

# **zSeries Expo Sessions and Abstracts**

## **As of 10/21/2003**

### **NETWORKING, THE INTERNET, AND THE z/OS COMM SERVER**

#### **C01 TCP/IP Security with z/OS CS**

*Gwen Dente, IBM*

This session will provide an overview of the z/OS Communications Server security features that enable a safe and secure z/OS TCP/IP deployment. Security capabilities that protect the z/OS system from the network and that protect data in the network will be discussed. The session will focus on integrated Intrusion Detection Services, RACF protection of TCP/IP resources using the SERVAUTH class, and network security options such as IPSec, SSL support for FTP and TN3270, and the Express Logon Feature.

#### **C02 What's New in z/OS CS**

*Sam Reynolds, IBM*

The z/OS Communications Server combines TCP/IP and SNA support to better address the needs of today's complex networks. This session introduces new and planned networking functions and capabilities for z/OS Communications Server. The session will discuss functions found in the Communications server of z/OS V1R4 and plans for the coming z/OS V1R5 release.

#### **C03 z/OS to z/OS with Enterprise Extender: Implementation and Issues**

*Gwen Dente, IBM*

In a traditional enterprise network, SNA applications and users establish SNA sessions between SNA session partners (applications and logical units) over SNA links in an SNA network, often using the 3745/6 as a front-end processor for these SNA connections. Alternatively IP (Internet Protocol) users can access IP applications over IP connections in an IP network, typically using IP routers to integrate the network components. However, 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.

This session focuses on the Enterprise Extender answer to this question as implemented in z/OS or OS/390. It begins with a brief introduction to SNA/APPN/HPR terminology. Subsequently it shows variations of the Enterprise Extender solution with z/OS. Finally it illustrates a simple network that has been migrated from SNA to IP, while retaining connectivity between SNA session partners; the session also gives working examples of the coding used to effect this migration. Finally it points out some "gotcha's" to be aware of when implementing the Enterprise Extender environment.

## **C04      Implementing Network Policies on z/OS**

*Alfred Christensen, IBM*

This session will give an introduction to the IP networking policy support on z/OS: Quality of Service (QoS), and Intrusion Detection Services (IDS). We will discuss topics such as why you might want to deploy these functions, how to implement the Policy agent, how to define and configure the QoS and IDS policies, and how to monitor QoS and IDS policy usage via the supplied commands (Netstat, pasearch, trmdstat, etc.). The session will define a small realistic sample QoS policy objective and then walk through how to implement the sample policy through the QoSManager configuration tool, and how to monitor the sample QoS policy through the supplied commands.

## **C05      Enterprise Extender: Concepts and Considerations**

*Sam Reynolds, IBM*

Enterprise Extender (EE) is a valuable technology that allows you to preserve your SNA application investment while exploiting the advantages of a consolidated IP backbone. EE allows you to utilize an IP network for the transport of SNA traffic, including SNA traffic between different companies (SNI). But how does the technology work? What are the associated controls, planning, and migration issues? This session focuses on various concepts and considerations behind EE. It includes topics such as:

- SNA: Dead or Alive?
- What is Enterprise Extender and what are its advantages?
- Planning Considerations -
- EE Performance -
- EE Coming Attractions

## **C06      Seven Deadly Sins of IP Perf and Avoiding Them Using Tivoli Monit. For Net. Perf.**

*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 7 Deadly Sins of IP performance management suffered by new and old e-business companies moving to an IP infrastructure AND how to avoid them. Also, learn more about the key issues impacting an IP site, including costs, and how to best manage your site in the face of worldwide pressures.

## **C07      Next Generation Internet on z/OS: IPv6**

*Alfred Christensen, IBM*

Have you heard of IPv6 and wondered what all the hoopla is about? This session will provide a basic introduction to IPv6, providing an overview of the IPv6 protocol and its major components. It will also answer key questions such as why IPv6 is important, what are the benefits of IPv6 when compared to IPv4, when will IPv6 become prevalent, and what are some of the transition issues which must be addressed when enabling IPv6 support.

## **C08        Sysplex IP High Availability and Workload Balancing with CS z/OS**

*Alfred Christensen, IBM*

In this session we will focus on IP deployment issues within a z/OS Sysplex with special emphasis on IP traffic and application workload balancing and availability. The session will include such topics as intra Sysplex P traffic routing (Dynamic XCF, HiperSockets, or shared Gigabit Ethernet LAN), application availability issues (static VIPA, dynamic VIPA, and Distributed Dynamic VIPA), IP traffic load-balancing (multipathing), and application workload load-balancing technologies, such as intra Sysplex technologies (Sysplex Distributor) and technologies that reside on switch equipment of various types outside the Sysplex.

## **C09        zSeries and s/390 IP Network Access Considerations**

*Alfred Christensen, IBM*

There is a wide variety of IP networking access options for a zSeries or S/390 server. This presentation focuses on how the z/OS CS software can assist the zSeries and S/390 hardware in providing high speed network connectivity which maximizes performance and availability. This session also discusses what levels of network availability can be achieved without use of an IP dynamic routing update protocol on z/OS.

## **C10        Understanding Wireless LANs**

*Laura Knapp, IBM*

It is difficult to keep pace with all the changes occurring in networking today. Keep up to date with the world of wireless LANs, by learning about the basic technologies for fixed and mobile environments. Learn about radio spectrums, antenna concepts, topology, modulations and many more items relating to the wireless world.

## **C11        Perf Modeling and Analysis of SNA and IP Appl Workloads on z/OS and Linux for zSeries**

*Tracy Dean, IBM*

Changes in applications, systems and networks can often lead to performance problems when implemented in production environments. For example, when adding a new application workload, you may wonder whether the network will be able to handle the additional traffic and whether the application will have acceptable performance. If the application will be using SSL, you may be wondering what the impact will be on host cycles and on application performance. Will the network infrastructure be sufficient or is an upgrade needed prior to deploying this new application? This session will review how these (and many other similar) questions can be answered prior to implementing these changes in production environments using workload simulation tools, such as IBM Application Workload Modeler for z/OS and Linux on zSeries.

# **DATA CENTER OPERATIONS AND MANAGEMENT**

## **D01      Availability Concepts for an on demand World**

*Mike Bonett, IBM*

Everyone wants “Availability”. Users want, and service want to provide, applications that are highly available for competitive advantage. Unavailability is visible to the organization, to the organization’s customers, and the media. Attaining the desired availability does not happen just by installing lots of hardware or software. Even in a On Demand, autonomic computing environment, it must be planned, designed, and implemented using specific techniques. This presentation is a tutorial and introduction to Availability - various definitions of availability, techniques that can be applied to improve availability, metrics for assessing and measuring availability, and the planning and implementation process for cost-effective availability improvement.

## **D02      System Automation for OS/390 New Functions**

*Raimund Thielker, IBM*

With the policy-based self-healing of System Automation for OS/390® V2.2 automation of z/OS™ and OS/390 is now easier and richer than ever!

Self-configuration of message automation and the new easy message management effectively reduce setup and maintenance time and costs. Unique WebSphere automation can reduce e-business complexity and increase availability. System Automation has been extended to Linux on zSeries and xSeries which is an important step towards an autonomic end-to-end automation of e-business applications spanning multiple platforms.

## **D03      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 to take 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.

## **D04      ABC's of Automating an Application Using System Automation for OS/390**

*Denny Beary, IBM*

IBM Tivoli System Automation for OS/390 (especially Version 2) provides a broad array of policy-based functions to apply to the automation of resources. This session will demonstrate the steps necessary to define a sample application and then explore some of the more useful functions that extend that definition, e.g., supporting complex dependencies with other applications and/or multiple occurrences within a sysplex.

## **D05      Migration to System Automation for OS/390 V2 Hints and Tips**

*Raimund Thielker, IBM*

Service for System Automation for OS/390 V1 will end in 11/03.

This session will give you valuable tips how to migrate to V2 and how to take advantage of its goal-driven automation and powerful policy. Details of Self-configuration of message automation and the new easy message management are also included.

#### **D06        Finding and Collecting Availability Measurement Data**

*Mike Bonett, IBM*

Applications supporting critical business functions require multiple components in different technology environments. Measuring their availability requires a knowledge of knowing what data is available, and efficient, consistent ways to collect and normalize the data for use in availability metrics. This presentation identifies availability data sources found in various technologies (zSeries, UNIX, Linux, Windows, WAN, LAN, workstation, TCP/IP, SNA, Internet, etc.), and monitoring techniques that can be used to create measurement data. Efficient processes for collecting this data and turning it into accurate availability measurements will also be covered.

#### **D07        Data Centers: Automating with Intelligence**

*Dave Davies, BMC Software*

User expectations about product accessibility, system availability and usability is constantly changing as more pressures are put on IT professionals. As skilled mainframe technicians retire, few remain to maintain mission-critical legacy systems. New technologies can provide vast increases in the availability and performance of mainframe systems. Many businesses find that these new technologies cannot be exploited because their technicians have time only to maintain existing systems and applications.

Are you interested in the role of automation in the evolving world of Systems Management across the enterprise for the next 2-5 years? This evolution, including the current state of automation, places a multitude of challenges on companies today. In this session, attendees will gain a better understanding of the future of automation and the role it can play in simplifying complex mainframe environments, lowering cost of ownership of z/OS platform and shortening the learning curve of new IT professionals.

#### **D08        Increasing Availability Using msys for Operations**

*Ron Northrup, IBM*

Come and learn how msys for Operations, a new z/OS 1.2 element, can help you increase your Parallel Sysplex availability and make it easier to operate. msys for Operations introduces an automation engine into the z/OS operating system that the z/OS elements can utilize. Parallel Sysplex was the first exploiter of msys for Operations. Availability impacts related to Coupling Facility maintenance, Couple Dataset Failures, WTO(R) buffer shortages, and sympathy sickness in your Parallel Sysplex are addressed by the first release of msys for Operations. See how msys for Operations can help your Parallel Sysplex and see the possibilities of an automation engine in the z/OS base.

#### **D09        Automated Workload on zSeries**

*Antonio Gallotti, IBM*

Workload Scheduling is at the nucleus of IT Operations and e-Business Infrastructure. This session describes how IBM Tivoli Workload Scheduler adds value to that infrastructure, and how it will improve the efficiency and reliability of your business processes

**D10      System Automation for OS/390 Architecture for System Programmers**

*Denny Beary, IBM*

IBM Tivoli System Automation for OS/390 comprises numerous elements (started tasks, NetView tasks & automation operators, an ARM exit, XCF groups, MQSeries queues, coupling facility structures, etc.) that contribute to its rich functionality. This session will review those elements and their contributions to SA for OS/390 as well as its relationships with other z/OS components and applications and the role(s) that each plays in supporting (or being supported by) SA for OS/390.

**D11      Measuring and Monitoring the Response Time of Web Applications**

*Mike Bonett, IBM*

In today's environment, applications are either built having a web interface, or have a web interface added on. Understanding the response time being provided by these applications is critical, since this can have a direct impact on the bottom line of the business. This presentation discusses techniques for monitoring Web Application response times for both "external" (user view) and "internal" (application view) perspective. Both custom written and IBM product functions will be covered.

**D12      Exploiting System Automation for OS/390: I've Got It; What Can I Do With It?**

*Denny Beary, IBM*

IBM Tivoli System Automation for OS/390 Version 2 provides some wonderful new capabilities for extending its automation to support the complex relationships common in most customer environments. This session will explore SA for OS/390's ability to address a variety of such scenarios ... many posed in the SAUsers forum. The proposed solutions will exploit the new functions of SA for OS/390 ... sometimes in ways not intuitively obvious to the novice or journeyman user.

**D13      Tivoli Information Management for z/OS Product Overview**

*Michael Bacon, IBM*

Tivoli Information Management for z/OS formerly known as Tivoli Service Desk for OS/390 is primarily known as a problem and change management application but also can be tailored to be a process management application to meet IT business requirements. This session will focus on the background and evolution of the product. Recent features and functionality will be discussed. Specifically, the new web interface (IBM Tivoli Web Access). See how customers may now use alternative forms of access to the database, other than the 3270 formatted screens. Whether you are think you know the product or not, this session will be of benefit to you in understanding the current capabilities and where it is headed.

**D14      WebSphere Automation and High Availability Solution**

*Raimund Thielker, IBM*

IBM has developed a system automation and high availability solution for WebSphere Application Server V4.0.1 for z/OS and OS/390, based on System Automation for OS/390 V2.2.

Running a WebSphere Application Server on a z/OS single system or in a sysplex environment, increases the complexity of operating such a system. This is because WebSphere has a number of prerequisite products that it interfaces with and uses itself a number of z/OS address spaces to deliver high performance Web services.

When you run Internet applications on a system, the performance and availability of this system is exposed to the public. It is therefore essential to provide a scalable and highly available setup for the operations of systems providing Internet services.

The solution presented here shows how to set up a fully automated operational environment for all WebSphere Application Server V4.0.1 for z/OS and OS/390 components and prerequisite and related products running in an OS/390 or z/OS environment using System Automation for OS/390 V2.2.

#### **D15          Integrating WebSphere MQ Management into the Enterprise**

*Mike Bonett, IBM*

WebSphere MQ plays an increasingly important role in integrating application components end-to-end. For someone not familiar with the product but tasked with managing it from an operational perspective, understanding the available techniques and options provided by the product, and management products, is important. This presentation provides information on WebSphere MQ operational management for an integrated perspective, and not as an isolated entity. Methods using both “roll your own” and IBM zSeries/distributed product functions will be covered.

#### **D16          Sysplex Availability: A Checklist Approach**

*Riaz Ahmad, IBM*

There have been many availability enhancements for Parallel Sysplex in zSeries hardware and software over the past few years. Some are intended to reduce the number of unplanned outages, whereas others target planned outages. Some are headline items, like System-Managed CF Structure Duplexing, whereas others are small changes that may not warrant mention in major marketing deliverables like announcements. However, taken together, these features, functions, and enhancements can make a tangible difference in reducing Parallel Sysplex outages. This session provides a review of these availability enhancements, in checklist format, designed to make it easy for a system programmer to determine which currently available but unused availability features should be enabled to benefit your Parallel Sysplex.

## KEYNOTE

### **K01      The Mainframe Charter and the z990: What They Mean to Customers**

*Erich Clementi, General Manager, IBM zSeries*

Announced in October 2000, the IBM eServer zSeries sparked a renaissance of the mainframe and served as an important, and differentiating, source of technology for the other Series in the IBM eServer line. With the introduction of the z990 in May 2003, IBM has again raised performance and functionality to the next level. In addition, the announcement of the IBM Mainframe Charter in August provides a framework for planned future investment and highlights specific ways in which IBM intends to deliver ongoing value to zSeries customers. This keynote session describes the potential benefits of these actions.

## MANAGEMENT ISSUES FOR A zSERIES ENVIRONMENT

### **M01      Overview of GRID and Autonomic Computing**

*Andy Gangone, IBM*

Grid & Autonomic Computing are key elements of the On Demand Computing initiative. Grid & Autonomic Computing can be defined as applying resources from many computers in a network—at the same time—to a single problem; usually a problem that requires a large number of processing cycles or access to large amounts of data. At its core, Grid & Autonomic Computing enables devices—regardless of their operating characteristics—to be virtually shared, managed and accessed across an enterprise, industry or work group.

This session will be an overview of GRID & Autonomic Computing and its base components. The latest GRID & Autonomic Computing announcements relating to zSeries and the implications and applicability of certain workloads and processing of zSeries workloads will be discussed.

### **M02      On Demand and the Next Generation Data Center**

*Mark Cathcart, IBM*

In November of 2002, IBM CEO Sam Palmisano announced the new technical and business direction for IBM, On Demand. In this session, Mark Cathcart from the On Demand architecture team will describe some of the business opportunities made possible by On Demand, but will focus on the technology implementation and direction.

The On Demand technology brings together four key IBM initiatives, autonomic computing, Grid computing, Heterogeneous open standards exploitation and Java and J2EE application programming. Mark will discuss the use of these technologies and the creation of a meta OS as an "underware" layer of services interfaces across the IBM eServer operating systems for exploitation by middleware. He will discuss the objectives; the implementation and some of the early exploiters of this technology such as heterogeneous clustering; disaster recovery and automation. Think grid computing is just for high performance computing and person to person computing ? Think again and come and get the jump start on the On Demand Data Center and next generation of clustered computing!



### **M03      Linux on the Mainframe: Expanding Your Management Horizons**

*Laura Knapp, IBM*

Linux has accelerated the potential for server consolidation and managing this environment is key to that success. This session will first define what the possible options are for running Linux on the mainframe and will cover managing both z/VM and Linux. Then, a look at performance implications will dispel any concerns about the viability of this solution. Finally a review of configuration options that can now be run from the mainframe will be investigated

### **M04      e-commerce Environmental Essentials**

*Stephen Wehr, IBM*

e-commerce has evolved from consumers conducting basic transactions on the Web, to a complete retooling of the way partners, suppliers and customers transact. More than ever before, success belong to those who can get to market first. A key element of getting to market quickly is ensuring that your e-commerce environment is properly architected and linked to fulfillment and customer support systems. This session will raise the many issues to consider when building an e-commerce infrastructure, and discuss solution options. The discussion will be mostly platform-agnostic but of course will mention how zSeries fits in such an architecture.

### **M05      SAN Basics For Mainframers**

*Scott Drummond, IBM*

This session will introduce the concept of open systems Storage Area Networks (SANs) to a mainframe oriented audience. We'll cover problems with open systems storage and how SANs can help them organize. We'll cover the basics on fibre channel, protocols, topologies and also how FICON SANs will work with open systems SANs. We'll use as many mainframe terms and examples as possible to explain the analogues between the open systems SANs and the mainframe (ESCON or FICON SANs).

