP connections. We will cover the new TCP/IP functions that came with z/VM V4.3. The new IPWIZARD function that allows you to quickly and easily do the base configuration as you first try and get TCP/IP running. The new IFCONFIG command that allows you to quickly and easily add new connections to your running TCP/IP stack.
These functions mean that you can get up and running quickly without have to learn the format of the z/VM TCP/IP configuration files. The IFCONFIG command allows you to display information about and make temporary dynamic changes to the TCP/IP configuration without stopping and restarting the TCPIP virtual machine. The command syntax is very similar to that of Linux, making skills more transferable..

**V27    High Availability and Automatic Network Failover using VSWITCH (Alan Altmark, IBM)**

z/VM V4.4 introduced significant new function. During this session we will look at one of those new functions, namely VSWITCH. VSWITCH allows you to do away with using a virtual router for your Linux farm and provides direct connection to physical LAN segments for all your guests. You can also design, configure and operate your network using VSWITCH to provide High Availability and Automatic Network failover. We will cover how to design and configure a network using VSWITCH that will survive a failover of a controller virtual machine and/or the failover of an OSA.

# V5  z/VM General Interest TRACK

**V51 The Evolution of IBM Mainframes and VM          (Jim Elliott, IBM)**

Many sites using or exploring Linux on zSeries are new to IBM mainframes or new to VM. This presentation will cover the history of IBM mainframes from the IBM 701 through IBM S/360 to IBM eServer zSeries and the new IBM System z9 and the parallel evolution of CP/67 to z/VM (with honorable mention of OS/360 to z/OS, DOS/360 to z/VSE and ACP to z/TCP).

The speaker has worked for IBM for over 32 years including stints as an MVT, VM/370 and DOS/VS systems programmer, IMS application developer and product manager for VM, VSE and Linux for IBM Americas. Today Jim is responsible for all the System z9 and zSeries operating systems in addition to being the Advocate for Infrastructure Solutions for IBM Canada. As a result, he has 'hands-on' experience with most of IBM's mainframes over that period.

### V52 z/VM Platform Update: Introducing z/VM V5.2

**(Reed Mullen, IBM)**

Catch the latest breaking news on z/VM product enhancements. This session will provide you a high-level overview of the new z/VM Version 5.2 product announcement. z/VM V5.2 offers new, leading edge virtualization capabilities and a pricing model that will help enterprises more easily exploit the on demand capabilities of IBM System z9 and eServer zSeries virtualization technology. This session also serves as an excellent launching point for your week of z/VM training, touching on many of the topics that will be discussed at length during the conference.

### V53 z/VM Platform Manager:  z/VM Direction and Discussion

**(George Madl, IBM)**

This session is an open dialog and discussion with IBM z/VM Product Owner and Platform Manager, to discuss the z/ VM role in the future.

On April 7, 2004 IBM announced z/VM V5.1, a new IBM VM operating system based on the new 64-bit z/VM z/Architecture.  On July 26, 2005, IBM announced the newest z/VM release - *z/VM V5.2 enhances scalability for virtualization on IBM System z9 and zSeries, including Linux guests*.   z/VM provides a highly flexible test and production environment for enterprises deploying the latest solutions for on demand business. Built upon the solid VM/ESA base, z/VM exploits the z/Architecture and helps enterprises meet their growing demands for multi-system server solutions with a broad range of support for operating system environments such as z/OS, z/OS.e,  OS/390, TPF, VSE, CMS, Linux on S/390, zSeries and System z9.

### V54  What IT Managers need to know about z/VM and the  Value of zSeries Virtualization Technology for Linux        (Reed Mullen, IBM)

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The IBM z/VM product is a key component in many of the Linux on zSeries success stories.  z/VM enables customers to realize significant cost savings and technology exploitation benefits when deploying Linux solutions on the mainframe.

This presentation is intended for an audience who  is not familiar with the capabilities of z/VM.  Virtualization technology concepts will be explained and specific value propositions for the Linux environment will be highlighted.  z/VM exploitation of zSeries hardware and facilities will also be noted (e.g., HiperSockets, Crypto, large real memory, FICON, etc.).  And, hear the latest how the recently-announced z/VM V5.1 extends zSeries on demand capabilities with Linux-related enhancements.   **For additional sessions of this theme, please check the "L" (Linux) sessions.**

### V55 The Latest and Greatest on z/VM Control Program (CP)   (Romney White, IBM)

The newest releases of z/VM include many improvements to the z/VM Control Program. These include new support for Linux guests, virtual networks, and guest connectivity, as well as technological advances for IBM eServer zSeries servers. Come to this session to hear about the recent innovations and enhancements to the z/VM Control
Program.

### V56 z/VM Device Support Overview
### (Chuck Brazie, IBM)

Come to this presentation to hear an overview of current device support available on z/VM V5.1.   The speaker will discuss Channel, Disk, Tape, and OSA technologies available for VM system I/O and guest operating systems running under z/VM. This presentation is also  well-suited for an audience new to z/VM.

### V57 Socket Programming
### (Will Roden, IBM)

Programmers are using the socket programming interface more now than ever. In this presentation, I will discuss how to program using the socket interface in C, REXX, and CMS Pipelines. I will also discuss some implementation details of socket enabled servers. Finally, we will review a popular sniffer program and other interesting Pipeline techniques.

# V6 z/VM System Management TRACK

### V61 System Management on z/VM                        (Christine Casey, IBM)
As more customers discover the benefits of z/VM virtualization technology and begin to deploy tens to hundreds virtual images, they will  need ways to easily manage their systems.  This presentation gives a general overview of the various systems management options available on z/VM today, including systems management enhancements for z/VM's newest release**.**

### V62 z/VM Resource Manager                           (Christine Casey, IBM)

The Virtual Machine Resource Manager (VMRM) provides functions to dynamically tune a z/VM system. This presentation discusses how the VMRM Service Virtual Machine can create a form of group scheduling by managing virtual machines into groups, or workloads, and how performance parameters are adjusted when there is contention for certain system resources. Learn about the latest enhancements and how you can use VMRM to help manage your z/VM system.

## V63 Configuring, Customizing, and Modifying your z/VM System without an IPL (John Franciscovich, IBM)

Configuring your VM system is easier than it's ever been. Most changes to your VM system configuration may be done dynamically without requiring a system outage. This session will provide hints and tips on exploiting VM CP configuration capabilities, including creating the system configuration file, defining IPL parameters, and dynamically adding, redefining, and removing resources from your CP configuration.

## V64 Simplified VM Startup Management with SYSVINIT: Linux-style Startup Management Comes to VM (David Boyes, Sine Nomine Associates)

A long-time need for VM has been a structured way of managing system startup w/o having a lot of VM-based knowledge. SYSVINIT provides a Unix-style startup method that allows administrators to control and manage that startup process in a more straightforward manner, and demonstrate some of the elegant methods and tools where CMS-based tools
can make life easier for both Linux and VM users. Come and find out how to make it easier to provide a controlled startup and shutdown method for your VM system .

## V65 Using z/VM in a SCSI Environment (Chuck Brazie, IBM)

This session will provide an overview of z/VM new native support for SCSI disks and how it can be used to install, IPL, and run your z/VM system in a SCSI-only environment.

z/VM V5.1 supports SCSI FCP disk logical units (SCSI disks) for both system and guest use. SCSI disks can also be used as emulated 9336 Model20 fixed-block-architecture (FBA) disks. Guests that support FBA disks (such as CMS, GCS, and VSE) also can use SCSI disks through the emulated-FBA support, without requiring their own SCSI support. VM's SCSI support allows a Linux server farm to be deployed on z/VM in a configuration that includes only SCSI disks. ECKD™ disks are no longer required. Installation of z/VM from DVD to a SCSI disk, IPL from a SCSI disk using Stand-Alone Program Loader (SAPL), and VM system dumps to a SCSI disk are supported. DASD Dump/Restore (DDR) services using SCSI disks are supported when DDR is running under CMS.

