IBM System z and Storage Technical Conference Abstracts

April 16-20, 2007 Munich, Germany

(as of 02 April 2007 - subject to change)

Key to session prefix:

G - System z Technology and the SOA Data Center
Z - z/OS and Parallel Sysplex Implementation
ZP - z/OS Performance
ZW - z/OS Transactions, Data Base, Networking, Security
V - z/VM and Virtualization
L - Linux on System z9 and zSeries
E - z/VSE
TS- System Storage and Storage Networking
P - ISV (Vendor) Sessions

Keynote Session

K01 - Client Leadership in an On Demand World - System z and the Role of the Mainframe (Robert Hoey, Vice President, IBM System z Sales Worldwide)

The IBM System z family has been designed from the ground up to help you improve IT optimization while at the same time reducing costs. The IBM System z9 Enterprise Class (z9 EC) has been designed with the support of more than 40 years of industry leadership and investment. With the announcement of the IBM System z9 Business Class (z9 BC) we have made available world class security, performance and reliability to customers for whom the mainframe was previously out of reach from a cost perspective. Customers are increasingly interested in leveraging the mixed workload capability of the System z platform and specialty engines as an alternative to a single application server model of computing because they need to reduce total I/T costs, improve server utilization rates, and reduce power & cooling requirements. In this keynote presentation, Mr. Hoey will discuss IBM System z for today and tomorrow, extending mainframe qualities of service across the enterprise.

System z Technology and the SOA Data Center

G01 IBM System z9 Business Class (BC) and Enterprise Class (EC) Technical Overview (Parwez Hamid , IBM)

This session provides an overview of the hardware functions and features for the z9 Enterprise Class and z9 Business Class machines announced during 2006. Topics covered will be the new levels of granularity and the latest I/O capabilities with FICON Express 4, new availability capabilities such as redundant I/O interconnect and Capacity on Demand functions. In addition to increased performance and expansion options, hear about improved facilities for non-disruptive maintenance and growth providing better operational support and availability.

G02 IBM System z9 BC and EC Product Update (Parwez Hamid, IBM)

During this session the Speaker will discuss the ongoing enhancements to the IBM System z9 family of servers demonstrating IBM's commitment to the continuing evolution of the IBM mainframe by providing leadership in data and transaction serving enforced by the mainframe strengths in security, vitalization, availability and scalability. New opportunities for small and mid sized customers moving to this platform, extending support for on demand capabilities to meet the needs of temporary capacity growth, improvements to our coupling technology and hardware improvements in support of Linux on System z operating environment.

G03 System z9 FICON Express4 Update and Performance Benchmarks (Connie Beuselinck, IBM)

This is an overview of the newest generation of FICON features, FICON Express4. We'll cover the latest functions introduced, native FICON support as well as FCP (connectivity to SCSI devices), and the switches/directors supported. A white paper on FICON Express4 channel performance is now available. The contents of this white paper will be discussed including the MIDAW facility, 64 versus 32 open exchanges, and FICON CTC measurement results.

G04 System z9: Navigating the Host Bus (Connie Beuselinck , IBM)

This session will address how traffic navigates the Self Timed Interconnect (STI) host bus. We'll show you how the data flows from the server to the I/O cage and out to the Coupling Facility, the SAN, and the LAN. This session covers all of the protocols that utilize System z9 STI resources – Crypto, ESCON, FICON, ICs, ICBs, ISC-3, and OSA. This is an overview session with the "magic bag".

G05 System z9 OSA-Express2 Update and Performance Benchmarks (Connie Beuselinck , IBM)

This session will cover the newest OSA-Express2 enhancements. We'll also cover the results published in the System z9 OSA-Express2 performance white paper. We'll review the OSA environments – SNA/APPN/HPR, TCP/IP, OSA for NCP, and OSA-ICC (3270 support). Included will be examples of a Layer 3 versus a Layer 2 environment.

G06 System z9 Extended Distance Solutions (Connie Beuselinck, IBM)

This session will address the protocols tested and supported by the System z interoperability laboratory. We'll cover the extended distances supported for FICON/FCP directors for Storage Area Network (SAN) connectivity as well as extended distances supported using Wavelength Division Multiplexers (WDM) in support of GDPS solutions. We will also discuss use of multimode fiber versus single mode fiber based upon a white paper that will be made available to the attendees including use of OM3 50 micron fiber optic cabling with ESCON channels.

G07 An Introduction to the IBM Systems Director Family (Annette Miller , IBM)

In November 2006 IBM announced the Systems Director strategy for managing the systems platform infrastructure. This session will provide an introduction to the IBM Systems Director Family. The Systems Director Family provides systems platform management as well as components for workload management and cost determination. Some of the products were introduced to the market previously as the IBM Virtualization Engine platform. As customers move to virtualize their systems, management has become an important consideration. The Virtualization Engine platform has evolved into the Systems Director family, providing functions for seeing and managing both physical and virtual infrastructures. These products provide the capability to monitor, managed and discover resources in many operating systems, including: z/OS, Linux, i5/OS, AIX, Windows, Solaris and HP-UX.

G08 What is IT Service Management and ITIL? (Annette Miller, IBM)

Is your organization talking about ITIL, or IT Service Management? Do you know what Service Management is? ITIL is the IT Infrastructure Library and using a set of best practices, is the most widely accepted approach to IT service management in the world. This session will provide an introduction to ITIL. In addition, the session will introduce IBM Service Management and the role of the products in a service management implementation. While the design is comprehensive, IBM Service Management is built with an adaptive, modular approach for pragmatic implementations by customers based on their business needs and priorities. With the service implementation platform, best-of-breed operational management products, automated process management, as well as best practices and services, IBM Service Management brings people, processes, information and technology together for businesses to deliver service excellence and innovation. This session will focus on the service management platform and the operational management products.

G09 System z9 HMC - Using the New (Tree-Style) User Interface
(Eric Weinmann, IBM & Michael Grossmann , IBM)

This session describes the new Hardware Management Console (HMC) Tree-Style User Interface introduced with the System z9 servers. Our main topics will include:

- discuss the differences between the HMC version 2.9.n and the previous HMC supported configurations
- working with the HMC configuration task

Other topics to be covered include:

- Identify HMC/SE configurations for the System z9
- Creating/Modifying and Assigning Authority to User IDs
- Describe the new HMC version 2.9.0 server support and navigation changes
- Identify the remote connectivity options
- Identify the new HMC task support functions added for the System z9 servers

Please see Session G10, a lab session for using the HMC Tree-Style UI for daily operations.

G10 System z9 HMC - Using the New (Tree-Style) User Interface for Daily Operations
(Hands-on Lab Session) (Michael Grossmann, IBM)

In this lab session you will learn to use new Hardware Management Console (HMC) Tree-Style User Interface introduced with the System z9 servers. You will learn how to navigate and use the HMC tasks for daily operations. Each group will have access via HMC Web Browser Interface to a "shared" real HMC for lab exercises. Activities will include:

- use the Tree-Style UI to monitor your objects and groups
- work with userids (Create, Customize)
- use daily tasks like LOAD, Activity
- monitor unacceptable status conditions, hardware and operating system messages
- work with activation profiles

Please see Session G09 for an additional theory session. There will be a seat limitation: max. 15 students**.**

G11 Business Continuity Basics (Udo Pimiskern, IBM)

The interest in disaster recovery and business continuity (BC) has never been greater. Driven by regulatory requirements, natural and man-made disasters and the need for even higher levels of availability, information technology organizations are often at the center of BC justification and implementation. This presentation will provide an overview of BC, IT issues that impact the planning for BC, approaches to the business justification of BC solutions, and three customer experiences. It will also provide BC IT issues that impact planning, BC trends and directions.

This is an introductory session; no prior knowledge of BC is assumed.

G12 SOA and z/OS, The Perfect Match (Helene Lyon, IBM)

Service Oriented Architecture (SOA) helps customers increase the flexibility of their business processes, strengthen their underlying IT infrastructure and retain and reuse their existing assets. z/OS is THE platform of choice where the main enterprise assets reside. This session will define the basics of SOA and will highlight the solution available under z/OS.

G13 Asset Discovery and Modernization (Isabel Arnold , IBM)

Large portions of core business applications are still on the mainframe today and still run performing, secure and highly optimized. Reuse of these assets and integration into a Service Oriented Architecture is key as this strategy is much more cost efficient than rewriting and saves years of investment into a highly available and reliable platform. Basis for this process is an application development environment that offers analysis of existing software assets as well as restructuring and componentization into flexible and reusable modules. This lowers maintenance costs and allows reacting quickly on changing business requirements.
This session discusses different stages of modernization and integration as well as their challenges and shows how a modern application development environment based on WebSphere Developer for zSeries, Asset Transformation Workbench and WebSphere Studio Asset Analyzer can support you.

G14 Attracting Young Developers to the Mainframe Using Eclipse-based Tooling (Isabel Arnold , IBM)

There is this stereotype about the gray-haired mainframe guy surrounded by a cloud of magic because he still knows about one of the last mysteries in the world: the mainframe. But what will happen if he ever retires? The lack of young mainframe skills became urgent during the last years. Most students from universities don't have any mainframe skills at all, instead of COBOL, PLI and Assembler they know C++ or Java, instead of JCL they compile using a right-click, instead of ISPF they use graphical user interfaces on the workstation like the open source product eclipse, which is the most popular application development environment for Java in the world. WebSphere Developer for zSeries offers them an eclipse based tool to develop COBOL, PLI or Assembler using the same look and feel they have in eclipse, providing all required host functionalities like job control or host debugging in one single interface. Furthermore it offers various wizards to ease host modernization and integration. This session will demonstrate how modern host development without ISPF can look like.

G15 SOA Applications and System z Multi-Application Integrated Environments: A Great Place, No Conflicts (Fernando Nogal , IBM)

So you think modular, services oriented, applications must be deployed in distributed infrastructures? This session will review the basic SOA concepts and discuss how the tight integration available on System z environments not only simplifies deployment but also

maximizes exploitation, minimizes required resources, and provides must have qualities of service to critical components such as the ESB. Also, examples of how existing applications can participate in SOA will be given.

G16 Including z/OS in Business Service Management
(Clayton Ching, IBM)

Business Service Management has been gaining ground across the enterprise. The two management disciplines: Systems and Services. The Systems management discipline can be defined as traditional and time-honored and is defined as: Business Systems Management: An IT Operations Management discipline focused on mapping IT infrastructure to business service dependencies (e.g., How will the outage of a particular server affect our web-banking services?) Business Services Management is relatively new and is defined as; A Business Management discipline focused on using tools to better understand business performance (e.g., How are my call centers performing in terms of queue lengths, customer drops, time on hold, time on calls, and customer satisfaction?). This session illustrate both Systems / Services management in z/OS.

G51 Comparing System z Virtualization to System p and System x
(Reed Mullen, IBM)

Attendees will develop a deep understanding of how System z virtualization capabilities offer higher levels of business value for hosting large-scale, Linux virtual server environments, and how to differentiate the mainframe in the marketplace as a virtual server hosting platform.

G52 Introduction to REXX: Hands-on-Lab Part 1
(Christine Casey, IBM and John Franciscovich, IBM)

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

G53 Introduction to REXX Hands-on-Lab Part 2
(John Franciscovich, IBM and Christine Casey , IBM)
This session is a continuation of Session **G52.**

G54 Negotiating Skills (Will Roden , IBM)
Everybody negotiates. Some do it well and some don't. I have found that it takes years to learn to negotiate well and that different techniques are needed depending on the situation. This presentation will discuss some of the basics of negotiating along with several techniques and considerations. This session is your first step on the road to conducting better negotiations.

G55 Changing Behavior (Will Roden , IBM)
Everyone can benefit from the knowledge of how to change behavior whether it's on a business or personal level. This presentation will discuss the basic concepts in behavior modification. New theories, tips, and techniques supported with corresponding reference material, will be made available for ongoing self-maintenance. Join us for a refreshing and interesting new perspective in " Behavior"
Note: The list of reference books is available at:
http://www.vm.ibm.com/devpages/RODEN/CBRef.html

z/OS Implementation and Parallel Sysplex Track

Z01 What's New in z/OS 1.8 and 1.9 and Beyond? (Paul Rogers, IBM)

Are you are interested in the latest news, trends and directions related to z/OS, IBM's flagship mainframe operating system? See how z/OS 1.8 provides the foundation for your on demand infrastructure. Learn about the latest z/OS release and hear about new functions such as the new LDAP server, XML Systems Services, DFSMS enhancements, new security, enterprise-wide management and networking capabilities, as well as the new z/OS Management Console with integrated Health Checker.

Z02 Migrating to z/OS R8 Part 1: Planning (Marna Walle, IBM)

Thinking about migrating to z/OS R8? This session will cover many of the installation requirements for preparing for your z/OS migration. Included will be:

- Content of the z/OS R8 - what is new, changing, and removed. And what's being removed in the future!
- Ordering and deliverables
- Coexistence requirements - including the coexistence/migration/fallback/service policy
- Driving and target system requirements - including both software and hardware
- Some migrations actions you can perform now, on your current z/OS release.

Attend session 'Migrating to z/OS R8 Part 2: Migration Actions' for specific migration tasks for z/OS R8. Preparing for your z/OS migration can be started today, with this session's important

information!

Z03 Migration to z/OS R8 Part 2: Migration Actions (Marna Walle, IBM)

Want to know about the specific migration tasks for the latest and greatest z/OS release? Come to this session, where the migrations actions new for z/OS R8 will be discussed.
Migrations from z/OS R5, R6, and R7 will be covered. Included will be required migration tasks which were introduced in BCP, C/C++, Communications Server, DFSMS, Distributed File Service - zFS, HCD, JES2, JES3, Language Environment, and z/OS UNIX. This session will be of interest to systems programmers and their managers who are migrating to z/OS R8, or through z/OS R8. It is strongly recommended that you attend 'Migrating to z/OS R8 Part 1: Planning' before attending this session.

Z04 Migrating to a z9 EC or z9 BC from a z/OS System Programmer's Point of View (Marna Walle, IBM)

The latest generation of IBM System z servers, the IBM System z9 Enterprise Class (z9 EC, formerly the IBM System z9 109 (z9-109)) and the IBM System z9 Business Class (z9 BC), are designed to provide an advanced combination of reliability, availability, security, scalability, and virtualization features. The good news is all supported z/OS releases can run on a z9 EC or z9 BC server (all supported z/OS.e releases can run on a z9 BC server). Similarly, all supported z/OS and z/OS.e releases can participate in a sysplex that has a CF or operating system image on a z9 server. The even better news is that most customers are well positioned to use the new server.

Come hear about how to upgrade to a IBM System z9 server! This informative session will describe the software required to run on a new server (including cryptographic software), compatibility code required on other systems that share resources with systems running on the new server, and migration actions associated with the new software. This session will be of interest to systems programmers and their managers who will upgrade to a z9 server.

Z05 Recent Installation Enhancements and Directions (Marna Walle, IBM)

The greying of the z/OS system programmer is real. It is critical that we make it easier to install, maintain, and migrate z/OS systems. Come to this session to learn what IBM has done for recent installation enhancements in z/OS R7 and R8, and may be planning on doing, to automate and simplify many of the complex tasks manually performed today.

Z06 System z8xx/System z9 BC Software Pricing Update (Kay Adams, IBM)

The System z9 Business Class and z800/z890 processors offer the most flexible pricing options in the System z product line. While these processors can take advantage of and fully participate in all of the z9xx Sysplex metrics, there are a unique set of z9 BC and z8xx “standalone” pricing options that offer very attractive entry level pricing and flexibility. This session will focus on the pricing options unique to the System z9 BC and z800/z890 series. Topics include:

* Entry Workload License Charge (EWLC)
* zSeries Entry License Charge (zELC)
* Tiered Entry Workload License Charge (TWLC)
* z/OS.e
* Divide-a-Box

Information on z9 BC and z800/z890 participation in standard zSeries SW pricing metrics, e.g., PSLC & Workload License Charge, will be included in the z900/z990 SW Pricing session.

Z07 System z9xx/System z9 EC Software Pricing Update (Kay Adams, IBM)

This session will focus on the SW Pricing options available to IBM's Series z9 Enterprise Class & z9xx processors.
We will discuss Monthly License Charge (MLC) metrics including:

* PSLC (Parallel Sysplex License Charge)
* WLC (Workload License Charge
* ULC (Usage License Charge)
* NALC (New Application License Charge)

as well as the IPLA "OTC" pricing.