### **M06      Linux on zSeries: The Business Case for Server Consolidation**

*Marlin Maddy, IBM*

Are you thinking about Linux and which platform is the most cost effective to run it on? This presentation will look at positioning Linux across the different platforms from a Cost of Ownership perspective. What candidates may be a good fit for zSeries and which may not. We will look at several real customer business cases from recent IBM Scorpion studies.

### **M07      The Role of zSeries in an On Demand Enterprise**

*Annette Miller, IBM*

As customers move through different stages of e-business, from the access stage, to the enterprise integration stage, and finally to the on demand stage, what is the role for zSeries? The access stage of e-business brings information to the internet. The enterprise integration stage makes business-to-business transactions routine. The on demand stage will bring with it a requirement for seamless, efficient automatic interaction of servers and business transactions. This presentation will

introduce some of the technologies which will bring customers into the on demand stage of e-business. It will introduce the concepts of grid and autonomic computing and show how to start building the foundation for these technologies now.

### **M08      Sharpening Your Political Skills**

*A.S. Vikki Hooper, IBM*

It has been said that there are four kinds of people in the world -- those who make things happen; those who watch things happen; those to whom things happen; and those who don't even know that things are happening. This session is for people who want to make things happen -- for professionals and managers who must influence people over whom they have no direct control, particularly in situations where there are competing goals and conflicting priorities. We will explore the process by which things get done in organizations -- a process that is often more political than technical or administrative. We will show you how you can participate in that process more fully and more influentially by expanding your informal power.

### **M09      Turning to zSeries for eGovernment When Money and Time are Tight**

*Joe Linn, State of Minnesota*

The State of Minnesota is in the midst of a \$4.5 billion deficit, but the demand to provide electronic government services is greater than ever. Taxpayers rightfully expect to be able to do their business with state government over the internet. Come hear how we used the IBM HTTP Server, Websphere 3.5 and 4.01, Web Services, JDBC, MQ Series, Linux and a variety of middleware to create new applications and to build bridges to existing data and applications. We had to find ways to accomplish all this while staff and budgets were being cut.

### **M10      Improving Your Negotiation Skills**

*A.S. Vikki Hooper, IBM*

Whether on the job as a professional or manager, or in everyday personal situations, we all are continually negotiating. Anytime we are trying to persuade others to a course of action, or others are trying to persuade us to a course of action, we are negotiating -- and while we all have negotiation skills, some of us are more effective negotiators than others. This session is for people who want to improve their existing negotiation skills. In this interactive session we will work with the renowned "7-Element Model" developed by the Harvard Negotiation Project, and described in the best-selling book, "Getting To Yes." You will leave the session with a framework that does not rely on tricks or tactics; rather it will help you resolve conflicts and create negotiation outcomes that are optimal, while enhancing the relationships among the parties.

### **M11      WebSphere TCO: Comparing zSeries and Distributed Platforms**

*Marlin Maddy, IBM*

Are you trying to decide the most cost-effective platform for your Websphere applications? Are you really including all the cost elements in your analysis? This session will look at a real customer configurations and business case(s) comparing Websphere on zSeries and distributed platforms.

## **M12        Introduction to Web Services and XML: What They Are, and Why You Need Them**

*Mark Cathcart, IBM*

What does XML do for your business?. XML opens up your data so that you can share it among your organization, partners, customers and suppliers without sharing or integrating your critical business systems, so you can easily exchange information. And for your e-business, XML provides an open, cross-platform way to transact, manage and share information.

Web Services uses XML as its' lingua franca, and provides an industry standard interface, using industry standard protocols that allow systems to find, bind and call new and existing applications through connectors surfaced through a web service. The next generation of Grid computing, the Open Grid Services Architecture (OGSA) has at its' core web services. This session will introduce XML and Web Services, explain what they are, how they can be used, show examples of use and discuss their implementation IBM products.

## **M13        Implementations of GRID and Autonomic Computing Solutions**

*Andy Gangone, IBM*

Grid & Autonomic Computing can be defined as applying resources from many computers in a network at the same time to a single problem; usually a problem that requires a large number of processing cycles or access to large amounts of data.

Utilizing Grid and Autonomic Computing technologies, IT departments can aggregate disparate IT resources such as computing, data storage, filing systems and more to create single, unified systems. At its core, Grid Computing enables devices regardless of their operating characteristics to be virtually shared, managed and accessed across an enterprise, industry or work group.

In this presentation we will cover a BRIEF overview of GRID & Autonomic Computing, then show current implementations of GRID and Autonomic Computing, then show some theoretical scenarios and finish with the latest updates in the fast evolving world of this Open architected way of doing business. Applicability to zSeries workloads and integration of GRID & Autonomic Computing will be ingrained in this presentation.

## **M14        Storage Networking Trends and Directions**

*Scott Drummond, IBM*

This session will review current Storage Networking technology, standards organizations and industry players. We will also delve into the future and consider the impacts of new technologies on Storage Networking.

## **M15        The IBM Virtualization Engine**

*Annette Miller, IBM*

Technologies such as grid and enterprise workload management can be used to help create a heterogeneous IT environment. Some of these technologies will be available soon. This session will talk about some of the capabilities planned to be delivered by the virtualization engine and how they could be used in a heterogeneous environment. These technologies do not take the place of the robust

clustering or workload management capabilities of zSeries Linux and z/OS operating systems, but can be used to help unite all IBM eServers in a heterogeneous infrastructure.

## **M16      Intelligent Business Impact Management**

*Laura Knapp, IBM*

Business Impact Management is all about aligning IT with the business goals of the organization. This session will cover Capacity Planning and Accounting & Chargeback solutions as part of the "Business Impact Financials and Planning" overall solution which help customers improve operational planning, cost management, responsiveness, decision making, and ensure overall reliability and businesses efficiency in the Enterprise. It includes how TDS/390 integrates with TDW in 2003.

# **WLM, PERFORMANCE, AND CAPACITY PLANNING**

## **P01      z/OS Workload Manager: The Latest and Greatest**

*Robert Vaupel, IBM*

Find out what's new in z/OS WLM. Come to see which functions WLM offers in addition to its large contribution for Intelligent Resource Director and License Manager. You will hear about WLM reporting enhancements, Linux CPU management, WLM managed batch initiators and other interesting WLM features.

## **P02      Parallel Sysplex Tuning Update**

*Joan Kelley, IBM*

For the technical person who has some experience with Parallel sysplex performance, this presentation summarizes recent developments in the Parallel Sysplex environment that are specifically related to performance. It reviews performance related changes in H/W technology for the G5, G6 and zSeries 800 and 900 processors; Coupling Facility CFLEVELs 8 through 12; and S/W functions in OS/390 2.10.0 through z/OS 1.4. It also provides examples of new data presented in RMF and display commands.

## **P03      Processor Capacity Planning: Part 1**

*Ray Wicks, IBM*

The tutorial is an introduction to Capacity Planning. It is designed for professionals entering or just getting started in the field. Emphasis is placed on large processor systems and examples will be largely drawn from z/OS but the concepts apply to all levels of operating systems and hardware. The Tutorial is organized to review the architecture where appropriate (albeit briefly), discuss any appropriate Performance Analysis principles and then delve into CP principles and practices.

Topics will include (but not necessarily in this order) the following.

- An overview of required statistical and modeling concepts,
- A brief review of queuing theory,

- Processor PA and CP topics
- More CPs or faster CPs?
- Hardware and software factors.
- Processor performance data (ITRRs & MIPS).
- Single system image versus multiple images (LPAR).
- Using the Forced Flow law in PA & CP
- Resource Metrics
- Sample Selection
- Capacity comparisons for Production Systems.
- Trending

**P04 Processor Capacity Planning: Part 2**

*Ray Wicks, IBM*

See abstract for Part 1

**P05 Processor Capacity Planning: Part 3**

*Ray Wicks, IBM*

See abstract for Part 1

**P06 WLM 101: Understanding the Basics**

*Glenn Anderson, IBM*

It's time for all you stragglers to get your MVS systems migrated to WLM Goal Mode! When you reach z/OS 1.3, good 'ole compatibility mode goes away. So, this session is designed as a beginners tutorial, introducing you to the basics of all the WLM Goal Mode constructs. We will take a look at goals, importances and service classes. Classification will also be discussed. The session will also take a look at a process for moving from compat mode to goal mode. For anyone new to WLM Goal Mode, this session should not be missed!

**P07 RMF for Dummies**

*Harald Bender, IBM*

Do you feel lost at the different kinds of RMF monitors and still more reports and metrics? This session helps you to understand the RMF product components and how to setup the data collectors with the appropriate options. You will also learn how to access and read the output of the individual RMF reporting functions. A set of key reports and screens will be discussed as representative examples.

**P08            z/OS Performance Management: Readyng Your Infrastructure for the New Initiatives**

*Linda August, IBM*

How well is your infrastructure performing? Will you be able to support that new application or the next acquisition just announced by your management? Learn how to test the pulse of your eServer environment. This presentation takes a broad view of z/OS performance management and provides a checklist of the critical success factors for a well-managed eServer environment. We will focus on the processor, storage, IO, and coupling facility resources as well as discuss WLM and the CICS and DB2 subsystems from an MVS perspective.

**P09            The RMF CPU Activity Report**

*Jim McCoy, IBM*

Are you having trouble understanding your RMF reports and interpreting what the data collected means? This is an introductory level presentation on how to analyze the measurement data on the RMF CPU Activity Report. In this session, the speaker will discuss which SMF records and JCL statements are needed to generate the RMF CPU Activity report. Examples of the 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:

- \* MVS Busy
- \* LPAR Busy
- \* LPAR Weights
- \* Short Engines
- \* I/O interrupt rate
- \* Partition data
- \* LPAR clusters

**P10            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 discuss how RMF supports you in major areas such as:

Cryptographic Coprocessor Performance  
Coupling Facility Duplexing Activities  
WLM LPAR Management

Additionally, the following brand new features will be introduced:

RMF Spreadsheet Reporter Java Edition  
RMF customization with msys for Setup

and a lot more...

This session includes the details of the latest functions provided in the recent RMF releases.

**P11      A Cookbook Approach to Revisiting WLM Goals**

*Peter Enrico, Enterprise Performance Strategies*

During the presentation, Peter Enrico will draw from his vast WLM expertise and experience to present a cookbook approach to revisiting and reevaluating WLM goals and a WLM service definition. Peter will discuss the general approach performance analysts need to take to ensure that WLM maintains a steady path towards effective management of workloads toward assigned goals and towards effective use of system resources.

**P13      The Next Stage: RMF Spreadsheet Reporter Java Edition 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. Analyse the data immediately with the provided spreadsheet macros - everything on your PC!

**P14      Introduction to the RMF Workload Activity Report in WLM Goal Mode**

*Jim McCoy, IBM*

Are you wondering how to use all the data in an RMF Workload Activity Report? This session I presentation on how to analyze the measurement data on the RMF Workload Activity Report for WLM Goal Mode. The presentation will address which SMF records and JCL statements are needed to generate the reports and which reports are the most useful. Samples of the reports will be discussed along with what fields to monitor, red flags to look for as well as possible causes of performance degradation.

The following workload examples are discussed in the presentation:

\*TSO

\*DDF

\*CICS

\*BATCH

\*DISCRETIONARY

\*SYSTEM

\*SYSSTC  
\*SYSOTHER

### **P15      Memory Performance Management in a 64-bit World**

*Martin Packer, IBM*

64-bit z/OS continues the evolution of the storage hierarchy, with important changes to memory management (such as the demise of expanded storage and the very significant relief of addressability constraints). Therefore now is a good time to review how central storage works. Because central storage is not managed as simply as one might expect, this presentation describes the more important quirks and how to take them into account. It also describes the changes for 64-bit z/OS, which will cause installations to rethink how they use memory. This presentation gives guidance on how to conduct such a rethink.

Also included in this presentation is material on DB2 Virtual Storage, as it is a major driver for z/OS's 64-bit virtual support.

### **P16      Using EXCEL for Data Analysis: Hands-On Tutorial**

*Ray Wicks, IBM*

This is an introduction to data analysis using EXCEL. Data will be provided for this hands-on session. Using EXCEL as a tool to examine and graph the data, the student will step through examples of the following.

- Statistical description of the data (ANOVA)
- Regression analysis (linear and power)
- Statistical Comparison of data (Factor Analysis)
- Smoothing data
- Graphic Representation of Data

### **P17      Goal Mode Exploitation: What You Should Do and What You Shouldn't Do**

*Robert Vaupel, IBM*

This session reviews the constructs of the WLM Service Definition and provides hints and tips how to use the efficiently. The presentation contains examples of service definitions with respect to settings which should be avoided and which are beneficial to optimize the performance of your z/OS installation.

### **P18      Tuning Parallel Sysplex: Duplexing**

*Joan Kelley, IBM*

The introduction of system managed duplexing in z/OS 1.2 has added some new considerations to parallel sysplex tuning. This presentation will review parallel sysplex tuning, including the effects of the new heuristic algorithms. It will describe how duplexing works, how it looks, how to tune it, what it costs and some recommendations for its use.



**P19            z/OS: The Lives and Times of Transactions on z/OS**

*Peter Enrico, Enterprise Performance Strategies*

But what the heck is a transaction? We've spend years analyzing transactions for TSO, Batch, CICS, IMS, USS, DB2, started tasks, etc. Now, however, we have enclaves and applications environments. We have distributed workloads that enter the z/OS system from a web browser or other system, running in a HTTP Server, which in turn may be drive a transaction in a WebSphere Application Server, which in turn may be drive a transaction in a back-end system such as CICS, IMS, or DB2. Is it possible to get a view of the transactions response time from when it enters z/OS until it completes?

During this session Peter Enrico help you to explore the current meaning of transactions on z/OS. This is an important presentation for z/OS performance analysts because it discusses transaction flow, WLM management of various transaction types, CPU accountability, and response time components of the various z/OS transactions. You are sure to look at your performance measurements a whole new way after attending this session.

**P20            Exploiting z/OS Workload Manager**

*Steve Samson, Candle*

This session is a briefing based on recent experiences, announcements and the presentations of others. Topics will include at least the following:

- \* Fear of Discretionary and how to overcome it
- \* Safe and sane classification of Started Tasks
- \* How to make a z900 run like a G5 ('Short Engines')
- \* How to get back as much as possible (IRD)
- \* Getting to response time goals in CICS and IMS without risk

**P21            Storage Processor (DASD) Tuning Process: A Tutorial**

*Tom Beretvas, Beretvas Performance Consultants*

The speaker will provide a methodology for identifying and curing storage processor (DASD) performance problems. First the highlights are summarized, and then the procedures are described. The symptoms of tuning problems are identified, the method of finding them is explained and potential remedies are suggested. A case study is shown explaining the process. The case study illustrates the reduction methods that lead to rapid identification of problem areas. In addition, further tuning steps to be used are also discussed.

**P22            Migrating to Fewer/Faster CP's in an LPAR Environment**

*Walt Caprice, IBM*

Current processor design continues to deliver more CPU capacity with the same or fewer number of central processors (CPs). This environment results in some customers running their workloads on configurations with fewer CPs. While this migration can be very successful with workloads enjoying equal or better performance after the move, there are some planning and tuning issues to consider. This session will discuss the issues involved with reducing the number of processors and will provide guidelines to ensure a successful migration. The information presented is the result of tuning experience at the IBM Washington Systems Center as well as the results of several tests run in a controlled environment.

**P23          WLM Myths, Truths, and Half-Truths**

*Kathy Walsh, IBM*

WLM folklore has grown and many misconceptions are all about us. Come to this session where the WSC will discuss their most frequently discussed WLM myths, mysteries, truths, and half truths. Understand why the answer to almost all performance questions is: "It Depends". Do you think WLM can only have 30-35 service classes, must every system have discretionary work, must you run CICS using transaction goals, TSO still needs to have 4 periods, and DB2 must be the highest service class in the system? If so, then come and review the reasons why some of these answers must always begin with: "Well it depends on ...".

**P24          On-line Performance Management in a CICS Environment: A Holistic Approach**

*Marty Moroch, IBM*

On-line Performance Management is more than just looking at data. All of the host data must be taken into consideration. OS/390, DASD I/O storage subsystems, transaction managers and database managers have an impact on your end user response time. This valuable information will tell you how to relate your data sets or databases are performing. This presentation will take you through a sample CICS analysis that will show you how the DASD I/O data set performance data can be used along with your CICS performance data in your on-line Performance Management process.

**P25          Enterprise Workload Management: An Overview**

*Peter Yocom, IBM*

The Enterprise Workload Manager is a technology being developed by the IBM Systems Group and Tivoli 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. The Enterprise Workload Manager applies the goal oriented, policy based approach to performance management developed for the z/OS Workload Manager to the broader heterogeneous environment. This session discusses the motivation for the Enterprise Workload Manager work, how the z/OS WLM approaches to performance management can be applied to a multi-platform environment, and the basic structure of the solution.

**P26          Enterprise Workload Management: Behind the Scenes**

*Peter Yocom, IBM*

The Enterprise Workload Manager is a technology being developed by the IBM Systems Group and Tivoli 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. One of the key pieces of this technology is the ability to instrument middleware to provide an understanding of transaction flows. The Enterprise Workload Manager is based on the Open Group Application Response Measurement (ARM) standard for this instrumentation. This session introduces the ARM standard, how it is used by the Enterprise Workload Manager, and the end-to-end reporting functions that are built from data collected from ARM.

**P27        z/OS Workload Manager: Server Concepts**

*Robert Vaupel, IBM*

Are you confused when hearing about work managers, enclave servers, queue managers, server managers, or routing managers? Then this session is for you! The speaker will explain the concepts of the different server or manager types, discuss their differences, and show you the areas where these concepts are implemented to be beneficial in terms of performance, efficiency, and manageability for your system or Sysplex.