And, z/VM V5.1 includes the capability to install z/VM from a DVD to an ESS SCSI disk emulated as an FBA device or to a 3390 DASD. Installing from a DVD can significantly reduce the required installation media and allows you to install to a zSeries server using only SCSI disks.   Come hear the latest about z/VM SCSI support.

### V66   New z/VM Systems Management Products from IBM, Part 1
### (Tracy Dean, IBM)

With the continued growth of z/VM and Linux on zSeries, the need for systems and storage management tools on z/VM grows as well. Come here what IBM announced this year for tape management (including integration with DFSMSrmm on z/OS) and backup and restore services. Part 2 (Session V67) will cover archive functions and automated operations.

### V67   New z/VM Systems Management Products from IBM, Part 2
### (Tracy Dean, IBM)

With the continued growth of z/VM and Linux on zSeries, the need for systems and storage management tools on z/VM grows as well. Come here what IBM announced this year for archive functions and automated operations. Part 1 (Session V66) will cover tape management (including integration with DFSMSrmm on z/OS) and backup and restore services.


# V7  z/VM Security

### V71 z/VM Security and Integrity                        (Alan Altmark, IBM)

Current z/VM customers are familiar with the isolation, security, and integrity features that z/VM provides. However, many customers running Linux on IBM zSeries processors for the first time are new to the world of Virtualization and seek reassurance not only that multiple Linux servers can share hardware resources efficiently, but also comply with organizational IT security policies. This presentation is an overview of the security and integrity characteristics of the z/VM operating system when used to host virtual Linux servers on IBM zSeries servers.  Included will be an update on the progress of Common Criteria certification of z/VM Version 5 Release 1.

### V72 DirMaint Implementation and Configuration for z/VM V5.1
### (Gary Detro,  IBM)

*Attend this informational session and see the* step-by-step implementation process for IBM Directory Maintenance product (DirMaint for z/VM).  DirMaint is a Conversational Monitor System (CMS) application that helps you manage your VM directory.  Attendees will observe how DirMaint's command interface and automated facilities can simplify day to day handling of request for virtual machine creation, modification, and cloning.  Additionally, you will see how you can create additional virtual machines to assist or backup the primary directory administrator.

### V73 RACF Implementation and Configuration for z/VM V5.1
### (Gary Detro,  IBM)

*Attend this session and see the* step-by-step process of implementing Resource Access Control Facility (RACF) Feature for z/VM on your z/VM V5.1 system. This implementation overview provides the z/VM system programmer with a guided tour of the RACF Program Directory. Discussion of what optional steps really should be performed and more importantly how you perform those steps when implementing RACF 1.1.0 on your z/VM V5.1 system for the first time.

# V9 z/VM Performance TRACK

**V91 z/VM Performance Update                           (Dr. Brian Wade, IBM)**

The speaker will cover new developments in VM Performance. Topics include the latest z/VM releases and performance-related service. We will also look at some performance development in the area of Linux guest support.

**V92  Performance Toolkit for VM Installation and Configuration for**
       **z/VM V5.1**
                                                        **(Gary Detro,  IBM)**

The Performance Toolkit for VM is designed to assist operators and systems programmers or analysts to determine system bottlenecks and potential system problems regarding system performance. The full screen operator feature provides a facility for the management of daily operations of one or more VM systems. The performance-monitoring feature of the product provides real time performance monitoring which allows systems programmers to monitor system performance and to analyze bottlenecks. The Linux interface allows this product to extract performance data from all of your Linux images and display that information from a central web interface. Learn how to configure this pre-installed (priced, optional) feature of z/VM V5.1 for local management or via a secure web-interface.

**V93   Performance Toolkit for VM – Product Update**
**(Bruce Dailey, IBM)**

With the general availability of z/VM V4.4, there was a new choice in tools for managing VM performance. The Performance Toolkit for VM was introduced as a priced feature with z/VM V4.4.   With  additional enhancements in z/VM V5.1, Performance Toolkit replaced VMPRF and RTM.   This presentation will focus on the enhancements  to

Performance Toolkit for VM that are associated with z/VM V5.1 and the newly-announced z/VM V5.2. There will be a demonstration of this tool in the Product Expo area on Monday though Wednesday.

**V94   z/VM Guest Performance                                      (Dr. Brian Wade, IBM)**

How does VM impact the performance of a guest? This session will look at the factors that are involved with guest performance. This includes an overview of CP facilities to improve guest performance. This session will not be specific to any particular guest system. The speaker will describe cases where different guest operating systems behave differently.

**V95   A Beginner's guide to measuring and understanding z/VM Guest Performance (Chuck Morse, IBM)**

Whether performance is good or bad, it is important that installations running Linux under z/VM understand the key factors that influence the performance of guests on a z/VM System.  This presentation will look at the key resources (storage, processor and I/O) and illustrate, using the Performance Toolkit for VM, how to identify when these resources are overcommitted.  Options for reducing contention for these resources will also be discussed.

**V96 Monitoring VM IP Stack for Performance and Control ( Laura Knapp, IBM)**

As VM grows in your environment you need to keep it up and running. Many tools exist that help you understanding the health and well being of your VM system. This session will show you the key elements to monitor in VM and the impact of not monitoring those elements.

**V98   Performance Toolkit for VM   - Hints and Tips      (Bruce Dailey, IBM)**

Performance Toolkit for VM is a powerful tool from IBM for monitoring z/VM system performance.   Come to this session to learn some uses and configuration hints to help you realize the full potential of this tool.

## Linux on zSeries Tracks:  Basics, General Interest, Installation, Networking, Applications and Application Development, User Experiences, Systems Management and Performance, Storage

# Linux on zSeries Basics

## B50   LAB:  Linux for Beginners Hands-On Lab Part 1
*Neale Ferguson, Sine Nomine Associates*

What is this thing called Linux? How is it organized? What are its key technologies? How do you start using it? These hands-on lab sessions are designed to allow you to answer these questions.

If you are a Linux and UNIX neophyte who would like to start down the Linux path, then plan on attending these sessions. If you are familiar with UNIX already then these labs are probably not for you. This session is continued in sessions B51 and B52.

## B51   LAB:  Linux for Beginners Hands-On Lab Part 2
*Neale Ferguson, Sine Nomine Associates*

This is a continuation of session B50.

## B52  LAB:  Linux for Beginners Hands-On Lab Part 3
*Neale Ferguson, Sine Nomine Associates*

This is a continuation of session B51.

## B53   Linux for S/390 System Management for the Mainframe System Programmer - Part 1
*Mark Post, EDS*

More and more, mainframe systems programmers are being asked to install and manage Linux/390. They have years of experience in installing and managing 'traditional' IBM mainframe operating systems such as MVS and VM, but they don't know where to start with Linux for S/390. Installation is covered by other sessions, so this one will concentrate instead on 'translating' typical system management tasks to the Linux for S/390 environment by comparing and contrasting the familiar with the new.

## B54   Linux for S/390 System Management for the Mainframe System Programmer - Part 2
*Mark Post, EDS*

This is a continuation of session B53.

## B55   NFS Introduction
*Neale Ferguson, Sine Nomine Associates*

This session will discuss the use of Linux as a network file server. With its popularity and pure multiprocessing design it make a very fast and reliable file server. Installation and configuration will be explained as well as a look at some of the workings of RPC and Portmapper. A comparison of differences between version 2 and version 3 will be given as well as a brief look at the version 4 implementation.