Z08 SubCapacity Pricing and SCRT Nuts & Bolts (Kay Adams, IBM)

If your shop decides to migrate to SubCapacity Workload License Charges for zSeries, use of the SubCapacity Reporting Tool (SCRT) will be required. Attend this session to understand what the SCRT is, how it works, how to use it and how to interpret the output of the tool, the Sub-Capacity Reports. This session will also review the planning steps for successful implementation of SCRT and discuss the end-to-end implementation process of collecting the required SMF data, running SCRT, reviewing the reports and submitting them to IBM.

Z09 z/OS 1.8 and 1.9 System Programmer Goody Bag (Robert Rogers, IBM)

In this session, the speaker will overview some of the 'little goodies' that have been included in the BCP and related elements of z/OS in the most recent release. Larger items are just overviewed and many of the items are too small to have been addressed in a full presentation. This edition of the presentation covers items in z/OS 1.8 not covered last year and an introduction to z/OS 1.9. Topics will include:

- Device Allocation Scaling Improvements
- HealthChecker Enhancements and new Checks
- Some JES2 Enhancements
- PDSE Buffering Enhancements
- WLM Solution to Storm Drain Problem
- Other important 1.8 items
- Select 1.9 items that are not yet announced

Z10 IBM Health Checker for z/OS (Paul Rogers, IBM)

The objective of IBM Health Checker for z/OS is to identify potential problems before they impact your availability or, in worst cases, cause outages. It checks the current active z/OS and sysplex settings and definitions for a system and compares the values to those suggested by IBM or defined by you. It is not meant to be a diagnostic or monitoring tool, but rather a continuously running preventative that finds deviations from best practices. IBM Health Checker for z/OS produces output in the form of detailed messages to let you know of both potential problems and suggested actions to take. Note that these messages do not mean that IBM Health Checker for z/OS has found problems that you need to report to IBM! IBM Health Checker for z/OS output messages simply inform you of potential problems so that you
can take action on your installation. IBM Health Checker for z/OS has a limited release as a prototype. This reference to the prototype is to distinguish it from the current IBM Health Checker for z/OS product available with z/OS V1R7. With z/OS V1R8, the IBM Health Checker for z/OS is now part of the base code.

IBM Health Checker for z/OS with z/OS V1R8 has been enhanced to make it easier to manage checks, easier to write checks, and several new checks have been included. The current IBM Health Checker for z/OS is an integrated part of z/OS V1R8 and is also available as a Web deliverable. The Web deliverable is functionally identical to the integrated version. The WEB deliverable can be used with z/OS V1R4 and up to z/OS V1R6, and this is valid for z/OS.e as well. In z/OS V1R8, the Health Checker Framework makes it easier to write checks, and to provide improved parmlib, parsing,and display support for checks. In addition, there are a number of new checks for Communications Server, GRS, storage management (ASM), RACF, BAM, DFSMS, and Resource Recovery Services (RRS).
This session covers the following:

- IBM Health Checker for z/OS introduction
- Health Checker for z/OS component support
- What are Health checks and check values
- How Health Checker for z/OS can identify problems
- Installation of Health Checker for z/OS
- Security definitions - Starting Health Checker for z/OS
- Specifying the HZSPRMxx members you want the system to use
- User interface to manage checks
- Using SDSF and (E)JES panels
- Health Checker for z/OS commands via MODIFY command
- Categories to manage and display information
- Managing Health Checker’s alerts using the HZSPRINT utility and System Logger
- z/OS V1R8 enhancements

Z11 Migration from HFS to zFS (Paul Rogers, IBM)

zFS is the strategic UNIX Systems Services file system for z/OS. The Hierarchical File System (HFS) functionality has been stabilized.
HFS is expected to continue shipping as part of the operating system and will be supported in accordance with the terms of a customer's
applicable support agreement. IBM intends to continue enhancing zFS functionality, including

RAS and performance capabilities, in future
z/OS releases. All requirements for z/OS UNIX file services are expected to be addressed in the context of zFS only.

With z/OS V1R7, an ISPF based tool is available to assist in the migration steps from an HFS file system to zFS. The benefit is that any
complexity of migrating from HFS to zFS has been simplified. Many details needed for the migration of HFS file systems to zFS are
handled, including the actual copy operation and are described in this session. z/OS V1R7 is planned to be the last release to allow mounting zSeries File System (zFS) file systems contained in multi-file system aggregates that are to be shared across systems in a sysplex. IBM has previously recommended that these multi-file system aggregates not be shared in a sysplex environment. Once this support has been removed, attempts to mount zFS file systems contained in multi-file system aggregates will fail in a z/OS UNIX System Services shared file system environment.

This session will describe the new functions available in z/OS V1R8 for zFS as follows:
zFS RAS enhancements
- New stop ZFS support
- Mounting file systems after stopping ZFS
- Multi-file system aggregates - deny mounts

zFS hang detection
zFS bpxmtext enhancements
zFS mount performance - Fast Mount
zFS migrations from HFS with IBM user written migration tools

Z12 System z Technology Trends (Robert Rogers, IBM)

IBM does not normally discuss unannounced products, but looking at recent developments often sheds light on the future. This presentation touches upon a number of current trends with and eye to see where they may bring the System z platform. These trends include increased capacity and constraint relief for processors and storage, specialty engines, data serving as well as "community" initiatives that IBM has undertaken. It also takes a look at IBM's current statements of direction for the platform.

Z13 100 km Remote Copy Distance Testing (Udo Pimiskern, IBM)

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

Z14 What's New with GDPS? (Udo Pimiskern, IBM)

GDPS is IBM's industry leading disaster recovery and high availability solution. Get a update on recent GDPS functional enhancements including enterprise-wide disaster recovery with the latest Linux support, and availability improvements to GDPS/Global Mirror, GDPS/XRC, and GDPS/PPRC. GDPS V3.4 includes the introduction of a new user interface in GDPS/PPRC that enhances usability and as well as the addition of z/OS Health Checker support for improved systems management. GDPS trends and directions will also be covered.

Z15 Introducing Server Time Protocol (STP) (Iain Neville, IBM)

Server Time Protocol (STP), a new time synchronization facility for System z is designed to provide time synchronization for multiple IBM System z9™ and zSeries™ servers, and is planned to be the follow-on to the Sysplex Timer (9037-002). STP is designed to support a multisite timing network of up to 100 km (62 miles) over fiber optic cabling, allowing a Parallel Sysplex to span these distances. This session will describe the key functional capabilities of STP, the configurations STP is designed to support, and the prerequisites required for implementing STP. Note that the 9037-002 has been withdrawn from marketing effective Dec 31, 2006.

Z16 Server Time Protocol (STP) Recovery Considerations (Iain Neville, IBM)

Server Time Protocol (STP), a new time synchronization facility for System z is designed to provide time synchronization for multiple IBM System z9™ and zSeries™ servers, and is planned to be the follow-on to the Sysplex Timer (9037-002). STP is designed to support a multisite timing network of up to 100 km (62 miles) over fiber optic cabling, allowing a Parallel Sysplex to span these distances. In this session, the speaker will describe the recovery capabilities of STP, both in a Mixed CTN and an STP-only CTN, when unplanned or planned reconfigurations may be needed.

Z17 Pushing the Limits of Parallel Sysplexes: Bigger, Smaller and Further Apart (Joan Kelley, IBM)

Our customers are pushing the limits of Parallel Sysplexes in several dimensions: Huge configurations with many large processors, small configurations with many images sharing limited resources and sysplexes that span several kilometers. This presentation discusses how the parallel sysplex functions have evolved to address these limits and points out the potential pitfalls that may be encountered.

Z18 IBM Tivoli System Automation for z/OS - Basics (Gabriele Frey-Ganzel, IBM)

IBM Tivoli System Automation for z/OS (SA z/OS) plays an important role in building the end-to-end automation of the IBM autonomic computing initiative and is designed to automate I/O, processor, and system operations. This session will explain the basic concepts of the SA

z/OS system operations component that automates many system console operations and selected operator tasks such as startup, monitoring, recovery and shutdown of z/OS subsystems, components, and applications. The session does not require any SA z/OS knowledge and is recommended as a good preparation for the System Automation for Beginners Hands on Lab.

Z19 System Automation for z/OS New Version 3.1 and Latest Enhancements (Raimund Thielker, IBM)

The latest version of Tivoli System Automation for z/OS greatly improved the way you can define your automation policies, it added new functionality that facilitates the daily tasks of your operators, and it integrates with Tivoli OMEGAMON to not only react based on messages issued by applications but also to proactively automate them based on performance and availability data or exceptions. In this session you will get an overview about the functionality delivered with SA z/OS V3.1 as well as recent product enhancements such as WLM, Tivoli Workload Scheduler (TWS) and Geographically Dispersed Parallel Sysplex (GDPS) support, delivered through the service stream.

Hint: This session is recommended as an introduction to SA z/OS before joining the SA z/OS Hands-On Labs.

Z20 System Automation for z/OS: Beginners Hands-On Lab - Part 1 (Raimund Thielker and Gabriele Frey-Ganzel, IBM)

In this lab you learn how to work with the SA z/OS system operations component to:

- Define a new application using the application class concept
- Create an application group to manage multiple applications as a whole
- Setup relationships to existing applications
- Exploit the reporting capabilities of SA z/OS to see how the automated environment looks like, and finally
- Test the new policy on the life system
- For additional background on the basic concepts used by SA z/OS, the session System Automation for z/OS Basics (Session Z15) is recommended.

Z21 System Automation for z/OS: Beginners Hands-On Lab - Part 2 (Raimund Thielker and Gabriele Frey-Ganzel, IBM)

See abstract for Part 1.

Z22 System Automation for z/OS: Performance Automation with OMEGAMON II Hands-On Lab - Part 1 (Raimund Thielker and Gabriele Frey-Ganzel, IBM)

Tivoli System Automation for z/OS V3.1 allows you to access performance and availability data from Tivoli OMEGAMON monitors and integrate it into your automation processes. This new health-based application automation function aims to proactively manage your applications based on a health state derived from such data. This lab shows you how to exploit this new functionality. You will learn how to:

- Use SA z/OS sample policies to include the Tivoli OMEGAMON monitors into your automation environment
- Define OMEGAMON sessions to access data and exceptions
- Test the new function based on a simple example
- For additional background on the basic concepts used by SA z/OS, the session System Automation for z/OS - Basics (Session Z15) is recommended.

Z23 System Automation for z/OS: Performance Automation with OMEGAMON II Hands-On Lab - Part 2 (Raimund Thielker and Gabriele Frey-Ganzel, IBM)

See abstract for Part 1.

Z24 HCM - What's new in z/OS 1.8 (Friedrich Beichter, IBM)

Hardware Configuration Manager (HCM) is an optional element of z/OS. It provides a graphical user interface to the hardware configuration definition (HCD) and extends the scope of HCD by adding physical data and cable management. It interfaces with other systems management products and tools like

- I/O Operations of Tivoli Systems Automation
- RMF via its Distributed Data Server
- the CHPID Mapping Tool

During this session, the speaker will discuss the new functions of z/OS V1R8 HCM such as:

- Copy I/O Configuration wizards
- Compare IODFs, HCM configuration files
- Performance Data Integration
- Automatic Activity Logging
- Hide Connections in Diagram

and a lot more...

Z25 HCD - Latest Support for the IBM System z9 EC/BC (Friedrich Beichter, IBM)

Hardware Configuration Definition (HCD) is the z/OS base element that is used to define the hardware configuration to the channel subsystem and to the operating system.

This session includes the details of the latest functions provided with z/OS V1R7 HCD and z/OS V1R8 HCD like

- Support of the eServer IBM System z9 Enterprise Class and Business Class Processors
- Support of the Server Time Protocol (STP) Link
- Support of OSA NCP Channel Path Type
- Support of More than 160 TCP/IP Stacks for OSD Channels
- Support of Multiple Subchannel Sets

Furthermore, the following topics will be presented:

- IODF Size Reduction
- Maintaining a Change Log File
- Automatic Activity Logging

Z26 What's new with IBM OMEGAMON z/OS Products and the z/OS Management Console (zMC) (Bill Davis, IBM)

This session will discuss the new features in the IBM Tivoli OMEGAMON z/OS 4.1.0 products and the z/OS Management Console (zMC). This session will also explain how the OMEGAMON products fit within the IBM Tivoli Service Management solution. An infrastructure that seamlessly integrates people, processes, information and technology to help assess and automate key IT processes, understand availability issues and resolve incidents more quickly.

Z27 Dealing With More Data: A Sysprog View (Robert Rogers, IBM)

Enterprises are experiencing rapid growth in the volume of online data. This presentation overviews the z/OS enhancements that support these ever increasing amount of storage capacity. Special emphasis is placed on HyperPAV, which is the latest enhancement in this evolution, but other features like I/O priority and alternate subchannel sets will also be addressed.

Z28 GDPS/XRC and GDPS/PPRC Hyperswap Manager - Garanti Technology User Experience (Meral Temel, Garanti Technology)

The speaker will explain how GDPS/XRC and GDPS/PPRC Hyperswap Manager was implemented at Garanti Technology.The phases will outline steps taken to implement GDPS/XRC and to make production systems get ready for GDPS/PPRC Hyperswap Manager.Hints and tips used by customer related to both solutions will be mentioned.Performance problems in GDPS/XRC after HW/SW changes and how these were solved will also be explained. Tools & Methods used and key points while managing both solutions with success will give brief feedback to both attendencies who are already using and who are planning to implement these environments.

Z29 What's New in System z Software Pricing? (Kay Adams, IBM)

This session will detail a number of recent announcements in the area of System z software pricing, including System z New Application License Charges (zNALC) and Group Capacity limits. The speaker will also present the new subcapacity zVSE licensing.

z/OS Performance Management Track

ZP01 z/OS Workload Manager: z/OS V1R8 Update (Ulrich Hild, IBM)

This session is intended to bring you up to speed about recent enhancements in Workload Management up to the most current z/OS Release V1R8. You will hear about WLM managed batch initiator enhancements, zAAP/zIIP support, enhancements in WLM Sysplex Routing and Contention Management, new Resource Group Types, the all new Workstation based policy editor and other new WLM features.

ZP02 WLM Policy Definition: Protecting Work (Ulrich Hild, IBM)

This session explains some of the more advanced Policy Definition concepts in WLM with a focus on ways to protect work. Also the concept of resource groups will be explained in detail including the latest enhancements in R8.

ZP03 Intelligent Resource Director and WLM Defined Capacity (Ulrich Hild, IBM)

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

ZP04 An Introduction to RMF (Harald Bender, IBM)

Do you feel lost at the different kinds of RMF monitors and even 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 from the traditional components as well as from the new reporting features will be discussed as representative examples.

ZP05 What's new in V1.7 & V1.8 RMF (Harald Bender, IBM)

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

- zSeries Integrated Information Processors (zIIP)
- UNIX File System Performance (zFS)
- Disk Space Monitoring
- DS8000 Link Performance Statistics
- Analysis of In-Ready Queue Distribution

Additionally, the following features will be discussed:

- Distributed Data Server Resilience
- CIM Performance Data Provider
- The RMF Monitor III Data Portal

and a lot more...
This session includes the details of the latest functions provided with z/OS V1R7 RMF and z/OS V1R8 RMF.

ZP06 The RMF Monitor III Data Portal (Hands-on Lab) (Harald Bender, IBM)

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

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

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

ZP07 zIIP and zAAPs: Transaction Flows and CPU Times (Peter Enrico, Enterprise Performance Strategies)

Today's transactions on z/OS can run on zIIP and zAAP processors, as well as traditional general purpose processors. It is necessary to understand the measurement of the CPU time consumed on these processors at the CEC level, at the WLM service class period level, and at the address space level. But to fully understand the measurements it is important to also understand typical transaction flows that will involve zIIP and zAAP processing since it is these transactions that will consume the CPU service.

During this presentation Peter Enrico will discuss some typical transactions flows involving zIIP and zAAP processors, and how the CPU time consumed are accumulated to the address space SMF 30, the processor SMF 70, and the WLM service class period SMF 72.3 records. Additional topics discussed will include dependent and independent enclaves, client SRBs, unmanaged treads, and other key concepts necessary to understand the interpretation of zIIP and zAAP CPU times.

ZP08 WLM: Understanding and Tuning Your SYSTEM and SYSSTC Setup (Peter Enrico, Enterprise Performance Strategies)

All WLM environments have two critical internal and statically defined service classes named SYSTEM and SYSSTC. One is provided for address spaces created with the HiDP attribute and the other is meant for certain types of privileged address spaces.