**P28        Batch Performance: Stay Up Late and Be Up Early**

*Marty Moroch, IBM*

In this new world of Internet commerce, many companies still rely heavily on complicated batch processes. In fact, as e-business grows and more users are accessing business information from home, there's increasing pressure to keep on-line systems up later, leaving a shorter amount of time for batch processing to complete. Often these batch programs have been around for years, making application changes 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 presenter's experiences tuning a variety of batch environments.

**P29        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.

**P30        An Overview of the eWLM Developers Edition at the WSC**

*Walt Caprice, IBM*

The Washington Systems Center took part in the testing of the eWLM Developers Edition. This session will provide an introduction to e/WLM as well as review the WSC implementation plan. A short demonstration of eWLM will be given using the WSC heterogeneous domain.

**P32        Performance of MVS I/O Systems 2002/3**

*Tom 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. It is also possible that relationships among them can be established. 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 three dozen installations are examined. Interesting observations include access density change trends.

**P33          Application Tuning in the 21st Century**

*Steve Samson, Candle*

As systems have gotten faster and the price of DASD has declined, applications seem to run slower and slower. We'll explore the attitudes and implementation factors that contribute to poor performance and suggest some ways (including politically incorrect ones) of turning the trend around.

**P34          WebSphere for z/OS Performance Tuning**

*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 and various tracing options.

**P35          A Cookbook Approach to Performing a z/OS Performance Health Check**

*Peter Enrico, Enterprise Performance Strategies*

*Tom Beretvas, Beretvas Performance Consultants*

The presenters describe the Performance Health Check they perform for z/OS or OS/390 System(s). The Health Check evaluates the customer's individual systems, sysplexes by leading performance experts, and deliver a written evaluation and set of recommendations. A resource analysis is conducted on the processor, LPAR configuration, storage, and DASD I/O subsystem. This evaluation focuses on performance sensitive PARMLIB parameters, Workload Manager controls, sysplex and parallel sysplex configuration and controls, coupling facility and structure performance, XCF controls, base UNIX system Services and HFS setup, and more. In the I/O subsystem arena logical volume and control unit load imbalances, DASD response time problems are identified, along with appropriate recommendations needed to resolve them. The presentation discusses some of the analysis methods with the help of a concrete case study.

**P36          A Mettle Test: Self Optimizing Capabilities of zSeries, z/OS and WebSphere**

*Mary Astley, IBM*

Why run WebSphere on z/OS when it can be run on so many other hardware platforms? What happens when an important web application experiences a sudden spike in activity? The self optimizing capabilities of z/OS and WebSphere respond to periods of peak demand by managing the workloads to give high priority workloads processor resource.

The Mettle Test demonstrates the ability of the z/OS Workload Manager and WebSphere to distinguish between high priority work and low priority work running in the same system and in the same WebSphere application server instance. It also demonstrates the ability of zSeries and z/OS to manage workload priorities across systems in a sysplex using Intelligent Resource Director.

The demonstration uses gauges showing transaction rates and processor utilization recorded while multiple WebSphere workloads are running on a single z/900 server. WebSphere production and test workloads are running in five z/OS systems in a parallel sysplex. During the run there is a spike in demand for the high priority work. The gauges show how z/OS and WebSphere provide service to meet this increase in demand.

**P37            An MVS Specialist's Guide to "New World" DB2 Applications' Performance**

*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. Detailed coverage of tuning SAP R/3, Peoplesoft, JDBC and SQLJ, and distributed users of DB2 is given.

**P38            Performance Roadshow: The Hidden Value in Learning from the Past**

*Marty Moroch and Linda August, IBM*

Linda and Marty have some valuable and not so valuable antiques from the world of data processing that reflect how people have dealt with technology in trying to get their systems to run "better". They discovered that some people focused on installing the latest and greatest, others on data-in-memory and others on actually tuning the application. As Performance Roadshow makes its Las Vegas stop, join Linda and Marty as they discuss what techniques have survived the test of time and how to pick those objects that provide real value as you plan for the future of your e-business.

**P39            WSC Short Stories and Tall Tales**

*Walt Caprice, IBM*

This session introduces new topics at each Expo crossing a wide range of performance and capacity planning issues for OS/390, z/OS and zSeries processors. Presented by a senior member of the WSC performance team this session is always sure to highlight new and exciting information which should be of interest to most installations looking to get the most they can out of the mainframe platform. This session will show several techniques to evaluate the capacity achieved after a processor upgrade.

**P40            Capacity Planning for z/OS**

*Marty Deitch, IBM*

As companies look towards the mainframe platform as the solution for their consolidation and centralization strategies, capacity planning is gaining a renewed focus. In the past, many companies have relied on measuring processor utilization as the primary metric for determining when they are "out of capacity". This session will explain why that doesn't work today, and offers instead a methodology that is based on workload performance. This session will also include a demonstration of the recently announced IBM Tivoli Performance Modeler for z/OS.

**P41          WLM and z/OS Performance: Q&A with the Experts**

*Panel of Speakers*

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

## **zSERIES AND STORAGE TECHNOLOGY**

**T01          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 technology, terminology and how the hardware architecture is utilized to achieve massive I/O throughput and processing power achieved in a 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.

**T02          zMainframe Concepts - The Big Picture: Part 2**

*Brian Hatfield, IBM*

See abstract for Part 1.

**T03          z900 Overview**

*Harv Emery, IBM*

The IBM zSeries 900 and z/Architecture provide an enterprise-class platform with the performance, responsiveness, application flexibility, and simplified management required to deliver significant business value for the next generation of e-business. Come to this session for a z900 overview and an update on the features and functions introduced by the latest announcements. This session has been significantly updated since the last EXPO.

**T04          z800 Overview**

*Harv Emery, IBM*

Come to this session for an overview and update of the z800's architecture and capabilities. The audience will receive an overview of the z800 offerings (including Linux and Coupling Facility), memory options, I/O choices, and connectivity capabilities/limitations. In addition you'll hear about migration

issues, the IBM IGS cabling offering, and capacity planning issues to help ensure you plan and configure a z800 that meets your requirements.

#### **T05        Why FICON: The Basics**

*Brian Hatfield, IBM*

What is FICON, why you need and what it can do for you. This session will discuss the basics of FICON on 9672 and zSeries. Available hardware, shortwave, longwave, cable connectivity options and what you need to be aware of from a hardware planning perspective.

#### **T06        zSeries FICON Express Connectivity Overview and Update**

*Connie Beuselinck, IBM*

This is a travelogue for the Fibre CONnection (FICON) architecture, focuses on zSeries 990, and covers the most recent announcements. ESCON (circuit switching) and FICON (packet switching) will be contrasted with Fibre Channel Protocol (FCP) for Linux environments to help in the understanding of these complementing technologies. The FICON features can be configured to communicate with ESCON control units, native FICON devices, or SCSI devices. Each of these options will be discussed as well as CTC, cascading and a mixed FICON/FCP environment. Not to be forgotten - a discussion of the fiber optic infrastructure requirements for gigabit speeds and beyond and the FICON-capable products.

#### **T07        Introducing the IBM zSeries 990: Processor, Memory and System Structure**

*Harv Emery, IBM*

Come to this session for an in depth introduction to the newest, toothiest king of the IBM zSeries server family. (Yes, this is T-Rex.) Learn about the exciting new z990 new processor design, physical CEC structure, new model structure and architectural changes introduced to support more than 15 partitions, more than 256 channels, up to 32 CPs, and nearly triple the processing power of any previous zSeries server. Get the latest information on new z990 support for the on demand era including On/Off Capacity on Demand and Customer Initiated Upgrade Express.

#### **T08        zSeries 990 Connectivity Abounds: "SnapShots"**

*Connie Beuselinck, IBM*

This session will cover all of the connectivity options on the newest mainframe models - ESCON, FICON Express, Coupling Links, OSA-Express, PCI Cryptographic features, as well as ETR (External Time Reference). What are the requirements as the technologies are refreshed? All of the features that use I/O resources complement the processing power of the zSeries with greatly increased I/O bandwidth and connectivity. Also to be discussed - the new I/O subsystem structure and the configuration flexibility.

#### **T09        Network Connectivity Abounds: OSA-Express Update**

*Connie Beuselinck, IBM*

This session will cover all of the network connectivity options on the z990, also touching on z800 and z900 - what is new in networking. A refresh of technology is a must if a balance between MIPS and I/O is to be maintained. We will compare the latest Open Systems Adapter-Express (OSA-Express) features with the predecessor generations. We'll discuss the value of the Queued Direct Input/Output (QDIO) architecture, and new functional enhancements that have been delivered via the hardware and/or operating systems. SNMP enhancements, the new OSA-Express features introduced on z990, and the new checksum offload function will be discussed.

#### **T10        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 zSeries servers including the zSeries 990 (T-Rex). The focus will be on support for more than 15 partitions on z990 and on using new LPAR controls and configuration in support of z/Architecture, new Parallel Sysplex function, z/OS.e, z/OS IRD, z/OS WLC, Linux, and concurrent memory and processor upgrades (CUoD, CIU, CBU and CoD). Attendees should be familiar with PR/SM LPAR concepts.

#### **T11        Storage Portfolio Update: Disk, Tape, Software: Part 1**

*Scott Drummond, IBM*

This session will give a general high level overview of the entire IBM Storage portfolio. We'll cover ESS (Shark) disk, FASTT disk, SAN components - switches and directors, Magstar tape, LTO tape, the new 3592 Tape, Tape automation options, virtualization solutions, storage control and configuration software, DFSMS software and Tivoli software.

#### **T12        Storage Portfolio Update: Disk, Tape, Software: Part 2**

*Scott Drummond, IBM*

See abstract for Part 1.

#### **T13        eServer zSeries z990 Support in HCD**

*Thomas Schiekofer, IBM*

Since it was introduced, HCD has been constantly improved. Come to this session to hear a representative from the development lab describe HCD's support for the new eServer zSeries z990. Amongst others, the main topics covered in this session are related to HCD's hardware support for the new eServer zSeries z990 processor.

#### **T14        eServer zSeries z990 Support in HCM**

*Thomas Schiekofer, IBM*

With ESCON, FICON, Parallel Sysplex, and other I/O connectivity technologies becoming increasingly complex, managing the associated configurations is becoming more and more difficult. Hardware Configuration Manager (HCM) to the rescue! HCM allows you to easily keep track of your hardware and software configuration and to define all necessary information through a graphical user interface. Come to this session to hear about the latest updates in HCM. You will hear how HCM supports you



with utilities and new wizards, and you will hear about HCM's hardware support for the new eServer zSeries z990 processor.

### **T15      Taming CTC Connections: Hands-on Lab**

*Thomas Schiekofer, IBM*

As technologies like CMOS and Parallel Sysplex push the number of images in your installation ever higher, you may discover that the complexity involved in defining CTC connections is increasing exponentially. HCM's high-level support for CTC connections can help. In this hands-on session, you will use HCM in conjunction with a 'best practices' addressing scheme to define full CTC connectivity between a number of processors in just minutes. You will also be introduced to visual and textual tools within HCM that can help you verify at a glance that the CTC definitions provide the connectivity that is required.

### **T16      FICON Configuration Design: Thinking Outside of z/Box**

*Dr. Pat Artis, Performance Associates*

Although a great deal has been written about the technological advantages of FICON connectivity for z/OS configurations, a fundamental question remains. Specifically, how will the introduction of FICON change configuration design, sizing, and management of storage configurations for large Sysplexes? This session explores the configuration constraints imposed by ESCON and provides an overview of how FICON addresses them.

### **T17      The Plumbing for Gigabit and Beyond**

*Connie Beuselinck, IBM*

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? When data throughput rates exceed one gigabit per second (1 Gbps), do you know what the impact will be to your fiber optic 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 servers, directors, switches, and control units? Are you prepared for a successful, seamless installation? This session will provide you with the answers and 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". It will also cover the Fiber Optic Quick (FOC) connect feature available on the zSeries and the services available from IBM Networking Services.

### **T18      Storage Virtualization**

*Scott Drummond, IBM*

This session will review the various flavors of Storage Virtualization, what they can do and who some of the players are. We will go into some of the Asymmetric (control and data flow share the same path) solutions in-depth and also review some of the symmetric (control and data flows are using separate paths) solutions. We'll discuss block level virtualization and file system virtualization.

### **T19      Understanding FICON Channel Path Metrics**

*Dr. Pat Artis, Performance Associates*

While FICON channels offer significant advantages in terms of channel bandwidth and performance, many users long for the old steam gauge utilization metrics provided for ESCON channels. While there are no simple rules of thumb for FICON channel management, this session will explore the path utilization metrics provided by FICON for direct channel connections, multiple channels connected to multiple subsystems via a FICON director, and complex configurations that include cascaded FICON directors.

### **T20      FICON and FICON Director Problem Determination**

*Maurice McCullough, IBM*

This session will introduce you to the IBM FICON Channels and provide an overview to FICON directors. We will discuss most of the FICON channels available and provide you with a means to do basic problem determination. The session will also show you some of the panels available to help you in problem solving in the FICON world.

### **T21      HMC and Remote HMC Hands-on Workshop**

*Maurice McCullough, IBM*

This session will introduce you to the HMC and the Remote HMC option. Session will provide a lecture for an overview of HMC usage and then give you an opportunity to have actual hands on to USE and navigate the HMC. You will also get to configure a remote HMC session and use it to manage the HMC.

## **VENDOR SESSIONS**

### **Q01      z/OS IPL Integrity and Problem Avoidance**

*Glennon Bagsby, NewEra Software*

C-level management hates problems and surprises; you hate problems and surprises. With so many people capable of making changes to parmlib, mistakes are bound to happen. IMAGE Focus can alert you to changes to your Operating System, JES, VTAM and TCP/IP in real time, thus ensuring the integrity of your IPL process and continuous problem avoidance.

### **Q02      Making Workload Manager Work for You**

*Martin Wills, MVS Solutions Inc.*

Workload Manager is designed to make the best use of your resources and provide the highest possible service. But does it? Find out what's good, what's not so good and how to use the best that WLM has to offer for the management of your batch. We will show that Workload Manager is beneficial but not a panacea for the problems of batch service management. And we'll show how ThruPut Manager goes beyond Workload Manager to keep you in control and help you get the best possible batch performance.

### **Q03        Extend Mainframe Utilization**

*Bill Prinzivalli, PRINCE Software*

The power of the mainframe has been understood since its inception, but to harness its power requires flexibility – often to the point of complexity. Alternative solutions, sought on other platforms (distributed systems, PCs, etc), could not replace the power, reliability & scalability of the mainframe. To extend and vitalize the usefulness of the mainframe, it is critical to automate and modernize its processes, which in turn will reduce application time-to-market and provide system simplification. This discussion will address issues including: mainframe process simplification, types of tools needed, diminished skillsets, time-to-market requirements, and more.

### **Q04        DecisionCentric: Cross-platform Software BI tool for the Enterprise**

*Chris Mahler, Decision Technology*

DecisionCentric is Decision Technology's new cross-platform software BI tool for the enterprise. This tactical software solution gives end-users the ability to: consolidate data from multiple data sources into one report with a simple to use wizard; "drill down" capability allowing for multidimensional views and analysis of data; prepare graphical WYSIWYG Reports and forms.

DecisionCentric consists of a Windows or a Browser Client that runs on the user's workstation and communicates with the DecisionCentric Server running as a J2EE web application that is certified to run on Unix, Linux, Windows 2000 Server, I-Series and other platforms. Communication between the clients and the DecisionCentric server is Web Services over http. DecisionCentric bundles in it's own JDBC drivers for simple and efficient access to Oracle, DB2, SQL Server and any other JDBC or ODBC accessible data source.

### **Q05        Enhance the value of your Virtual Tape Library with Productivity and Disaster Recovery tools**

*Terry Siegrist, OpenTech Systems*

This presentation covers utilities that eliminate 'recall wait delays' for production jobs that need datasets migrated to back end tapes of Virtual Tape Libraries (VTL). Also covered are disaster recovery utilities that allow users to maximize their investment in their VTL. Virtual Data Recovery allows users to direct vault bound tape data into the VTL and then automatically creates duplicate copies and stacks them on native high density cartridges which reduce the number of native tape drives and media for DR. Also discussed are solutions to reduce vaulted media for full volume and incremental backups for disaster recovery.

### **Q06        Don't Get Caught with Your Catalogs Down: What Every IT Manager Should Know**

*Ron Ferguson and Colleen Gordon, Mainstar*

This session is specifically designed for IT Managers responsible for z/OS and OS/390 systems. An ICF catalog or DFSMSHsm control data set failure can result in hours of downtime and days of recovery, costing hundreds of thousands of dollars or more depending on your business. The speakers will discuss the root causes of catalog and CDS outages and how adding Mainstar: Catalog RecoveryPlus and FastAudit/390 to your software inventory can help to prevent these outages or quickly recover from them should they occur in your environment.

**Q07            Managing J2EE Application Performance on zOS**

*Donna Chaiseeha, Wily Technology, Inc.*

With Java and J2EE gaining acceptance in mission critical applications, more e-business companies are starting to leverage their investment in mainframe technology by running J2EE applications on WebSphere and other application servers on their z/OS systems. The mainframe environment offers a unique set of challenges when it comes to Java, especially with regards to performance management. As the power of Java and the mainframe Operating Systems increase and as leading enterprises continue to build web applications using the J2EE standard to connect customers and business partners to existing back-end databases, transaction systems and other business applications, performance monitoring remains the unsolved riddle for many. This session will discuss the tools and approaches you can use to understand how your application is running in the z/OS environment. We will also discuss how these approaches can fit into a good application development lifecycle, and what you can do to avoid some of the most common application performance problems.

**Q08            Deliver, View, and Protect**

*Russell Followell, Levi, Ray & Shoup*

Learn how leading companies use LRS® Enterprise Output Server solutions to increase report access to remote users and securely extend the report document lifecycle. Do you need secure enterprise-wide, multichannel content distribution? Find out how LRS combines the strength and flexibility of their market leading distributed output management solutions and integrated document archive and retrieval systems to securely store, present, and deliver your mix of report content.