Note: This session will start at 8:00 AM.

## B56    zSeries Linux Planning: Where to begin?
*John Schnitzler, IBM*

This short session will address some of the basic planning topics that you should look at when considering Linux on zSeries. This session will be used to spark interest in other in depth presentations being given during this conference.

Note: This session will start at 8:00 AM.

## B57    A Novices Guide to the Mainframe
*Ed Gauthier, IBM*

<span style="color:red">Are modern applications like Linux and Java based workloads being excluded from your mainframe because your CIO or other C level executive just doesn't understand modern mainframes? This presentation is designed to show executives with little or no mainframe background the value and benefits of hosting mission critical workloads on IBM System z9 ™ and eServer ™ zSeries ® systems. The benefits of modern mainframe scalability, security, cost of operation, flexibility, and virtualization are highlighted.</span>

Note: This session will start at 8:00 AM.


# Linux on zSeries General Interest

## L11    Linux and Open Source: The View from IBM
*Jim Elliott, IBM*

Linux and Open Source are game-changing technologies.
Jim will provide a review of Linux and Open Source from IBM's point of view covering:

* Overview, Value and Marketplace: A brief update on Linux and Open Source and the value to customers
* Usage: How Linux and Open Source are being used by customers today and our view of the future
* IBM and Open Source: How IBM is using Open Source software internally and IBM involvement in the Open Source community

## L12    Linux Platform Options – Selecting Linux on IBM System z9 and IBM eServer zSeries
*Jim Elliott, IBM*

Datacenters planning to adopt Linux have a key architectural choice to make in designing large-scale implementations. Is the best approach to running Linux scale-out with rack-optimized servers, to scale-up with large SMP servers, or use virtualization facilities to run many images on a single server? In this session, Jim will examine the different options and their respective advantages and disadvantages and discuss some guidelines for making this critical choice based on workload and application requirements. For many users, Linux on IBM System z9 or IBM eServer zSeries may be the optimal choice. Jim will describe how Linux on zSeries, in combination with z/VM, will provide a robust Linux environment which integrates well with z/OS, z/TPF and z/VSE.

## L13    What's New with Linux on IBM System z9 and zSeries?
*Dr. Klaus Goebel, IBM*

Get the latest news about Linux on IBM System z9 and on IBM eServer zSeries, the status of the Linux kernel 2.6 distributions and on applications and solutions like WebSphere, Domino, DB2, Oracle, SAP, Tivoli and lots more. Things are changing fast as IBM expands its commitment to Linux. This session

will provide an overview of new products and services for Linux on System z9 and on zSeries including the latest on our distribution partners Red Hat and Novell.

### L15 Replacing Windows Servers with Linux
*Mark Post, EDS*

Many companies are looking to reduce costs and improve reliability. One way to accomplish this is to replace Microsoft Windows servers with Linux. This session will provide an overview of the Open Source software packages that can be used for that replacement. We won't get into detailed migration/configuration issues due to the amount of material to be covered. An indication of relative ease/difficulty will be provided.

### L16 Printing with CUPS
*Dr. David Boyes, Sine Nomine Associates*

The Common Unix Printing System is now the de-facto printing subsystems with most of the major Linux distribution, but it's use and configuration are still a mystery to new and old Linux users alike. This session will lift the veil of secrecy and show you how to set up print servers with CUPS, do queue management, form definitions, printer descriptions, and much, much more...

### L17 Enhancing the scalability of SUSE Linux Enterprise Server 9: Execute-in-place technology for z/VM DCSS
*Martin Kammerer, IBM*

This session will cover how to use z/VM DCSS to extend scalability of SUSE Linux on z/VM. Running multiple active Linux instances concurrently on z/VM can lead to high memory requirements due to large memory footprints of each individual server. Using z/VM DCSS, these memory requirements can be reduced. This session introduces to execute-in-place technology in Linux for zSeries, and shows how to use this technology in SUSE Linux Enterprise Server 9.

### L18 News on the Linux kernel side: Important changes for zSeries in 2.6
*Dr. Holger Smolinski, IBM*

The Linux kernel is the central part of every Linux system. This presentation will focus on recent Linux Kernel changes that have an influence on the zSeries. The main focus is on changes made between the 2.6 and 2.4 kernel and zSeries-relevant kernel changes which happened in the last year. Areas of interest are CPU cycles, memory consumption, scalability and usability.

### L19 Supported Hardware Configurations
*Dr. Holger Smolinski, IBM*

This presentation provides insight into what hardware configuration is supported with what Linux distribution. The focus is on the discussion of support for zSeries processors, crypto and network adapters, as well as DASD and tape attachments for both, Escon/Ficon and FCP channels.

### L20 Introduction to Open Source Licenses
*John Anderson, IBM*

Contrary to popular perception, most open source code is licensed software. There are a whole variety of open source licenses that exist today. This session will compare and contrast the key terms in common open source licenses. The focus will be on

implications for users and software asset managers as opposed to developers/distributors. If your organization is using, or considering using, open source products, and you are unclear as to your license obligations for those products, this session is for you.


# Linux on zSeries Installation

## L31    LAB:  Linux for S/390 Installation – Part 1
*Richard Lewis and Chuck Morse, IBM*

Linux for S/390 has generated a lot of excitement among S/390 customers. However, for many this is a new and strange environment. This workshop will provide an opportunity to install and configure Linux for S/390 in a z/VM virtual machine. The hands on portion of this workshop will be self-paced, and result in a running Linux for S/390 system and (optionally) the Apache web server, Samba, a Domain Name Server (BIND), a firewall and the KDE desktop. The goal is to equip each attendee with the skills required to return home and install Linux for S/390 using the distributions from Debian, SUSE or Red Hat, or the binary objects available for download from the Marist College web site.

## L32    LAB:  Linux for S/390 Installation – Part 2
*Richard Lewis and Chuck Morse, IBM*

This is a continuation of session L31.

## L33    LAB:  Linux for S/390 Installation – Part 3
*Richard Lewis and Chuck Morse, IBM*

This is a continuation of session L31.

## L34   Linux in an LPAR - Here's How It's Done
*Stanley Jones, Jr, IBM*

IBM S/390 or zSeries processors have been capable of running Linux since December 1999. But, if you were asked to evaluate or actually implement Linux in your S/390 environment, would you know where to start? Or, maybe you have actually installed Linux on a desktop system or another server. Do you know what would be required to accomplish this on an IBM zSeries server?  Linux on zSeries servers can run natively or virtualized using LPAR or z/VM. This session will focus on running Linux in an LPAR without z/VM as a host. There will be a discussion of the planning that should proceed the actual installation process. Then, the presenter will walk through an actual scenario for installing Linux in an LPAR using one of the available Linux for zSeries distributions as an example. This session will be very helpful in understanding how an LPAR running Linux can be integrated into your installation.

# Linux on zSeries Networking

## L41   Networking with Linux on zSeries - Part 1
*Dr. Holger Smolinski, IBM*

Linux on zSeries offers a lot of possibilities to get your system connected to a network. In this presentation we will give an overview of all the network devices supported by

Linux on zSeries. Examples will show how to set up networking on your system using IUCV, CTC, OSA, VM GuestLAN and HiperSockets.

Apart from showing how to statically configure your network during boot time we will also demonstrate dynamic network configuration on a running system.
In these examples, configuration steps will be presented for both Linux 2.4 and Linux 2.6 based distributions. Major differences between Linux 2.4 and Linux 2.6 will be outlined. Special emphasis will be laid on the migration from proc-fs to sys-fs.

Note: This session will start at 8:00 AM.


