IBM

**Workshops
Redbooks
Redpapers...**

ITSO Poughkeepsie - Release 6
IBM *e*server z/OS & zSeries
2003 Technical Update

Topics

- Business Intelligence

- Clustering

- Connectors

- Domino

- e-business

- ERP solutions

- High Availability

- Infrastructure

- Java

- Linux

- On demand

- Security

- WebSphere

- z990

- z/OS

www.redbooks.ibm.com

International Technical Support Organization

Information

Target audience:

These workshops are designed for technical project managers and systems programmers/analysts, customers, business partners, and IBMers who need to understand how to design and exploit the hardware and software infrastructure required to effectively run modern zSeries solutions.

The workshops are especially recommended if you are using current levels of hardware and software and wish to plan for the impact of the latest announcements.

Prerequisites:

These ITSO workshops are technical updates, so attendees should be familiar with the basic concepts and features of the subjects that are covered.

Schedule & Enrollment

These ITSO workshops will be delivered around the world 3Q and 4Q 2003. Once the schedules and locations are finalized, enrollment information will be available at:
http://publib-b.boulder.ibm.com/redbooks.nsf/portals/S390Workshops

For any questions or concerns contact Brad Richards at: brad.richards@us.ibm.com

You can also receive information, when available, by registering for the ITSO Weekly Newsletter at: www.redbooks.ibm.com

Language:

The workshops will be conducted in English.

Instructors:

The workshops will be taught by IBM ITSO Poughkeepsie Project Leaders and guest instructors.

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Track 1:
Core Technology

- **zSeries 990 and FICON Update**

- **z/OS Version 1 Release 4 & 5 Technical Update**

- **Parallel Sysplex Infrastructure and Availability Update**

- **Middleware Infrastructure**

IBM

zSeries 990 and FICON Update

Ken Trowell

Ken Trowell is a zSeries specialist and has worked for the zSeries Software System design group in Poughkeepsie, New York.

He writes extensively and teaches at IBM workshops worldwide on all areas of zSeries processors, channels, and control unit architecture and connectivity.

Before joining the design group, Ken worked in the ITSO for 3 years.

Prior to that, Ken worked at IBM Australia as a zSeries system specialist, and on various assignments with the zSeries division in the United States.

Description:

This workshop will discuss zSeries 990 installation experiences, z990 GA2 enhancements, Fibre Channel Director support, and FICON problem determination.

Topics include:

- Overview
    - z990 GA2 Enhancements
    - FICON and FCP Supported Topologies
- z990 Installation Experiences
    - Planning process
    - Setting up the System Profile
    - Configuring ETR and Crypto cards
    - Definition Support Enhancements (HCD)
- Fibre Channel Director Support
    - Processor Support
    - Software Support
    - Design and Performance Considerations
    - Channel Configurations
    - Connectivity Recommendations
    - Migration Scenarios
- FICON Problem Determination
    - Configuration Status
    - Problem Determination Scenarios
    - Reporting
    - Tools
- Documentation and Support

Workshops Redbooks

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z/OS Version 1 Release 4 & 5 Technical Update

Paul Rogers

Paul Rogers began working at the International Technical Support Organization (ITSO) in February 1988 as a Consulting Systems Engineer supporting MVS, JES2, JES3 and RACF.

He currently supports OS/390, JES2, and JES3.

Paul has conducted workshops all over the world and produced many Redbooks. He has also taught classes for customers worldwide.

Description:

This workshop will cover the new z/OS enhancements that are available in 2003 for z/OS version 1 Release 4, and announcement material for 1.5.

Topics include:

- z/OS Overview and Migration
- z/OS Support for z990
- 64-bit Architecture Support
- Console Restructure
- z/OS UNIX System Services Releases Update
- zFS File System Update
- Infoprint Server Update
- Preparing for Workload License Charges Update
- Workload Manager New Functions
- Future z/OS Enhancements

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Parallel Sysplex Infrastructure and Availability Update

Frank Kyne

Frank Kyne is a consultant IT Specialist at the International Technical Support Organization, Poughkeepsie Center. He is responsible for ITSO projects related to Parallel Sysplex.

During his years in the ITSO, he has authored books in the areas of Parallel Sysplex, Software Management, and Availability.

Frank joined IBM in 1985 as an MVS Systems Programmer in the IBM software lab in Ireland. As IBM moved into the Services business, Frank worked with customers as well as IBM's internal data center and outsourcing operation.

Since joining the ITSO in 1998, he has been responsible for Redbook projects and workshops related to Parallel Sysplex, High Availability and performance.