**Q09            Latest News on Candle's OMEGAMON® Solution for zSeries**

*Kevin Hosozawa, Candle Corporation*

Candle Corp.'s OMEGAMON® is the premier Data Center Management solution in the industry. Used in 70 percent of the world's data centers, OMEGAMON is helping customers maximize real-time performance and availability of their mission-critical systems and applications. Candle has some new and exciting things that are happening with the mainframe products and zSeries support, including Websphere for z/OS, Linux, z/VM and capacity on demand. In this session, Kevin Hosozawa, product manager for OMEGAMON, will update you on the latest development and strategies regarding Candle's new and current mainframe monitoring solutions available today.

**Q10            Storage Subsystem Selection Using the PAI/O Driver**

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

The PAI/O Driver family of products assists our clients in the selection and implementation of performance warranties for disk and tape storage during the acquisition process. During this session, we will review our subsystem testing activities during 2003, explore why our subsystem profiles are unique, and discuss how our tools are employed in the acquisition process. Emphasis will be placed on issues introduced into the acquisition process by FICON activity.

## **Q11      Improving**

### **ISPF Productivity with SPIFFY**

*Steve Youchnow, Isogon Corporation*

SPIFFY (SPF/Extended) is the TSO/ISPF enhancement that increases ISPF user productivity and enhances ISPF> 's performance. SPIFFY combines most ISPF utilities as well as new SPIFFY functions into the standard ISPF Browse, Edit, and DSLIST panels. SPIFFY removes many of ISPF> 's limitations and deficiencies. This session describes some of the features of SPIFFY that facilitate programmer productivity increases.

## **Q12      MVS JCL Reengineering**

*Patrick Fournier, ConvTek*

Besides the ability to consolidate batch application workloads of different origins after a data center consolidation, MVS JCL reengineering improves JCL readability, simplifies application maintenance, reduces exposure to JCL errors, and allows to expand DFSMS implementation, increase job throughput, and eliminate redundant software.

The main topics of this presentation will include:

- Long term and short term objectives
- Expected benefits
- Preliminary tasks
- Typical JCL reengineering tasks
- Implementation challenges
- Alternative implementation approaches: mass and progressive
- JCL reengineering tools
- The concept of production repository
- 3 case studies

## **Q13      The 2109-M12: IBM's Autonomic Director**

*Tim Werts, Brocade Communications*

This session will introduce IBM's newest director – the 2109-M12 – a product resulting for the IBM and Brocade Communication strategic partnership. The director fits perfectly within IBM's new autonomic initiative with numerous self-configuring, healing, optimizing and protecting features including many advanced features such as:

- FICON-FCP intermix mode
- Large SAN scalability including cascaded directors

- High integrity fabrics to ensure correct connections
- Ultra-High Availability providing more than HW redundancy
- Preventive health monitoring to catch errors before they occur
- End-to-end performance monitoring needed for capacity planning
- HW-enforced zoning to securely operate in intermix mode

Target Audience includes anyone:

- Investigating moving to FICON.
- With existing FICON infrastructure and interested in IBM-Brocade director offering.
- Considering merging their open and enterprise SAN infrastructures.

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| Q14 | Vendor Session | Vendor Speaker |
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| Q15 | Vendor Session | Vendor Speaker |
|-----|----------------|----------------|

## Q16 Unlocking Hidden Functionality in System Exits with Easy/Exit

*Duane Reaugh, DTS Software*

DFSMSHsm and z/OS provide a number of exit points which allow the storage administrator to tailor the operation of the system or provide extra features and function, such as prioritizing DFSMSHsm recalls or setting limits on virtual storage or time used. This session discusses the use of DTS Software's Easy/Exit, which allows administrators to exploit these exits via simple sets of rules, without the need to write any assembler code.

## Q17 What to do about Vaulted Tapes in a Virtual Tape World

*Terry Siegrist, OpenTech Systems*

This educational presentation discusses the choices for vaulting tape data when the clients owns or is planning to acquire virtual tape libraries as well as the pros and cons of each vaulting solution including alternatives to costly electronic vaulting. During the presentation, methods for reducing native tape drives and vaulted media will be discussed including the methods for vault optimization. Also addressed are solutions to reduce vaulted media for full volume and incremental backups for disaster recovery.

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| Q18 | Vendor Session | Vendor Speaker |
|-----|----------------|----------------|

## Q19 Eliminating Memory issues and Performance Bottlenecks in your Java Applications

*Jeff Zado, Quest Software*

You have invested and developed your Java solutions on the latest z/OS and Linux for zSeries systems to achieve high levels of scalability, reliability and through-put, but is your Java code the weak link? Memory leaks and performance bottlenecks at the application code level can steal valuable resources from your systems and cause end-user dissatisfaction with your solutions. This session will look at tools, JProbe Suite, and industry proven techniques that can be used to help eliminate memory leaks and performance bottlenecks in your Java solutions running on zSeries systems.

## **Q20 Unlock the Potential of your Largest IT Investment**

*Jody Hunt, IONA Technologies*

This presentation illustrates how Web Services enable you to capitalize on your mainframe investment while gaining business agility. You can securely extend IMS & CICS transactions as standard Web services to J2EE and .Net applications running anywhere in your enterprise.

Topics covered:

- \* New Web services deployed in minutes - without changing host applications
- \* Learn how Web services can support high speed performance
- \* Understand how Web services can be secured by host security systems like RACF and CA-ACF2

## **Q30 Using the Mass Conversion Approach to Migrate from VSE to z/OS**

*Patrick Fournier, ConvTek*

Unlike a progressive conversion that sequentially migrates VSE application kernels to the z/OS target environment, a mass conversion results in a single weekend switchover of the entire VSE application portfolio to z/OS operations.

With this approach, there is no dealing with the division of application portfolios over dual production environments, and there is no need to freeze, track, or duplicate VSE application changes applied during the conversion. In addition, the high degree of automation yields deliverables of reliable quality, shorter timeframes, and lower labor requirements.

The main topics of this presentation will include:

- Z/OS migration justification
- z/OS migration subprojects
- Migration project needs and requirements
- Scope of work and challenges
- Mass conversion approach: from highlights to details
- Migration project phases
- Mass conversion software
- Standards and naming conventions

- Conversion team and responsibilities
- Key benefits of this approach

### **Q31        BSI TCP/IP-TOOLS and VSE2PDF Update**

*Jeffrey Barnard, Barnard Software, Inc. & Tony Thigpen, Thigpen Enterprises, Inc.*

Learn about the latest and coolest new features in TCP/IP-TOOLS and VSE2PDF. Jeff Barnard and Tony Thigpen will update everyone on all the new facilities, commands and cool features now available in TCP/IP-TOOLS and VSE2PDF.

### **Q32        tServer Update**

*Steven Friedman, T3 Technologies, Inc.*

With over 300 systems now installed in 17 countries, the tServer continues its market leadership in affordable mainframes for the < 100 MIPS marketplace. If you find z800 systems either too big or too costly, this session is for you! Discussions will include an overview of this leading FLEX-ES based technology, introductions to the 8-120 MIPS systems now available, real life ROI analyses, and customer Success Stories.

### **Q33        Midrange Mainframes - Options for the Under 80 MIPS Crowd**

*Len Diegel & Mike Hammock, Cornerstone Systems, Inc.*

Cornerstone Systems Inc. will present a refreshing view of the midrange options for mainframe users. The discussion will include several IBM and non-IBM options available to customers and PartnerWorld members and the variety of ways that customers use them today. They will then discuss the zFrame(tm) processor family, which combines the IBM award winning xSeries processors with Fundamental Software's best-of-breed FLEX-ES(tm) mainframe emulation. The zFrame is a proven system that meets the demands of a mission critical production environment. With Intel price points, they provide excellent platforms for disaster recovery, application development & test, and other ancillary system requirements. These are affordable high performance systems designed for midrange customers running z/VM, z/OS, or VSE production systems. You can see them being demonstrated at Cornerstone's booth #335.

### **Q34        Open DASD: Enabling FASTT with zSeries Systems**

*Art Tolsma, Luminex*

The use of open systems disk directly with zSeries mainframes has long presented several obstacles. In this session, attendees will be introduced to technology from Luminex called Virtual|BLUE 3990 that permits heterogeneous open systems disk to be attached directly to a mainframe running z/OS, z/VM, VSE, etc. Included in the presentation are topics such as bridging between ECKD and block formats, connecting native mainframe I/O protocols to SAN-attached RAID and storage management issues. The uses and benefits of this technology will be highlighted.

### **Q35        “Correctly Sized”, “Cost Effective”, and “Timely Implementation” - Yes, These Words do Describe Server Consolidation. TeamQuest Tools Make It Possible.**

*Bill Thompson, Mainline Information Systems & Joe Rich, TeamQuest Corporation*

How do I determine which applications fit on which platforms? What can I do to determine hardware requirements? How much time is involved in a server consolidation effort?



If you have ever asked questions like these, then you know that server consolidation (SCON) is more than a growing trend. As a result of demands to reduce costs, streamline companies, and maximize business on-demand opportunities, corporations are seeking well-designed SCON solutions. Server consolidation encompasses hardware, software, services, and the critical system management tools necessary to tie it all together. The goal of server consolidation is to optimize and simplify your existing IT infrastructure - not just the servers, but the entire end-to-end infrastructure. While there are several key steps in implementing a server consolidation solution, one of the most critical pieces is assessment and correct sizing. This can literally make or break the solution. TeamQuest has the performance and capacity planning tools that enable correct consolidation of workloads from various Unix and Windows platforms onto eServer platforms running Linux. For the zSeries platform, the captured statistics are analyzed using IBM's Size390 tool to project the zSeries capacity needs. Once the right size is determined and the business case is understood, the server consolidation effort can be completed with accuracy, creating the most effective solution for your business initiatives.

Join us for this informative presentation to find out to leverage these powerful tools, along with zSeries and Linux, to complete a solid and cost-effective server consolidation effort.

### **Q36      Roadmap to Success**

*Robert Kusche, Sytek Services, a division of DSG*

Sytek Services has been involved in many Linux mainframe implementations and will discuss what you must know to successfully implement Linux. How can you cost justify Linux? How can you prepare your infrastructure? What provisions should you make for ongoing support? Robert will answer these and other questions in this informative discussion.

### **Q37      Planning for the Worst - Disaster Recovery for z/VM & Linux/390**

*John Hall, Safe Software, Inc.*

The emergence of Linux/390 on z/VM has brought new interest to the z/VM platform. One of the first tools you need when deploying Linux on the mainframe is a reliable disaster recovery solution. Historically, z/VM installations have used expensive vendor solutions or complicated and difficult to maintain DDR implementations. This session covers why you need to have a disaster recovery plan, what needs to be in it, and options for implementation, including an overview of Safe Software's newest product: SafeDR, a cost effective, turnkey z/VM disaster recovery solution.

### **Q38      Responsive computing on VM with Levanta powers on demand**

*Art Olbert, Linuxcare*

With Linux on VM and Levanta, users are no longer constrained by a fixed number of servers. Instead, just the right number of servers is provisioned "on demand" to get the job done. Servers are procured, configured and ready to run a real workload within minutes.

System resources such as storage, memory, and networking interfaces are allocated "on demand" through simple and swift reconfiguration. This power of "on demand" server creation is put at the fingertips of all parties in need of Linux servers: developers, testers, production staff, and networking experts. Both rights and responsibilities are safely and easily delegated.

## **WEBSPHERE FOR z/OS, E-BUSINESS AND JAVA**

### **W01      Understanding Your WebSphere Ver 4.0.1 Runtime Environment**

*Hugh Watson, IBM*

In this session the address spaces that make up the runtime environment of the WebSphere Application Server Ver. 4.0.1 are discussed. The Daemon, System Management Server, Naming Server and Interface Repository Server make up the runtime servers which provide the necessary services need to support the execution of webapplications and J2EE applications. These servers are made up control and server region address spaces which provide specific services. These services are the subject of Understanding Your WebSphere Ver.4.0.1 Runtime environment.

### **W02      Introduction to WebSphere for z/OS Version 5**

*Glenn Anderson, IBM*

WebSphere Ver 5 for z/OS provides a Java 2 Enterprise Edition (J2EE) runtime environment for Enterprise JavaBean applications and web applications. This brings with it exciting new possibilities for running e-business applications on z/OS servers. WebSphere Ver 5 also brings with it a fairly complex implementation. This session will introduce the components of WebSphere V5, their functions, and the infrastructure that supports them. The session will also provide an update on other features of V5, including the JMS Integral Provider and the Network Deployment environment.

### **W03      Basic HTTP Server Implementation on OS/390 and z/OS: Part 1**

*Hugh Watson, IBM*

Part I will cover the initial implementation setup of the HTTP server on the OS/390 or z/OS system. The HTTP server is introduced along with its capabilities. That introduction is followed with a discussion of the directives in the httpd.conf file and how they are used in the setup of the HTTP server.

### **W04      Basic HTTP Server Implementation on OS/390 and z/OS: Part 2**

*Hugh Watson, IBM*

Part II will cover the customization of the HTTP Web Server. The directives in the httpd.conf file that are used to customize how the HTTP server handles request are discussed. Also covered in this session will be the logging facilities of the HTTP server.

### **W05      WebSphere for z/OS Version 4.0.1 Hints and Tips**

*Lyndon Bowlin, IBM*

This session will review the WebSphere V4 for z/OS environment and a proposed naming convention to help manage the environment. A "Top Ten" list (give or take a few) of issues with getting

WebSphere up and running. The session will conclude with initial tuning tips for WebSphere V4 for z/OS.

**W06      WebSphere Performance and Capacity Experiences at Royal Bank of Canada**

*Stan Dylnicki, Royal Bank of Canada*

This session discusses a Performance Web Reporting System, which runs completely under WebSphere on z/OS and provides both management and technical analysts a view of 25 MVS systems on a daily basis. The presentation is presented from a Performance and Capacity perspective and shows the issues in measuring and reporting on application performance. It also discuss issues and challenges in developing applications in Java at the bank. The bank currently has about 8 applications deployed and more planned.

**W07      Moving from WebSphere 4.0.1 to WebSphere 5 at the State of Minnesota**

*Joe Linn, State of Minnesota*

WAS for z/OS is a large and complex product. It requires the efforts of people from many different areas within the organization. We will begin by discussing our experiences over the last year installing, automating, maintaining, and living with WAS 4.01. We will discuss getting the right people involved across the organization to perform the various tasks that WAS requires, as well as bridging the gap between Java developers who aren't familiar with mainframes and the mainframe staff who aren't familiar with Java or Unix. With that as a background, we will discuss some of the major changes between release 4.01 and release 5 and talk about our experiences migrating to version 5.

**W08      LDAP and z/OS: Understanding the Basics**

*Jack Jones, IBM*

In this session, we will introduce the concepts of the LDAP and how they are being used in a generic solutions. An overview of IBM's LDAP solutions across the platform is then discussed, before a detail review of the basics of the LDAP solution on z/OS is described. This will a description of the features and functions of the z/OS LDAP server and well as the steps to install the LDAP server for basic security and application use.

**W09      WebSphere for z/OS Version 5 Installation Roadmap**

*Robert Teichman, IBM*

If you look at a picture of a WebSphere Version 5 for z/OS configuration including multiple systems, nodes, cells and servers, it can be quite intimidating. The good news is you can start relatively small and simple and build up your configuration from small to large. This session offers a "roadmap" of that process, and helps you understand what's going on each step of the way. You should come away from this session with a better sense of configuring WebSphere V5 for z/OS and have greater confidence in the process involved.

## **W10      Configuring WebSphere z/OS for Availability**

*John Hutchinson, IBM*

Setting up WebSphere Application Servers on z/OS for maximum availability is a challenging task and critical to the success of your business goals. This presentation addresses the key design points for configuring your "runtime" and application servers for maximum availability. Topics will include network, system, and server design points, as well as failure and recovery considerations with both Version 4 and Version 5 of WebSphere Application Server on z/OS.

## **W11      Advanced LDAP Features and Usages**

*Jack Jones, IBM*

This session is a follow-on the session W08. In this session, the security features and capabilities of the LDAP server are discussed such as ACLs and SSL. As described in this session, is the ways to make the LDAP data more flexible to the applications by updating the schema. This session will use the base LDAP terminology that is defined in session W08.

## **W12      Experiences with WebSphere for z/OS in a Sysplex**

*Mary Astley, IBM*

An important part of implementing and running WebSphere for z/OS in a parallel sysplex is planning. The focus of the session is planning for WebSphere in a sysplex. Our experiences with running WebSphere in a parallel sysplex be discussed.

## **W13      WebSphere Business Integration for zSeries in an on demand World**

*Edward Boulay, IBM*

On demand means being able to respond to customer needs. Companies want to leverage existing systems to make use of resources. WebSphere Business Integration aids this initiative with many technologies available on mainframe systems. In this session, we'll review how WebSphere MQ for z/OS, WebSphere Business Integration Message Broker for z/OS and WebSphere MQ Workflow for z/OS provide a robust basis for business integration on the mainframe.

## **W14      WebSphere for z/OS Administration Hands-on Lab**

*Hilon Potter, IBM*

Have you installed WebSphere Application Server for z/OS version 5 yet. Have you used the new administration interface. This lab will let you walk through the new management interface and let you install an application into your own WebSphere V5 server.

## **W15      WebSphere V4 and V5 Coexisting in the Same z/OS**

*Robert Teichman, IBM*

Customers of WebSphere for z/OS Version 4 who are interested in moving to WebSphere V5 will at some point in time want to run both versions of the product on a system at the same time. The good news is that's possible. But you do have to make sure you configure the Version 5 product so it

doesn't conflict with resources already defined in the Version 4 product. This session will cover what those things are and discuss ways of managing peaceful coexistence of the two on the same box.