## L42   Networking with Linux on zSeries - Part 2
*Dr. Holger Smolinski, IBM*
Linux on zSeries provides a variety of technologies to ensure reliability, availability and serviceability (RAS). Using these technologies it is possible to implement any network topology, including both virtual intra-machine as well as inter-machine connections. Examples will show how to set up advanced networking and how to seamlessly integrate a zSeries system into a network. Tools and options such as IP address takeover, VIPA, Source VIPA, ProxyARP and HiperSockets Network Concentrator will be presented. Configuration steps will be shown for both Linux 2.4 and Linux 2.6 based distributions.


## L43   Communication Controller for Linux (CCL) on zSeries: An Introduction
*Alfred B. Christensen, IBM*
The new Communication Controller for Linux (CCL) on zSeries program product allows you to continue using selected NCP functions, but without using the IBM 3745/46 hardware platform.  CCL is a program product that emulates the IBM 3745 hardware so that the NCP can run on top of CCL in a Linux environment on the zSeries hardware. This session will introduce the CCL technology, its characteristics, and its limitations.


## L44   Communication Controller for Linux (CCL) on zSeries: How to Implement
*Alfred B. Christensen, IBM*
This session will discuss how to plan for a migration a migration of your NCP to the IBM Communication Controller for Linux on zSeries technology.  The session will explore topics such as:
- How to determine if CCL can be used for all existing IBM 3745/46 workload or if parts of that workload needs to remain on IBM 3745/46 hardware
- CCL zSeries hardware requirements - OSA ports, CPU capacity, memory, etc.
- CCL serial line connectivity - aggregation layer router
- Selected CCL implementation scenarios for SNI and Boundary Function workload
- A suggested set of migration activities


## L45   A Better Network MouseTrap: Building Better Network Infrastructure for Shared Linux/CMS Environments
*Dr. David Boyes, Sine Nomine Associates*
This presentation takes a peek at some of the significant network enhancements, and proposes a reference architecture for combining CMS and Linux infrastructure within the

same system. We discuss a network architecture and IP addressing scheme that makes use of VSWITCHes, VLANs, and Linux-based firewall capability and guest LAN segments that allows easy expansion of CMS and Linux services.

### L46   Network Services Monitoring with Linux for zSeries

*Rich Smrcina, VM Assist, Inc.*

Networked systems perform critical tasks for businesses.  It is important to know when these systems are unavailable or are running in a degraded state.  Performance monitors tell you how well a system is running, a network services monitor can tell you whether a system is running.

This session will introduce the Hobbit Network monitor, an open source package that can monitor systems and services availability.  The installation, configuration and administration of Hobbit will be discussed as well as integration into an existing zSeries infrastructure.

## Linux on zSeries Applications and Application Development

### L51   Building Linux-based Appliances for VM

*Dr. David Boyes, Sine Nomine Associates*

In a lot of cases, building a dedicated Linux server instance to support a specific function is a quick and easy way to solve a problem. This presentation covers a way of thinking about building these appliances, design steps of building and some of the tools are available for manipulating data in the VM and Linux environment, and some observations on known tricks that can make this easier to do.

### L52  IBM Middleware for Linux on zSeries

*Ingolf Salm, IBM*

IBM's WebSphere Application Server with connector software provides an enhanced e-business application environment. Mainframe customers can benefit from the integration of Linux. IBM has also made available a wide range of middleware in the WebSphere and DB2 families, as well as IBM Tivoli's system management products and more. Come and get an overview of IBM's middleware on Linux running on zSeries and S/390.

### L53   Mono - .NET framework for Linux

*Neale Ferguson, Sine Nomine Associates*

Mono, the .NET framework for Linux, is a comprehensive open source development platform based on the .NET framework that allows developers to build Linux and cross-platform applications with unprecedented productivity. Mono includes a compiler for the C# language, an ECMA-compatible runtime engine (the Common Language runtime, or CLR), and class libraries. The libraries include Microsoft .NET compatibility libraries (including ADO.NET and ASP.NET), Mono's own and third party class libraries.

Note: This session will start at 8:00 AM.

### L54   Release 7 Domino for zSeries Linux

*Mike Wojton, IBM*

This session will update you with the latest information about Release 7 Domino for zSeries Linux.  We will discuss the latest performance information for both native and running with z/VM.  We will look at both IBM's rollout of Release 7 for zSeries Linux and Customers deployment.  This session will review  the new features with Domino Release 7 and how it exploit both the hardware and software on zSeries Linux.  Come and see what the excitement is all about!

## L55   How to setup Linux and z/VM for optimum performance with Oracle Databases

*Denny Dutcavich, IBM*

This session will cover the best practices for implementing Oracle 10g and Oracle9i on Linux on zSeries. Configuring, monitoring and tuning z/VM and Linux are critical to achieve high performance levels of the Oracle database. Information presented is based on recent testing done at IBM, the Oracle porting process and on customer experiences using the Oracle database.

## L56   Server Consolidation to zSeries Linux with Oracle 10g and 9i

*Denny Dutcavich, IBM*

The Oracle9i database has been available for Linux on zSeries since August, 2002. New to Linux on zSeries is Oracle Database 10g. In addition to the database are two application suites, the Oracle Collaboration Suite (OCS) and the Oracle E-Business Suite (EBS).  During this session, the oracle products available for Linux on zSeries as well planned technologies will be discussed. The discussion will also focus on what should be considered when selecting Oracle products to consolidate to Linux on zSeries.

## L57  Architecting VM and Linux for WebSphere

*Steve Wehr, IBM*

An introduction to setting up an infrastructure that will allow WebSphere applications to run efficiently on Linux for zSeries. This infrastructure consists of LPARs running VM, running multiple Linux guests, each running WebSphere, running your applications. Boy... that's a mouthful! This presentation tells you how to start setting up such an architecture, how to make these parts work together optimally, and how to allocate memory between all the systems involved.

## L58  How to install WebSphere once and share it among many Linux guests

*Steve Wehr, IBM*

One of the strengths of zSeries as a platform for Linux is the ability to manage many Linux images centrally. But as the number of Linux images grows, some of the typical problems of large server farms emerge. Software installed on the Linux images must be serviced or updated, and there is no way to do this other than servicing each image as if it were a standalone server. But zSeries has the ability to share file systems as VM minidisks, so there ought to be a way to install WebSphere once and use that installation for many other Linux images. Attend and find out how!

## L59 Architecting Highly Available solutions for WebSphere on Linux

*Steve Wehr, IBM*

You are deploying a key Linux application, now how do you ensure that it will remain up and running through planned and unplanned outages? This presentation shows a series of High Availability reference architectures for Linux on zSeries, including Linux applications, HTTP, WebSphere, DB2, Oracle, DB2 Connect, and DB2 on z/OS.


# Linux on zSeries User Experiences

## L71  zSeries Linux Customer and IBM Open Forum
*Customer Panel*

This session will bring together featured customer speakers and IBM zSeries Management to review and answer questions about Linux on zSeries.  All customers are welcome to hear what these customers are doing on zSeries Linux and share their own experiences. The open forum will also give attendees the opportunity to discuss or ask questions about Linux on zSeries. Scheduled customer panel members includes representatives from Acxiom, Baldor, Citigroup, Fidelity Investments, SuperValu and Wells Fargo Bank.
This session promises to be fun, entertaining and have it's share of surprises.

Hosted by:   John Sutera, IBM ATS Technical Support Mgr.
Sponsored by:  Doris Benson, IBM America's Business Unit Executive, zSeries Linux Sales.