But what are the specifics of the SYSTEM and SYSSTC service classes? Why do they exist? How does WLM manage them? How can a WLM performance analyst verify that the correct set of address spaces are in SYSTEM and SYSSTC, and how can it be ensured that the wrong address spaces are not put into these special WLM service classes? How would performance be affected if their setup is incorrect? During this presentation Peter Enrico will provide you with the information you need to know to effective setup of your SYSTEM and SYSSTC service classes.

ZP09 z/OS – Performance Analysis and Tuning Midterm Exam (Peter Enrico, Enterprise Performance Strategies)

All z/OS performance analysts know that the z/OS environment is the both the most challenging and rewarding operating system to measure, analyze, and tune. But isn't it time you confirm your knowledge of z/OS performance analysis with a 'mid-term' exam authored by Peter Enrico? Now, of course this title is a play on words, and you will not actually be graded. However, prior to this session you will be provided with a list of questions that are designed to challenge your knowledge of general z/OS performance analysis of the basic resources of Processor, Storage, I/O, and several logical resources.

Then during this session Peter Enrico will provide you with the answers to these questions along with corresponding explanations. The entire point of the session is to provide you with practical information and tidbits about general z/OS performance analysis that you might not already know. The answer session will provide and explain the answers to all questions. So put your thinking cap on and join Peter for this informative session.

ZP10 z/OS WLM, Transactions, Servers and You (Glenn Anderson, IBM)

Today your z/OS system is filled with transactions and server address spaces of all types. Remote DB2 queries, Stored Procedures , WebSphere App Server, CICS, IMS, WebSphere MQ, UNIX Daemons, etc., How does the Workload Manager (WLM) deal with all these different kinds of work? It uses a number of WLM services - enclaves, application environments, execution delay monitoring services along with a combination of response time and velocity goals. This session will cover these advanced WLM services along with proper use of classification rules and RMF reporting, all wrapped together in one quick hour of useful WLM information!

ZP11 Memory Matters in 2007 (Martin Packer, IBM)

For z/OS LPARs memory management has changed radically over the years – from both the operating system perspective and that of applications. And the pendulum has swung back and forth between focusing on Real Memory and on Virtual Memory. This presentation discusses managing both Real and Virtual Memory – from the perspectives of both the operating system and the exploiting products. The products include DB2, DFSORT, CICS, IMS, MQ and WebSphere.

ZP12 Much Ado About CPU (Martin Packer, IBM)

Mainframe processors have in recent years introduced a number of capabilities of real value to mainframe customers. These capabilities have, however, required changes in the way we think about CPU management. This presentation describes these capabilities and how to evolve your CPU management to take them into account. It is based on the author's experience of evolving his reporting to support these changes, most notably for System z9.

ZP13 Integrating zPCR in a Practical Capacity Planning Methodology (Danilo Gipponi and Fabio Massimo Ottaviani, EPV Technologies)

In the last years many customers had to face capacity problems when migrating from old machines to the new T-REX and z9 architectures. These problems were essentially due to the consolidated practice to use the same MIPS reference number to estimate the capacity of very different configurations and workloads. To solve these problems, at the end of 2005 IBM made available to customers a free tool named zPCR (zSeries and z9 Processor Capacity Reference)

to help in Capacity Planning activities.

zPCR allows to estimate the specific capacity of each machine configuration taking into account: the number of LPARs, the number and type of logical processors (standard, zAAP and zIIP) assigned to each one of them, LPAR weights, OS release and workloads. This presentation will discuss the integration of zPCR in a practical Capacity Planning methodology showing how to use it to:

* Evaluate the current machine capacity, based on current configuration and workload;
* Evaluate the proposed machines capacity, based on designed configuration and estimated workloads;
* Evaluate the additional capacity needed in Disaster Recovery scenarios.

ZP14 zAAP and zIIP: From Theory to Reality
(Danilo Gipponi and Fabio Massimo Ottaviani, EPV Technologies)

On January 2006 IBM announced the availability of a new processor type called **z**9 **I**ntegrated **I**nformation **P**rocessor (zIIP) designed to support data serving across the enterprise.
Similarly to the already available zAAPs, used by Java code, zIIPs are much less expensive than standard processors and, more important, their usage doesn't influence the z/OS software license costs. The availability of these processors can allow consistent money savings so many customers included them in their Capacity Planning studies forecasting hardware and software costs for 2007 and later. While some tools were provided to estimate the amount of work that could be redirected to zAAPs, at the moment no similar tools were available for zIIPs. So the zIIP estimates were essentially based on technical guidelines provided by IBM.

In this paper we'll describe a real life experience at a customer site where zAAP and zIIP has been installed following a Capacity Planning study performed in 2006. The following issues will be discussed:

* tools and techniques used to estimate the number of zAAP and zIIP needed,
* available SMF and RMF metrics,
* comparison of capacity planning estimates and measured results.

ZP15 Understanding z/OS Network Performance Using OMEGAMON XE for Mainframe Networks 4.1.0 (Paul M. Smith, IBM)

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

ZP16 Enhanced End-End Application Performance Monitoring (Mark Verplaetse, IBM)

The advent of the Web has resulted in easy access for end users into the mainframe, but the cost has been a loss of good application performance data. With front end systems handling workloads how can a trouble shooter tell where problems exist? Is it in the CICS transaction, a front end server, or a protocol stack? This session explores how to use the ITCAM family of products to do true end-end application performance management by using a case study approach.

ZP17 A z/OS WLM Guy Discovers Enterprise Workload Manager (EWLM) (Glenn Anderson, IBM)

Enterprise Workload Manager (EWLM) provides a way to monitor and respond to workload processing across multiple systems in a distributed heterogeneous environment. Now there are three words that strike fear into the heart of an old MVS guy - distributed heterogeneous environment! However, EWLM is an example of mainframe technology (z/OS WLM) migrated out to distributed platforms, so that is a bit comforting. In this session Glenn Anderson, long-time WLM instructor, will share his impressions and experiences with EWLM. Just what is this EWLM thing anyway? How does EWLM fit with z/OS and WLM? Does it make sense to use both products? Why should System z people care about EWLM in the first place? Let's talk.

ZP18 Parallel Sysplex Tuning Updates (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 zSeries 800, 900 and z9 processors, Coupling Facility CFLEVELs 13 through 14; and S/W functions in z/OS 1.6-1.8, including specialized processors and XCF. It also provides examples of new data presented in RMF and display commands.

.

z/OS: Transactions, Data Base, Networking, Security Track

ZW01 z/OS Security - Building a Trust Authority (Patrick Kappeler, IBM)

In this session you will review the Security features of z/OS, as they are delivered in z/OS V1R8 with whatever z/OS V1R9 related additional preview information that could be delivered in the conference time frame. Explanations will be given on the different sets of Security services and APIs provided in z/OS, the major Security related components such as RACF, the z/OS LDAP and the z/OS PKI services and how they inter-operate. The discussion will also address the insertion the Consul suite of products in this functional architecture, and how the z/OS components can interact with the Tivoli Security products. The information provided will then be put into perspective of the SOA Security requirements and the capability of z/OS to act as a Trust Authority in this environment further developed.

ZW02 SNA Modernization and Transformation (Alfred Christensen, IBM)

Modernizing SNA is not about rewriting or throwing away SNA applications – it is about preserving SNA applications and the way end users use and access those applications, and it is about enabling reuse of SNA applications in both a browser-based end user environment and in a web services based environment - in a manner that is transparent to the existing SNA applications. This session will focus on how to meet such overall objectives in a fast changing networking environment where many of the traditional SNA networking hardware components from both IBM and other vendors no longer are marketed, and where the main wide area networking protocol no longer is SNA, but IP. The session will present a structured approach to modernizing the SNA network infrastructure and modernizing access to SNA applications. Until recently, modernizing an SNA infrastructure meant enabling APPN and Enterprise Extender. Today, SNA installations can choose to stay with SNA subarea technologies and still modernize the SNA network infrastructure using IBM's Communication Controller for Linux (CCL) on System z. Modernizing access to SNA applications can be approached using many different solutions. This session will provide the framework for such modernization and present an overview of available solutions from IBM, such as Host Access Transformation Services (HATS).

ZW03 Implementing CICS Web services: A Customer Example (Nigel Williams, IBM)

This session shows a practical example of how you can implement an SOA using Web services with CICS. The scenario is based on a project with a large financial group carried out in the IBM Product Support and Solutions Center (PSSC) at Montpellier, France. It describes the solution that we designed and explains how it meets the specific requirements of our customer. We discuss the design decisions that were made based on the customers requirements and provide a detailed description of the infrastructure that was created to test the solution. The tested infrastructure was based on CICS Transaction Server, WebSphere Application Server for z/OS, Parallel Sysplex, WebSphere DataPower and Tivoli monitoring.

ZW04 CICS and WebSphere Interoperability: SOA and the Role of CICS Applications (Nigel Williams, IBM)

Many customers want to utilize both J2EE application servers and CICS as environments to run their business applications within an SOA. They need to understand how applications in the two environments can invoke each other, as well as how to provide the transactional and security characteristics which they require. This presentation will focus on interoperability for the two major players – CICS and WebSphere - by reviewing the strategic CICS integration options and looking at how CICS applications play an important part within an enterprise wide SOA.

ZW05 OSA and Enterprise Networking Solutions Usage Scenarios (Alfred Christensen, IBM)

OSA-Express ports are used for both SNA and IP LAN connectivity to System z operating systems. In this session we will focus on how the z/OS Communications Server (z/OS CS), Communications Server for Linux (CSL) on System z, and Communication Controller for Linux (CCL) on System z use OSA for LAN connectivity. We will cover the main differences between the traditional QDIO layer-3 mode (IP-Assist), and non-QDIO modes (LSA for SNA and LCS for IP). For each of these modes we will discuss both configuration and operational aspects, such as maintenance of the OSA address table (OAT), ARP processing, use of Virtual IP Addresses (VIPA), interface availability, sharing capabilities, VLAN support, and management. We will further briefly introduce QDIO layer-2 mode support and a few upcoming enhancements to OSA, such as QDIO Layer-3 virtual MAC support. The session will focus on the software use of OSA and will discuss hardware aspects only where such aspects are of importance to understand how the hardware and software cooperate to deliver the desired functions.

ZW06 z/OS Communications Server Technical Update (Alfred Christensen, IBM)

This session will present the latest and greatest capabilities of the Communications Server on z/OS. The session will focus on enhancements provided in the recent z/OS V1R8 release, allowing attendees to start planning for use of those new functions. Among the Communications Server for z/OS V1R8 new functions that will be discussed are: new support for Sysplex subplexing, improved performance and availability for multi-tier IP applications in a Sysplex, enhanced management capabilities, securing IPv6 workload, and improved usability of Intrusion Detection Services (IDS) on z/OS. The session will also preview functions of the Communications Server in the coming z/OS V1R9 release.

ZW07 z/OS Communications Server Security Update (Alfred Christensen, IBM)

One of the main attributes of the System z platform is security. This session will discuss how the mainframe platform and z/OS security is extended to include secure IP networking access to z/OS. The session will discuss how to protect the operating system platform from malicious attacks through the IP network and will also discuss how to secure the data that is transmitted

over the network to/from IP applications running on the z/OS platform. Topics such as IPSec (secure Virtual Private Networks), IP filtering, Intrusion detection and prevention (IDS), securing application access through authentication and encryption using SSL/TLS - will all be introduced and explained at an overview level.

ZW08 Exciting News About DB2 Version 9 for z/OS (Georg Kistenberger, IBM)

Another exiting DB2 release with lots of new functions related to SQL enhancements, Data Definitions on Demand, Security, Utilities, DDF as the essential DB2 component for distributed communication, Data Warehousing applications .... Last but not least to extend DB2 as a Hybrid Database Server to store relational and XML data. DB2 V9 delivers enormous enhancements to implement XML applications much more efficiently and easier.

ZW09 Business Integration of IMS Assets (Helene Lyon, IBM)

IMS plays a significant role in the IBM SOA strategy. The session discusses how IMS provides interfaces and frameworks that allow integration with evolving technologies through use of standards. The objective is clearly to answer many questions from customers regarding how 'best' to connect from a client or application server to an IMS asset.

ZW10 Enhanced I/O Performance on the DS8000 with DB2 for z/OS Version 8 and 9 (Martin Packer, IBM)

This session presents recent DB2 performance enhancements - in numbers - for DB2 Versions 8 and 9, DS8000, FICON and System z9. Topics include Hyper PAVs, MIDAWs, DB2 Version 8's Long Term Buffer Pool Page Fixing, and DB2 Version 9's Index I/O performance improvements.

ZW11 Exploiting Hardware Cryptography on System z - An Explanation and a Status (Patrick Kappeler, IBM)

In this session you are introduced to the System z hardware cryptography implementation and how it can be exploited by applications developed using various languages and software technologies. You will be explained what are the cryptographic devices currently available in System z, their respective domains of applicability, the expected ranges of performance and the monitoring and administration tasks. This session will then focus on the specific implementation of hardware cryptography in z/OS, with examples of exploitation such as the cryptographic hardware support for the SSL/TLS or IPSec protocols support or for the Java/J2EE IBM cryptographic services providers. In addition an overview will be given on IBM products that can be used on the mainframe for the purpose of encrypting data on tapes or DASD units.

ZW12 Introduction to Performance Analysis for WebSphere MQ on z/OS (Peter Enrico, Enterprise Performance Strategies, Inc.)

IBM WebSphere MQ (previously known as MQSeries) is a network communication technology and is IBM's Message Oriented Middleware offering. It allows for independent and potentially nonconcurrent applications on distributed systems to communicate with each other.

OK… that is all very interesting, but what really is WebSphere MQ from a z/OS performance analyst's point-of-view?

During this presentation Peter Enrico will provide an introduction to WebSphere MQ for the z/OS platform. He will then provide an introduction performance considerations for WebSphere MQ on z/OS. During this session Peter will help those interested in WebSphere MQ understand what it is and what they need to be concerned with in regards to performance measurement, tuning, and analysis. Practical real word and useful information will be supplied during this presentation.

ZW13 Enterprise IP Network Management with NetView for z/OS (Paul M. Smith, IBM)

For over 20 years, NetView for z/OS has been the premier product for SNA Network Management. However, with enterprises embracing IP technology for their networking, NetView has evolved to encompass the needs of Enterprises in terms of managing their IP networks as well. This session will describe in detail the functions available with NetView that will help you manage your enterprise IP network, whether you are IP only or running a hybrid of SNA and IP. Come see why zNetView remains the premier Enterprise Network Management product.

ZW14 Why and How IMS Version 10 Exploits z/OS Features and z/OS Storage Software (Alison Coughtrie, IBM)

IMS Version 10 (which is planned for General Availability later this year) exploits many z/OS items, including DFSMS Transactional VSAM Services (DFSMStvs), IBM's Data Facility Storage Management Subsystem (DFSMS™) SDM (System Data Mover) Copy Services capabilities of SnapShot and FlashCopy, and z/OS Large Sequential Dataset support. The IMS features covered will include Parallel RECON Access which has DFSMStvs as a prerequisite; Image Copy 2 Fast Replication support which requires either IBM Enterprise Storage Servers (ESS) with the FlashCopy feature or the IBM RAMAC Virtual Array (RVA) hardware and its SnapShot feature; and IMS's exploitation of z/OS 1.7 Large Sequential data sets. This presentation gives an overview of the IMS features using these items and prepares the z/OS System Programmer for their implementation.

ZW15 Expanding IBM's End-to-End Security (Laura Knapp, IBM)

In 2006 IBM acquired the Consul company expanding the end-end security solutions available to

support the changing enterprisse environment. One of the major aspects of this acquisition is the robust RACF RACF on both z/OS and VM. This session will begin by looking at the overall product line, but will focus on the support for the System Z. Included will be discussions on the expanded auditing, alerting, and monitoring capabilities provided for RACF. Details on the support for security and compliance management will follow with an exploration of the integrated feeds between the Systm Z and other distributed systems to provide end-end compliance reporting.