#### **W16        WebSphere V5 Installation and Deployment User Experience**

*Michael Lange, LexisNexis*

This presentation will document the "complete" WebSphere v5 installation and deployment experience encountered at LexisNexis. This presentation is geared for installations migrating from v4 and for those who are just beginning the WebSphere adventure using v5. Looking for tips, techniques, or practical suggestions for installing and deploying WebSphere v5? Learn what skills and resources are needed to support WebSphere, once WebSphere is up and running in your environment!! Interested in which documentation is the most beneficial and worth reading? Looking for an impartial view of WebSphere v5 technology? Whether you are a systems programmer, performance / capacity analyst, developer, DBA, or manager you will walk away with useful, practical, and informative insights that will guarantee your success in implementing WebSphere v5 technology into your environment!!

#### **W17        Introduction to the WebSphere Portal Server**

*Hilon Potter, IBM*

Have you heard about the new WebSphere Portal Server for z/OS? This session will provide an overview of WebSphere Portal Server for z/OS, including some installation and configuration tips from a programmer point of view, not an application developer's.

#### **W18        WebSphere for z/OS Version 5 Hints and Tips**

*Lyndon Bowlin, IBM*

This session will compare the WebSphere V5 for z/OS environment to the WebSphere V4 for z/OS environment covering the change in terminology and a proposed naming convention to help manage the environment. A "Top Ten" list (give or take a few) of issues with getting WebSphere V5 for z/OS up and running. The session will conclude with initial tuning tips for WebSphere V5 for z/OS.

#### **W19        Operating WebSphere Version 5 for z/OS**

*John Hutchinson, IBM*

Operating WebSphere Application Servers on z/OS is very different between Version 5 & Version 4. A combination of MVS operator commands and WebSphere Administrative (GUI) console commands are required to manage the runtime daemons, deployment managers, node agents and servers. This session will cover operational tasks to start up the runtime on single and multiple systems, with basic application servers and network deployment configurations, as well as operational techniques for recovery and debugging the runtime environment. The attendees should have a basic understanding of the various configuration options in WebSphere V5 on z/OS.

#### **W20        WebSphere Studio Application Monitor: Hands-on Lab**

*Hilon Potter, IBM*

So you have WebSphere Application Server installed on your z/OS system, are you monitoring and/or managing it (on the outside but not the inside). WebSphere Studio Application Monitor is a new

product that will let you monitor and manage WebSphere Application Server on multiple platforms. This lab will let you get some hands on experience using the WSAM management interface.

**W21      Monitoring WebSphere for z/OS Using Introscope: Hands-on Lab**

*Peter Enrico, Enterprise Performance Strategies*

**W22      Implementing LDAP on z/OS Hands-on Lab: Part 1**

*Jack Jones, IBM*

The hands-on lab session will use information discussed in session W08 to provide the attendee practical experience on configuring an LDAP server on z/OS. In this session, you will install an LDAP server with both a RACF (SDBM) and DB2 (TDBM) as the base implementation. Then if time allows, security features such as native authentication, SSL, and ACLs can configured and used on these LDAP servers.

**W23      Implementing LDAP on z/OS Hands-on Lab: Part 2**

*Jack Jones, IBM*

See abstract for Part 1

**W24      WebSphere for z/OS: Q&A with the Experts**

*Panel of Speakers*

This session is a chance for you to ask the experts any questions in the area of WebSphere running on OS/390 or z/OS.

## **z/OS, PARALLEL SYSPLEX, AND STORAGE SOFTWARE**

**Z01      What's New in z/OS?**

*Mary Moore, IBM*

Interested in the latest news, trends, and directions related to z/OS, IBM's flagship mainframe operating system? Join us at this session to learn about the latest z/OS news and to gain insight into future technology directions for z/OS. This session will cover technology, policy and migration.

**Z02      Parallel Sysplex Basics**

*Angelo Corridori, IBM*

What is a Parallel Sysplex and why do companies build them? What are the key hardware and software elements needed for a Parallel Sysplex? What is a coupling facility and what does it do? The speaker will begin with Parallel Sysplex basic terminology and concepts and progress to show how the zSeries hardware and z/OS software and subsystems work together to deliver business value. Familiarity with zSeries and z/OS helpful, but not required.

### **Z03      Migrating to z/OS Rel 4...with a Focus on Coming From OS/390 R10: Part 1**

*Marna Walle, IBM*

Come hear about migrating to z/OS R4! This informative session can help you get to z/OS R4. This presentation will focus on migrating from OS/390 R10 to z/OS R4, in recognition of the popularity of OS/390 R10. Discussed will be:

- \* the new, changed, and deleted elements and features in z/OS R4 from OS/390 R10. Future deletions in z/OS will also be covered.

- \* driving, target, and coexistence system requirements.

- \* migration actions from OS/390 R10 to z/OS R4 for particular z/OS elements, which contain descriptions of:

- \* when the migration action can be performed (now on OS/390 R10, before first IPL, or after first IPL)

- \* if it is required in order to have the new system function the same way it did on the previous system,

- \* what release the change was introduced in, and

- \* system requirements for the migration action.

- \* selected installation enhancements in z/OS R4 (including packaging and element functions).

This session will be of interest to systems programmers and their managers who will order and install z/OS R4. It was presented in 2002 at Miami Beach, but has been updated since then with current information. Even if you are migrating from a previous z/OS release to z/OS R4, you will find useful information at this session!

### **Z04      Migrating to z/OS Rel 4...with a Focus on Coming From OS/390 R10: Part 2**

*Marna Walle, IBM*

See abstract for Part 1

### **Z05      Getting Started with the UNIX Shell and Utilities**

*Stephen Wehr, IBM*

This session will introduce zSeries people to the UNIX shell and utilities, which is used in Linux and z/OS UNIX Services. For MVS people the UNIX shell can be a confusing and weird beast. This talk will present the fundamentals to allow you to make sense of the syntax of the shell and how it operates. Also discussed will be the most commonly used UNIX commands, and how to start combining utilities to create powerful programs in a few sentences.

### **Z06      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.

## **Z07      Sorted! What's New in DFSORT**

*Martin Packer, IBM*

DFSORT has evolved markedly over recent years. Both Releases 13 and 14 have introduced significant new functions. There have been additional major enhancements through PTFs. These enhancements increase productivity, extend capabilities, and improve performance (particularly with DFSORT's exploitation of z/OS's 64-bit support. This presentation outlines the more useful of these enhancements, incorporating examples and guidelines.

## **Z08      Parallel Sysplex Update**

*Angelo Corridori, IBM*

Parallel Sysplex technology provides the foundation for a highly scalable, highly available e-business application infrastructure. In this session, the speaker will cover the spectrum of IBM hardware and software products, subsystems, and components that have recently shipped, or will soon ship, Parallel Sysplex functions and features. The speaker will also highlight technology directions and those capabilities which leverage the Sysplex technology infrastructure, such as Geographically Dispersed Parallel Sysplex for disaster recovery and business continuity. The speaker will assume that the audience is familiar with Parallel Sysplex concepts and terminology.

## **Z09      How to Prepare for Workload License Charges**

*Alex Patterson and Kay Adams, IBM*

Attend this session to understand how Workload License Charges for zSeries might impact the future architecture of your mainframe environment. Also learn how to effectively plan for Workload License Charges by analyzing the performance of your current LPARs. This session will be ideal for hardware capacity planners who are being asked to factor software costs into hardware growth decisions. In addition, system programmers with SMF data collection and analysis responsibilities should find this session helpful.

## **Z10      What's New in SMP/E V3R2 and ServerPac?**

*Marna Walle, IBM*

Come to this session to hear about the latest enhancements for installing z/OS. Topics covered will include:

SMP/E V3R2 - reduction in SMPLTS space, new UPGRADE and LINK LMODS commands, Java Archive (JAR) support, a new collection routine for ShopzSeries, and many other helpful enhancements. ServerPac - Enhancements from OS/390 R10 thru z/OS R4 will be covered. They include a new look for "Modify System Layout", using the Recommended System Layout, a supplied WLM Goal Mode environment, 3590 support, and lots more.

This session is of interest to system programmers and their managers who have the responsibility of installing and maintaining z/OS.

## **Z11      Planning for and Using System Managed CF Structure Duplexing**

*Riaz Ahmad, IBM*



System-Managed CF Structure Duplexing is a new function which improves availability for CF structure users that exploit it. CF Duplexing creates and maintains two synchronized copies of a CF structure in two separate CFs. In the event of a failure affecting one of the structure instances, the system can 'fail over' in simplex mode to the surviving structure instance. The speaker will explore the planning considerations, hardware and software requirements, basic performance implications and migration steps required to successfully implement this function to achieve the desired availability benefits.

## **Z12        A z/OS System Programmer's Guide to a z990 Migration**

*Greg Daynes, IBM*

Come hear about how to upgrade to a zSeries 990 (z990) server! This informative session can help you get to z990 server. The discussion will include:

- A description of z/OS and OS/390 compatibility code and z/OS V1.4 Exploitation code, focusing on when the code is required to be installed on z990 and non-z990 servers
- The staging of clear key and secure key cryptography, and how it affects your migration plans
- Installation considerations including obtaining the appropriate web deliverables and z/OS features, as well as reviewing the driving, target, and coexistence system requirements.
- Sysplex considerations when running an operating system or Coupling Facility image on a z990 server  
A detailed review of the software migration actions
- The recommended migration procedures for upgrading to a z990 server. Hints and tips will be provided to ensure a smooth migration and avoid unnecessary outages.

This session will be of interest to systems programmers and their managers who will upgrade to a z990 server.

## **Z13        Living in a 64-bit World - Part 1: The z/Architecture**

*Robert Rogers, IBM*

The IBM zSeries z900 and z800 processors implement a new 64-bit architecture called z/Architecture. The speaker will present an overview of z/Architecture, and will discuss the overall structure and rationale of the architecture. He will also cover many of the over 100 instructions added to the architecture as well as the new control structures. If you are not already familiar with z/Architecture, this session is a must in order to get the most out of debugging information in part two.

## **Z14        Living in a 64-bit World - Part 2: Debugging**

*Robert Rogers, IBM*

How has the debugging process changed in the 64-bit world of OS/390 R10 and z/OS, as compared to that in the ESA/390 environment? With the new z/Architecture, what do dumps look like? Are there new tools and techniques? Are there new error scenarios? Don't miss this session if you are interested in the answers to all these questions. If you are not familiar with the new z/Architecture, do not miss part one of this presentation. General knowledge of z/Architecture is a prerequisite to this session.

**Z15        System Logger - If it Ain't Broke.....**

*Riaz Ahmad, IBM*

To many installations, the z/OS System Logger is a "black box". As long as people can use it, and it doesn't abend, you leave it alone. However, your Logger may be performing way below its capabilities, and impacting your important subsystems such as CICS and IMS in the process. This session will discuss the different ways that Logger can be used - vital information that you need when setting up your Logger configuration. It will also discuss how logger definitions that have remained unchanged for a long period of time may no longer be optimal since hardware and software have changed around them over time.) Finally, it will go through the important Logger policy statements and describe how these can impact your performance and availability. If you are, or will be, a significant user of Logger, this is a no-miss session.

**Z16        UNIX Advanced System Services**

*Frank DeGilio, IBM*

Who needs Linux or Unix. We can do anything they can do... This session will talk about new Unix System Services features available in z/OS 1.3 & 1.4. It will also talk about neat hints and tips that can help you manage the USS environment.

**Z17        How to Use the Sub-Capacity Reporting Tool**

*Alex Patterson and Kay Adams, IBM*

If your shop decides to migrate to sub-capacity Workload License Charges for zSeries, use of the Sub-Capacity Reporting Tool (SCRT) will be required. Attend this session to hear how to use SCRT and how to interpret the output of the tool, the Sub-Capacity Reports. In addition, this session will review the planning steps for successful implementation of SCRT and discuss the end-to-end process of collecting the required SMF data, running SCRT, reviewing and submitting the reports. Also briefly discussed will be IBM's long-term strategy for software license management.

**Z18        Migration Considerations for z/Architecture (64-bit)**

*Bette Brody and Kathy Walsh, IBM*

Migrating to z/Architecture (64-bit) is crucial to keeping in step with z/OS releases and exploiting new function. IBM has announced an architecture level set release with z/OS 1.6. This session will identify critical tasks for a successful z/Architecture implementation and planning for capacity in this environment.

**Z19        z/OS.e Installation**

*Marna Walle, IBM*

z/OS.e is a specially priced offering of z/OS, which provides selected functions intended for new workloads. z/OS.e shares the same code base as z/OS, and will only run in an LPAR on z800. This presentation will cover the following topics:

Differences in the elements, features, and functions that are supported on z/OS and z/OS.e (including JES levels!)

Installation deliverables which support z/OS.e

Sharing the sysres between z/OS.e and z/OS systems

Coexistence, migration, and release cycle information

Target system hardware and software requirements

Customization of z/OS.e, including parmlib requirements

This session will be of interest to systems programmers and their managers, who will order and install z/OS.e.

## **Z20          Understanding What's New in zSeries Software Pricing**

*Kay Adams, IBM*

Come and hear the latest news on zSeries software pricing metrics, methodologies and price points.

## **Z21          z/OS Release 2-4 Goody Bag**

*Robert Rogers, IBM*

Come to this presentation to hear the speaker enthusiastically 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). He will tell you about some of the benefits you can get by just installing/customizing z/OS. Items covered from release 2, 3 and 4 of z/OS Include:

- 64-bit virtual and AMODE(64) support
- GRS RNL wild carding and new RNL exit
- Automatic Tape Switching (ATS Star)
- TSO/E enhancements
- Page Data Set use protection
- D M=CPU enhancement for CUoD
- A new JES 2 monitor
- IPCS enhancements
- More system symbols
- REXX services for the USS environment
- Other extraneous miscellany in abundance

## **Z22          IBM Service Strategy**

*Greg Daynes, IBM*

Come to this session and see how IBM is improving service quality, delivery and ease of installation. Topics include:

- Consolidated Service Test (CST) and the Recommended Service Upgrade (RSU)
- Automating cross product and cross system requisite checking using SMP/E functions

If you are a system programmer and find yourself saying, "I see all the improvements IBM is making in its product line, but what are they doing for service?", come to this session and see how IBM is facing the service issue head-on with improvements in quality, delivery and ease of installation. IBM instituted an additional service testing environment called Consolidated Service Test (CST) for z/OS, OS/390, IMS, DB2, CICS, and MQSeries. The IBM software maintenance strategy now reflects service that has been through CST testing. As a result, the Recommended Service Upgrade (RSU) process has changed. This change affects which PTFs are identified as RSU, when they are assigned RSUyymm SOURCEIDs, and the month used in the SOURCEID. Come to this session to learn more about the new service test, the revised definition of the RSU maintenance philosophy and how it will be rolled out.

There will also be a discussion regarding how to use SMP/E function to automate cross product and cross system requisite checking. If you have you ever installed a new level of the OS and hoped that there was an automated way to verify that all the coexistence service was installed; or if you have you ever installed a product like WebSphere 4.0.1 and wanted to ensure all its dependencies (z/OS PTFs, DB2 PTFs, etc.) were installed; or if you have you ever deployed middleware (WebSphere, DB2, MQ Series, etc.) to a new OS image and wanted to verify that its requisites were there, then you **MUST** attend this session.

## **Z23        Exploring the DFSMSHsm Common Recall Queue**

*Ed Baker, IBM*

In DFSMS zOS 1.3 HSM introduced the common recall queue which provide installations with the option of placing recall requests in a coupling facility queue which can then be shared among multiple HSMs in an HSMplex. This provides for numerous benefits such as request persistence, load balancing, priority optimization, and performance.

## **Z24        Creating a Test Sysplex That Doesn't Impact Your Production Sysplex**

*Joan Kelley, IBM*

With the advent of larger processors, many installations are carving out a small portion of their processor resource to create a test sysplex. In some cases, this test sysplex is having an unexpected impact on the production sysplex. This presentation will discuss recommendations for CF options and LPAR definitions to minimize the impact of the test sysplex on shared production resources. Before and after examples will be given.

## **Z25        z/OS and zSeries Security Update**

*Jack Jones, IBM*

This session will be a combination of a very brief review of the current items involved in security on a zSeries system running the z/OS operating system. It will focus on the z/OS Communication Server and z/OS Security Server and their current security features as of OS/390 2.10. Then we will go into details of their security enhancements that have been introduced with z/OS 1.2 up to z/OS 1.4. There is an

introduction to the IBM Security Advisor. Finally there will be a brief discussion on how these features might be used to assist with a secure e-business solution on a z/OS system.

## **Z26      The Highlights of z/OS Language Environment**

*Mary Astley, IBM*

Language Environment (LE) is the run-time environment of a z/OS system. It is the run-time environment used by many z/OS elements. This session provides an overview of LE, including its program model, storage model, and conditioning handling model. The LE options to specify and customize run-time options will also be discussed. This discussion will focus on some key run-time options, which may affect the performance of applications. This session is intended for individuals new to Language Environment.

## **Z27      Managing and Tuning DFSMSHsm**

*Ed Baker, IBM*

This presentation will cover HSM hints and tips that have been gathered through the years by HSM support and development that can aid installations in improving their management of HSM.

## **Z28      Parallel Sysplex Application Considerations**

*Angelo Corridori, IBM*

Parallel Sysplex computing and data sharing technologies are playing a major role in e-business computing. However, in spite of the compelling capabilities that Parallel Sysplex can deliver, Parallel Sysplex is essentially an unknown within the application architecture and development communities. While it is possible to "surround" applications with Parallel Sysplex technology to minimize the need for application involvement, this approach does not lend itself to deriving maximal value from Parallel Sysplex technology. This presentation will discuss application structure, strategies, and techniques that can be used to ensure that new or existing applications fully exploit Parallel Sysplex. In particular, it will cover such topics as application cloning, workload affinities, serialization, workload routing and balancing, application versioning and other topics of interest to the application architect/developer. Where appropriate, the presentation will provide examples specific to a particular application environment (CICS, DB2, IMS, etc.).