## L72    The maturation of Linux on Z, what happens after things are going well on the initial project - from a Sysprog's Perspective
*Paul Giordano, Acxiom CDC*

We started out to save some significant money on a sizeable WebSphere
application, and the challenge was met and satisfied. But what happens
when applications architects get wind of a new way to run serious
zSeries application workloads in a much more cost effective environment?
Well, it's not exactly chaos, but it can certainly be a challenge. We'll
talk about security, cross system scheduling, networking,
administration, provisioning, teaming, and some of the other things that
you get to do when things actually go right and everyone starts jumping
on the bus, and you really started with a minivan.

## L73  Virtualization in the Real World - zSeries Linux Customer Experience
*Mike Reeves, Fidelity Investments*

 The speaker will present a customer perspective on zSeries virtualization technology. He'll discuss how to take advantage of zSeries to reduce cost, simplify infrastructure and determine when zSeries virtualization makes sense. Topics that will be covered are:
- The zSeries Linux implementation formula
- UNIX versus z/VM and Linux
- Infrastructure reduction
- Grid on zSeries
- Configuration - test, development, QA and production

- Support model
- A practical example
- TCO model
- Workload management with z/VM

## L74 Penguins Board the Stagecoach for the Linux Frontier: A User Experience with Linux on zSeries
*Marcy Cortes, Wells Fargo Bank*
Marcy Cortes, an operating systems engineer from Wells Fargo, will discuss their experiences and success with running a penguin flock on their zSeries mainframes. This historical ride will take you from inception to acceptance and success. You will hear about how they took mainframe Linux from initial proof of concept to being a strategic platform choice for several important banking and infrastructure applications. She will discuss their configurations, systems management issues, political challenges, and the variety of penguins deployed.

## L75 User Experience with Linux on zSeries at Citigroup
*Aaron Graves, Citigroup*
Aaron Graves, a senior vice president at Citigroup, will discuss why Citigroup decided to go with Linux on zSeries and stay on the mainframe. You will hear how their SUSE system running DB2 Connect and S2 Systems'OpeN/2 enterprise payment software has helped automate their transaction processing. If you have made an on-line purchase, you have probably come through this Linux system.

## L76 Management of Linux Servers under z/VM - a Customer's Perspective
*Mike Thompson, SuperValu*
This session will provide an overview of how SuperValu manages Linux servers under z/VM from a systems programmer perspective. The topics to be discussed are:
- What does SuperValu run on zVM/Linux
- Software Used
- Configuration - CEC and LPARs
- Monitoring - Real-time and Trending
- Cloning Servers
- zVM/Linux Startup
- Disaster/Recovery Backups

Note: This session will start at 8:00 AM.

## L77 Growing the business without growing I.T.
*Mark Shackelford, Baldor Electric*
Mark Shackelford from Baldor will discuss how they are using a z990, z/OS, Linux on zSeries and SAP to run their entire global business.

# Linux on zSeries Systems Management and Performance

### L81  Low-Cost File Level Backup for Linux on the Mainframe: A Backup Appliance for Linux on zSeries

*Dr. David Boyes, Sine Nomine Associates*

This session describes a method for doing file and DR backups for Linux systems to VM and/or z/OS-controlled tape drives without connecting tape drives directly to Linux. The session describes Linux tools, z/OS and VM configuration, interaction with SMS on both platforms, and includes a configuration that can back up virtual machines and discrete machines using the existing mainframe tape resources.

### L82  Linux on zSeries Performance Update

*Martin Kammerer, IBM*

This presentation gives an introduction into general aspects of zSeries hardware. It then focuses on specific Linux on zSeries performance topics. The IBM Boeblingen Linux performance team worked on improvements from SLES8 SP2 to SLES8 Submarine and on comparisons of Linux kernel 2.6 versus 2.4 (SUSE Linux SLES9 versus SLES8 Submarine). The results of this work will be presented along with useful hints and tips to optimally exploit the capabilities of Linux on zSeries.

### L83  Performance Tuning for Linux on zSeries

*Martin Kammerer, IBM*

This session is focused on tuning recommendations for Linux on zSeries. It covers recommendations not only limited to the Linux kernel but also for system setup, the gcc compiler or Java. It's based on frequently asked questions about Linux on zSeries performance.

### L84  IBM's OMEGAMON for Linux and VM Product Overview

*Laura Knapp, IBM*

Learn about IBM Tivoli's OMEGAMON® (formerly Candle) solution for managing Linux on the mainframe. IBM Tivoli OMEGAMON XE for Linux is designed to allow efficient resource allocation, prevent disk outages, avoid bottlenecks and deploy on Linux on a traditional platform that is easily scalable and well-supported. This presentation shows how IBM's solution allows optimal management of the Linux environment on zSeries.

### L85  So Now you have a Production zLinux Environment, How do you manage/monitor it?

*Mike Wojton and Richard Lewis, IBM*

This session will look at how IBM monitors and manages it own production zLinux Domino environments.  This environment includes both native zLinux LPARs and guests under VM.  We will look at how the various performance data from VM, zLinux and Domino are collected and merge together to provide an understanding of how the hardware, OS, and applications are performing.  We will also show examples from a production Customer environment with 65K users under zLinux!

### L86 Capacity Planning and Sizing Overview for Linux on zSeries

*Dennis Mosby, Gretchen Frye and Geoffrey Steele, IBM*

The consolidation of multiple Unix/Linux servers on Linux on zSeries takes careful planning both before and after the consolidation. The first part of this overview will

discuss the benefits of consolidation, workload characteristics, available sizing tools, and input requirements for sizing the consolidation.

The second part of this overview, L87, will give an introduction to the z/VM and Linux capacity planning process that should be done on a regular basis after consolidation.

Note: This session will start at 8:00 AM

## L87 Capacity Planning for Production zVM / Linux Applications
*Eduardo Oliveira, Gretchen Frye and Geoffrey Steele, IBM*
After the consolidation of Unix/Linux servers on Linux on zSeries, what then?  This presentation will discuss input data collection and how to use z/VM and Linux capacity planning tools to meet current and future application requirements.

Note: This session will start at 8:00 AM

## L88   Linux Systems Management on zSeries
*Joachim Schmalzried, IBM*
zSeries has unique Linux management capabilities that are integrated into z/VM and z/OS products and tools.  This session covers:
   – Console automation and Linux boot with Tivoli System Automation for z/OS or z/VM PROP
   – z/VM toolkit and z/OS RMF for Linux performance monitoring with 3270, Java, and browser user interfaces
   – Application High Availability with Tivoli System Automation for Multiplatforms (Scenarios: Apache and mySAP)
   – How to notify TEC about cluster and application state changes and automation and operator actions
   – How to use Tivoli Intelligent Orchestrator and Provisioning Manager to dynamically provision Linux systems running mySAP
   – IBM Director

## L89      Linux for zSeries Performance Tools
*Martin Kammerer, IBM*
In this session, tools for performance measurement for Linux on the mainframe will be explained. Basic performance tools like top, netstat and sysstat are mentioned as well as some host specific tools for zSeries operating systems which are often used together with Linux for zSeries on the same box (z/OS, z/VM). This speaker does not stop with explaining the tools and some of their useful features, but also tries to give the Linux for zSeries administrator a base understanding of what's happening on the mainframe, as some base understanding of system architecture is still needed. Performance related open standards (IETF SNMP, DMTF CIM) are shortly introduced.

# Linux for zSeries Storage

## L91   FICON FCP For Linux on zSeries Planning and Implementation
*Brian Hatfield, IBM*
Already have FICON channels. Already have Linux. Now find out how to exploit FICON with Linux to access SCSI-FC attached storage. From a zSeries perspective get the information to plan and implement FICON FCP channels for Linux on zSeries in a SAN

FC fabric. Understand the HCD coding, usage and Linux mapping concepts. Discuss various security attributes of the fabric that can be impacted by zSeries FCP channels: multipathing, channel sharing, zoning and lun masking.