Description:

This workshop will discuss various components of a Parallel Sysplex environment, focusing on the aspects that can contribute to the high availability this configuration is known for.

Topics include:

- System Logger

   For many installations, the System Logger is a mystery, and as long as it isn't broken, people don't touch it. However, a poorly tuned Logger configuration can adversely affect performance and availability. This session examines how Logger works, and how to tune it.

- Merging systems

   The new z990 processors are enabling a new wave of consolidation, sometimes meaning the merge of systems or sysplexes. This session will discuss the things that must be considered before you initiate such an exercise.

- Parallel Sysplex Availability Checklist

   There is a wealth of new functions and facilities delivered over the last few years that can affect your availability in a positive way. This session will provide an up-to-date checklist of these items, making it easy to identify areas where you could further exploit these capabilities.

- msys for Operations and z/OS Healthchecker

   These two no-charge operating system components are vital elements in IBM's efforts to maintain z/OS as the gold standard in availability. This session will discuss the installation and functions of these vital components.

- Bits and bytes

   This session will provide miscellaneous information that will improve systems availability and make your life just a little easier.

IBM

Middleware Infrastructure

Paola Bari

Paola Bari is a member of the Design Center for e-business Infrastructure in IBM Poughkeepsie Lab in New York.

She has 20 years of experience with systems programming in OS/390, z/OS, CICS and Parallel Sysplex environments. In addition she has experience with WebSphere MQSeries and WebSphere Application Server.

Description:

This workshop will discuss the concepts, setup, and use of a number of current and future components of the z/OS enterprise infrastructure.

Topics include:

- "eWLM"
  - "eWLM" is the vehicle for delivering heterogeneous workload management.
  - This presentation will position "eWLM" and discuss its relationship with the Workload Manager.
- DFSMStvs
  - DFSMStvs (Transactional VSAM Services) delivers the ability for multiple batch jobs and CICS regions to concurrently update VSAM data sets with integrity. **This session will describe how TVS works and discuss the application considerations for implementing it.**
- WebSphere MQ for MVS Systems Programmers
  - MQ is one of IBM's most popular middleware products, and is a key component in many traditional and e-business applications. It is also used by IBM products such as SDSF, System Automation for OS/390 and optionally, WebSphere V5. This session will provide an introduction to this product aimed at z/OS support staff.
- Application Considerations for Parallel Sysplex
  - Increased availability requirements are driving a renewed interest in enabling applications for data sharing and dynamic workload balancing. This session will discuss the things your application programmers need to be aware of to ensure their applications support this environment.

Track 2:
Linux for zSeries

- **Linux for zSeries Technical Update**

- **Linux on zSeries-Leveraging Connector Architectures, BI, and ERP Solutions**

- **Domino 6.5 for Linux for zSeries**

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Greg Geiselhart

Erich Amrehn

Karl-Erik Stenfors

Linux for zSeries
Technical Update

Description:

This seminar will discuss different topics regarding Linux running on zSeries hardware. It will help you optimize performance of Linux guests running under z/VM, understand security issues for Linux guests, and introduce new features available in z/VM 4.4.

Topics include:

- Tuning Linux performance for z/VM
  - z/VM memory and storage concepts
  - Linux memory management
  - Processor resources and the z/VM scheduler
  - Tuning DASD subsystem for Linux
- Security topics for Linux running under z/VM
- New features of z/VM 4.4
  - VLAN and VSWITCH networking
  - z/VM system management interface
  - IBM Performance Toolkit
- Future outlook for Linux on zSeries, Q&As

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Linux for zSeries
Technical Update

Greg Geiselhart

Greg Gesiselhart is a Sorftware Engineer at the International Technical Support Organization, Poughkeepsie Center. He is responsible for projects related to Linux on zSeries.

As an ITSO project lead, he has authored books on Application Development and Large Scale Linux Deployment on zSeries.

Greg has 15 years of application programming experience on MVS, OS/2, AIX and Linux platforms working for the IBM MicroElectronics Division, IBM Global Services, and the IBM Linux Technology Center.

Since joining the ITSO, he has been responsible for redbook projects and workshops related to Linux running on zSeries.

Erich Amrehn

Erich Amrehn is a certified Senior IT Specialist at the eServer EMEA Technical Marketing Competency Center in Boeblingen, Germany.

He just returned to Germany following a two-year assignment with the ITSO in Poughkeepsie, New York where he conducted the first project on Linux on S/390.