ZW16 Worst Practices for Java Enterprise Applications: Real World Experiences (Holger Wunderlich, IBM)

This presentation describes the common process and development "patterns" observed over many years that lead to poor operational performance of Java on zSeries. The speaker will explain actual errant management processes, implementation techniques, technology choices, vendor and open source libraries through direct examples. Objectives include:

- To inform the audience of the existence of generic and specific technologies and practices that can threaten the success of Java Projects
- To allow the audience to recognize the stated issues within their developments
- To explain generic techniques to identify and manage future, yet to be defined threats

ZW17 Porting Java Based Applications From Distributed to z/OS (Christian Strauer, IBM)

This session shows different approaches of how to port free available Open Source Java applications as well as your self-written Java stand-alone applications to z/OS. Topics like Java servers as a started task, Java applications as a batch job and Java applications as a native USS program will be covered. Finally, a live demonstration will show how to port a Java applications which was originally developed for distributed environments to z/OS.

ZW18 Troubleshooting and Debugging Java in a z/OS Environment (Martina Schmidt, IBM)

This presentation will discuss the most common problems with Java applications in production, e.g. memory leaks, thread deadlocking and incorrect class loading. To uncover and fix these kinds of problems simple JVM diagnosis techniques are available. The following will be presented:

- Javadump
- Heapdump
- System dumps
- Garbage collection data
- Trace data
- JIT problem determination
- Class-loader diagnostics
- Shared classes diagnostics

ZW19 WebSphere Application Server Healthcheck on System z – Don't Meet the Doc When It's Too Late (Martina Schmidt and Thomas Schulze, IBM)

"But my Environment is running well" – That's what might be the first answer when you ask somebody about his WebSphere environment. But often not everything is in best shape. Do you have the right connection to the back end? Do you have the right amount of memory used? – How do you get the right amount? Has the environment ever been tested in a load or performance test? How do you do accounting? What about backup and HA? Easy to manage security?

All these are some questions that should be taken into consideration when deploying a WebSphere Application Server on System z9 to get the maximum value out of the platform by the help of:

zAAP – Offload up to 80% load to the assist processors
Local Database Connectors – Use less resources and be faster
HiperSockets – Faster than TCP/IP
Workload Manager - Accounting and transaction classification
Sysplex Distributor – Cluster function and workload balancing
RACF Security Cells

This presentation will answer all the above questions on a technical level and give a short introduction on how to implement the functions and highlight the System z9 unique strengths in combination with WebSphere Application Server. We will also give hints on how to analyze your environment end-to-end from the End user over the application to the data serving back end. In addition to the System z9 specific values we will give an introduction on application profiling with Eclipse TPTP/ WebSphere Developer for zSeries (WD/z).

ZW20 WebSphere Portal Server V6 on z/OS (Selita Faller, IBM)

This session will give you an overview on the WebSphere Portal server for z/OS. It will explain the newest developments for Portal z/OS, dig into the differences between the z/OS and distributed implementations and will talk about WebSphere Portal Platform integration into System z. You will also learn about Portal APIs, understand where and when to use them. In the end you should have a good understand if WebSphere Portal is a interesting solution for you and what the appropriate platform should be.

ZW21 Stand Alone and Batch Java on z/OS (Holger Wunderlich, IBM)

This presentation gives an overview on the

- Batch capabilities of z/OS
- Java enhancement for z/OS
- An approach how to combine these functions and features

We will discuss how to run Java in Batch, as a started task, how to interact with automation. There will be discussion on tools and utilities that make every day life easier. Java integration into

RACF will also be touched upon.

ZW22 WebSphere App Server for z/OS Performance Tuning (Glenn Anderson, IBM)

Now that you've installed WebSphere Application Server for z/OS Ver 6, how do you know that your system has been tuned for optimal performance? This session will provide performance tuning recommendations for WebSphere on z/OS, including zAAP utilization, WLM configuration, WebSphere tuning and JVM tuning. The session will also provide information about using RMF for performance analysis.

ZW23 Network Management - Solving IP Infrastructure Problems (Laura Knapp, IBM)

While the IP protocol has brought redundancy, resilience, and speed to our networks, it has also brought more headaches for the trouble shootings who keep things running. The IP protocol causes many issues from a network management perspective, that are sometimes tricky to resolve . With IBM's acquisition of Micromuse we have added robust IP infrastructure to the tools available for management from IBM. This session focuses on the important elements that need to be management for a IP network and shows you how to effectively set up an enterprise network management infrastructure**.**

ZW24 WebSphere for z/OS High-Value Exploitation: XD, ESB, Portal, Process Server (Fernando Nogal, IBM)

WebSphere Application Server for z/OS continues to be leading-edge! This session will introduce you the new technologies that you can now exploit from your WebSphere Application Server. We'll review the major features of WebSphere Extended Deployment for z/OS, WebSphere Process Server, WebSphere Enterprise Service Bus (ESB) and WebSphere Portal Enable for z/OS and provide an overview of the configuration process to include these technologies into your WebSphere Application Server.

ZW25 Encrypting Tapes or DASD Data Using the Encryption Facility for z/OS (Patrick Kappeler, IBM)

This session describes the features and the operations of the Encryption Facility for z/OS program product. Details are provided on the product principles of operation and how it exploits the System z hardware cryptography. Examples of use, administrative dependencies and recommendations are also given and discussed. This session also addresses the newly available release 2 of the product, and more specifically its support of the OpenPGP protocol. You will be provided with an explanation of the OpenPGP protocol and its z/OS implementation peculiarities. The discussion will also stress how this support can dramatically extend the interoperability of the product with non-z/OS vendors' platforms.

ZW26 LDAP - A z/OS Story (and History) (Patrick Kappeler, IBM)

The LDAP Technology has been available on z/OS (formerly OS/390) for many years already, it has been meeting many customers' needs and is enhanced with the new IBM Tivoli Directory Server for z/OS. In this session you will be explained the z/OS LDAP implementation strategy and how, over the years, LDAP on z/OS has become a powerful vector of interoperability with the distributed systems. Specific information will be provided on how the z/OS LDAP interacts with RACF so that entities in the RACF data base can be securely reached, exploited or managed using the LDAP protocol. Details are given on the IBM Tivoli Directory Server for z/OS specific implementation and functions, how it differs from the previous LDAP implementations and what are the possible dependencies regarding the migration of existing z/OS based LDAP infrastructure.

ZW27 Using IBM Tivoli OMEGAMON XE for CICS on z/OS V410 to Monitor and Manage Your CICS Environment (Richard Burford, IBM)

This session explores the ways in which you can use IBM Tivoli OMEGAMON XE for CICS on z/OS V410 to monitor and manage your CICS environment. Concentrating on the GA release, which was announced in October 2006 , the session will explore some of the configuration options available to reduce resource utilization and improve the performance of the monitor. These options include changes to the CICS definitions required by OMEGAMON XE for CICS on z/OS, changes to the SMF processing and a discussion of architectural enhancements intended to reduce the total cost of ownership. The session will also cover some monitoring examples that are based on "real life" scenarios. This session is aimed at existing OMEGAMON XE for CICS users as well as those who may be looking at the product.

z/VM Sessions - Basics, General Interest, Performance, and Networking

Note: z/VM V5.3 was announced Feb. 06, 2007.

V0 z/VM Basics TRACK

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

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

This session continues in Part 2 (session V03) where we'll take a look at "how" CP does its work.

V03 The z/VM Control Program (CP): Part 2 – Under the Covers (John Franciscovich, IBM)

In Part 1 (session V02), we looked at "what" the z/VM Control Program (CP) does for you.

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

V04 The Basics of Using z/VM (Christine Casey, IBM and Will Roden, IBM)

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

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

V05 z/VM TCP/IP Stack Configuration (Miguel Delapaz, IBM)

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

V06 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.

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 implemented automatic SSL support. This session explains SSL from an externals viewpoint and describes how to exploit it with z/VM TCP/IP.

V08 Introduction to Performance Toolkit for VM (Bruce Dailey, IBM)

The Performance Toolkit for VM is an optional, priced, pre-installed feature of z/VM that provides enhanced capabilities for a z/VM systems programmer, system operator, or performance analyst to monitor and report performance data. Come to this session to see an overview of the function available.

V09 Introduction to CMS Pipelines (Will Roden, IBM)

CMS/TSO Pipelines is the most efficient way to write an application that I know of. 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.

V2 z/VM Networking and Connectivity TRACK

V21 TCP/IP for z/VM Update (Tracy Adams, IBM)

z/VM V5.3 includes TCP/IP Function Level 530, a new level of the TCP/IP Feature that delivers significant new functions. This session gives an overview of these enhancements, as well as describing the VM TCP/IP product and the changes to it that were introduced in Function level 520 with z/VM V5.2, and with z/VM V5.1.

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

This session provides detailed information on TCP/IP routing, as implemented in z/VM TCP/IP. We begin with low-level LAN communication, ARP and IPv4 addressing and subnetting. Then we will provide detailed information how to configure and use z/VM TCP/IP' static and dynamic routing functions. We focus on packet routing examples, dynamic vs. static routing, MPRoute, Virtual IP Addressing (VIPA), and z/VM virtual network design. The mysteries of coding the Gateway statement will be revealed! While the syntax may be z/VM, the concepts apply to all operating systems, including VSE, z/OS, and Linux, the simplified configuration capabilities in z/VM V5.3 will be highlighted**.**

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

This session is a continuation of Session V22.

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

This presentation discusses the configuration of MPRoute, the strategic dynamic routing server for z/VM TCP/IP. Topics include z/VM TCP/IP server configuration to work with MPRoute, configuration of the z/VM MPRoute server for the RIP or OSPF protocols (or both!), and MPRoute server operation. Discussion of the routing protocols themselves is limited to how they affect configuration and operation of the server. While knowledge of OSPF and RIP specifics are not required, a basic knowledge of routing concepts is assumed (and can be obtained at sessions V22/V23 - VM TCP/IP Routing). Prior knowledge of z/VM TCP/IP or attendance at session V06 (z/VM TCP/IP Stack Configuration) is recommended.

V25 Virtual Networking with z/VM Guest LANs the z/VM Virtual Switch (Tracy Adams, IBM)

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

V26 Configuration Tools for z/VM TCP/IP Network Connections (Miguel Delapaz, 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 were introduced beginning with z/VM V4.3. The IPWIZARD function allows you to quickly and easily do the base configuration as you first try and get TCP/IP running. The IFCONFIG command allows you to quickly and easily add new connections to your running TCP/IP stack. With these functions you can get your connections 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 (Tracy Adams, IBM)

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

V28 Migrating to the z/VM Virtual Switch (Alan Altmark, IBM)

Converting your existing point-to-point or z/VM Guest LAN configurations to the z/VM Virtual Switch can appear to be a daunting task, but it's easier than you think. Here we'll talk about how to move subnet routing off of your z/VM system and onto your networking hardware where it belongs. We'll even talk about how to create IEEE VLANs on a Cisco switch. This presentation is a great way to bridge the "buzzword gap" between you and your network administrators.

V5 z/VM General Interest TRACK

V53 z/VM Platform Update: Introducing z/VM V5.3 (Reed Mullen, IBM)

Catch the latest breaking news on z/VM product enhancements. This session will provide you a high-level overview of the new z/VM Version 5.3 product announcement. z/VM V5.3 offers new, leading-edge virtualization capabilities and a pricing model that will help enterprises more easily exploit the on demand capabilities of IBM System z virtualization technology. This session also serves as an excellent launching point for your week of z/VM training, touching on many of the

topics that will be discussed at length during the conference.

V54 z/VM Platform Manager: z/VM Direction and Discussion (George Madl, IBM)

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

Since April 2004 when IBM announced z/VM V5.1, a new IBM VM operating system based on the new 64-bit z/VM z/Architecture, IBM announced the follow-on release in July 2005 - *z/VM V5.2 enhances scalability for virtualization on IBM System z, including Linux guests*, And in April 2006, announced enhancement to z/VM V5.2 in support of Linux guests.

On Feb. 6, 2007, IBM announced *z/VM V5.3 - Improving scalability, security, and virtualization technology*, and plans to make it available June 29, 2007.

The z/VM hypervisor is designed to help clients extend the business value of mainframe technology across the enterprise by integrating applications and data while providing exceptional levels of availability, security, and operational ease. z/VM virtualization technology is designed to allow the capability for clients to run hundreds to thousands of Linux servers on a single mainframe running with other System z operating systems, such as z/OS, or as a large-scale Linux-only enterprise server solution. z/VM V5.3 can also help to improve productivity by hosting non-Linux workloads such as z/OS, z/VSE, and z/TPF.

V55 The Latest and Greatest on z/VM Control Program (CP) (John Franciscovich, IBM)

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

V56 z/VM Device Support Overview (Steve Wilkins, IBM)

Come to this presentation to hear an overview of current device support available on z/VM Version 5. The speaker will discuss Disk, Tape, and OSA technologies available for VM system I/O and guest operating systems running under z/VM. This presentation is also well-suited for an audience new to z/VM.

V57 Introduction to the IBM System Storage DS6000 (Steve Wilkins, IBM)

This presentation brings you up to date on the IBM System Storage DS6000, an affordable storage solution specifically designed to help medium and large enterprises simplify their storage

infrastructures, support business continuity, and optimize information life cycle management. The DS6000 provides both SCSI and FICON attachment, enabling it to serve the needs of your z/OS, z/VSE, z/VM and Linux operating systems.

V58 Using z/VM in a SCSI Environment (Steve Wilkins, IBM)

This presentation will provide an overview of the z/VM new native support for SCSI disks and how they can be used to install, IPL, and run your z/VM system in a SCSI-only environment. z/VM Version 5 supports SCSI FCP disk logical units (SCSI disks) for both system and guest use. SCSI disks can be used as emulated 9336 Model 20 fixed-block-architecture (FBA) disks. Guests that support FBA disks (such as CMS, GCS, and VSE) can use SCSI disks through the emulated-FBA support, without requiring their own SCSI support. VM's SCSI support allows a Linux server farm to be deployed on z/VM in a configuration that includes only SCSI disks. ECKD™ disks are no longer required. Installation of z/VM from DVD to a SCSI disk, IPL from a SCSI disk using Stand-Alone Program Loader (SAPL), and VM system dumps to a SCSI disk are supported. DASD Dump/Restore (DDR) services using SCSI disks are supported when DDR is running under CMS. This presentation will also provide information on current updates, such as new support for the IBM SAN Volume Controller (SVC).

V59 VM Parallel Access Volume (PAV) and HyperPAV Support (Steve Wilkins, IBM)

This presentation covers details of the PAV minidisk support delivered on z/VM 5.2.0 via APAR VM63952. APAR VM63952 provides Parallel Access Volumes (PAVs) as minidisks for guest operating systems, such as z/OS, that exploit the PAV architecture. The APAR also provides the potential benefit of PAVs for I/O issued to minidisks owned or shared by guests that do not support exploitation of PAVs, such as CMS.

In addition, this presentation covers details of the VM HyperPAV support for the IBM System Storage DS8000 series announced for z/VM V5.3. The HyperPAV function potentially reduces the number of alias device addresses needed for parallel I/O operations since HyperPAVs are dynamically bound to a base device on each I/O operation instead of statically like with basic PAVs. z/VM V5.3 provides support of HyperPAV volumes as linkable minidisks for guest operating systems that exploit the HyperPAV architecture. ZVM V5.3 is also designed to transparently provide the potential benefits of HyperPAV volumes for minidisks owned or shared by guests that do not specifically exploit HyperPAVs.

E44 Ordering Service and Products for z/VSE and z/VM online (Ingo Franzki, IBM)

This session will provide an overview of ShopzSeries. See how ShopzSeries can be used to order IBM products and service (PTFs, RSLs, RSUs ...) for 'e-delivery' (Internet download), on CD-ROM, or on tape cartridges. The session gives an overview of various service deliverables. It also explains how to search for APARs and PTFs when you encounter an error, how to order them and what to do with the delivered images or PTFs in order to install them on z/VSE or z/VM.

V6 z/VM System Management TRACK

V61 System Management on z/VM (Christine Casey, IBM)

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

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

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

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

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

V64 - DirMaint Implementation and Configuration for z/VM V5.3 (Gary Detro, IBM)

Attend this informational session and see the step-by-step implementation process for this pre-installed (priced, optional) feature of z/VM 5.3.0. The IBM Directory Maintenance product (DirMaint for z/VM) is a Conversational Monitor System (CMS) application that allows you or additional system administrators to provide for local management of virtual machine definitions. Attendees will observe how DirMaint's command-line interface and automated facilities can simplify day to day handling of request for virtual machine creation, modification, and cloning utilizing the z/VM Flashcopy facility. Additionally, you will see how you can create additional virtual machines to assist or backup the primary directory administrator.