### L92   FCP for zSeries - Linux Troubleshooting
   *Martin Peschke, IBM*
This session provides an overview of the different troubleshooting facilities of the Linux for zSeries FCP device driver. Since improving these facilities has been a main focus of the zfcp developers in 2005, several changes and enhancements will be demonstrated in this session, including revamped traces, cleaned up messages, new performance statistics and other useful aids. The presentation also covers common pitfalls and best practices. It is targeted at administrators who want to know what is going on under the covers, or who, in case of FCP problems, need to know which Linux sources of information they need to tap.

### L93   FCP Channel Virtualization in a Linux Environment
   *Martin Peschke, IBM*
FCP Channel Virtualization enables zSeries customers to use industry-standard Fibre Channel SAN access control (zoning, LUN masking, LUN mapping) by providing all Linux instances sharing an FCP channel with a unique SAN identity. It permits full SCSI device sharing through shared FCP channels, and therefore allows customers to reduce the complexity of their SAN cabling. FCP Channel Virtualization is the most important enhancement since the initial release of the FCP channel, because this new capability removes major restrictions only applicable to virtual servers.
This presentation introduces FCP Channel Virtualization and demonstrates its use in a Linux environment.

# z/VSE Sessions: Basics, Connectors and General Interest

## z/VSE Basics

### B71  VSE/POWER  - From Basic POWER to z/VSE
   *Steve Gracin, IBM*
Some functions in POWER from its beginning like QUEUE and DATA allocation and access have basically always been the same, we'll look at this. Then move on to features like PNET and Shared Spooling. Finally we will take a look at a few line items changed in POWER to make life easier in z/VSE.

### B72   VSE/VSAM Basics
   *Tom Grossheider, IBM*
An Introduction to the VSE/VSAM Components, Data Organization, and Catalogs.

Note: This session will start at 8:00 AM.

# z/VSE Connectors

## E10  VSE Connector Technology Overview
*Wilhelm Mild, IBM*

Easy access to VSE resources from remote platforms, standard interfaces and the integration of VSE processes in modern distributed environments was the main focus of VSE development in the last releases. With z/VSE 3.1 the technology evolved to a mature level of modernization. Incremental data transfer, MQ Series Enablement, VSAM to DB2 synchronization, these are some of the major functions that can be used without modifications to your core VSE applications.

During the conference, this technology can be implemented in our three independent workshops.  In these 'hands-on' workshops, you'll be able to do a step-by-step setup, and then customize access to VSE resources from another platform.  We'll use IBM-provided samples and you'll see how to take advantage of them.  The VSE workshops include these sessions:
E11 - Lab 1: access your VSE data and resources from a remote platform
E12 - Lab 2: synchronize your VSAM with flat data or a DB2 database on a remote platform
E13 - Lab 3: use a variety of techniques to access CICS applications and integrate them in distributed processes

## E11  LAB: Access VSE data from remote systems
*Wilhelm Mild and Ingo Franzki, IBM*

Installation/implementation of the Java-Based Connector services will be the focus in Workshop #1.  You'll do a guided, step-by-step setup and customization of VSE e-business Connectors to access VSAM data and other VSE resources. Use the free of charge graphical interface to access VSE resources.

## E12  LAB: VSE applications working with remote data
*Wilhelm Mild and Ingo Franzki, IBM*

Installation/implementation of the VSAM Redirector will be the focus of Workshop # 2. The VSAM Redirector enables you to transparently access flat data or databases (i.e. DB2) on a remote system from your core VSE applications, without any modification to the application.

## E13  LAB:  CICS access from remote platforms
*Wilhelm Mild and Ingo Franzki, IBM*

Installation/implementation of CICS remote access is the focus of Workshop # 3.  You'll be able to access CICS applications and data from remote systems.  We'll set up both a VSE and a workstation environment for this access. The most modern possibilities can be implemented, like Web Services and CICS Transaction Gateway (CTG).

## E14  VSE Workshop Wrap-up Discussions
*Wilhelm Mild and Ingo Franzki, IBM*

We'll review results from each of the 3 workshops, answer questions, and review your own ideas for modernizing your specific IT environment.

### E15    Enable DB2 VSE applications to access a remote DB2 UDB database
*Wilhelm Mild, IBM and Oskar Lang, Alcad*

The session will cover the possible DB2 VSE and DB2 UDB interoperability scenarios. The user experience part in this session will show the required setup for VSE, the application and DB2 on VSE for using a VSE application to access DB2 UDB on Linux on zSeries. The measured performance difference regarding DB2 access and platform difference MP3000 versus z890 will be part of this presentation.

### E16    Options for Interoperability between CICS and Your Network
*Wilhelm Mild, IBM*

Learn how to implement modern ways to access and interact with your proven VSE CICS applications.  VSE can take part in modern, open solutions based on XML data interchange and Web services standards. Learn how to take advantage of the advanced functions available with z/VSE and CICS Transaction Server for VSE/ESA.  There is always a possibility for global solutions and integrated processes with CICS/TS on VSE.

### E17     User Experiences with VSE Connectors
*Wilhelm Mild, IBM and Oskar Lang, ALCAD*

Discover how other customers have implemented mixed, hybrid solutions involving VSE and other platforms. This session will discuss actual scenarios and the steps taken to create modern solutions that exploit data interchange in a distributed environment. Oskar will show how they used modern development tools and Business Intelligence solutions with DB2 on VSE and Linux on zSeries.

### E18   VSE Gets Connected with zSeries
*Steve Gracin, IBM*

Moving to the latest release a VSE on a zSeries processor what are my connectivity options? We will look at VSE enhancements at the VSE/ESA 2.7 level and beyond that allow VSE to make use of the latest zSeries hardware connectivity options, as well as connect with z/VM and zLinux. This session will cover the software and hardware planning required to take advantage of Virtual LANs, HiperSockets Adapters, and OSA-Express cards to integrate VSE, z/VM and Linux.

### E19   Implementing Web Services in VSE
*Ingo Franzki, IBM*

Come and hear the latest news about Web Services (SOAP) in VSE.
This session gives hints and tips how to implement WebServices with VSE in order to interact or use Web Services with other platforms like Apache SOAP (Java) and Microsoft .NET. We will discuss the use and creation of WSDL (Web Service Descriptions) on VSE and other platforms.

## z/VSE General Interest

### E 41   z/VSE - Does life begin at 40?
*Jerry Johnston, IBM*

This session is a celebration of VSE.  It covers the past, present, and future of VSE. Jerry will chronicle the remarkable 40 year history of  VSE,  review today's exciting z/VSE V3.1, and discuss the strategy for VSE.

### E43    z/VSE 3.1.0
*Ingolf Salm, IBM*

VSE/ESA V2.5 and V2.6 introduced e-business connectors and SSL to securely integrate VSE resources into e-business applications. With VSE/ESA V2.7, HiperSockets improves connectivity between VSE and Linux on the mainframe. The newest VSE release, z/VSE 3.1, provides connectivity to SCSI disks.  Ingolf gives an overview of the z/VSE 3.1 functionality.

### E44   z/VSE Hardware Support
*Ingolf Salm, IBM*

One of the major line items in z/VSE 3.1 is the support of SCSI disk devices. Ingolf will discuss VSE's implementation in detail and provide information on z/VSE configurations and commands.

### E45    z/VSE V3.1 and SCSI Performance Update
*Ingo Franzki, IBM*

This session will give you the latest information on z/VSE V3.1 performance. What are the performance implications of SCSI? Hear information that may be useful in managing your own overall performance, including distributed environments.