Before joining the ITSO, he worked as a technical consultant to the IBM System/390 division for e-commerce on S/390 in Europe, the Middle East and Africa.

He also has 13 years of VM experience in various technical positions in Germany and other areas in Europe, and worldwide.

Karl-Erik Stenfors

Karl-Erik Stenfors has 30+ years of experience in large systems. He worked at an IBM Customer for 15 years as a systems programmer. He was a consultant for 4 years, then worked at Amdahl for 2 years as an MVS Specialist. Karl-Erik worked for IBM for 17 years, all in large systems. He participated in the generation of 4 Redbooks while in Poughkeepsie.

Karl-Erik has had assignments at the ISC Greenford for HW ESP management, and in Montpellier for Parallel Sysplex Exploitation. He is now working at the Advanced Technical support at the PSSC in Montpellier, where he is responsible for presenting the IBM Technology Strategy, particularly for zSeries. He also teaching a Linux on zSeries (hands-on workshop) across EMEA. He has also made numerous presentations at user group conferences.

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Linux for zSeries Leveraging Business Intelligence and ERP Solutions

Gerard Laumay

Viviane Anavi-Chaput

Gerard Laumay has more than 18 years of experience in IBM large systems within IBM.

Initially part of the eServer field technical support group, has worked as a technical consultant with IBM for 12 years.

Gerard is currently working at the EMEA ATS Products and Solutions Support Center (PSSC) in Montpellier, France, in charge

of Linux for zSeries activities as team leader.

He has participated in the creation of four IBM Redbooks, in the Poughkeepsie and Santa Teresa Labs.

Viviane Anavi-Chaput is a Senior IT Specialist at the IBM International Technical Support Organization, Poughkeepsie Center at New York.

She specializes in DB2-based application solutions such as Business Intelligence and Enterprise Resource Planning, and has the responsibility for running IBM Redbook projects and workshops in those areas.

Viviane writes extensively, teaches worldwide, and presents at international conferences on all areas of Business Intelligence and DB2 for OS/390.

Before joining the ITSO in 1999, Viviane was a Senior Data Management Consultant at IBM Europe, Paris, France.

Prior to that, Viviane was on assignment at the ITSO San Jose Center in Silicon Valley, California, as a DB2 Specialist.

Description:

The seminar will focus on application solutions that run on Linux on zSeries. It will emphasize the benefits of consolidating various application solutions on Linux on zSeries.

Topics include:

- Connector architectures and Java/WebSphere application deployment on Linux on zSeries connecting to hybrid backend z/OS and VSE systems such as:
  - CICS, IMS, DB2, MQS, and VSAM applications

- The seminar will describe Business Intelligence solutions using DB2 for Linux datamarts and DB2 for z/OS data warehouse consolidated on zSeries. It will discuss performance and scalability tests done with the Teraplex centers on BI query performance, data population/refresh using HiperSockets high speed data transfers, distributed joins with federated databases, intelligent resource management, Linux data mart cloning with z/VM, and OLAP tools on Linux for zSeries.

- The seminar will also describe how you can use Linux on zSeries to enable ERP solutions such as SAP application servers and Oracle databases on Linux for zSeries.

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Domino 6.5 for Linux on zSeries

Description:

This workshop will discuss Domino 6.5 for Linux running in the zSeries environment. It describes the activities that are needed to prepare a z/VM system to run Domino, including network and disk configurations. It covers the installation steps, as well as topics of interest to Domino administrators. Capacity planning and performance tuning tips are also discussed.

Topics include:

- What is new in Domino 6.5?
- Planning and preparation
- Disk configuration
- Network configuration
- Installation steps
- Domino administration
- Monitoring and systems management
- Initial sizing and capacity planning
- Performance measuring and tuning
- Domino Applications
- Migration from other platforms

Mike Ebbers

Mike Ebbers is a consulting IT Specialist at the International Technical Support Organization, Poughkeepsie Center. He is responsible for deliverables related to zSeries application software.
He has given workshops around the world on the subject of Domino for zSeries, including problem determination for Domino in a z/OS environment.