V65 What's new in CMS Pipelines in 2007 ?
(Rob van der Heij, Velocity Software, Inc.)

CMS Pipelines has been enhanced in many ways since VM had the last major revision of its indoor plumbing. The CMS Pipelines Runtime Library is freely available for VM users and can be installed as alternative for the version provided with z/VM. New stages and enhancements to existing stages often can simplify the writing of new applications or revision of existing ones.

Early 2007 a revised edition of the "Author's Edition" and the CMS Pipelines Help Library was published, making it easier for plumbers to catch up with the changes. This presentation introduces some of the new features and shows other neat tricks with pipes.

V7 z/VM Security TRACK

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

IBM System z customers are familiar with the isolation, security, and integrity features that the hardware provides. However, many customers using z/VM for the first time are new to the world of Virtualization and seek reassurance not only that multiple virtual servers can share hardware resources efficiently, but that they run in a secure environment and comply with organizational IT security policies.

This presentation is an overview of the security and integrity characteristics of the z/VM operating system. We will discuss how it works, auditing, and some of the knobs and levers available to control the environment, as well as customer responsibilities and IBM commitments. Come to this presentation to hear about Common Criteria and the security-related enhancements introduced in z/VM V5.3.

V72 - RACF Implementation and Configuration for z/VM V5.3
(Gary Detro, IBM)

Attend this session and see the step-by-step process of implementing Resource Access Control Facility (RACF) pre-installed (priced, optional) feature for z/VM on your z/VM V5.3.0 system. This implementation overview provides the z/VM system programmer with a guided tour of the RACF Program Directory and the z/VM Secure Configuration Guide by discussing which optional steps actually should be performed and more importantly, how you perform those steps when implementing RACF FL530 on your z/VM V5.3.0 system for the first time. Additionally, you will see how to implement a dual registration environment of virtual machines with DirMaint and RACF

V9 z/VM Performance TRACK

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

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

V92 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.

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

Performance Toolkit for VM is a powerful tool from IBM for monitoring z/VM system performance that was introduced as a priced feature with z/VM V4.4. With additional enhancements in z/VM V5.1, Performance Toolkit replaced VMPRF and RTM. This presentation will focus on the enhancements to Performance Toolkit for VM that are associated with z/VM V5.2 and with the newly announced z/VM V5.3.

V94 - Performance Toolkit for VM Installation and Configuration for z/VM V5.3 (Gary Detro, IBM)

The Performance Toolkit for VM is designed to assist operators and system programmers or analysts to determine system bottlenecks and potential system problems regarding system performance. The full screen operator feature (Basic Mode) provides a facility for the management of daily operations of one or more VM systems. The performance-monitoring feature of the product (Monitor Mode) provides real time performance monitoring which allows system programmers to monitor system performance and to analyze bottlenecks. The batch facility of Performance Toolkit for z/VM (Batch or VMPRF mode), allows for the processing of historic Monwrite data. The Linux interface allows this product to extract performance data from all of your Linux images and displays that information from a central web interface as well as displaying application monitor data generated by Linux guests of your z/VM system. Learn how to configure this pre-installed (priced, optional) feature of z/VM V5.3.0 for local management or via a secure web-interface.

V95 Performance Toolkit for VM - Hints and Tips (Bruce Dailey, IBM)

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

V96 Tivoli OMEGAMON XE on z/VM and Linux (Mac Holloway, IBM)

z/VM is critical to growing use of software running on Linux guests. Managing this environment requires insight into resource consumption at the z/VM level and at the Linux guest level. IBM's product offerings provide an integrated way to monitor (and manage) these performance characteristics. This presentation will discuss the current offerings - functionally, as an integrated solution, with user scenarios, and within the larger system management infrastructure. It will also provide a roadmap for futures with the expectation of gathering advice.

Linux sessions: General Interest, Performance, Applications, Networking, System Management, Security, Installation and hands-on-labs

L0 General Linux on System z TRACK

L01 What 's New for Linux on System z? (Volker Sameske, IBM)

The session will attempt to give an impression of how Linux development for System z works, and where we are heading. So the first part gives you an overview how Open Source development works within IBM. How do we get new functionality upstream into the current Linux kernel and how do we get this functionality into current distributions.
The second part of this session will provide an overview of new features in Linux on System z that are currently under development by IBM and the open source community, and are expected to be provided with upcoming releases of Linux enterprise distributions. We will address both System z specific features and some current platform-independent developments in Linux.

L02 What IT Managers need to know about the value of z/VM Virtualization Technology for Linux (Reed Mullen, IBM)

The IBM z/VM product is a key component in many of the Linux on IBM System z success stories. z/VM enables customers to realize significant cost savings and technology

exploitation benefits when deploying Linux solutions on the mainframe.

This presentation is intended for an audience who is not familiar with the capabilities of z/VM. Virtualization technology concepts will be explained and specific value propositions for the Linux environment will be highlighted. z/VM exploitation of System z hardware and facilities will also be noted (e.g., HiperSockets, Crypto, large real memory, FICON, etc.). *And, hear the latest about the recently-announced z/VM V5.3 - Improving scalability, security, and virtualization technology.* **For additional sessions of this theme, please check the "V" (z/VM) sessions.**

L03 The Implementation of Zeus: the System z Europe University System (Dr. Malcolm Beattie, IBM)

Zeus is the university hub that the presenter has set up for universities to use for their System z education courses. Come and hear how Zeus is set up, what systems are being used, how universities are using it in their courseware to educate the next generation of mainframe enthusiasts, what the plans are for Zeus

L04 Porting OpenSolaris to System z: A Long Way Home (Dr. David Boyes, Sine Nomine Associates)

What was involved in getting Solaris running on System z? What does it take to make a new operating system available on System z? Come hear about the adventures in coding involved in bringing another popular OS to the System z platform.

L06 FCP Channel Virtualization in a Linux Environment (Volker Sameske, IBM)

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

L07 Making Your Penguins Fly - Introduction to SCSI over FCP for Linux on System z (Volker Sameske, IBM)

The intention of this session is to give a wider introduction into FCP and SCSI with Linux on System z. The Linux zfcp device driver adds support for Fibre Channel attached SCSI devices to Linux on System z. The Fibre Channel protocol is an open, standard-based alternative and supplement to existing ESCON or FICON connections and becomes more and more important.

The presentation introduces storage area network basics (SAN) and points out how to integrate your mainframe into an existing SAN. This session covers almost the entire spectrum of FCP deployment in a Linux on System z environment. Main topics are hardware and software requirements, configuration, performance considerations, IPL and dump. Other points will be FCP support in recent Linux distributions, application areas and FCP troubleshooting basics.

L2 Introductory Linux for the Mainframe Systems Programmer TRACK

L21 Lab: An Introduction to Linux for the UNIX newcomer Part 1
(Neale Ferguson, Sine Nomine Associates)

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

If you are a Linux and UNIX neophyte who would like to start down the Linux path, then plan on attending these sessions. If you are familiar with UNIX already then these labs are probably not for you. This session is continued in session L22 and L23.

L22 Lab: An Introduction to Linux for the UNIX newcomer Part 2
(Neale Ferguson, Sine Nomine Associates)

This is a continuation of session L21 and continues with L23.

L23 Lab: An Introduction to Linux for the UNIX newcomer Part 3
(Neale Ferguson, Sine Nomine Associates)

This is a continuation of session L22.

L24 Lab: An Introduction to Scripting Hands on Lab - Part I
(Neale Ferguson, Sine Nomine Associates)

You've been told that Linux on System z is a good thing and that you need to "make it happen". Great. So how do I do this:

```
//REPORT           JOB        51315,
                        NEALE,
```

```
                        MSGLEVEL=(1,1)
//RPT               EXEC             PGM=REPORT,PARM='Report Title'
//SYSLIB            DD         DSN=HOME.NEALE,DISP=SHR
//SYSPRINT DD             SYSOUT=*
//IN1         DD          DSN=TMP.PROD.MON.IN001,DISP=SHR
//IN2         DD          DSN=TMP.PROD.MON.IN002,DISP=SHR
//IN3         DD          DSN=TMP.PROD.MON.IN003,DISP=SHR
//OUT         DD          DSN=TMP.PROD.MON.NEALE(OUT),DISP=SHR
```

with Linux? There's no such thing as JCL so how do I control my jobs?

That's where scripting comes in. While in concept CLISTs are similar to scripting in Linux the analogy doesn't stretch very far. You have to face facts: I need to learn bash, ksh, or csh. "Where do I start?" you ask. This hands-on lab attempts to serve as your starting point as you are introduced to the basics of bash scripts and learn how to achieve what JCL used to do for you.

This session is continued in session L25.

L25 Lab: An Introduction to Scripting Hands on Lab - Part 2 (Neale Ferguson, Sine Nomine Associates)

This is a continuation of session L24.

L3 Linux on System z Installation TRACK

L31 Lab: Linux on System z Installation Lab - Part 1 (Steffen Thoss, IBM and Mario Held, IBM)

Since its first going-public in 1999, Linux on the mainframe has found its place next to z/OS, z/VM and z/VSE. This lab is the chance for all who either know Linux or the mainframe but have never tried the combination of both. Part I will begin with an assisted installation of a recent mainframe Linux distribution and will result in a fully installed system with a webserver, a fileserver, a nameserver and a firewall. After this lab attendees should be able to install a mainframe Linux in their environment from scratch.

L32 Linux on System z Installation Lab - Part 2 (Steffen Thoss, IBM and Mario Held, IBM)

This is a continuation of session L31.

L33 Linux on System z Installation Lab - Part 3 (Steffen Thoss, IBM and Mario Held, IBM)

This is a continuation of session L32.

L34 Linux in an LPAR - How It's Done (Erich Amrehn, IBM)

IBM mainframes have been capable of running Linux since December 1999. But, if you were asked to evaluate or actually implement Linux in your System z 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 System z server? Linux on System z 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 System z distributions as an example.

This session will be very helpful in understanding how an LPAR running Linux can be integrated into your installation

L4 Networking with Linux on System z Track

L41 Communication Controller for Linux (CCL) - Technical Update (Alfred B Christensen, IBM)

The Communication Controller for Linux (CCL) on System z program product offers an opportunity to modernize the traditional SNA subarea access environment that typically consist of ESCON channel-attached and Token-ring LAN-attached IBM 3745s running NCP and optionally NPSI. CCL allows you to continue using selected NCP and NPSI functions, but at the same time migrate away from ESCON channels, Token-ring hardware, and IBM 3745 hardware. CCL is a program product that emulates the IBM 3745 hardware so that the NCP can run on top of CCL in a Linux environment on the System z9 hardware.

This session will introduce the CCL technology, its characteristics, and its limitations. The session will in particular focus on the latest connectivity, performance, and functional enhancement that were introduced during 2006. The current release of CCL (CCL V1.2.1) supports SNA connectivity over OSA fiber technology (QDIO layer-2), OSA for NCP connectivity (emulated CDLC channel) to VTAM and TPF on a System z9, support for non-SNA X.25 workloads through continued use of the NCP Packet Switching Interface (NPSI) product and IBM X.25 Over TCP/IP (XOT) in the CCL environment. Finally CCL V1.2.1 also supports Data Link Switching (DLSw) connectivity into the Linux operating system where CCL operates - offering an option to simplify the overall SNA network infrastructure where SNA data is transported over IP all the way into System

L44 Networking with Linux on System z (Part I of 2) (Steffen Thoss, IBM)

Linux on System z offers a lot of possibilities to get your system connected to a network. This presentation will give an overview of all the network devices supported by Linux on System z. Examples will show how to set up networking on your system using OSA, VM Guest LAN and HiperSockets. You will learn how to statically configure your network during boot time and also understand dynamic network configuration on a running system. In these examples, configuration steps will be presented for Linux 2.6 based distributions.

L45 Networking with Linux on System z (Part 2 of 2) (Steffen Thoss, IBM)

Linux on System z provides a variety of technologies to ensure reliability, availability and serviceability (RAS). Using these technologies it is possible to implement any network topology, including both virtual intra-machine as well as inter-machine connections. Examples will show how to set up advanced networking and how to seamlessly integrate a System z system into a network. Tools and options such as IP address takeover, Channel Bonding, ProxyARP and HiperSockets Network Concentrator will be presented. Configuration steps will be shown for Linux 2.6 based distributions.

L5 Linux on System z Applications / Application Development TRACK

L51 System Automation for Multiplatforms End to End Automation (Dr. Norbert Lenz, IBM)

How can you automate the operations of your heterogeneous business applications running on z/OS, AIX, Linux and Windows? With IBM Tivoli System Automation for Multiplatforms (SA MP) you can automate the availability of your business applications end to end from a single point of control, managing cross cluster dependencies. The functionality and platform coverage of SA MP end to end automation is now extended from SA z/OS and SA MP base on Linux and AIX to High Availability Cluster Multi-Processing (HACMP) and Microsoft Cluster Server (MSCS). An open plugin interface for additional automated operations products is provided.

L6 Linux on System z User Experience TRACK

L61 Sparda Bank experience with Linux on z/VM, WebSphere, and Tivoli Storage Manager (Oliver Boethinger, Sparda Bank)

Come to this session to hear customer experience.

L62 Rheinland Versicherung experience with Linux on z/VM, Oracle, and WebSphere

(Michalis Papadopoulos, Rheinland Versicherung)

Come to this session to hear customer experience.

L7 Linux on System z Systems Management and Security TRACK

L71 GDPS/PPRC Multi Platform Resiliency for System z (xDR)
(Dr. Norbert Lenz, IBM)

If you are using Linux on System z together with z/OS for your critical business applications, how can you provide coordinated high availability and disaster recovery? With GDPS/PPRC Multi Platform Resiliency for System z and IBM Tivoli System Automation you can manage the Linux and z/OS systems and their data in a coordinated way, supporting planned and unplanned restart of systems in place, HyperSwap and site takeover. These functions are now available for Linux systems running under z/VM and in LPAR on System z.

L72 A z/VM and Linux Disaster Recovery (DR) Cookbook: One Guy's Path from Bare Metal to Running System - Part 1: Preparing for a Disaster
(Dr. David Boyes, Sine Nomine Associates)

"Preparing for a Disaster" provides an overall approach to Disaster Recovery (DR), including:
- Preparing a 1 pack recovery system
- Handy tools to augment DR management.
- SPXTAPE and friends
- Dumping other volumes into a manageable package

And, cranky observations on DR in general.

This session continues with Part 2 in session L73.

L73 A z/VM and Linux Disaster Recovery (DR) Cookbook: One Guy's Path from Bare Metal to Running System - Part 2: Out of the Fire and Back to Cooking with Gas
(Dr. David Boyes, Sine Nomine Associates)

" Out of the Fire and Back to Cooking with Gas" continues the DR discussion from Part I and Will discuss::
- Restoring the 1 pack system
- Parallel restore process
- Tape label management in raw CMS
- Linux specific DR
- Why DDR isn't your friend for Linux DR
- And, possible solutions

L74 NJE on Linux: Integrating Linux into the Mainframe Management World (Dr. David Boyes, Sine Nomine Associates)

Got a perfectly good system automation solution for your classic mainframe world, but need to bring Linux into the fold? Come look at why another decades-old technology has a new lease on life in integrating Linux into existing system automation, job management, and other operations management tasks and tools.

TSS05 Implementing Tivoli Storage Manager (TSM) on Linux on System z (Curtis Neal, IBM)

Many are moving their TSM server from either a distributed system or z/OS to Linux on System z. This session looks at some of the tricks of the trade as you make the move Linux on System z. As the session progresses information will be provided on the overall flow of information and the use of some of the 'extra' features available to us in Linux on z. Both the server and client implementations will be explored.

L76 Linux Proof of Technology: Tivoli Enterprise Console (Laura Knapp, IBM)

Making the decision to implement a product on Linux is just half the battle. The next major question is what hardware base is best suited to the situation. This session looks at a customer Proof of Concept looking at taking Tivoli Enterprise Console to a Linux base. The decision point revolved around which hardware platform was best, System P, System X or System Z. Come find out the results of the PoC and which hardware platform was selected.

L77 Cryptographic support for Linux on IBM System z - Base Introduction (Arthur Winterling, IBM)

For cryptographic solutions on System z a lot of functionality is implemented by the Hardware and by Linux on System z. An overview about the supported cryptographic solutions by Linux on System z will be given in this presentation. The introduction contains a general overview incl. some definitions about specific cryptographic functions and communication. The first chapter shows the support offered by the System z Hardware (cryptographic HW cards and CPACF feature).
The second chapter will show the different functions of the cryptographic support given by Linux on System z. The presentation will be finished with a chapter showing some performance information and data.