## **Z29      Transactional VSAM (TVS)**

*Ruth Ferziger, IBM*

Transactional VSAM is the follow on to VSAM record level sharing (RLS). With VSAM RLS, you have the ability for batch programs to access recoverable data sets for read while online applications read and update them. However, if your batch applications need update access to the data sets, access to the data sets must first be taken away from your online applications. Transactional VSAM gives you the ability to have your batch programs read and update the data sets without first making them unavailable to your online applications. This session will include a discussion of what transactional VSAM is, how to use it, and some considerations for batch jobs wishing to take advantage of it.

## **Z31      Language Environment Migration Planning: Part 1**

*Carl Gehr and Marilyn Frankel, Edge Information Group*

Migrating applications to LE and to the LE conforming compilers requires a solid technical evaluation in order to build a plan to assure success while minimizing the disruption to the overall system environment. Without a good plan, there are many pot holes in the road that can lead to a bumpy ride. This double session will first look at the structure of the old and new language run-time libraries to provide a base for understanding the migrations tasks and the recommended migration approach. Then, there will be a discussion of the types of information required to understand the nature of the application portfolio and build a migration plan, including:

- \* Who needs to be involved in the migration.
- \* What migration issues exist in your specific applications.
- \* How to assess a migration effort.
- \* How to use of tools to reduce the migration time and effort.

This is a technical session intended for individuals who understand the basics of LE. This prerequisite knowledge can be obtained by attending the "Highlights of z/OS Language Environment" session.

### **Z32      Language Environment Migration Planning: Part 2**

*Carl Gehr and Marilyn Frankel, Edge Information Group*

See abstract for Part 1

### **Z33      Parallel Sysplex CF 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.

### **Z34      LPAR Defined Capacity, Initial Processing Weight and the Soft Cap**

*Alan M. Sherkow, I/S Mgmt Strategies, Ltd*

Defined Capacity is a new LPAR parameter on z900s that is used by z/OS's WLM to limit the four-hour average as part of implementing IBM's Workload License Charges. The initial processing weight is an LPAR parameter that works with z/OS and indicates the distribution of CPU resources, particularly when the demand for resources is near the CPU capacity.

This presentation will explore how these two parameters relate to each other and how they impact your LPAR and IRD configuration on a z900. Understanding these parameters helps also understand WLC Soft Capping.

Defined Capacity is the most sophisticated tool that an installation can use to control their LPAR's utilization and their WLC software bill. This continues to be an important parameter to understand even as WLC continues to evolve. New considerations from IBM announcements are included along with examples.

### **Z35      Shared HFS at the State of Minnesota**

*Joe Linn, State of Minnesota*

Come hear about the State of Minnesota's experiences with shared HFS.

The session will begin with an introduction to shared HFS, discuss our initial migration to shared HFS, and then discuss our continually evolving shared HFS strategy. There are so many possibilities with shared HFS that every time we think we have everything covered, something new comes along that causes us to reevaluate and fine tune the way we do things. There will also be discussion of some of the difficulties we have had along the way and how we solved them.

### **Z36      Service in ShopzSeries**

*Greg Daynes, IBM*

IBM Service is now available through ShopzSeries, the strategic Web-based ordering tool for zSeries software. Through ShopzSeries, you can quickly and easily order and receive corrective or preventive service for z/OS and OS/390 electronically over the Internet (or by standard physical media if you prefer). Come to this session to hear:

- How to get started
- How ShopzSeries compares to Service Update Facility (SUF) and other service delivery offerings
- How to order, download and SMP/E RECEIVE either tailored corrective or preventive service and the latest ENHANCED HOLDDATA
- Techniques to make using ShopzSeries even easier

### **Z37      Running z/OS in a Little Itty-Bitty 64-bit World**

*Dr. Pat Artis, Performance Associates*

With an 80 MIPS minimum entry point, the 64-bit world provided by zSeries processors is beyond the reach of many small shops and developers. Pentium based z/Architecture emulation addresses this gap and provide a low cost 64-bit solution for small environments. This session will provide an overview of the FLEX/ES emulator architecture as well as discuss Performance

Associates' system programming, performance, and compatibility experiences with FLEX/ES as part of IBM's PartnerWorld for Developers program.

### **Z38      WLC Optimization**

*Alan M. Sherkow, I/S Mgmt Strategies, Ltd*

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 Capping to Control Software Charges?

What Value Should the Defined Capacity be?

What is the Impact of Changing the Defined Capacity?

It is possible to compute optimal Defined Capacities 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.

### **Z39        DFSMShsm, DFSMSdss, and Fast Replication: What, Why, and How**

*Ed Baker, IBM*

There are many reasons why IT shops utilize Data Replication , these include data mining, disaster recovery, archive, and local backup and recovery. This presentation will compare and contrast the various IBM Fast Replication tools including Snapshot, Concurrent Copy, and Flashcopy are how they are exploited by DFSMShsm and DFSMSdss.

### **Z40        IBM Transaction Processing Facility (TPF)**

*Stu Waldron, IBM*

If you made a travel reservation or used a credit card to attend the zSeries EXPO, then you probably used IBM's Transaction Processing Facility (TPF). TPF is IBM's specialized zSeries operating system and transaction processor for high-end, high-volume, high-bandwidth computing. Designed to excel in the most demanding operational requirements, TPF is optimized for maximum transaction rates per second (currently in excess of 25,000 per second), maximum networked end-user communities (currently in excess of 500,000 active connections) and fastest access to data maintained (for business or security reasons) in large, contiguous data bases. Working in concert with WebSphere and/or Linux, TPF is at the core of innovative IBM solutions for e-business on demand.

### **Z41        GDPS ® Overview and Dillard's User Experience**

*Dave Petersen, IBM and Terry Glover, Dillard's, Inc.*

Are your e-business applications protected from the many unplanned and planned factors that can contribute to application and data unavailability ? The very survival of your business may depend upon how quickly your e-business can recover from an unplanned outage such as a site disaster. Is your business-critical data protected from a site disaster? Do you put off system maintenance and upgrades to avoid system downtime?

This session will describe how IBM's zSeries application availability solution, GDPS, integrates zSeries Parallel Sysplex® cluster technology and Remote Copy technology to enhance application availability and improve disaster recovery. The basic GDPS functions and configurations will be discussed. Dillard's, which uses GDPS/PPRC, will present their implementation experiences and business benefits. Come and hear why a leading IT consultant considers GDPS to be the fastest disaster recovery solution available today.

### **Z42        GDPS Technical Update**

*Dave Petersen, IBM*

GDPS ®, an industry leading e-business availability solution, is a solution that is designed to provide the capability to manage the remote copy configuration and storage subsystem(s), automate Parallel Sysplex



operational tasks, and perform failure recovery from a single point of control, thereby helping to improve application availability. GDPS supports both the synchronous Peer-to-Peer Remote Copy (PPRC), as well as the asynchronous Extended Remote Copy (XRC) forms of remote copy. Depending on the form of remote copy, the solution is referred to as GDPS/PPRC or GDPS/XRC.

This session will provide an overview of business continuity considerations, how GDPS/PPRC provides a Continuous Availability/Disaster Recovery Solution across two sites, how GDPS/XRC provides a Disaster Recovery Solution across two sites, how GDPS provides a Continuous Availability/Disaster Recovery Solution across 3 sites, and some customer experiences.

### **Z43        Real Life Analysis of WLC**

*Alan M. Sherkow, I/S Mgmt Strategies, Ltd*

This session will review one organization's IBM software products and show the impact of changing to workload license charges. Each of the steps in the analysis will be explained including creating the software inventory, mapping the software to the LPARs, reviewing likely scenarios for hardware growth. The scenarios are then 'priced' via workload license charges.

### **Z44        System Programmer Productivity Tool Bag**

*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 OS/390 and z/OS product enhancements to improve your productivity! Included will be tools such as:

Wizards

Planning and Migration Assistant (PMA)

Interactive Planning and Installation

Parallel Sysplex and z/OS Health Checker

Technical documentation/White Papers/RedPapers

SMP/E updates

Electronic software ordering

Softcopy updates

Migration Aids

Logrec Viewer

BPXPRMxx Syntax Checker

Pointers to useful Information

Software Maintenance Strategy

### **Z45        Usage Pricing on s/390 and z/OS**

*Alan M. Sherkow, I/S Mgmt Strategies, Ltd*

Usage Pricing with PSLC is still available with z/OS and may be an alternative to Workload License Charges. If your CICS, DB2, MQ, or IMS workload is less than 25% of the machine's capacity S/390 Usage Pricing may be just the what you need! This new presentation will describe Usage Pricing, and

the technology involved. What you need to think about for evaluating the Usage Pricing model is included.

**Z46          z/OS, zSeries, and Parallel Sysplex: Q&A with the Experts**

*Panel of Speakers*

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.

## **Z/VM and zSeries Virtualization Technology Basics**

**V01          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).

**V02          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.

**V03          CMS Fundamentals**

*Romney White, IBM*

VM has always provided interactive timesharing in a conceptually novel manner by giving each user a virtual machine in which to run a relatively small, single-user operating system known as CMS. That very same CMS is also used as the base for large, complex server applications, or as the transient vehicle for tailoring a virtual machine environment to the requirements of a guest SCP such as OS/390, VSE, TPF, or VM itself. The intent of this talk is to provide an introduction to CMS that emphasizes the characteristics that allow it to perform these diverse roles effectively and give it its special personality.

**V04          Introduction to VM Control Program (CP) (Part 1 of 2)**

*John Franciscovich, IBM*

Do you use your VM system interactively? To run applications? To host a web server? To run another operating system? For something else? All of the above? Whatever you use VM for, the Control Program (CP) works under the covers as a real machine resource manager. It provides each virtual machine (user) with an individual working environment and access to real processor resources and devices, and allows applications and users to exchange information. Come to this session and get a glimpse of what CP does for you "under the hood" of z/VM. This session will be continued in Session V05, "Introduction to VM Control Program (CP) Part 2 of 2".

#### **V05      Introduction to VM Control Program (CP) (Part 2 of 2)**

*John Franciscovich, IBM*

Do you use your VM system interactively? To run applications? To host a web server? To run another operating system? For something else? All of the above? Whatever you use VM for, the Control Program (CP) works under the covers as a real machine resource manager. It provides each virtual machine (user) with an individual working environment and access to real processor resources and devices, and allows applications and users to exchange information. Come to this session and get a glimpse of what CP does for you "under the hood" of z/VM. This session is a continuation of Session V04, "Introduction to VM Control Program (CP) Part 1 of 2".

#### **V06      Introduction to TCP/IP**

*Miguel Diaz, IBM*

This presentation is a gentle introduction to VM TCP/IP. You will learn the elements of a TCP/IP `stack`, the major components of VM TCP/IP and its basic software configuration options, as well as some practical information about the IBM Open Systems Adapter

#### **V07      Introduction to Automatic SSL Support in z/VM TCP/IP**

*Will Roden, IBM*

SSL (Secure Socket Layer), also known as TLS (Transport Layer Security), is traditionally used to secure Web transactions over the Internet. Most VM Web servers support SSL. However, this protocol has also been extended to Telnet and FTP. In order to provide general-purpose SSL support for z/VM TCP/IP servers without having to change each server individually, IBM has implemented automatic SSL support. This session explains SSL from an external viewpoint and describes how to exploit it with z/VM TCP/IP.

#### **V08      Getting Started with CMS Pipelines**

*Will Roden, IBM*

CMS/TSO Pipelines is the most efficient way to write an application that I know. Some of our customers tell us that they get a productivity enhancement of between 15% and 300% by using Pipelines. This is because Pipelines consists of over 150 "gems" called stages that provide simple but complete function. Each stage is completely tested and provides solid function that is available for use. The stages are combined into Pipelines when you build an application. Pipelines

can be used to write the entire application, or just a part of one. During this discussion, I will explain the Pipelines concepts that are needed to get started and I will also expose several useful stages. When we are finished, you will be able to use Pipelines to enhance your applications and start you on the road to increased application productivity

## **Virtualization Technology for Linux on zSeries and S/390**

### **V11 Automating Linux for zSeries with VM Programmable Operator (PROP)**

*David Boyes, Sine Nomine Associates*

One of the fantastic benefits of running Linux under VM is the availability of a sophisticated programmable operations facility that can monitor Linux console and syslog output and respond intelligently to messages and queries posted by literally thousands of Linux instances. This session will describe a set of Linux automation tools that form a framework for handling common console and user problems, do availability testing and application availability monitoring, and provide rudimentary security scanning for a farm of nearly 10,000 virtual Linux systems in production. Come see how to use VM's best features to also drive events on other systems as well -- we'll also present a prototype of a distributed console monitoring tool that provides PROP-based control of AIX, Solaris, and SGI systems integrated with a Linux for S/390 environment.

### **V12 LPAR vs. VM Preferred Guests**

*Romney White, IBM*

In non-VM installations, hardware Logical Partitioning (LPAR) support is widely viewed as an alternative to VM/ESA Multiple Preferred Guest (MPG) facilities. However, VM aficionados know that there must be a catch, since VM offers so much more. In fact, as this session explains, running VM in an LPAR can even be a viable configuration option. Because LPAR and MPG are based on many of the same technologies and concepts, it isn't surprising that they are often compared and sometimes confused. In this session, we try to present a factual comparison of LPAR and MPG, with an eye to helping customers decide which solution is the right one for them.

### **V13 Bear Trainers Pushing Penguins: Translating your CMS Skills to Linux Skills**

*Will Roden, IBM*

VM and LINUX both have a command line structure and programmers can do similar things with each. However, the commands are different. This discussion will tell VMers (Bear Trainers) how to do the same things in LINUX (by Pushing Penguins). We will discuss how data is stored, how to find out about the files, and unique security features. Changing files, using pipelines, and executable scripts will also be discussed for LINUX.

## **z/VM Connectivity**

### **V21      TCP/IP for z/VM Update**

*Romney White, IBM*

z/VM V4.4 includes TCP/IP Function Level 440, a new level of the TCP/IP Feature that delivers significant new functions. This session gives an overview of these functions, as well as describing the VM TCP/IP product and changes to it that have occurred through the service stream since Function Level 420 was made available with z/VM V4.2.

### **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      VM TCP/IP Advanced Configuration**

*Miguel Diaz, IBM*

Learn important advanced configuration information for VM TCP/IP. Configuration of TN3270E, FTP, NFS, SMTP, and elementary routing are discussed. Problem determination procedures will also be discussed. Attendees should be familiar with VM TCP/IP FL310 or later, or should attend *Introduction to VM TCP/IP* (Session V06) before attending this session.

### **V25      Virtual Networking with z/VM Guest LANs**

*Alan Altmark, IBM*

Did you know that you can create a LAN connecting your z/VM guests without installing new adapters or running ethernet cables? Come to this session to hear the latest on how to use virtual OSA Express QDIO and zSeries HiperSocket adapters to connect a network of z/VM guests .

### **V26      Using IPWIZARD to Configure TCP/IP Connections**

*Rod Nash, 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 the 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**

*Rod Nash, IBM*

z/VM V4.4 introduced some 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.

## **z/VM™ General Interest**

### **V41      z/VM: The Value of zSeries Virtualization Technology for Linux**

*Reed Mullen, IBM*

IBM's z/VM product has been a key component of the many Linux-on-mainframe success stories. z/VM enables customers to realize significant cost of ownership savings in the deployment of large-scale Linux server farms on a single zSeries processor. This presentation is intended for an audience that is not familiar with the technology found in the z/VM product. 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 available z/VM V4.4 Improves Virtualization Capabilities for Linux on zSeries.

### **V42      Introduction to REXX Hands-on lab (Part 1 of 2)**

*Christine Casey, IBM and John Franciscovich, IBM*

The REXX Language is 24 years young and continues to be popular across many computing platforms. Would you like to learn 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 techniques. This lab continues with Part 2 in session **V43**.

Attend these sessions to boost your skill set as you get started with the REXX language that was designed to be easy (and fun) for people to use.

#### **V43 Introduction to REXX Hands-on lab (Part 2 of 2)**

*Christine Casey, IBM and John Franciscovich, IBM*

This session is a continuation of Session V42.

#### **V44 z/VM Platform Update: What's new in z/VM V4.4 ?**

*Reed Mullen, IBM*

In the span of two years since its launch in July of 2001, z/VM Version 4 has introduced four releases of new function. This session will give you an overview of the capabilities shipped in z/VM 4.3 and the newly available z/VM V4.4, offering you an introduction to z/VM function presented in various sessions throughout the week. You'll also find out how z/VM V4 is priced differently than VM/ESA or z/VM V3, offering cost savings for current VM customers and making it easy to deploy Linux with z/VM on your zSeries processor complex.

#### **V45 z/VM Platform 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 May 13, 2003, IBM announced z/VM V4.4, the newest IBM VM operating system based on the new 64-bit z/VM z/Architecture. z/VM provides a highly flexible test and production environment for enterprises deploying the latest e-business solutions. 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/ESA, CMS, Linux for S/390, or Linux on zSeries.

#### **V46 The latest and Greatest on z/VM Control Program (CP)**

*Romney White, IBM*

The newest releases of z/VM V4 include many enhancements to the z/VM Control Program. These include new support for Linux guests, virtual networks, and guest connectivity, as well as technological enhancements for IBM eServer zSeries servers. Come to this session to hear about the recent enhancements in the z/VM V4 Control Program.

#### **V47 z/VM Security and Integrity**

*Alan Altmark, IBM*

Current VM customers are familiar with the isolation/security/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 and scalability but also comply with organizational IT security mandates. This presentation is an overview of the security and integrity characteristics of the VM operating system when used to host virtual Linux servers on IBM zSeries or S/390 servers..

#### **V48      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's CP configuration capabilities, including creating the system configuration file, defining IPL parameters, and dynamically adding, redefining, and removing resources from your CP configuration.