Mike joined IBM in 1974 as a systems engineer in the IBM branch office in Akron, Ohio. From 1983 to 1994, he developed and taught hands-on classes in the Dallas Education center, with a term in 1986-87 as systems engineering manager in Minneapolis. In 1994, he joined the ITSO and has authored IBM Redbooks about many applications products, including Domino on zSeries, workflow, imaging, and eLearning.
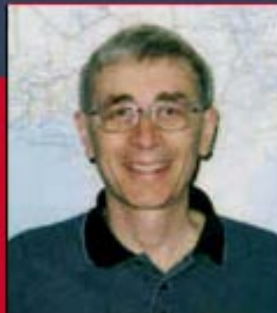
Brian Macfaden

Brian Macfaden is an IBM eServer Consultant, based in Manchester, UK. He has worked for IBM for 26 years. From 1994 to 1998 he was a project leader at the ITSO in Poughkeepsie, where he authored a number of redbooks, including four on Domino for S/390. He has presented on Domino for S/390 around the world, and has provided support to customers installing that product.

Brian currently provides technical support to customers across the IBM server and storage range, advising on optimizing the IT infrastructure and cost of ownership. Brian holds a degree in Mathematics from Oxford University.

Track 3:
e-business on zSeries

- **Powerful & Secure Infrastructure with WebSphere Application Server for z/OS**

- **Application Deployment and Back-End Integration with WebSphere for z/OS**

- **The Latest in zSeries Security for e-business**
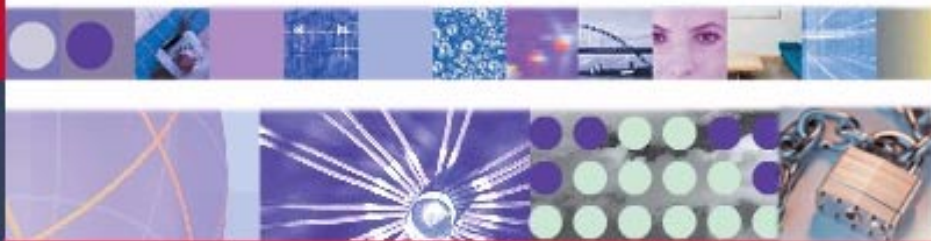
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Powerful & Secure Infrastructure with WebSphere Application Server for z/OS

Holger Wunderlich

A subject matter expert in the area of WebSphere infrastructure including Performance and Security, Holger Wunderlich is in charge of high-end Web serving projects in the ITSO Poughkeepsie Center. He is involved in projects relating to WebSphere infrastructure on zSeries, as well as hybrid WebSphere solutions.

Previously, Holger was a member of the IBM Field Technical Support community in Germany. His former activities allowed him to support high-end customers in their implementation of IBM WebSphere-based solutions on zSeries.

Description:

This workshop will look at z/OS WebSphere infrastructure topics from different perspectives. It will provide conceptual information to help you understand e-business security, performance, high availability and deployment subjects. It will also discuss architectural options and provide practical implementation hints and tips.

Topics include:

- WebSphere Application Server for z/OS V5
  - Introduction
  - Basic infrastructure setup

- WebSphere Security for WAS V5
  - WebSphere security foundation, the security structures underlying WebSphere, and its integration into the z/OS security subsystem
  - New security features
  - Web container security
  - Web application security and migration issues
  - EJB container security
  - Cross-platform and off-platform security
  - Tivoli Access Manager for e-business (Policy Director) integration

- WebSphere Application Server Infrastructure
  - Infrastructures & topologies
  - HTTP session management update

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Application Deployment and Back-End Integration with WebSphere for z/OS

Sabine Holl

**Alex
Louwe-Kooijmans**

Kevin J. Senior

Description:

This workshop will look at WebSphere application development and deployment topics specific to the z/OS environment. It will develop information to understand deployment options on z/OS, what tools to use for development, and how to integrate EIS systems such as CICS and IMS. Finally, it will cover application monitoring tools and options.

Topics include:

- Deploying to WebSphere for z/OS
  - Application architectural considerations for z/OS
  - J2EE architectural considerations
  - Coding hints and tips
  - Problem determination

- Connecting to EIS systems
  - J2EE Connector architecture
  - Connecting to CICS/IMS
  - Programming for WebSphere MQ and WebSphere MQ Integrator
  - Web Services, XML

- Tools for the AD life cycle
  - Using WebSphere Studio
  - Using WebSphere Studio Asset Analyzer
  - Using WebSphere Studio Workload Simulator
  - Using WebSphere Studio Application Monitor

- WebSphere Portal Server for z/OS

- Miscellaneous items of interest -- helpful commands, important PTFs, and useful Web sites

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Application Deployment and Back-End Integration with WebSphere for z/OS

Sabine Holl

Alex Louwe-Kooijmans

Kevin J. Senior

Sabine Holl is a Technical Pre-sales Specialist for WebSphere on z/OS for the Software Group, IBM Austria. She delivers Proof of Concept and technical briefings related to WebSphere on z/OS to customers. Sabine joined IBM Austria in 1995 as an IT Specialist in IBM Global Services, and installed and implemented MVS software at customer sites. She specializes in Unix System Services and the WebSphere brand. At Global Services, she has taught WebSphere classes for IBM Learning Services, founded the WebSphere working group at GSE Austria, and presents at IBM conferences. Sabine has participated in several residencies for WebSphere on z/OS at the ITSO Center in Poughkeepsie.