### E46    Installing VSE from the Internet
*Ingo Franzki, IBM*

This session will provide an overview of ShopzSeries and how it can be used by VSE customers. It shows how you can order products and service (PTFs) for via e-delivery (Internet download), on CD-ROM or tape. It covers not only how to place an order and download the products and service ordered, it also tells you what to do later on with the delivered images or PTFs in order to install on VSE.

### E47    New VSE system diagnosis tool: VSE Health Checker
*Ingo Franzki, IBM*

The VSE Health Checker is a java-based system diagnosis tool. It collects relevant data from your VSE system, displays the data, and analyses it based on rules. The health checker uses only VSE base functions such as console commands, jobs, CICS transactions and members to collect the data. This presentation includes a live demo of the VSE Health Checker tool, and shows you how to adapt this new diagnosis tool and its rules to get the best out of it.

### E48   VSE Security Concepts
*Ingo Franzki, IBM*

This session gives you an overview of the security concepts of VSE/ESA. This includes CICS security, batch security, connector and network security. It will throw a light on the RACROUTE interface, as well as security concepts (like single signon) in open and heterogeneous world, where VSE in connected to everyone and vice versa.

### E49  VSE Hot Topics
*John Lawson, illustro Systems International*

What are the "HOT" VSE Topics? When we say "hot", we mean the latest tips and techniques for improving performance and getting the most out of your VSE system. You will hear about some special tips to help performance on your system, commands to find out more about your system, some useful new functions in the latest releases of VSE/ESA and z/VSE that you may have missed, and more.
p.s. Bring your own HOT tips to share!

### E50  CICS TS for VSE/ESA Hot Topics
*John Lawson, illustro Systems International*

What are the "HOT" CICS TS Topics? When we say "hot", we mean the latest tips and techniques for managing, improving performance and getting the most out of your CICS TS system. You will hear about some special tips in handling resource definitions, monitoring performance and managing problems to help get the most out of your CICS TS system.
p.s. Bring your own HOT tips to share!

### E51  CICS TS for VSE/ESA Performance Tips/Tuning
*John Lawson, illustro Systems International*

How well is your CICS TS system running?  Our speaker has a long history in conducting performance analysis and tuning of CICS TS systems on VSE.  He has also taught education classes to VSE systems support people to help them tune their own CICS TS systems.  Come hear the latest in performance tips and techniques.

### E52  Problem Determination for VSE Part 1
*Tom Grossheider, IBM*

"*The System is down*"; words to strike fear into the heart of the most intrepid Systems Programmer. This session provides a cookbook approach to figuring out what is really going on and preventing you from losing precious time spinning your tires in deep mud. Using excerpts from actual customer problem documentation, basic dump reading skills, and a variety of VSE console commands, we provide a step-by-step process to identify and analyze a range of abnormal VSE system conditions including waits, loops, and abends. It is designed for everyone from novices to "old salts".

Note: This session starts at 8:00 AM.

### E53  Problem Determination for VSE Part 2
*Tom Grossheider, IBM*

Part 2 of this series brings us deeper into the dark recesses of System diagnosis for VSE/ESA. Yes, we get to look at dumps, and machine code, and hardware interrupts. This ride can be intense. It is not recommended for young children, pregnant mothers or people with back problems.

### E54  Bringing You Up to Date with zSeries 890 Hardware
*Mike Augustine, IBM*

There are changes afoot in zSeries that a VSE User should know about. This presentation is an overview of the latest up-to-the-minute news that includes two updates to the z890 since the last zSeries Expo. Find out how zSeries fits into your future whether you want to run traditional workloads (batch and CICS), new workloads (Linux) or both! The best things really are packaged in a smaller zSeries.

Note: This session will start at 8:00 AM.

### E55   z/VSE Birds-of- a-Feather
*Panel*
This is an open discussion with the IBM Boeblingen VSE team. There will be no prepared presentation. Please bring your own questions and thoughts on the present, future, directions, priorities, concerns, etc. Let us know what we're doing right as well as what we're doing wrong. Both compliments and criticism will be accepted. This is your session.


# Vendor Sessions


### Q01    Comprehensive Enterprise Output Management Solutions for z/OS , Linux for zSeries, and more
*Brent A. Black, Director, Product & International Marketing, Levi, Ray & Shoup, Inc.*
*Russ Followell, Supervisor, Enterprise Systems Engineering, Levi, Ray & Shoup, Inc.*
Enterprise Output Management tools from LRS are in use by leading companies around the world to reduce costs, increase efficiency, and guarantee security.
Design your Enterprise Output Server to provide a highly scalable, reliable server to handle large volumes of documents and varieties of data streams — seamlessly integrated across your computing environment.

Examine how implementing modular output server components increases value and control over document capture and delivery to any destination including network printers, fax servers, email addresses, and web browsers.


### Q02   A New z/OS System and Storage Management tool - SCC-Explorer GUI from DTS Software.
*Duane Reaugh, Manager Technical Support,  DTS Software, Inc.*
The SCC-Explorer GUI will let you manage your z/OS System and Storage using a Graphical User Interface on a PC running W2K or XP. Point and Click your way through the z/OS System Commands and Storage Management Processes.   For instance, want to look at the APF data set list and have forgotten the console command?  Point to  APF in the MVS COMMANDS DISPLAY list  and  click on that option and the information  will be returned in a spreadsheet like grid where you can sort, subset or even print the information. The  GUI interface also allows you to display the contents of a Volume or Pool and then delete, migrate or compress a single data set or a list of data sets. Query results can be saved on the PC or a local server for later recall. Results can be exported to a spreadsheet, PDF or HTML document. This two tier approach is easily extendable using the Pascal like language to generate lots of system and storage management reports.

**Q05   The Importance of Network Service Level Reporting**

*Catherine H. Liu, President, AES*

IT organizations are increasingly being tasked with providing higher levels of service, often in the face of declining resources.  Defining, meeting, and documenting Service Level Agreements is critical. When the SLA is not being met, the ability to accurately isolate the cause of the problem is vital, whether the problem is at the client end, at the server end, or in the network. This discussion will focus on the necessity of sophisticated and timely Service Level Reporting, crucial to the achievement of SLAs and the successful operation of the enterprise. Sample reports from CLEVER Solutions will be used for demonstration purposes.

**Q07   The Future of Managing Transactions in z/OS**

*Jeff Cole, BMC Software*

This session provides an overview of BMC Software's compelling new technology, MAINVIEW Transaction Analyzer.  MAINVIEW Transaction Analyzer provides facilities for tracking and reporting of z/OS transaction workloads through the various z/OS subsystems, including CICS, DB2, and IMS, providing correlation of performance and resource utilization in near real-time.

**Q08      Batch SLA's for Automated Job Control**

*Martin Wills, Senior Product Specialist, MVS Solutions, Inc.*

How does your datacenter manage batch to meet its formal (or informal) Service Level Agreements and objectives? This session focuses on SLAs and the management of your batch workload to meet the stated goals. It includes a group discussion of what batch SLAs look like. It takes a sample SLA and shows how ThruPut Manager Automation Edition automatically uses the SLA goals, together with configuration and constraint information, to optimize throughput from submission through execution of each and every job. We'll take a look at the intelligent and innovative features ThruPut Manager uses for queue handling and removal of unnecessary delays, so that your

batch operation is streamlined and efficient. And we'll show you why this is truly the next generation of batch management.

## Q10   ESCON to FICON Migration and FICON-based Business Continuity Solutions from McDATA
*Brent Anderson, WW IBM Senior Systems Engineer*

FICON is rapidly replacing ESCON in data centers worldwide. What are the business benefits to migrating from ESCON to FICON? And how can IBM customers deploy high-speed FICON applications over global distances to maximize business continuity benefits? McDATA, IBM's oldest ESCON and FICON partner and the storage networking leader in FICON directors worldwide, will explore how zSeries customers can efficiently migrate from ESCON to FICON. Additionally participants will learn how to deploy high-speed FICON applications over unlimited distances utilizing McDATA's SAN extension solutions and how to realize infrastructure simplification benefits with our latest director technology using 10Gb/s backbone connections and scalability from 64 to 256 ports.