#### **V49      Writing Pipelines Stages**

*Will Roden, IBM*

This discussion will start with how to write stages using REXX. Then the concepts of CALLPIPE will be introduced and I will show how it interacts with REXX stages. Next, we will discuss ADDPIPE and how it is different than CALLPIPE and why you would want to use it. With this understanding of REXX stages, we will describe writing stages in ASSEMBLER.

Now that the background is in place, we will discuss what the PRODUCER argument on VAR, VARLOAD, STEM, and REXXVARS can accomplish.

#### **V51      Running z/VM to Host Linux - Installation and Customization Part 1**

*Richard Lewis 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 this lab may be reinforced through attendance at other conference sessions.

#### **V52      Running z/VM to Host Linux - Installation and Customization Part 2**

*Richard Lewis and Chuck Morse, IBM*

This session is a continuation of Session V51.

#### **V53      Running z/VM to Host Linux - Installation and Customization Part 3**

*Richard Lewis and Chuck Morse, IBM*

This session is a continuation of Session V51.



## **V54      Running z/VM to Host Linux - Installation and Customization Part 4**

*Richard Lewis and Chuck Morse, IBM*

This session is a continuation of Session V51.

## **z/VM System Management**

### **V61      z/VM System Management**

*Christine Casey, IBM*

As more and more customers discover the benefits of z/VM virtualization technology and begin to deploy tens to hundreds virtual images, they will like to find ways to easily manage their systems. This presentation gives a general overview of the various systems management options available on z/VM today.

### **V62      z/VM: System Management on z/VM with HCM and HCD**

*Dr. Thomas Schiekofer, IBM*

HCM (Hardware Configuration Manager) and HCD (Hardware Configuration Definition) are the hardware configuration tools for IBM eServer zSeries processors on z/OS, and now also for z/VM V4.4, announced on May 13, 2003. This presentation focuses on the new z/VM support in HCM and HCD and how they support hardware configuration on z/VM.

### **V63      z/VM Resource Manager**

*Christine Casey, IBM*

The Virtual Machine Resource Manager (VMRM), introduced with z/VM V4.3, 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 what's new in z/VM V4.4. (announced May 13, 2003) and how you can use VMRM to help manage your z/VM system.

### **V64      Managing Linux using Hidden Tools in z/VM**

*Jim Elliott, IBM*

Over the years, IBM has added a lot of function to what is now z/VM and its features. For most people, these functions remain a hidden secret as they are buried in the large library of z/VM's documentation. Topics will include: Sources of Information, System Utilities, CMS Utilities, Operating a Linux Virtual Machine, VM Download Packages, and Tools and Information on the Internet The speaker will bring to light these functions and provide an overview of how they can be used to make your life easier in managing and monitoring your Linux for zSeries and Linux for S/390 images.

## **z/VM Performance**

### **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. He will describe the performance changes associated with the z/VM V4.3 including regression environments, scenarios with greater than 2 gigabytes of real storage, Secure Socket Layer support, and QDIO gigabit ethernet measurements

### **V92        Performance Toolkit for VM™**

*Eginhard Jaeger, IBM*

This presentation about the Performance Toolkit for VM, new with z/VM V4.4, will give a general overview of the program's capabilities, and inform about the latest enhancements and plans. IBM announced z/VM V4.4 on May 13, 2003 and along with it the Performance Toolkit for VM, a priced, optional feature derived from the popular FCON/ESA program. Use the Performance Toolkit to reduce data from the z/VM MONITOR and produce real time reports along with history files. The Performance Toolkit for VM provides enhanced capabilities for a z/VM systems programmer, operator, or performance analyst to monitor and report performance data. IBM announced that z/VM 4.4.0 is planned to be the last release in which the RTM and PRF features will be available with z/VM, and plans to withdraw both the RTM and PRF features from marketing in a future z/VM release. Performance Toolkit for VM is the new performance tool that you will come to appreciate.

Note:

All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice. Any reliance on this Statement of Direction is at the relying party's sole risk and will not create any liability or obligation for IBM.

### **V93        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.

## **General Linux on zSeries Sessions**

## **L01      IBM, Linux and zSeries: An Update on IBM's Linux Strategy and Linux on zSeries**

*Jim Elliott, IBM*

Wondering where IBM is going with their Linux strategy? This session will provide an overview of that very topic. Topics covered will be:

- Linux Overview, value and marketplace: A brief overview of what Linux is, its value to our customers and trends in the marketplace
- Linux Misconceptions: Setting right the facts about Linux and what it is capable of today including some real-life customer examples
- IBM Strategy and Linux Opportunities: Executive perspective of the strategic plays where we see Linux and the opportunities for its usage today including references
- IBM Products & Services Overview: A short overview of the IBM Linux portfolio (server platforms, middleware and support and services)
- IBM Customer Focus Areas and References: Focus areas by industry where Linux can play and some references

## **L02      New news about Linux on zSeries**

*Dr. Klaus Goebel, IBM*

There have been many significant Linux related announcements since Miami 2002 from IBM, ISVs and Linux distribution partners. 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 zSeries

## **L03      Linux Free for All**

*Panel*

This is your chance to get your questions about Linux answered. A panel of Linux experts from IBM and other companies will be available to field both technical and non-technical questions about Linux on zSeries.

## **L04      The Linux on VM Platform Operations Concept**

*Art Olbert, Linuxcare*

This session will address the following questions: Who uses the platform and why? Who is responsible for what? How is the platform operated? We will together define the typical architectural building blocks of the platform (taken from real customer examples), the main platform concepts (such as virtual servers and their configurations), and the key processes (such as backup and disaster recovery). This will result in a clear understanding of the capabilities of the platform, and allow us to shape the roles and responsibilities of those interacting with the platform.

## **L05      What's New in the 2.6 Kernel**

*Dr. Ulrich Weigand, IBM*

This session will give an overview of the features that will be introduced with the upcoming Linux kernel version 2.6. Both architecture-independent features and those specific to the zSeries platform will be covered. In particular, we will examine:

- Scheduler enhancements
- Kernel preemption
- New threading model and futexes
- Memory management
- Filesystem enhancements
- I/O scalability improvements
- Asynchronous I/O and epoll
- New device model and device configuration
- CPU hotplug support

#### **L06      The GNU Compiler Collection on zSeries**

*Dr. Ulrich Weigand, IBM*

GCC, the GNU compiler collection, is a core element of all existing Linux distributions. This session will give an overview of the history of the GCC project, and in particular of the zSeries backend for GCC. We will then examine the features GCC provides, and how to make best use of them on the zSeries platform. This includes questions like what optimization options to use and how to employ GCC inline assembly statements. Finally, we will look at what is new with gcc 3.3, and what the future may bring.

#### **L07      Linux on zSeries and DASD**

*Bill Worthington, IBM*

This presentation will focus on Linux and its use of IBM storage products. We will review Linux from a storage perspective, look at how it works with storage area networks and review the various storage management options available.

## **Introductory Linux for the Mainframe Systems Programmer Sessions**

#### **L20      Linux 101 Lab - Part 1**

*Neale Ferguson, Software AG*

What is this thing called Linux? How is it organized? What are its key technologies? How do you start using it? These 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.

#### **L21      Linux 101 Lab - Part 2**

*Neale Ferguson, Software AG*

This is a continuation of session L20.

## **Linux on zSeries Installation Sessions**

### **L30      Linux for S/390 Installation Lab - 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-8), 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.

### **L31      Linux for S/390 Installation Lab - Part 2**

*Richard Lewis and Chuck Morse, IBM*

This is a continuation of session L30.

### **L32      Linux for S/390 Installation Lab - Part 3**

*Richard Lewis and Chuck Morse, IBM*

This is a continuation of session L30.

### **L33      Linux in an LPAR - Here's How It's Done**

*Curt Jews, 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.

### **L34      Best Practices for Deploying Linux on VM**

*Art Olbert, Linuxcare*

While the deployment of Linux on z/VM is gaining momentum in enterprise data centers, unfamiliar or inexperienced Linux system administrators may be unaware of common mistakes or hazards that could potentially jeopardize a successful Linux on z/VM implementation. For example, tricks such as sharing or copying minidisks are tempting when considering how to

manage dozens or hundreds of Linux instances, but these shortcuts frequently result in systems that are more difficult to manage. This session is aimed at VM system programmers who are either considering or already deploying multiple instances of Linux on VM and who need a manageable and dependable software stack in their environment.

### **L35 Rebuilding your Linux/390 kernel from source - a live demonstration**

*Mark Post, EDS*

For a lot of newcomers to Linux, re-compiling the kernel is a daunting task. After all, who wants to render their system unusable by making a mistake?

To help take some of the mystery out of this, and to show techniques that can be used to make sure a working fall-back is available, Mark will go through a live demonstration of building a new Linux/390 from source, using the IBM Linux Community Development System. Come see how building a new kernel can be treated as the semi-routine task that it really is.

### **L36 Linux z/VM Tips and Tricks**

*Steve Carl, BMC Software*

The economic downturn has increased Linux's viability as a server operation system option. More than cost, server consolidation efforts are helping push Linux into IBM mainframe environments. Deploying Linux in the z/VM environment is a relatively new undertaking. The popularity of running Linux on the zSeries platform using z/VM is rapidly growing. But, deploying Linux in a mainframe environment is a considerably more serious undertaking than on the Intel platform. In this presentation, we'll present tips and suggestions for increasing the odds that your Linux z/VM deployment will be successful.

## **Networking with Linux on zSeries**

### **L40 Connecting to Linux on zSeries**

*Alan Altmark, IBM*

Come and hear detailed information on how to integrate Linux for zSeries into your IP network. Alan will show you how to configure LCS, OSA Express (QDIO), zSeries HiperSockets, Channel-to-Channel, and IUCV connections. Special emphasis is given to the z/VM environment, IP address assignment, and routing considerations.

### **L41 What is IPv6 and Why Should You Care?**

*Laura Knapp, IBM*

Learn about new features introduced with the new standard for TCP/IP: IPv6. Examine issues related to addressing, security, reliability, and multicasting with IPv6. Discover how to integrate IPv6 into your existing IPv4 networks coming away with a clear understanding of tunneling and other integration technologies.

## **L42      Got Grid? An Intro to Globus for Linux on S/390**

*David Boyes, Sine Nomine Associates*

This session explores the techniques used to configure and deploy a grid comprising two different architectures and the benefits of doing such a project. The session includes an introduction to grid technology, some comments on configuration and building the Globus and OGSA toolkits on mainframe platforms, and a walkthrough of a production project at a large chip manufacturer where the combination of mainframe and cheap Intel systems proved interesting and productive.

## **L43      What does zSeries have to do with Grid Computing?**

*Curt Jews, IBM*

You've probably heard about Grid Computing; it's in the news. You might think this is only for specialized applications that scavenge cycles from desktops and clusters. It certainly uses networking. Well, the Grid is moving into commercial enterprises and zSeries is positioned to help. This session briefly reviews Grid concepts, then discusses the multiple ways that zSeries can add value to your evolving Grid infrastructure.

# **Linux on zSeries Application Sessions**

## **L50      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

## **L51      What's New in WebSphere on zSeries Linux**

*Kevin Curley, IBM*

This session will discuss the changes in WebSphere Application Server V5 on Linux for zSeries. It will discuss WebSphere requisites, the new function available in Version 5, the new topology/terminology, the differences between WebSphere V4 and V5, and the differences between WebSphere on z/OS and Linux on zSeries. The presentation will show the network topology available with Linux on zSeries and some customer examples.

## **L52      Consolidating and Cloning WebSphere on zSeries Linux**

*Kevin Curley, IBM*

This session will discuss WebSphere Application Server consolidation on to Linux for zSeries. The presentation will discuss the 'right' servers to migrate, how to setup a Linux guest under z/VM for cloning, and how to clone a Linux guest which includes WebSphere. It will also show how to accomplish the next step in cloning which is to share code across Linux guest for easier product maintenance. Also, the presentation will discuss the controls available on z/VM to control the resources available to Linux guest.

### **L53      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 and as well as other products. Come learn how IBM's middleware can be used on Linux running on zSeries and S/390.

### **L54      Domino 6.5 for Linux on zSeries**

*Mike Wojton, IBM*

Domino 6.5 for Linux on zSeries is here with First Customer Ship in September 2003! This session will highlight key changes in Domino 6.5 and will review results from the beta program. While describing the new Domino 6.5 server platform support for Linux on zSeries, we will also provide details about the changes to the Linux OS that were required for enterprise-level support of Domino and how these changes can also benefit other Linux platforms. Both native and VM implementations will be covered. This session will begin at the overview level and reach the technical level by its conclusion.

### **L55      LDAP-based Enterprise Mail Routing Using Linux**

*David Boyes, Sine Nomine Associates*

This session describes setting up an enterprise mail router allowing simple redirection of electronic mail to internal systems from a central point based on a LDAP database. We use a Linux system to manage the delivery process, including adding such useful features as spam abatement and virus quarantine capabilities as inherent features using open source tools. The session describes the LDAP schema changes required, configuration of the sendmail MTA to handle LDAP based mail routing, and implementation of the virus and spam scanning filters on zSeries Linux.

### **L57      What's New in Data Management for Linux on zSeries**

*Patricia Quinn & Patrick Sullivan, IBM*

This session will provide an overview of IBM's Data Management Linux on zSeries offerings with a focus on Informix Dynamic Server (IDS). Both IDS 9.4 and DB2 UDB are available for Linux on zSeries and customers are realizing tremendous value in hardware and software consolidation efficiencies. Come learn the who and the how of these benefits and what's coming next in data management for Linux on zSeries.

## **Linux on zSeries User Experience Sessions**

### **L60      Linux User Experience - Northern Trust**

*Brian Diddens & Jim Peddycord, Northern Trust*

A "Real World" customer experience of serving up mainframe DB2 data to the distributed web space via DB2 Connect in the Linux/390 environment. We'll briefly explore the old & complex architectures of the past, the z/OS based solution, and the Linux based solution. We'll discuss the benefits of implementing the Linux based solution as well as how we are addressing



High Availability, Disaster Recovery, and the lessons learned in configuring z/VM & Linux on the zSeries platform.

**L61      The Penguin Has Landed - Getting Our Feet Wet with Linux for zSeries at the State of Minnesota**

*Joe Linn, State of Minnesota*

Hear about how the state of Minnesota's InterTechnologies Group put together a business plan, got an IFL engine, taught our MVS staff VM and Linux, and began a service of offering virtual Linux servers on zSeries to other state government agencies.

**L62      SCSI Devices on Linux for zSeries - Early Experiences**

*Neale Ferguson, Software AG*

SCSI disks? On a mainframe? You heard right! IBM's first foray into the world of SCSI for S/390 is being done on the Linux platform. This session's speaker will describe his early experiences at exercising the code, the SAN, and the Shark ESS that the Linux system supports. Topics include:

- W** Hardware components
- W** Kernel and device driver considerations
- W** Software configuration
- W** Using the devices
- W** Initial observations on performance

**L64      A first look at Linux 2.6 on S/390**

*Neale Ferguson, Software AG*

The past few months have seen a flurry of activity as 2.6 is readied for general availability. For those of us who like to live on the bleeding edge, the code is available to trial, with the understanding that things may break or functions may not be fully implemented. I've been examining the status of the kernel and, in particular, the S/390 implementation since the -test3 release. In this presentation I'll present some of my findings and explain what differences you will encounter when moving from the 2.4 kernel.

**L65      Implementing WebSphere on zSeries environments - a System Programmer's Tale**

*Paul Giordano, Acxiom CDC*

There is great power and scalability in implementing WebSphere in a z/OS environment. There are great savings to be gleaned with the availability of zSeries IFL and the scalability of z/Linux and z/VM. There is also great complexity involved in an implementation in either scenario. While much emphasis is placed on server consolidation from other platforms such as AIX and Windows, there are still some of us who run sizeable, mission critical apps on WebSphere for z/OS.

I will describe our experiences in deploying and maintaining WebSphere in both the z/OS and the z/Linux environments. I'll also compare and contrast some of the infrastructure details of each implementation, and the high and low points of integration into each. I'll also tackle the challenges of

implementing security in a mixed environment both from zSeries to LAN and WebSphere to zSeries via LDAP. We also implemented some powerful TCP/IP functionality, and a variety of tweaks for running both! Development and Production in z/OS and z/VM LPARs. I'll also touch on some advanced SYSPLEX functions that we implemented and our experiences with them. I have been involved from feasibility through production implementation for WebSphere on zSeries over the last 4 years - and will discuss the challenges we faced, the experience in general, and offer some tips for success, and pitfalls to avoid.

## **Linux on zSeries Systems Management and Performance Sessions**

### **L70      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.

### **L71      Linux for S/390: System Management for the Mainframe System Programmer- Part 2**

*Mark Post, EDS*

This is a continuation of session L70.

### **L72      Linux and VM High Availability Scenarios**

*David Boyes, Sine Nomine Associates*

This session explores how traditional high-availability design can be mapped into a virtual machine based environment using Linux on zSeries. We'll review some basics, then look at hardware requirements, some configuration tricks to employ z/VM and Linux facilities, the roles played by internal and external load-balancing services, and sum up with a evaluation model for assessing risk factors at different levels in a design. Some knowledge of Linux clustering techniques and z/VM will be helpful.

### **L73      IBM Tivoli System Automation for Linux: High Availability for Mission Critical Applications**

*Raimund Thielker, IBM*

System Automation for Linux (SA) brings mainframe like high availability for critical applications to Linux on zSeries and xSeries. SA is based on leading IBM zSeries and pSeries automation technology. SA can help building a Linux cluster as it comes with its own cluster infrastructure. Linux systems or clusters in LPARs or under z/VM are supported.

