



# edge-ucation\*

\* the cutting-edge **technical** sessions and labs offered only at IBM Impact 2007



## \* technical track sessions

The technical agenda for Impact 2007 will include over 300 unique sessions that are targeted at the developers, architects, administrators and integrators of IBM WebSphere® and IBM CICS® family of products. These sessions will include current information, tips and techniques grounded on best practices for developing and managing the WebSphere and CICS enterprise environment. These sessions will feature the very latest WebSphere and other IBM products and technologies that power service oriented architecture (SOA).

Sessions will include the following types:

- Latest product updates from the IBM development teams
- Technical product overviews
- Advanced product details
- Best practices developed by experienced practitioners
- Hints and tips from product support
- Case studies
- Panel discussion
- Hands-on labs
- Meet the experts

Session will include introductory, intermediate and advanced material, with an emphasis on technical educational sessions for the experienced user of the WebSphere family of products.

This conference will highlight emerging technology, as well as provide extensive coverage of core middleware technologies and products, with a technical focus on security, performance, administration and development.

**Note:** Content in this brochure is provided “as is” with no express or implied warranties of any kind. The brochure content is subject to change without any notice or obligation on the part of IBM. This is a partial view of the sessions that are planned for the IMPACT conference. More detailed information will be available on the Web site in the coming weeks. Be sure to visit [ibm.com/software/WebSphere/events/impact2007/overview.html](http://ibm.com/software/WebSphere/events/impact2007/overview.html) for the latest information.



## \* technical track sessions

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The overall purpose of this sub-track is to demonstrate the skills that will enable you to manage and build a WebSphere infrastructure to support your business. This sub-track will include features, functions and futures sessions on all WebSphere Application Server editions, for example, Network Deployment (ND) and Community Edition (CE). These topics will help you master techniques for efficiently administering the system using information gained in the different sessions provided.

## **Getting Started with Jython for WebSphere Application Server Scripting**

The WebSphere Application Server (WAS) 6.1 AST provides excellent aids to help create and debug Jython-based administration scripts, but assumes you already have some knowledge of Jython. In a mixture of slides and demonstrations this session takes an in-depth look at the Jython language, covers the AST Jython tooling, discusses integrating Jython with Java and WebSphere, defines the characteristics wanted in admin scripts, and provides some guidance for writing re-usable production-quality Jython administration scripts.

### *Entry skills*

- Knowledge of WebSphere Application Server
- A basic understanding of how WAS is administered
- Basic knowledge of Java

### *Exit skills*

- Understanding of the main features of Jython
- Understanding of the rights and wrongs in writing admin scripts

## **WAS Administration Recommendations**

This session will establish some good practices for configuring, running and managing WebSphere Application Server systems by considering the following questions: What are the typical administrative tasks in WebSphere Application Server V5.x and V6.x? What tools are available to perform these tasks? Which of these tasks can and should be automated? Where should administrative components be placed? What staffing and skills are needed to manage WebSphere Application Server? How can WebSphere Application Server be integrated with a service management solution such as IBM Tivoli®? This session will mainly be for system administrators and will cover the above topics at a relatively high level.

## **Build and Deploy Solution to WebSphere Application Server Community Edition**

IBM WebSphere Application Server Community Edition (WAS CE) is based on the open-source Apache Geronimo project, providing a lightweight Java 2 Platform, Enterprise Edition (J2EE) application server for certain development, testing and production of dynamic Web solutions where the features and performance of the more advanced editions are not needed. This session provides an overview of WAS CE architecture along with many popular development frameworks such as Spring, Hibernate and the newly-introduced Java Persistence application programming interface (API). This lab will use the Eclipse IDE in conjunction with Apache Ant to build, test, and deploy an AJAX-based Web application to the WAS CE environment running on Linux®. You will also perform WAS CE installation, configuration, and many of the most important WAS CE administration tasks.

### *Entry skills*

- General knowledge of Java and Web applications

### *Exit skills*

- Build and deploy Web application to WAS CE with Eclipse and Ant
- Ability to install, configure and perform administration tasks on WAS CE

## **WebSphere AST, Introduction to Assembly, Deployment and Testing**

This hands-on lab will explore the use of the WebSphere AST as it is used for assembling an Enterprise Application from its components, deploying the application to a test server and testing to make sure the application installed correctly. Configuration of a JDBC provider, data sources and authentication alias is performed using AST. The application is deployed for testing as an Enhanced enterprise archive (EAR) file. Different areas of AST are discovered through exploration. AST's Jython development environment is introduced by writing and running a short script that installs an Enterprise application to the server.