L78 Cryptographic support for Linux on IBM System z - Getting Started (Arthur Winterling, IBM)

The presentation is based on the cryptographic suppport given by Linux on System z and

will give base information how to do the setup and get started for the different possibilities. The first chapter will show how to setup the needed Hardware (cryptogrphic HW cards and CPACF feature). Each of the following three chapters will focus on a specific cryptographic support (inkernel crypto, cryptographic libraries and openssl). Base setups with samples will be shown. The presentation closes with a chapter 'Hints and Tips'.

L79 Easy z/VM Linux Guest System Deployment and Management with IBM Director (Claudia Prawirakusumah, IBM)

IBM Director 5.20 provides basic systems management to Linux on IBM System z and z/VM. For Linux on System z, the base Director functions (e.g. monitoring, event action plans, software distribution, inventory, remote control, task scheduling) are available like on any other IBM platform. For z/VM, a Director extension called 'z/VM Center' enables you to provision and configure z/VM Linux guests from the Director console.

It enables:

- Management of z/VM guests including the creation, deletion, activation of z/VM linux guests and deployment of Linux OS systems (Red Hat or Novell SUSE) based on templates.
- Automated configuration (and creation) of groups of z/VM Linux guests

IBM Director with z/VM Center helps you simplify the management and setup of Linux guests on z/VM systems. This includes easy and fast cloning, personalization of clones, and management of cloned systems.

L9 Linux on System z Performance TRACK

L91 Linux on System z Performance Update (Martin Kammerer, IBM)

This presentation gives a short introduction into general aspects of System z hardware. It then focuses on performance data obtained with Linux on System z measurements. The discussed results show the performance exploitation of IBM hardware, performance improvements in the Linux kernel, performance statements on current Linux distributions and performance experiences with software products.

L92 Linux on System z Performance Hints and Tips (Martin Kammerer, IBM)

This session is focused on tuning recommendations for Linux on System z. It covers recommendations on the Linux kernel, system setup, the gcc compiler, Java, efficient use of IBM hardware, including disk I/O, networking and cryptography, and Linux performance tools. It is based on frequently asked questions about Linux on System z performance.

L93 Linux and z/VM Performance Studies (Rob van der Heij, Velocity Software, Inc.)

The Performance Monitor is your friend when diagnosing problems, performance problems as well as others. This presentation will present "real life" case studies to show how to diagnose problems and analyze resource efficiency by combining different performance metrics. The cases presented are about z/VM as well as Linux on z/VM.

L95 Performance experience with Databases on Linux for IBM System z (Martin Kammerer, IBM)

The presentation provides experiences from performance tests with Informix, DB2 and Oracle databases on Linux on System z, exploiting different disk I/O options in Linux, considerations for using storage servers, hints and tips for database setup parameters and scaling capabilities of database servers.

L97 Configuring Linux on z/VM for Performance (Barton Robinson, Velocity Software, Inc.)

Many installations have failed in their proof of concept because of simple errors in the configuration. Linux on System z is NOT Linux on Intel. The requirements are different. But on System z, we have technologies that other platforms can only dream of - and utilizing those technologies often means the difference between success and failure. This presentation provides configuration guidelines on how to configure Linux for performance and success.

V96 Tivoli OMEGAMON XE on z/VM and Linux (Mac Holloway, IBM)

z/VM is critical to growing use of software running on Linux guests. Managing this environment requires insight into resource consumption at the z/VM level and at the Linux guest level. IBM's product offerings provide an integrated way to monitor (and manage) these performance characteristics. This presentation will discuss the current offerings - functionally, as an integrated solution, with user scenarios, and within the larger system management infrastructure. It will also provide a roadmap for futures with the expectation of gathering advice.

z/VSE Sessions - General Interest, SOA and On Demand Connectors, System Management and Performance

E sessions for z/VSE

On January 9, 2007, IBM announced that "IBM z/VSE V4.1 is generally available, supports z/Architecture, and introduces Sub-Capacity pricing".

E4 z/VSE General Interest TRACK

E41 z/VSE Version 4 News and Views (G.M. "Jerry" Johnston, IBM)

This session introduces z/VSE Version 4. It covers z/VSE status, V4.1 content, and z/VSE strategy (including SOA and interoperability). It addresses some of the benefits of an hybrid environment incorporating the best of z/VSE and Linux on System z. The session will also include a brief overview of attractive new MLWC pricing (with full-capacity and Sub-Capacity options) introduced exclusively for z/VSE V4 on IBM System z9. It also includes examples of how MWLC price metrics may be a 'game changer' for those considering IBM System z9 BC or z9 EC servers.

E42 z/VSE Version 4 Functions and Sub-Capacity Pricing (G.M. "Jerry" Johnston, IBM)

On January 9, 2007, IBM announced Sub-Capacity pricing for z/VSE V4.1 and selected middleware products. This presentation will show details about the functionality of z/VSE V4 and will provide a deep dive into the new software pricing metric for VSE customers.

E43 z/VSE Version 4 Exploitation and Enterprise modernization (Wilhelm Mild, IBM)

z/VSE V.4.1 is available March 16. 2007 !
The 64-bit support and the new functions can help significant in decisions for new modern Solution Architectures and Optimizations. This session shows new functionality and extensions in z/VSE 4.1 and how they can contribute to modernize your heterogeneous IT environment. The integration with Tivoli TSM and IBM Middleware enables modern enterprise solutions with z/VSE.

E44 Ordering Service and Products for z/VSE and z/VM online (Ingo Franzki, IBM)

This session will provide an overview of ShopzSeries. See how ShopzSeries can be used to order IBM products and service (PTFs, RSLs, RSUs ...) for 'e-delivery' (Internet download), on

CD-ROM, or on tape cartridges. The session gives an overview of various service deliverables. It also explains how to search for APARs and PTFs when you encounter an error, how to order them and what to do with the delivered images or PTFs in order to install them on z/VSE or z/VM.

E45 z/VSE Birds-of-a-Feather (z/VSE Panel)

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

E46 z/VSE Requirements Session (Wilhelm Mild, IBM)

We'll answer your questions, and review your own ideas for modernizing your specific IT environment.

E47 The mainframe is not an Island. Application Development with z/VSE (Heinz Peter Maassen, Lattwein GmbH)

This session shows solutions for z/VSE and the abilities of integration of mainframe applications into a heterogeneous IT. Using Browser technology and the strength of mainframes for data serving, this should demonstrate the integration of modern visualization for any mainframe application. Part 2 expands the usage of these applications to other programming platforms like Java or .NET. By using XML data streams for exchange of data between the mainframe and desktop operating system like Windows or Linux. The last part of this session will show current solutions of successful applications used by major companies in Germany.

E6 z/VSE SOA and On Demand Connectors

E61 User Experiences with z/VSE Connectors (Wilhelm Mild, IBM)

Discover how customers with environments similar to yours have implemented modern, mixed, hybrid business solutions involving z/VSE and other platforms. This session will describe actual, real-life scenarios and the steps taken to create solutions that exploit data interchange in a distributed environment. Development tools and transparent data access methods allow integration of z/VSE processes into the WebSphere architecture. Business Intelligence solutions and intelligent business architectures work with DB2 Server on z/VSE and DB2 UDB on Linux for System z, on the same mainframe.

E62 SOA and z/VSE: Implementing SOA using Web Services (Tools)

(Wilhelm Mild, IBM)

Service Oriented Architecture (SOA) is the concept for new modern solutions and VSE can be part of it. We'll see how the concepts of SOA can be used to generate Web Services from existing CICS Applications and the tool that brings SOA close to VSE.
The CICS2WS Toolkit is a “no charge” development tool that reads WSDL files and Copybooks, and enable VSE to act as a Web Service provider (server) and as a Web Service requester (client) in an SOA environment.

E63 Lab: Interoperability of z/VSE with the open world using Connectors (Wilhelm Mild, IBM and Ingo Franzki, IBM)

Easy access to VSE resources will be the focus of this 'hands-on' workshop. A graphical interface for VSE will be implemented as well. You'll be able to do a step-by-step setup, then customize the access to VSE resources from another platform. We'll make use of the VSE e-business Connectors to access VSAM data and other VSE resources. This solution can be used with different Java platforms (i.e. Linux, UNIX, Windows)

E64 Lab: SOA and CICS access from remote platforms (Ingo Franzki, IBM and Wilhelm Mild, IBM)

CICS is the major subsystem that can be enhanced to extend existing processes to a heterogeneous environments. The implementation of CICS remote access is the focus of this Workshop. You'll be able to access CICS applications and data from remote systems. We'll set up both a VSE and a workstation environment for this access, using CICS Web Support (CWS), CICS Transaction Gateway (CTG) and Service Oriented Architecture (SOA).

E7 z/VSE System Management and Performance

E71 Approaches to Application Development for z/VSE (Wilhelm Mild, IBM)

Modern development tools help increase productivity and lower error rate. What about the possibility of using them to develop and support applications for z/VSE? A variety of methods and tools will be shown in this presentation. What about developing based on a standard application design and a generation platform such as Eclipse? You may be surprised to find the range of possibilities for z/VSE.

E72 Storage Options and Disaster Recovery for z/VSE (Wilhelm Mild, IBM)

z/VSE supports the newest Storage devices, from disk to tape library. With the intelligent functions of the Storage Subsystems, intelligent configuration and operation can help increase

the availability and security of enterprise data and processes across networks and regions. The cost and global business implications of long periods of unexpected downtime can be overwhelming. This session illustrates Disaster Recovery (DR) options for z/VSE and 'best practices' approaches used by real z/VSE customers. DR is a hot topic and is suprisingly effective and affordable for z/VSE.

E73 z/VSE Performance Update (Ingo Franzki, IBM)

This session will share the latest on z/VSE V4 and V3 performance. This information may be useful in managing your own overall performance, including distributed environments. For example, how does z/VSE V4 compare with prior versions/releases of VSE? What are the performance implications of z/VSE and Linux mainframe environments? What about 64-bit and SCSI?

E74 z/VSE Security Concepts (Ingo Franzki, IBM)

This session provides an introduction to the security concepts of z/VSE. It includes CICS and batch security, plus connector and network security. It will cover the standard RACROUTE interface, as well as z/VSE security concepts in an open and heterogeneous world where z/VSE may be connected to anyone and everyone. It will cover new security features included in z/VSE V3.1.1 and z/VSE V4 like the new auditing features.

E75 z/VSE Security Exploitation with Crypto Hardware (Ingo Franzki, IBM)

This session will show how VSE security features like SSL (Secure Socket Layer) can be exploited. It contains step by step instructions on how to create keys and certificates for use with SSL. In addition, this session will describe z/VSE cryptographic capabilities, including Crypto Express2 and CP Assist for Cryptographic Function (CPACF). This session also covers VSE support for the new TS1120 tape drive that provides drive based data encryption.

E76 z/VSE Health Checker (Ingo Franzki, IBM)

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

.

TS- System Storage Tracks

TSB- System Storage - Business Continuity Sessions

TSB01 IBM DS8000 Global Mirror Performance Update (Vic Peltz, IBM)

This session will present the results of a recent performance study of the IBM DS8000 asynchronous remote copy function, known as IBM Global Mirror. The study examined the behavior of Global Mirror under workloads found in typical steady-state operating environments and additionally behavior under transient conditions associated with workload spikes. Global Mirror behavior when an unplanned loss of a remote copy communications link occurs also was studied and will be discussed.

TSB02 Business Continuance: Some Lessons Learned and IBM Solutions (Vic Peltz, IBM)

The collapse of the New York World Trade Center towers and the flooding of New Orleans once again have brought into focus the importance of companies having a workable and practical Business Continuity Plan. This session will discuss some of the important lessons to be learned from these disasters and highlight IBM hardware and software which can assist in implementing economical solutions to enable an appropriate level of protection.

TSB03 Update on Multi-site Business Continuity Strategies (Vic Peltz, IBM)

Many customers are investigating and implementing multi-site data center strategies to protect against regional as well as local disasters. This session will discuss the current state of hardware and software technology with can help implement a multi-site data center strategy. Failover / fallback and performance considerations will be discussed.

TSB04 Planning for IT Business Continuity in a Heterogeneous World (John Sing, IBM)

What are the best practices for providing effective, consistent, reliable IT Business Continuity and Disaster Recovery in today's highly diverse and complex IT environments? This session presents a clear, logical, practical overview of today's best practices methodology for IT Business Continuity in a highly heterogeneous environment of servers, storage, and application/databases. A step by step approach is presented, including choosing properly between storage replication, server replication, and application/database replication, effective Business Continuity tiering strategies, key tips for process/procedure/automation requirements, important telecom trends, and justifying IT Business Continuity to the Business. Illustrated by short case studies.

TSB05 IBM Disk Mirroring Update

(John Sing, IBM)

Disk mirroring is a highly preferred data center IT business continuity technology. This session provides an technical update, comparison, and positioning of IBM disk mirroring functionality on the IBM DS8000/DS6000, DS4000, SAN Volume Controller, and N series. An emphasis is placed on comparison and best practices for selecting the proper IBM disk mirroring platform to fit your Business Continuity requirements. Topics discussed include: update on the Global Mirror for SAN Volume Controller; Global Mirror/Metro Mirror performance update on DS8000/DS6000; and a tutorial overview on N series and DS4000 disk mirroring .

TSB06 IBM Three Site Disk Mirroring
(John Sing, IBM)

A three site data center recovery configuration is becoming a strategic objective for an increasing number of IT organizations, and it is no longer a financial industry only strategy. An overview of the business drivers for a three site data center recovery strategy will be presented. Then, a detailed technical update and status on the current and future IBM Metro/Global Mirror enterprise disk subsystem three site recovery capabilities will be presented. The speaker will discuss both three site cascading and three site multi-target topologies.

TSD- System Storage - Disk Storage Solutions Sessions

TSD01 IBM Midrange Disk Storage Overview
(Glenn Hechler, IBM)

There are a wide range of applications and business continuity needs for disk storage. To meet this spectrum, there are a complete range of disk systems. This session will overview the middle of that range, the IBM System Storage DS4000. These systems represent the latest in feature, function and technology for midrange SAN storage.

TSD02 IBM Nseries Storage Overview
(Glenn Hechler, IBM)

IBM has recently enhanced the System Storage™ Disk Family with the additional NAS solutions. The Nseries line includes both complete systems and Gateways that attach to SANs for their storage. It supports heterogeneous storage access capable of consolidating NAS and iSCSI.storage. This session will cover the products, management software and business continuity capabilities.

TSD03 IBM DS8000 Disk System Update
(Bob Halem, IBM)

The DS8000, IBM's premier storage subsystem has been receiving rave reviews all over the

world. This session will discuss the basic features, but focus on the newly announced enhancements.

TSD04 Configuring DS8000/DS6000 for Optimal Performance (Curtis Neal, IBM)

This session will introduce the DS8000 and DS6000 hardware components including disk enclosures, I/O enclosures, device adapters and host adapters, and discuss their performance characteristics. This session will also introduce best practices for setting up DS8000 configurations that optimize performance. Principles of DS performance optimization such as workload isolation, workload resource sharing and workload spreading will be introduced with examples. Logical configuration techniques to simplify performance management and analysis will also be discussed.

TSG- System Storage - General Interest Sessions

TSG01 Overview of Storage Options for System z (Bob Halem, IBM)

There are many options for disk and tape on System z. This session will be a very quick review of almost all of those options. There will be detailed sessions on all topics for further information later in the conference. If you are new to System z or to Storage, this would be a good place to start.

V56 z/VM Device Support Overview (Steve Wilkins, IBM)

Come to this presentation to hear an overview of current device support available on z/VM V5.2. The speaker will discuss Channel, Disk, Tape, and OSA technologies available for VM system I/O and guest operating systems running under z/VM. This presentation is also well- suited for an audience new to z/VM.

V57 Introduction to the IBM System Storage DS6000 (Steve Wilkins, IBM)

This presentation brings you up to date on the IBM System Storage DS6000, an affordable storage solution specifically designed to help medium and large enterprises simplify their storage infrastructures, support business continuity, and optimize information life cycle management. The DS6000 provides both SCSI and FICON attachment, enabling it to serve the needs of your z/OS, z/VSE, z/VM and Linux operating systems. Is a DS6000 in your future? Come and find out.