## **L74          Linux on zSeries Performance Update**

*Klaus Bergmann, 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:

- Linux on zSeries scalability
- Microbenchmarks evaluating the processor subsystem (e.g. memory bandwidth and latency,

process creation and context switch overhead)

- Networking performance using Gigabit Ethernet and HiperSockets
- DASD performance
- SCSI attachments

The results of this work will be presented along with useful hints and tips to optimally exploit the capabilities of Linux on zSeries.

## **L75          zSeries Linux Security**

*Frank De Gilio, IBM*

We know that Linux on zSeries is valuable for consolidating multi-server environments. But what about security? Is it secure? What does it take to secure Linux on the zSeries? Is there a way to leverage my current zSeries security environment? This session talks about securing Linux especially as it relates to zSeries.

## **L76          zSeries Linux and e-business Security**

*Frank De Gilio, IBM*

This session will show how Linux on zSeries can be used to build secure e-business environments. It will show how to define and manage a multi-server e-business security environment. and how it can be used to support WebSphere Application Server, WebSphere Portal and their related e-business servers.

## **L77          Using SNMP for Linux on z/VM capacity planning and performance monitoring**

*Don Robbins, Velocity Software, Inc.*

This presentation will show how SNMP (Simple Network Management Protocol) can be used as a network monitoring data source, a capacity planning tool, and a performance monitoring tool. The presentation will show how NET-SNMP (An opensource software SNMP implementation from sourceforge.net) is used as an agent within a node on a network to collect data about that node. This data from Linux, NT, SUN, HP and other servers can be then collected at a central repository for performance analysis and for capacity planning. The presentation will discuss installation and customization of net-snmp, how net-snmp and other snmp agents can be combined together to produce a complete performance/capacity planning picture of your networked nodes. This presentation will also discuss monitoring issues such as how to ensure your performance monitor is not the performance problem and what that means in a Linux under VM environment.

## **L78      User Identity Management: How Not to Lose Yours**

*David Boyes, Sine Nomine Associates*

This session addresses one of the major integration problems in enterprise deployments; managing user identities across multiple systems and multiple authentication technologies. Commercial products exist that do part of the task, but the price tag is usually too high for most organizations to take advantage of these tools. This session describes Ganymede, an open-source alternative developed specifically to handle multiple platforms and multiple types of authentication, provide role-based authorization capabilities, and to provide a unified interface for managing users and authentication information from any Java-capable platform. The tool is freely available and has been extended to cover the major mainframe operating systems, and several dozen other platforms and tools (RADIUS, LDAP, etc.) as well as traditional Unix and Linux systems.

## **L79      Linux Filesystems**

*Klaus Bergmann, IBM*

This session will cover the performance aspects of the most popular journaling and non-journaling Linux filesystems: ext2, ext3, jfs, reiser.

## **L80      Large Scale Linux**

*Klaus Bergmann, IBM*

What are the performance considerations when putting together your penguin colony? Performance considerations for many Linux guests:

- setting up VM
- setting up Linux guests
- simple cloning
- focus on disks, memory, network

Experiences with databases under Linux:

- bottlenecks
- considerations for databases
- considerations for Linux

## **VSE, z/VM and Linux General Interest Sessions (Monday- Wednesday)**

### **G01      Bringing You Up to Date with zSeries Hardware**

*Mike Augustine, IBM*

Bringing You Up to Date with zSeries Hardware This presentation is an overview of the new z800 announced in 2002, additional models announced in the fall and the latest up to the minute news too. Come find out how this new processor line fits into your future whether you want to run traditional workloads (CICS), new workloads (Linux) or both! The best things are packaged in a smaller zSeries.

### **G03 Exploiting Business Intelligence & eBusiness from a VSE & VM perspective**

*Frank Fillmore, The Fillmore Group, Inc.*

Topics will include an overview of IBM Business Intelligence (e.g QMF, DB2 OLAP Server, and Intelligent Miner for Data) and e-Commerce (i.e. WebSphere Commerce Suite) offerings on workstation platforms and integrating workstation products with enterprise data stored in DB2 Server for VSE & VM using DB2 Connect via TCP/IP.

### **G04 DB2 Server for VSE & VM V7: Tips, Tricks and Techniques**

*Frank Fillmore, The Fillmore Group, Inc.*

Presented by The Fillmore Group, topics will include database and application performance, as well as data model, distributed, and operational considerations.

### **G05 Getting VSAM to DB2: A Migration Roadmap**

*Frank Fillmore, The Fillmore Group, Inc.*

Join Frank Fillmore, with The Fillmore Group, Inc. as he explores options and techniques for moving VSAM data to DB2 Server for VSE and VM or DB2 UDB on other platforms. Frank's roadmap will take the audience through each stage of a migration and include related topics such as VSAM Transparency and data synchronization.

### **G06 TotalStorage Enterprise Storage Server: Copy Services for VSE/ESA and z/VM Users**

*Bill Worthington, IBM*

Many things have happened with IBM's support of copy services with the Enterprise Storage Server (aka Shark). Come hear how z/VM and VSE/ESA exploit the peer-to-peer remote copy and instant imaging capabilities of this storage server. Disaster recovery and backup support will be addressed.

### **G07 IBM's TotalStorage Solutions: A Quick Walk through IBM's Storage Offerings for VSE/ESA, Linux and z/VM**

*Bill Worthington, IBM*

This session will review IBM's storage offerings for use with zSeries servers and VSE/ESA, Linux and z/VM operating systems. Because of the breadth of offerings in this environment, it will be your chance to get a feeling for this wide spectrum of products.

## **VSE/ESA Sessions (Monday - Wednesday)**

### **VSE/ESA Workshops**

The ease of use and quick implementation for the VSE e-business Connectors will be the focus of these workshops. You'll be able to do a step by step setup and customization of the e-business Connectors for a VSE system. We'll use the IBM provided samples and you'll see how you can take advantage of them.

- Access your VSE data from remote (Part 1 + 2)
  - Edit VSAM files, work with Power, Librarian or do your Systems management from remote.
- Let your program transparently work with remote data (Part 3)
  - Synchronize your VSAM data with a remote platform

Includes these session titles:

### **E00 VSE/ESA Workshop Part 1**

*Wilhelm Mild and Ingo Franzki, IBM*

The installation/implementation of the Java-Based Connector will be the focus of this part of the workshop. You'll do a guided step by step setup and customization of the e-business Connectors and verify that the installation was successful.

### **E01 VSE/ESA Workshop Part 2**

*Wilhelm Mild and Ingo Franzki, IBM*

This part will guide you to implement some resources and data access programs. We will change some samples and access VSAM data and other VSE resources. The tools like Maptool and Navigator will be used to ease your implementation.

### **E02 VSE/ESA Workshop Part 3**

*Wilhelm Mild and Ingo Franzki, IBM*

The installation/implementation of the VSAM Redirector Connector is the focus of this part. It enables you to access data on a remote system from your VSE environment. We'll setup VSE and Linux for this access. We'll update an HTML page each time your file changes. A VSE program will be used to access remote data and synchronize VSAM data with a remote relational database on Linux. It is even possible to synchronize a remote DB2 database with VSAM fully transparently.

### **E03 VSE/ESA Workshop Wrap-up Discussions**

*Wilhelm Mild and Ingo Franzki, IBM*

We'll review results of the workshop, answer questions, and discuss your ideas and suggestions for modernizing your own IT environments. Note: this session starts at **8:15 AM**.

## **e-business and VSE/ESA Sessions**

### **E10 New ways and new possibilities with VSE/ESA V2.7**

*Wilhelm Mild, IBM*

Based on new technologies developed in the last releases there are lots of new capabilities in VSE. Let's discuss customer scenarios and advantages. Do you need an incremental backup? Do you need to

synchronize VSAM with another data source , would you like to access your data from office programs real time? NO problem, it's easy and we'll analyze these in the session.

**E11            Web Services, the modern Technology of future computing**

*Wilhelm Mild, IBM*

The most modern and flexible methods of using Internet Technologies base on the Web Services Concept. Let's have a look to this modern technology, how it protects your existing investments and at the same time opens new doors for the world of electronic computing, without taking care of hardware or software components. Come and see how XML and SOAP can help VSE applications to communicate with other platforms.

**E12            What's new in TCP/IP**

*Leo Langevin, CSI International*

This presentation will go over all the new features that are available with IBM TCP/IP 1.5, PTF PQ69574, also know as service pack a. It will also preview the new features that will be available with service pack b and c, that have not yet been issued as IBM PTFs.

Everything that you may want to know about commands and functionality for this core product of VSE/ESA will be made available to you. IBM has listened carefully to enhancement requests, and together with CSI International 1.5 now includes a great number of long awaited customer requirements. Handouts of some bullet points will be provided, but additional information will also be word-of- mouth only, so don't miss this presentation .

**E13            TCP/IP for VSE/ESA - Potpourri**

*John Lawson, illustro Systems*

If you want to hear the latest tips and techniques on implementing and using the IBM/CSI TCP/IP for VSE/ESA product, then you should come to this session. John will cover some of the new functions introduced with the 1.4 and 1.5 releases and subsequent service pack updates. Recommendations for tuning, debugging, and monitoring the TCP/IP for VSE product will also be discussed.

**E14            XML pretty Hot Stuff**

*Janice Winchell, MICOM Inc.*

XML or Extensible Markup Language - this is POWER!

See what XML means, what it can do, where to go to get started, and more. XML suits many applications, but especially it suits the Internet for complex document creation (call this beyond HTML), and for exchange of data and database connectivity. Come get the "what is it and why should I care" answers! Come find out what you might want to do with XML, how to get started, how to extend what you know today into what you will want to do tomorrow. Get the vocabulary and, well, just GET WITH IT with XML!

**E17            The CICS Transaction Gateway: Web and Java access to CICS**

*Wilhelm Mild, IBM*

This session provides an overview of the CICS Transaction Gateway -- an IBM e-business connector which provides state-of-the-art access to CICS from the world of Java and the Web.

The CICS Transaction Gateway provides the ability to invoke CICS application programs and transactions from any Java program -- Java Applets, Java Servlets, Enterprise JavaBeans, or any other Java Application.

**E18            How to read a TCP/IP Trace**

*Leo Langevin, CSI International*

This presentation will provide a technical overview on reading TCP/IP traces that are produced from the TCP/IP for VSE product. From this class you will be able to determine source and destination of the transmission, including IP address, port number, transmission time, window size, and protocol. You will also learn how to quickly find the actual data as well as perform problem determination by having an understanding of what is being provided to the application and what is used internally by the TCP/IP for VSE stack.

## **CICS Transaction Server for VSE/ESA Sessions**

**E30            CICS TS for VSE/ESA Migration Considerations**

*John Lawson, illustro Systems*

You've migrated to one of the current releases of VSE/ESA but are still running CICS/VSE 2.3. How do you make that final step to CICS Transaction Server? If you are considering doing this in the near future, then this session is for you. Our speaker has not only migrated many VSE users to CICS Transaction Server but also teaches CICS Transaction Server for VSE classes. He will discuss changes in CICS Transaction Server that impact migration from CICS/VSE to CICS TS. He will review several areas that you need to plan for including system setup, operations, resource definition, security, customization and application programming interfaces.

**E31            CICS TS for VSE Basic Structure and 31-bit Exploitation**

*John Lawson, illustro Systems*

After you have migrated to CICS Transaction Server for VSE/ESA, what are some of the options available to you to fully exploit the storage protection and 31-bit capabilities of this new CICS product? This session will discuss the basic structure of the new CICS TS product and the 31-bit virtual storage support available in it. You will gain an understanding of the domain architecture that has been implemented in CICS TS and learn about the definitions you can change to more fully utilize storage protection and 31-bit virtual storage in a CICS TS system.

**E32            Implementing CICS TS for VSE/ESA New Functions: Shared Data Tables and EXCI**

*John Lawson, illustro Systems*

CICS TS introduced several new functions that customers can exploit to improve performance through more data in memory and to provide more cooperative processing between batch and online applications. Our speaker will discuss the concepts and implementation of two of these new functions, Shared Data Tables (SDT) and the External CICS Interface (EXCI). Data table support has been available in prior releases of CICS/VSE but few users have exploited this data in memory facility of CICS. CICS TS for VSE/ESA has extended the data table support to improve the sharing of CICS data tables between multiple CICS partition. EXCI provides a new



batch to CICS programming interface which can provide customers more flexibility in integrating their batch and online processing.

**E33                    Problem Determination for CICS TS for VSE/ESA Part 1**

*Chuck Olsen, IBM*

Well, CICS TS appears to be here to stay! How comfortable do you feel with your diagnostic skills? During this double session, we will cover problem analysis techniques for the six most common problems besetting CICS TS System Programmers. We have a lot to cover, so we will be starting on time.

**NOTE: Part 1 starts at 8:15 AM**

**E34                    Problem Determination for CICS TS for VSE/ESA Part 2**

*Chuck Olsen, IBM*

This is a continuation of session E33.

**E35                    CICS Hints and Tips**

*Bob Sodan, IBM*

Do you have CICS questions? Bob Sodan, CICS Level 2, will discuss some of the known problems on CICS TS for VSE/ESA and their solutions. He will review the documentation you need to obtain before you open a PMR so IBM can quickly solve the problem. You'll learn about two web sites which can add value to a CICS system programmers daily tasks, the ShopzSeries services site where you can order the latest IBM software products and service, and the CICS Software Support web page, where you can find solutions to problems as well as many other valuable planning resources. You've probably talked to Bob on the phone, so come meet him in person.

## **VSE/ESA General Interest Sessions**

**E50                    VSE Trends and Directions**

*Jerry Johnston, IBM*

Do you know where VSE is going? What's the role of Linux? Can you explain the VSE direction to your boss? If the answer to any of these questions is no, this session is for you. This presentation covers the present and future of VSE. The session is intended for VSE customers, z/OS customers with VSE systems somewhere in the enterprise, plus IBMers and BPs with responsibilities for VSE accounts.

**E51                    VSE 2.7 Performance Update and Turbo Dispatcher**

*Ingo Franzki and Ingolf Salm, IBM*

This session will give you an update on VSE performance. It will include measurement results of new VSE 2.7 functions (HiperSockets, HW-Crypto, ...), but it will also review performance items of previous releases. In addition it will give you an update on Turbo dispatcher basics and exploitation.

**E52                    Hardware Options with VSE and ESS**

*Wilhelm Mild, IBM*

Let's discuss the various hardware options you have with VSE/ESA. The Storage concepts used in the most advanced technology incorporated in IBM's Enterprise Storage Server (ESS) open a lot of possibilities to optimize the use of DASD storage for your entire heterogeneous environment and consolidate your data and procedures of recovery using the advanced technology of Flashcopy.

**E53 VSE/ESA Security in a heterogeneous environment**

*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 is connected to everyone, and vice versa.

**E54 Fun Times in the Land of Dump Reading (and Language Environment)**

*Janice Winchell, MICOM Inc.*

Time to go on a treasure hunt scouting for the answers - with the new dumps produced by Language Environment. Language Environment (LE) introduces a new "look and feel" to the information presented when an application terminates abnormally. There is lots to discover and uncover and the hunt for the hidden is truly a fun journey! Come along for the ride and see what a treat it is to be able to uncover the problem from the wealth of information available in the LE dump! Step one is knowing how to read what is provided, and this session will provide you with the HOW TO READ so you can then FIND AND FIX! Dump reading for fun and treasure, dump reading made easy, LE dumps are GREAT!

**E55 Debug Tool - Totally COOL**

*Janice Winchell, MICOM Inc.*

Your toolkit just got a better mousetrap! IBM's Debug Tool is a great addition to the programmer's bag of goodies. With the Debug Tool you can do the things you need to find out how a program is executing, what is happening, where it is happening, and you can save this information for later review, or save the sequence of commands for a replay! You can set simple STOP points, stop on a particular field having a specific value, find out the contents of data fields as the program executes, and even produce a standard LE dump to capture information as if the program had abended, and either continue execution or not - your choice. Great stuff...come see!

**E56 Design and Tuning of VSE/VSAM Part 1**

*Chuck Olsen, IBM*

"In an age of World-Wide Web, eXtensible Mark-up Language, and e-business connectors, who needs to talk about VSAM? Well, under VSE/ESA that is where the rubber meets the road." So, following in the grand tradition of Dan Janda and Wolfgang Kraemer, we look at the world of catalogs and clusters, alternate indices and aberrant database design. From Basic Concepts through the latest product enhancements, we explore common misconceptions and

design/usage issues to give you a broader view of IBM's most important Data Manager. Cinch up your Nike's; there is a lot of material here, and we will be moving fast.

**NOTE: Part 1 starts at 8:15 AM.**

**E57                    Design and Tuning of VSE/VSAM Part 2**

*Chuck Olsen, IBM*

This is a continuation of session E56.

**E58                    Problem Determination for VSE/ESA**

*Chuck Olsen, IBM*

We have amassed an assemblage of some common problems reported to VSE/ESA Level2, for which we offer practical instruction in isolation, identification, and resolution. This topic also describes PD/PSI commands/tools including recent enhancements.

**E59                    VSE/ESA V2.7 Update and Technology Study**

*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 support improves connectivity between VSE and Linux on the mainframe. In this session, Ingolf gives an update on new functionality and VSE/ESA V2.7 content as well as technology under investigation.

**E60                    What's New in VSE Service**

*Gerhard Zierl, IBM*

Reliable software maintenance and efficient support for your VSE system is fundamental to stability and up-time of a production system.

Gerhard Zierl, the manager of the VSE Service Teams will give you an update on:

- APARs, PTFs, PSP buckets, Refreshes and how to get the best out of it.
- Tips for developing a preventive service strategy
- Use of the Internet for corrective and preventive maintenance.
- Using 'Shop zSeries' including trends in e-delivery for VSE.
- Observations from Level-2 PMRs - reducing the risk for problems.
- How to accelerate problem resolution .
- Coordinating multi vendor problem resolution
- Defect oriented support and Q&A support
- Hints & tips and other latest news from the VSE development and service team.

Customer feedback and discussions are encouraged!