## **Basics of WAS Administration**

This session will cover the architecture of a WebSphere Application Server cell, including the Deployment Manager, node agents and application servers. The roles of the Deployment Manager and the node agent will be presented. The configuration repository will be described. The steps involved in building a cell will be outlined. The administration of a cell using the admin console and the wsadmin scripting tool will be described. The role of the WebSphere Application Server administrator will be defined. The basics of configuring J2EE resources and deploying J2EE applications will be described. Configuring WAS security will be touched on lightly.

### *Entry skills*

- High-level knowledge of WAS

### *Exit skills*

- Knowledge of how to perform basic administration of a WAS ND installation

## **Using Visual Configuration Explorer for Viewing Product Configuration**

The Visual Configuration Explorer (VCE) in WebSphere Application Server delivers simplified viewing of complex product configurations, using topological and attribute style views within the Eclipse RCP environment. The relationship of configuration parameters within and between products can be viewed on a topology graph in VCE to allow customers to gain a better understanding of their installed environment. These views can be created and extended using templates provided

with VCE. These templates allow the definition of relevant and related configuration parameters to enable a customer to quickly view all necessary information for a given perspective. In this session, we will present the architecture of VCE and demonstrate how it can be used to assist in problem determination and customer deployment issues.

### *Entry skills*

- Basic understanding of WAS and WAS administration

### *Exit skills*

- Knowledge of how to leverage VCE to help manage WAS configurations in a complex environment

## **Build large, robust, scalable, interconnected WebSphere solutions**

Enterprise WebSphere® systems are increasingly interconnected. This session describes what can be done to prevent the instability of one system from impacting other, interconnected systems with tactical and strategic solutions.

## **WebSphere Ease of Use and Consumability—Update and Directions**

In today's "on-demand" distributed environments, the continuing challenge is to reduce overhead, reduce complexity, and improve the time to value. This session will focus on the usability and consumability enhancements delivered within WebSphere Application Server V6.1 and WebSphere XD, specifically those delivered in V6.1 and those planned for the next release. We will also cover future directions such as WebSphere Features Packs and the delivery of incremental features. Attendees will understand the work done to improve product consumability, the immediate utilities and tools available, and finally the key focus areas being worked for the future releases. The session will discuss the WAS and WXD and how consumability efforts will also impact and improve the user experience with the larger WebSphere-based solution. Attendees will understand where consumability improvements are being implemented, how this will improve our products' ease of use, and how customers can leverage these enhancements, along with providing additional feedback regarding consumability.

### **WebSphere Administration Certification Test Preparation**

IBM's certification program is a true measure of expertise. Educational sources, real-world experience and rigorous exams are all required to earn IBM's certification prestigious distinction. This presentation will discuss the value of IBM certification and provide hints, tips, and advice on how to prepare for taking the WebSphere System Administrator certification test. Approaches for self-study and recommended educational resources will be covered, in addition to highlighting test objectives and role descriptions.

### **WebSphere EJB3 Feature Pack and OpenJPA Performance**

This session will introduce you to the WebSphere Enterprise JavaBeans (EJB) 3.0 Feature Pack as well as give you an in depth look at how to develop, deploy, and administer applications using it. We will discuss various tuning options for both the EJB Container as well as for the Open JPA runtime. We will let you know how to extract every last ounce of performance from them for your applications.

### **WebSphere Feature Pack for Web Services**

This session will show users the new Feature Pack for Web Services. This feature pack makes it possible for users to send reliable and secure Web services in a standardized fashion in the WebSphere environment. It also introduces support for JAX-WS and JAXB 2.0, which will simplify Web services and allow support for more complex XSDs as well as sending binary attachments in messages that interoperate with Microsoft® through MTOM.

### **Advanced Topics in High Availability and Reliability with WebSphere Application Server**

This session will focus on the architectural and operational issues that need to be considered when implementing a highly available or continuously available WebSphere Application Server infrastructure. Topics will include use of multiple data centers, Domain Name System (DNS), geographic separation constraints, supporting software components and other common deployment issues. While not a prerequisite, attendees should be familiar with the material covered in "An Introduction to WebSphere Application Server High Availability."

### **An Introduction to WebSphere Application Server High Availability**

In order to create a fault-tolerant environment one needs to understand high availability terminology and how WebSphere Application Server v6.x is architected to provide for Workload Manager (WLM), failover and high availability. This session will cover what WebSphere Application Server provides in these areas and will briefly discuss additional components and software that might be required for highly available deployment architecture. WebSphere XD V6.x functions that enhance the features available in WebSphere Application Server ND will be discussed as well.