Alex Louwe Kooijmans currently works as a Client IT Architect for the Financial Services Sector in The Netherlands. As part of his overall responsibility for architecture for various FSS customers, he focuses on e-business enablement on the zSeries platform. In 2000, Alex returned to the Netherlands from a three-year assignment with the International Technical Support Organization, Poughkeepsie Center, where he specialized in the use of Java and WebSphere on OS/390. Previously he worked for the Technical Marketing Competence Center for Linux and OS/390 in Boeblingen, and supported various WebSphere/zSeries projects in EMEA. Alex's main focus has been the integration of traditional applications with new technology. In the ITSO, he was responsible for redbook projects and workshops related to the use of Java and WebSphere on OS/390. Alex holds a bachelor's degree in Computer Science.

Kevin J Senior currently works for the IBM Software Group in Italy. He joined IBM 23 years ago, first as an operator of the RETAIN application and IBM's international network, and then moving into systems programming, where he supported IMS, DB2, and CICS for IBM's internal and outsourced customer systems. He later became a technical specialist/architect for IBM Global Services assigned to the IBM Insurance Business, working with a large CICS/COBOL/DB2 application called HUON. Next he joined the AIM Services group in the IBM Hursley laboratory, providing worldwide support on CICS and specializing in connectivity with WebSphere z/OS. Kevin moved to Italy nearly three years ago and now works for Technical Pre-sales Support, specializing in CICS and WebSphere on z/OS. Last year he created educational material based on the WebSphere z/OS V4 Security Redbook.

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The Latest in zSeries Security for e-business

Description:

This seminar will discuss z/OS security enhancements in the Security Server that build upon z/OS transaction data security and exploitation of digital certificates, and that provide new functions in areas such as distributed security and protection from outside attacks.

Topics include:

- z/OS PKI
  - Overview
  - Installation
  - Customization
  - IKYSETUP overview
  - PKI Exit

- Enterprise Identity Mapping (EIM)
  - Overview
  - Installation
  - RACF Command Syntax

- z/OS V1R5 Security Server enhancements

- z990 Cryptographic services
  - PCIXCC
  - TKE V4
  - CP Assist for Cryptographic Function (CPACF)
  - Integrated Cryptographic Service Facility (ICSF) V1R5

Chris Rayns

Chris Rayns joined ITSO in 2001 from Strategic Outsourcing in the UK.

His main responsibilities were supporting a number of UK clients in the area of CICS (upgrades and customizations), assisting customers to become Web-enabled using CICS SSL support, and educating customers about new facilities within CICS TS.

Chris began his career with IBM in IT as an MVS Systems Programmer in 1987. Within this role, he became an expert in ACF2, and was responsible for the systems programming side of Security, which included installation, customization, and providing advice and guidance to the Security Officer/Administrator.

Chris participated in a Poughkeepsie residency on Redbook Security in the new Millennium, which involved working with SSL, LDAP, OCSF, prior to his joining the ITSO as a project leader.

Vicente Ranieri Jr

Vicente Ranieri Jr. is a Senior Certified Consulting IT Specialist in Brazil supporting customers across Latin America.

He has more than 24 years of experience working with IBM customers, 17 of which were spent providing technical support for the zSeries platform. He holds

a postgraduate degree in Marketing Administration from Fundacao Getulio Vargas (EAESP-FGV), Sao Paulo, Brazil.

Vicente acted as a Program Support Representative in the IBM Brazil Support Center from 1986 until 1992, coordinating a group responsible for supporting MVS. He has worked as an IT Specialist on pre-Sales teams since 1992, being responsible for supporting Latin America customers in Security, Cryptographic Solutions, z/OS, Parallel Sysplex and Processor arenas.

He has co-authored the IBM Redbooks SG24-6968 (Implementing PKI Services on z/OS), SG24-5455 (Exploiting S/390 Hardware Cryptography with Trusted Key Entry) and SG24-2079 (Parallel Sysplex Operational Scenarios). Vicente taught "The Latest in zSeries Security for e-business" ITSO workshops in 2001, 2002 and 2003.