V58 Using z/VM in a SCSI Environment (Steve Wilkins, IBM)

This presentation will provide an overview of the z/VM new native support for SCSI disks and how they can be used to install, IPL, and run your z/VM system in a SCSI-only environment. z/VM V5.1 and later supports SCSI FCP disk logical units (SCSI disks) for both system and

guest use. SCSI disks can be used as emulated 9336 Model 20 fixed-block-architecture (FBA) disks. Guests that support FBA disks (such as CMS, GCS, and VSE) can use SCSI disks through the emulated-FBA support, without requiring their own SCSI support. VM' SCSI support allows a Linux server farm to be deployed on z/VM in a configuration that includes only SCSI disks. ECKD™ disks are no longer required. Installation of z/VM from DVD to a SCSI disk, IPL from a SCSI disk using Stand-Alone Program Loader (SAPL), and VM system dumps to a SCSI disk are supported. DASD Dump/Restore (DDR) services using SCSI disks are supported when DDR is running under CMS.

z/VM includes the capability to install z/VM from a DVD to an IBM System Storage SCSI disk emulated as an FBA device or to a 3390 DASD. Installing from a DVD can significantly reduce the required installation media and allows you to install to a System z server using only SCSI disks. Come hear the latest about z/VM SCSI support, including recent N Port ID Virtualization on the IBM System z9.

V59 VM Parallel Access Volume (PAV) and HyperPAV Support (Steve Wilkins, IBM)

This presentation covers details of the PAV minidisk support delivered on z/VM 5.2.0 via APAR VM63952. APAR VM63952 provides Parallel Access Volumes (PAVs) as minidisks for guest operating systems, such as z/OS, that exploit the PAV architecture. The APAR also provides the potential benefit of PAVs for I/O issued to minidisks owned or shared by guests that do not support exploitation of PAVs, such as CMS.

In addition, this presentation covers details of the VM HyperPAV support for the IBM System Storage DS8000 series announced for z/VM 5.3.0. The HyperPAV function potentially reduces the number of alias device addresses needed for parallel I/O operations since HyperPAVs are dynamically bound to a base device on each I/O operation instead of statically like with basic PAVs. z/VM 5.3.0 provides support of HyperPAV volumes as linkable minidisks for guest operating systems that exploit the HyperPAV architecture. 5.3.0 is also designed to transparently provide the potential benefits of HyperPAV volumes for minidisks owned or shared by guests that do not specifically exploit HyperPAVs.

E72 Storage Options and Disaster Recovery for z/VSE (Wilhelm Mild, IBM)

z/VSE supports the newest Storage devices, from disk to tape library. With the intelligent functions of the Storage Subsystems, intelligent configuration and operation can help increase the availability and security of enterprise data and processes across networks and regions. The cost and global business implications of long periods of unexpected downtime can be overwhelming. This session illustrates Disaster Recovery (DR) options for z/VSE and 'best practices' approaches used by real z/VSE customers. DR is a hot topic and is suprisingly effective and affordable for z/VSE.

TSN- System Storage Networking Sessions

TSN01 SAN Basics for Mainframers (Scott Drummond, IBM)

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

TSP- System Storage - Performance Sessions

TSP01 Understanding the Performance Implications of HyperPAVs (Dr. H. Pat Artis, Performance Associates, Inc.)

HyperPAVs are intended to address the logical volume size and performance limitations that users have encountered for traditional static and WLM managed aliases. This paper provides a review of traditional PAVs and an overview of IBM's HyperPAV implementation. In addition, it presents initial performance results for HyperPAVs and suggests algorithms for estimating the number of HyperPAV managed aliases required to meet the performance requirements of a workload.

TSP02 Workload Characterization Algorithms for Remote Copy Planning (Dr. H. Pat Artis, Performance Associates, Inc.)

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

TSP03 Understanding the Performance Implications of MIDAWs (Dr. H. Pat Artis, Performance Associates, Inc.)

Modified Indirect Data Address Words (MIDAWs) are a new feature of IBM System z9 processors, enabled by z/OS 1.7, that can substantially improve the performance of FICON connected storage subsystems. This paper provides an overview of MIDAWs and discusses how they can be employed to restructure complex channel programs. An experimental design is introduced for the evaluation of the performance implications of MIDAWs. Finally, the performance benefits of MIDAWs for 4K transfers are evaluated for FICON Express2 and FICON Express4 channels.

TSP04 Revisiting the basics of DASD IO performance (Tom Beretvas, Enterprise Performance Strategies, Inc.)

With all the advances in DASD I/O performance such as FICON, PAV, new storage processors, it is time to go back and revisit the basics of DASD I/O performance. This presentation reviews

these basics, showing recommended values, (ROTs) and indicates how to examine performance, how to approach “tuning”.

TSP05 What MIDAWs are, and what they can do for your DASD Performance
(Tom Beretvas, Enterprise Performance Strategies, Inc.)

This presentation discusses what MIDAWs (a new I/O architecture capability for defining how data is read/written) are, where they are used, and what their performance impact is. The performance improvements can be very dramatic in some cases and may require revising some operations. This presentation is based mostly on material provided by Mr. Jeff Berger of IBM.

TSP06 DASD Tuning
(Tom Beretvas, Enterprise Performance Strategies, Inc.)

This presentation begins by discussing basic tuning rules. These tuning rules are universally applicable (or at least is so claimed by author.) Then two different approaches of tuning are discussed, one using the RMF Spreadsheet Reporter, the other one using RMF Magic, a software product. The two approaches are contrasted, advantages and disadvantages are shown.

TSP07 Performance of MVS I/O Systems 2006-2007
(Tom Beretvas, Enterprise Performance Strategies, Inc.)

This paper summarizes the I/O subsystem measurements for some MVS (z/OS) installations with the intention of determining current I/O performance parameter values. Once the range of customary values is determined, then they can be used for capacity planning, design and setting future objectives. These parameters also yield an idea of how much tuning is still required in the I/O area, and where the emphasis should be. With these objectives in mind, measurement data of recent vintage for about 50 installations are examined. Interesting observations include access density change trends.

TSP08 The Parallel Diskplex
(Andries de Jong and Dr. Gilbert Houtekamer, IntelliMagic)

A modern disk subsystem is a massively parallel computer system, that can be driven to very high performance and throughput levels, and that can be shared between many zSeries hosts. Like for processors, disk subsystems are linked together to provide additional services, in particular all forms of replication. In total, you will have hundreds of processors and thousands of disks working in parallel to serve your I/O workload. Truly a parallel diskplex!

The paper will focus on how to deploy your Disk Subsystems to achieve maximum throughput and the best possible response times by exploiting as many of the processors and disk drives that you have purchased as possible, from the host adapters down to the physical disks. It is our experience that many performance issues in the diskplex are related to balancing problems. The paper discusses the resources available in your disk subsystems, and shows you how to

monitor and manage them for a balanced configuration.

TSP09 Disk Subsystem Channel Performance: Host and Peer Adapters (Andries de Jong and Dr. Gilbert Houtekamer, IntelliMagic)

This presentation explains that there is a host and a Disk Subsystem view to FICON performance and why you cannot trust overall FICON performance to be OK, even when the host-side reported FICON utilization numbers are low. The RMF metrics originating from the host and the Disk Subsystem side will be reviewed and a methodology will be offered on how to assess the Disk Subsystems Host Adapters' health. Concepts that will be discussed include FICON elongation, FICON Open Exchanges, FICON Effective data rate, the use of FICON over extended distances and Fibre Channel peer-to-peer links. In particular the presentation will review how the available RMF metrics can be used to evaluate Host Adapter utilization and to quantify how many are needed for your workload. Throughout the presentation the line of thought will be illustrated with charts that are based on actual RMF data.

TSP10 The DS8000 Performance Advantage (J. Carlos Pratt, IBM)

Since the first release of the DS8000 IBM has demonstrated its commitment to high capacity, high performance and flexible disk storage systems. With the introduction of the new Turbo models which include three flavors, models 931, 932 and 9B2, both functional and performance enhancements have been added. This presentation will focus on performance enhancements made in the Turbo models and related improvements such as HyperPAV for z/OS

TSP11 Disk Magic Made Easy: Sizing a disk system (J. Carlos Pratt, IBM)

When there is a need to replace old storage or simply buy new to expand, the inevitable questions are; HOW MUCH? And most likely the second question is, HOW FAST? Too often the normal answers to these questions are "IT DEPENDS". With the DISK MAGIC performance modeling tool IBM can provide customers with better answers. Disk Magic is used to provide clear performance expectations for proposed IBM storage solutions and help design what the final configuration should be. In this presentation I will describe the essentials of Disk Magic and present a case study where a Disk Magic helped a customer decide on how to replace their ESS-800 farm with DS8000 storage.

TSS- System Storage - Storage Management Software Sessions

TSS01 Introduction to PPRC Migration Manager and FlashCopy Manager (John Hulsey, IBM)

PPRC Migration Manger and FlashCopy Manager are z/OS bases software programs that are designed to make it easy for installations to exploit the underlying IBM technologies. Both use ISPF based panel driven processes to define the configurations and generate batch Jobs that are used to manipulate the configuration. They are being use independently of each other and

together to implement a variety of business solutions.

The session will provide an introduction to the tools and includes examples of how customers are using the tools. The examples include technology migrations, data center moves, point in time based testing Installations range in size from a single IBM 2105 or DS8300 to installations with more than 9 IBM storage units in their configuration. The Advanced topics session will discuss customer applications in which these two tools are used together.

TSS02 Advanced topics using PPRC Migration Manager and FlashCopy Manager (John Hulsey, IBM)

PPRC Migration Manger and FlashCopy Manager are z/OS bases software programs that are designed to make it easy for installations to exploit the underlying IBM technologies.

In the introductory session we described each of the tools and how they were used individually. In this session we will describe how customers are using them in combination to create the more complex solutions required by their business needs. By combining these tools and the underlying technologies, customers have implemented solutions that range from the creation of complex test environments through Disaster Recovery solutions that are inside the normal Tier 1 through Tier 6 structure and environments that do not fit the definitions in the Tier structure. We will describe environments in which PPRC is followed by FlashCopy, environments in which FlashCopy is followed by PPRC and, an environment in which we have FlashCopy followed by PPRC followed by FlashCopy. Hardware configurations range from a pair of storage subsystems through environments with more than 30 subsystems.

TSS03 Solving Problems with OMEGAMON XE for Storage (Scott Drummond, IBM)

This session takes you through some common storage problems and how OMEGAMON for Storage can provide you detailed information to lead to the problem resolution.

TSS04 Positioning the Storage Management Tools on System z (Scott Drummond, IBM)

Why does Tivoli offer so many solutions for Storage management n the System z world? Can someone explain when I want to use OMEGAMON for Storage or Storage Optimizer? This session takes you through the various System z products and where each one fits within your storage solution area.

TSS05 Implementing Tivoli Storage Manager on Linux on System z (Curtis Neal, IBM)

This session will take you through an implementation of Tivoli Storage Manager on Linux on System z. Hints and tips will be provided along the way including how to optimize the VM image to effectively provide optimum support for this installation.

TSS06 Business Benefits of IBM TotalStorage Productivity Center (Scott Venuti, IBM)

The IBM Total Storage Productivity Center provides a single management platform from which an organization can manage storage infrastructure for performance, availability, and capacity. The business value of the platform includes its ability to enable end-to-end disk management with a single tool, centralize management of storage, help improve storage performance and utilization, and help reduce storage complexity to make IT staff more productive. Discussion will center around the business value that IBM TotalStorage Productivity Center can deliver, examples of real client experiences, and guidance that an organization cas use to begin assessing the potential benefits of IBM TPC in terms of ROI and TCO.

TSS07 Benefits of Storage Virtualization with IBM's System Storage SAN Volume Controller (Scott Venuti, IBM)

The IBM System Storage SAN Volume Controller (SVC) can help simplify storage infrastructure through virtualization of both IBM and non-IBM storage products and establish storage tiers in order to more closely match the value of data to the costs of storage. It also provides a central point of management along with non-disruptive migrations and advanced copy services among heterogeneous storage devices. Session will discuss the benefits of Storage Virtualization utilizing IBM's System Storage SAN Volume Controller and also include live product demonstrations.

TSS08 IBM Total Storage Productivity Center (TPC) Live Product Demonstration (Scott Venuti, IBM)

As the growth of data storage continues to explode, there is an increasing need for businesses to find ways to control the cost of storage. Managing storage infrastructure has grown in complexity as customers acquire new storage infrastructure that is heterogeneous. And businesses must identify, evaluate, control and predict the growth of data through its lifecyle in order to meet storage service levels in accordance with IT Information Library (ITIL) and data retention requirements.

The solution: IBM TotalStorage Productivity Center. The IBM TotalStorage Productivity Center is an open storage infrastructure management solution designed to help reduce the effort of managing complex, heterogeneous storage infrastructures, improve storage capacity utilization, and improve administrative efficiency. TPC provides reporting capabilities, identifying your data usage and its location, and provisioning. It also provides a central point of control to move the data based on business needs to more appropriate online or off-line storage, and centralizes the management of storage infrastructure capacity, performance and availability. This session will demonstrate TPC's monitoring, alerting, reporting, and management capabilities through the use of a live product demonstration.

TSS09 Managing Complex Replication Environments (J. Carlos Pratt, IBM)

Data replication in its many forms is critical to a viable disaster recovery solution but may also be viewed as a necessary evil. It is often perceived as complicated and may require close attention from scarce storage administration resources. In large environments it can be tedious to implement. Although System z has an extensive set of tools for replication, Totalstorage Productivity Center (TPC) for Replication can be a valuable addition that helps make the replications tasks easier by providing a graphical interface and automation. This presentation will focus on the basic functionality and usage of TPC for Replication to manage common storage replication tasks.

TSS10 IBM SAN Volume Controller (Curtis Neal, IBM)

The IBM TotalStorage SAN Volume Controller is designed to increase the flexibility of your storage infrastructure by enabling changes to the physical storage with minimal or no disruption to applications. Now with expanded support for many non-IBM storage systems, SAN Volume Controller can enable a tiered storage environment to better allow you to match the cost of the storage to the value of your data. Topics covered in this session include, but are not limited to, a dive into the SVC architecture, copy services capabilities, and an update on recent product announcements.

TSS11 z/OS DFSMS System-Managed Tape Libraries (Lisa Gundy, IBM)

System managed tape library support is a multi-component orchestrated effort. Come to this session and learn how DFSMS makes management straightforward and all of the components integrate together with the operating system for a total tape management solution. This includes automated tape libraries, virtual tape servers (VTS), VTS stacked volume support, and Peer-to-Peer VTS (PtP-VTS) support.

TSS12 z/OS DFSMS and Peer-to-Peer Remote Copy (Lisa Gundy, IBM)

The System Data Move (SDM) is a DFSMS component that interacts with data storage subsystems and with various advanced copy services functions to efficiently move large amounts of data. The speaker will discuss the basics of the Peer-to-Peer Remote Copy technologies that are used as part of disaster recovery and business continuance environments: Metro Mirror, Global Copy, Global Mirror, Metro/Global Mirror. The speaker will also discuss how these functions are enabled with API and TSO support provided by the DFSMS System Data Mover.

TSS13 z/OS DFSMS FlashCopy Enablement and Exploitation

(Lisa Gundy, IBM)

FlashCopy fast replication technology is used as part of disaster recovery environments, enables Dump or copy environments with minimal impact to applications, and more. DFSMS offers options for enablement of FlashCopy in the System Data Mover. This session will highlight these options and discuss how they are exploited by DFSMS.

TSS14 Enterprise Tape Management for Open Systems with eRMM (Ulf Troppens, IBM)

The Enterprise Removable Media Manager (eRMM) enables features known from DFSMSrmm for open systems. It complements the IBM Open Storage Software Family to provide storage virtualization and advanced storage management for removable media. eRMM automatically configures tape drives for IBM Tivoli Storage Manager and it gathers audit trails and statistical data for the complete cartridge lifecycle. This sessions gives an overview of eRMM and it reports about one of the world wide largest TSM installations on Linux for System z which utilizes eRMM for tape management.

TSS15 DFSMSrmm for z/OS 1.8: What's New (Mike Wood, IBM)

DFSMSrmm, IBM's strategic Tape Management System for z/OS introduces major new functions with z/OS V1R8. Come to this session if you want to learn more information about the recent changes. New function includes: CIM Agent support, ISPF 3.4 support, Common time support and VRS changes.