## Q11   Accounting for z/OS Configuration Changes
*Paul R. Robichaux, CEO, NewEra Software, Inc.*

Do you know how many changes are made to your z/OS system configuration files? This should be a simple, matter of fact, metric. Do you know who made the changes, when they were made, what they changed? How did those changes impact the integrity of your z/OS configuration? NewEra Software will show you how IMAGE Focus and its Control Editor can deliver reports transparently that answer all these questions without shackling your systems staff, thus allowing them to do their job as they have always done it. We will show you the five major areas that are most vulnerable to integrity threats and show you how IMAGE Focus helps establish a 'paper trail' listing the key elements for an exemplary configuration change management process.

## Q13  Validating JCL in a TWS Environment
*Alfredo Perez, Senior International System Consultant, Diversified Software*

So you think JCL hasn't changed much in the last decade ... think again. With the advent of JCL tailoring within TWS, a whole new set of challenges have emerged in the arena of JCL Validation. TWS has introduced the concept of variable tables, occurrence variables, conditional JCL at submission, and even conditional variables. Add to that the fact that these variables can all be influenced by when the job runs, what calendar it uses and what scheduled it, and you are left with JCL that often doesn't give up the secrets of it's true intent until submission time - which is often too late.

This session will discuss all of the challenges posed by TWS and what risks they bring to your day-to-day JCL management. It will look at ways you can minimize the risks, both in the way you write JCL and how you configure and manage TWS. It will also show you how Diversified Software products can help you, now and in the future.

## Q14  Cost Effective Networking Strategies for zSeries

*Garry Moreau, Ciena*

You need to implement a Multi-Site Data Center, protecting not only mission critical data, but day-to-day data as well. You know how much data you will be replicating and you've pretty much determined which tiered process you will use and what products. Now all you have to do is secure the right amount of bandwidth from your IT department to ensure application performance and high availability.   Does your IT department know the options available to them for selecting the right connectivity to use and the costs associated with it. Come learn how to help your IT department make the best choice to keep your mission  critical data secure  and your zSeries Applications humming cost-effectively!

## Q16   FICON Infrastructure – "Designed to Last" and "Minimizing Costs"

*Paul Schlueter, Technical Account Manager, Optica Technologies, Incorporated*
Migrating to FICON?  Already there but have concerns about the infrastructure costs or technical longevity?

This session will discuss key factors to consider when designing a FICON infrastructure, or evaluating your existing FICON infrastructure.  We will discuss the infrastructure requirements of FICON, the differences between ESCON, Fibre Channel, and FICON, and how the differences can impact the design of the FICON infrastructure both technically and financially.  We will provide an update on current infrastructure technology including cabling, connectors, panels, as well as infrastructure best practices (old and new).  We will also discuss migration strategies, including the use of devices like Prizm for attaching ESCON devices to the FICON channels.  Most importantly, we will look at design concepts that take advantage of FICON and infrastructure technologies to help insure your infrastructure meets technical requirements over the long term and remains cost effective.

## Q17   Automate Business Continuity for Mainframe Data to Improve Recovery Integrity

*Jim Drummond, OpenTech Systems, Inc.*
This educational presentation discusses the alternatives for managing the business continuity processes and identification requirements for mainframe application data including Tape and DASD data sets.  Additionally, we will review the pros and cons of current recovery strategies, including the exposures created by not having an integrated/automated process and the high cost of tape and offsite storage requirements that result from not having an automated process to identify what needs to be on tape/off site. During the presentation, we will focus on the critical areas of recoverability, such as synchronization of application data at the recovery point. Methods for managing cross application data sharing, minimizing the number of tapes, and optimizing recovery times and processes will be discussed including the methods for vault optimization.

## Q21   zFrame & zCenter:  A low-end mainframe review and update

*Mike Hammock, Cornerstone Systems, Inc.*
Cornerstone Systems Inc. will present a technical overview of the FLEX-ES powered zFrame family of products, including the zFrame, zDev, zPad and zCenter (powered by FLEX-CUB) products. A brief overview will be followed by a technical look at just how zFrames utilize FLEX-ES to enable under-150 MIPS z-Architecture systems. Next, we will take a look at recent advancements in the technology and capabilities such as Faketape file compression, Faketape library automation (AFLIB), zCenter device

## Q22   NJE/IP Bridge:  the Connection for Mainframe and Open Source Infrastructure plus Dino-Protect and VSE2PDF/Secure.
*Dr. David Boyes, Sine Nomine Associates and Tony Thigpen, Thigpen Enterprises, Inc.*

NJE/IP Bridge allows direct NJE communications over TCP/IP networks. NJE/IP Bridge can reduce or even eliminate the SNA requirement while maintaining NJE functionality by letting NJE traffic flow over TCP/IP networks between IBM systems and Windows, Solaris, AIX, HP/UX and Linux systems.

NJE/IP Bridge is a software application on participating IBM or open-systems hosts and provides a direct connection between spooling systems and the NJE components on each system.  NJE/IP Bridge enables both IBM and non-IBM operating systems to use NJE functionality naturally and without user awareness of the IP transport.  Come to our session and see how NJE/IP Bridge will offer new functionality and cost savings to your organization.

In today's new regulatory arena (Sarbanes/Oxley, VISA-CISP, etc.), IT must now address data and report security. During our session, we will discuss how you can protect your data with our Dino-Protect product and how to protect your softcopy reports using VSE2PDF/Secure.

## Q24   Managing Linux on z/VM Performance Service Levels
*Barton Robinson, Velocity Software, Inc.*
Now that you have Linux running, and your applications are operational, are you meeting your service management objectives? Service management requires performance management, capacity planning and often chargeback capability.  ESALPS provides the data to assist you in these important functions.  This presentation covers these functions start to finish, discussing the agent requirements, the ability to both capture the linux process and application data and to correct the virtual CPU data, and the reporting and analysis of the data.

## Q25   zFrame & zCenter:  A low-end mainframe review and update
*Mike Hammock, Cornerstone Systems, Inc.*
Cornerstone Systems Inc. will present a technical overview of the FLEX-ES powered zFrame family of products, including the zFrame, zDev, zPad and zCenter (powered by FLEX-CUB) products. A brief overview will be followed by a technical look at just how zFrames utilize FLEX-ES to enable under-150 MIPS z-Architecture systems. Next, we will take a look at recent advancements in the technology and capabilities such as Faketape file compression, Faketape library automation (AFLIB), zCenter device emulation for traditional mainframes and new hardware and software bases to provide improved performance and flexibility. Anyone with an interest in small (under 150 MIPS)

z-Architecture systems should come for an introduction or update on this exciting technology.

## Q25     Getting into Linux on zSeries

*Brian Grondin, Mainline Information Systems*

Feel like you're late into the Linux game on zSeries?  In this session by Mainline, we'll discuss some of your options in getting started with Linux on zSeries and help you understand what is involved without getting into all that painful technical detail.  We'll further discuss the value of Linux on zSeries by showing how you can build an environment to support things ranging from server consolidation to new application workloads in a way that can not only help reduce your total cost of ownership, but provide you with the solutions needed to move your enterprise forward.  Whether it's picking your first application, or finding ways to grow your existing Linux environment, we'll be ready to provide you with information that you will hopefully find useful as you look for ways to more fully exploit the power of the zSeries platform.

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