TSS16 Tape Security with DFSMSrmm Perspective (Andreas Henicke, IBM)

Want to know more about protecting tape data on z/OS using RACF and DFSMSrmm? Come to this session to learn more about how tape data can be protected and options available in DFSMSrmm to help manage RACF profiles. Find out how tape volumes are identified, protected and managed and how RACF security options for tape provide you flexibility in setting up your tape security. This session includes details of changes in tape data set authorization with z/OS V1R8.

TSS17 DFSMS Basics: The ABCs of DFSMSrmm - Part I (Mike Wood, IBM)

A functional introduction to key RMM resources; what they are and what they deliver for your benefit. Learn how to define and control the RMM resources and the options available to you.

TSS18 DFSMS Basics: The ABCs of DFSMSrmm - Part II (Mike Wood, IBM)

A functional introduction to key RMM functions; Continuing on from Part I, learn how to

manage your tape resources and how to run the RMM utilities.

TSS19 DFSMS Basics: What Is VSAM?, Part 1 (Stephen Branch, IBM)

Not just an access method, not just a data set type - It's both! Learn what the Virtual Storage Access Method is, and what it can do for you. We will talk about the various VSAM data set types and how they can be used to help you with your z/OS applications. Learn about the VSAM data types and which ones to choose for your specific needs. Learn what an alternate index is and how it can be used to retrieve records by different keys. Get an understanding of how to create and work with VSAM data sets. You should have some prior knowledge of z/OS access methods for this session.

TSS20 DFSMS Basics: What is VSAM?, Part 2 (The Return of VSAM) (Stephen Branch, IBM)

That's not all folks! There's a lot more to know about VSAM and this session takes up where Part 1 left off. This session stresses the different ways in which VSAM data sets can be accessed and the various commands available to work with VSAM data sets. We will also explore some of the features of VSAM like striping, compression, and partial release.

TSS21 DFSMS Basics: ICF Catalog Management (Stephen Branch, IBM)

Do you ever wonder about how z/OS finds your data sets? Come explore the ICF Catalog. We will discuss its structure, the information it contains, and how it can be shared among different z/OS systems. What is a master catalog? What is a user catalog? What is a VVDS? How can I communicate with Catalog Management? How do I share catalogs? These questions and more will be answered. You should have a general understanding of VSAM (see the DFSMS Basics: VSAM) for this session.

TSS22 DFSMS Basics: VSAM Buffering (Stephen Branch, IBM)

VSAM provides a variety of buffering techniques when using data in VSAM data sets. There is NSR, LSR, and GSR buffering, and a special type of buffering is used when data sets are opened in Record Level Sharing (RLS) mode. Determining which type of buffering you use can be confusing, and the end result could be disastrous for your batch jobs. DFSMS now provides a function called System Managed Buffering (SMB) to reduce the complexity, but there are some new keywords on the AMP JCL parameter that may need to be used under certain circumstances that you should know about.

TSS23 DFSMShsm Fast Replication (Edward Baker, IBM)

DFSMShsm has recently announced some dramatic new enhancements to its Fast Replication functions. This session will cover how you can take advantage of this new technology that allows installations to make very fast point in time copies of large amounts of critical data by exploiting disk technology such as Flashcopy and Snapshot.

TSS24 What's New in DFSMShsm (Edward Baker, IBM)

This session will bring DFSMShsm users up to date with the latest enhancements to the product. This will cover the new features of DFSMShsm V1R7 and V1R8 as well as recent development APARs.

TSS25 Getting the Most out of DFSMShsm (Edward Baker, IBM)

This session will cover best practices and development recommendations for optimizing your DFSMShsm environment

TSS26 Care and Feeding of the DFSMShsm Control data sets (Edward Baker, IBM)

This presentation will cover the details specifications for the 3 DFSMShsm control data sets. It will go over recommendations for improving access performance, minimize the time it takes to back up the CDSs and how to recover the CDSs in case of corrupted or lost CDSs.

TSS27 Tivoli Storage Manager New Release Unleashed (Scott Drummond, IBM)

This session will include an overview of the recently announced new release of Tivoli Storage Manager including collocation of active data, tape drive encryption, backup set enhancements and other features. A preview of candidates for future TSM releases will also be included

TSS28 Early Customer Experience in a SVC SAN Environment - TPC V3.1 for Disk and Data (Steve Glanville, Group Leader Data Management and Mainframe Security and Clare Kelly, Operations Analyst of John Lewis Partnership, UK)

This session looks at how the storage team at John Lewis have used TPC V3.1 for Disk and Data to investigate a number of different scenarios that arise within a working storage environment. Examples include investigating application

slowdowns, obtaining information on duplicate and redundant data and demonstrate the use of the "drill down" methodology upon which TPC is based. Also included is a section on where to obtain information, hints and tips.

The attendees should have a knowledge of disk subsystems and will see how TPC V3.1 allows the resolution of problems without the need for a comprehensive knowledge of disk performance metrics.

TSS30 DFSMS Update (Scott Drummond, IBM)

In this session we will review the DFSMS family of products with special emphasis on the new DFSMS 1.8 functions. We will cover new functions related to scalability, security, availability, usability and optimization.

TSS31 The Tivoli Advanced Catalog Management Product (Geoff Littlewood, Mainline)

The Tivoli Advanced Catalog Management for z/OS is the IBM recommended utility that will discover, analyze, and fix any problems associated with ICF Catalogs.
Functions include Backup and Forward Recovery of the BCS and VVDS, Splitting and Merging Catalogs, Reorganizing Catalogs while still being used, Diagnosing and fixing errors in the BCS, VVDS, and VTOC, together with VSAM mapping functions, Tape management auditing functions, and a dataset management and reporting function.
All functions can be run in simulation mode, and are much faster and safer to use than the traditional utilities. An easy to use ISPF menu is provided to help create the batch jobs in which the JCL and commands are syntactically correct.

TSS32 The Tivoli Advanced Audit for DFSMShsm (Geoff Littlewood, Mainline)

The Tivoli Advanced Audit for DFSMShsm is the recommended utility for all users of HSM, for analyzing and fixing 100% of all the problems associated with HSM's control data sets (MCDS, BCDS, and OCDS). These CDSs are critical to an installation that needs to recall or recover migrated data sets, as well as backups and dumps created by HSM. The audits of the MCDS, BCDS, and OCDS are usually 100 times faster than the equivalent HSM Command Audits, and create fixes for all the problems identified. These fixes can be applied automatically or through the ISPF panels, of the Tivoli Advanced Audit for DFSMShsm, can be applied selectively to one, many, or all the errors in a given category of error. The Tivoli Advanced Audit for DFSMShsm can also be used to replace the AuditMediaControls command for auditing HSM tapes that are corrupted in some way. Typical of such problems are tapes in Failed Recycle status, block count problems, or have a damaged TTOC. This *Fast*AuditMediaControls command is typically around 10 to 20 times faster than the equivalent AuditMediaControls command of HSM. Because of the speed of execution it should be possible to schedule these audit jobs on a regular basis, and be much more proactive in identifying and fixing errors.

TSS33 Automating DASD Migrations The Softek Way
(Colin Hayes, Softek)

Explore data migration best practices and learn how to mitigate the known and unknown risks and costs in moving data. As all migrations are different, planning the migration and choosing the right tools for the job are key to success. In this session, hear more about how to:

- Prepare for a clean migration with a tech impact analysis, schedules and checklists
- Dynamically manage operations for complete control throughout the move
- Apply a proven and repeatable data migration methodology
- Develop processes for a standard migration model
- Move data with continuous application availability through step-by-step scenarios
- Leverage new tools that provide turnkey automation of data migration tasks

Colin Hayes has over 30 years experience in IT including the last 17 years in the software industry working for a number of vendors. These include Legent, CA, MAXM Systems and Softek Storage Solutions working in both pre and post sales support. Areas specialised in cover systems, network, storage and data management on z/OS and Open Systems platforms. Colin currently runs the pre-sales organisation in EMEA for Softek selling their Nonstop Data Mobility products either directly to customers or through their business partners".

TST- System Storage - Tape Sessions

TST01 IBM Tape Overview
(Randy Fleenor, IBM)

Tape backup isn't what it used to be. From ultra-high capacity tape to electronic vaulting of virtual volumes, new technologies have changed the way tape backup is done. This session will review IBM's recent tape announcements and will cover native drives, automation and virtual tape subsystems for mainframe and open systems.

TST03 IBM Virtual Tape Overview
(Randy Fleenor, IBM)

IBM was the first to deliver virtual tape in 1997. After nearly a decade of success, IBM has announced a new virtual tape architecture that brings new function and new levels of performance. Come learn what is new in IBM's latest mainframe virtual tape server.

TST04 IBM VTS Implementation

(Randy Fleenor, IBM)

Virtual tape can reduce costs and improve tape performance across the enterprise. New features like IBM GRID virtual tape support offers new levels of availability and site wide recovery capability. This session will cover the installation details of IBM's newest virtual tape architecture.

TST05 IBM Tape Encryption Overview (Gregory Gendron, IBM)

The loss of customer sensitive information can be quite costly. IBM's recent announcement of encryption support adds a new level of security for sensitive data being transported on cartridges. This presentation covers IBM's tape drive encryption support as well as key management solutions for the enterprise.

TST06 IBM Tape Encryption Implementation (Gregory Gendron, IBM)

There are many different options for enabling encryption on IBM tape drives. IBM has three key management structures tailored to open systems and mainframe environments. This topic covers IBM's key management alternatives and how they can be implemented to introduce tape drive encryption to your environment.

TSV- System Storage - Vendor Sessions

TSV01 FICON and Fibre Channel Director Focus (Steve Charnock, Brocade)

Brocade's acquisition of McData … what's the combined architecture roadmap, product lineup and FICON Strategy? Learn about the latest developments and solutions based on Brocade and McData Directors. Get the full picture on 4 Gbit/s Directors, FICON over IP-Solutions, NPIV - Linux support on System z and all the new hardware and software enhancements for FICON and Fibre Channel infrastructures.

ISV / Vendor sessions

P01 Blue Sea Technology:

TCP/IP Response Time Monitoring on z/OS
(Olga Henning, Blue Sea Technology)

Response time measurement is critical to service level agreements. It is critical in determining the impact of changes to your application and supporting systems OS, database, network). Long or erratic response time can result in loss of productivity and even lost sales.
We will look at TCP/IP application end to end response time measurement, what it is, what it isn't, some of the pros and cons to various ways of gathering data, and the importance of breaking the data into network and host components. We cover a bit of 3270 historical perspective and then move to RFC2562, TN3270 and the present. From there we discuss measurements in another RFC-based IP application such as CICS sockets. We also talk about problems faced in measuring response time in a complex, multi-tiered environment.

Olga Henning of Blue Sea Technology holds a Master Degree in Automation and Telecommunication, with post graduate studies in Computer and information Sciences,
For the past 6 years, she has worked as the CEO of Blue Sea Technology; Research and development for the Industries, University; Project Management.
Currently her focus is on performance monitoring and IT security

P02 Cisco Systems:

Prioritizing the FICON traffic in your SAN
(Brent Anderson, Cisco Systems)

This session focuses on how to cost effectively build an intelligent FICON storage network with advanced traffic management and prioritization of applications. Quality of Service (QoS) allows latency-sensitive applications such as online transaction processing (OLTP) to share storage resources alongside throughput-intensive applications such as data warehousing. Features such as QoS, exchange based Port Channel Trunking and VSANs allow isolation and prioritization of different application types within the network. Additionally, many environments have a mixture of fibre channel speeds (1, 2, 4, 10Gbps) and protocols (FC, FICON, FCIP, etc). Given this fact, it is important to design intelligent storage networks with traffic management and prioritization to ensure that congestion is minimized and service level agreements are met. These same methodologies are used in the design and implementation of IBM / Cisco business continuity solutions. We'll also be discussing how to effectively architect a solution that incorporates XRC, Global Mirroring, remote VTS, PtP VTS and remote tape and disk across vast distances.

P03 **EDV-Beratung Machold GmbH:**

Mainframe Integration and Modernization for CICS and IMS-DC using Web Services - LIVE-Demo (Axel Rittershaus, Machold Systemhaus 21)

Connecting the mainframe with "modern" technologies like .NET or Java is supposed to be a hard job. But with a toolset, that really works, you can include your mainframe applications like COBOL, PL/1, 3270, … in any SOA and connect it to Java, .NET, SAP,… by using Web Services.
We will show you in a LIVE presentation, how you can leverage the existing functionality of your mainframe without coding and in a prooven, secure, cost efficient and fast delivery way. Customer examples will be included!
The LIVE show includes the definition of a Web Service for a CICS/COBOL-based application and it's usage through a web based interface. No joke - no fake - real system!

P04 **Optica Technologies:**

Prizm FICON to ESCON Converter Solution (Jerome Lauth, Optica Technologies)

This session will introduce Prizm, the industry's first and only FICON to ESCON converter solution, and define how this technology can not only enhance and simplify your mainframe infrastructure, but also reduce operating costs. Understand how you can leverage the inherent benefits of the FICON protocol while protecting your investment in legacy ESCON connected resources. We will illustrate the cost benefit of Prizm as an excellent replacement alternative for ESCON channel extension and FICON Bridge technologies. We will also discuss the physical infrastructure considerations associated with ESCON to FICON migration, including ESCON channel and director port consolidation.

Jerome Lauth is Senior Technical Services Specialist at Optica Technologies Incorporated, a Connectivity and Security Solutions company focused on the enterprise data center arena. His IT experience exceeds 20 years and includes "hands-on" technical and business management positions in consulting services with McDATA Corporation, NCR and Assist Companies.

Email: Jerome.lauth@opticatech.com
Web Site: www.opticatech.com

P05 **SSH Communication Security:**

Can We All Just Get Along? Why Platform Diversity Is Becoming a Bigger Issue for Enterprise IT Security (Mr. J. Saksi, SSH Communications Security, Helsinki)

The speech will cover the platform diversity existing in most enterprises today and some of the issues this brings from an IT security as well as a file transfer point of view. The presentation will look at different technical alternatives and will give examples of how enterprises cost-effectively have secured their data-in-transit in a multiplatform environment, where IBM

System z collaborates with a variety of Unix, Linux and Windows computers.

P06 ADVA AG Optical Networking:

WDM solutions for business continuity , disaster recovery , enterprise storage and corporate backbones
(Dr. Henning Hinderthür, ADVA AG Optical Networking)

The ever increasing demand for bandwidth, new protocols and applications as well as security aspects ask for a technology which should ideally fulfill the requirements of highest scalability ranging from Mbit/s to Tbit/s, unlimited speed ranging from 8Mbit/s to 40Gbit/s, full service capability ranging from ESCON to 10G Ethernet/FC, applications ranging from Storage Connectivity to Converged Networks, long reach ranging from hundreds of meters to thousands of kilometers and security concepts designed for fiber and data lines.
The most suitable technology to fulfill all the above mentioned requirements for private enterprise networks is Wavelength Division Multiplexing (WDM). WDM complied the requirements of business continuity, disaster recovery, synchronous /asynchronous data replications and GRID computing

P07 Softek:

Nonstop Data Mobility The Softek Way
(Colin Hayes, Softek)

Learn how Softek's Nonstop Data Mobility solutions help customers achieve their goals of migrating their data from old to new storage whilst maintaining SLAs for application availability and performance. In this session, hear more

- Who are Softek
- The problems with migrations
- How to prepare for, manage and validate data migrations
- Future migration strategies with Data Mobility Manager
- How SSMzOS can help automate migrations

P08 Ciena Ltd:

Low Cost, Scalable and Qualified Networking Solutions for GDPS and STP.
(Roman Larisch, Senior Sysems Engineer with Ciena Ltd.)

Today, the critical need for corporations to protect and maintain 24 x 7 availability to their data is requiring Business Continuance solutions to replicate mission critical data to geographically separate data centers. In many cases the barrier to deployment is the network connectivity costs. Efficient networking solutions that optimize your IT infrastructure can lower the cost significantly allowing high performance optical connectivity to become a reality. At this session you will learn how Ciena lowers the cost of implementing data replication and business continuance solutions for IBM System z (R) mainframe servers by offering the industry's most

efficient WDM transport solution. Using the CN 4200 FlexSelect Advanced Services Platform, System z users can achieve up to 67% greater efficiency in their transport channel counts compared to other qualified WDM solutions. As the only vendor qualified to multiplex IBM communications channels carrying the new STP timing protocol, Ciena uniquely meets the needs of low-cost, scalable transport in GDPS environments.

-------This is the end of the abstracts file ----------