### **IBM Installation Factory for WebSphere Application Server**

Installation Factory creates turn-key install packages for installing WebSphere Application Server in a reliable and repeatable way, tailored to the user's specific needs. This session will demonstrate how Installation Factory enables the user to build customized reusable and portable packages, made up of install images, maintenance packages, configuration archives, enterprise applications, and scripts.

#### *Entry skills*

- Basic knowledge of WebSphere Application Server administration.

#### *Exit skills*

- General knowledge of Installation Factory and its benefits to WebSphere Application Server administration.

### **WebSphere Application Server for i5/OS Overview and What's New**

This overview session introduces WebSphere Application Server from an i5/OS® perspective. You will learn what is different about the application server for i5/OS along with several IBM System i5™ specific integration projects related to WAS that were delivered late in 2006.

#### *Entry skills*

- Basic knowledge of WAS

#### *Exit skills*

- Knowledge of WebSphere Application Server specifics for i5/OS and recent product enhancements.

### **WebSphere Application Server Migration: Tips and Techniques**

Migration from one version of WebSphere Application Server to another has been a steadily improving story. This session will present strategies on planning, and commonly used techniques and best practices. Very detailed information will also be provided on what changes might be required for wide variety of combinations of WebSphere Application versions, including v6.1.

#### *Entry skills*

- General knowledge of WebSphere Application Server,

#### *Exit skills*

- A thorough understanding of Migration challenges and some possible solutions.

### **New Features In WebSphere Application Server V6.1**

WebSphere Application Server V6.1 is the latest release that includes many improvements and new features, including support for the Java 5.0 software development kit (SDK), a new Java Virtual Machine (JVM), support for portlets and Session Initiation Protocol (SIP) applications, numerous enhancements to installation, system management and security, as well as support for new Web Services specifications. This session will provide an overview of the new features and enhancements in WebSphere Application Server version 6.1, and explain many of the benefits provided in this release. With this knowledge, you can better understand the improved usability and new capabilities of WebSphere Application Server version 6.1. This session assumes that you are already familiar with the capabilities and features of WebSphere Application Server V6.0.

### **Rational Performance Tester Product Update**

IBM Rational® Performance Tester is IBM's newest load testing solution. This Eclipse-based tool provides complete Web-based system performance testing. Significant features include automatic test recording and generation, adaptive test playback without programming, customizable reports, and integrated resource monitoring and transaction breakdown analysis.

This session will discuss the latest features and enhancements for the Rational Performance Tester 7.0 product, released in January 2007. The speaker is the RPT product champion and a member of the RPT development team. He will cover the basics of the product, new features and overall enhancements, and give special focus to performance testing in the SOA space.

#### *Entry skills*

- General knowledge of performance testing and automation tools

#### *Exit skills*

- Understanding when and how to apply RPT to performance tuning projects
- Understanding of the performance analysis functions including ITCAM integrations

### **Advanced performance tactics for WebSphere Application Server**

This session demonstrates advanced tuning tips and techniques for WebSphere® Application Server (WAS) Version 6.x

### **WAS 6.1, Feature Packs (WS, SOA, EJB), and WebSphere CE Performance**

This presentation will update you on the latest performance news about the world's most scalable application server and provide insight into the new release of Feature Packs. This session will take a spin through all the brand new performance features in WebSphere CE and WebSphere v6.1, and see what they can do for your application. We will look at how your WebSphere application can give your users the best experience possible, by discussing how to use the features in J2EE1.4 and some brand new JEE5 features available in our Feature Packs. We will touch on all aspects of the WebSphere stack, from the improvements in the JDK up to the latest API enhancements. Anyone attending will walk away with a thorough understanding of the performance capabilities of WebSphere CE, WebSphere v6.1, and the new Feature Packs as well as when best to apply them. Come learn how to make WebSphere perform for you!

### **Understanding and Optimizing the JVM for WebSphere**

Have you ever been curious exactly how the JVM functions underneath WebSphere or how you can tune it and use the information it provides to get the most out of your applications? In this session will explore what the JVM does as it resides underneath the WebSphere runtime. It will look at how it performs garbage collection, memory management, heap compaction as well as many other advanced features. Also, this session will take a look into how to configure the JVM for maximum performance, and give attendees a laundry list of tuning parameters for both the IBM and Sun JVMs (1.4.2, and 1.5) that will benefit their WebSphere runtime. To extract the best performance from your J2EE application, you need to understand how the JVM performs its tasks and how to tune it to perform best for your specific workload. This session will unveil the inner workings of the JVM.

### **WAS Advanced Performance: 64-bit, Multi-core, and Real-Time Java Platforms**

WAS introduced support for 64-bit platforms in v6. These and future WAS platforms will support 64-bit processors from Intel®, AMD, IBM and Sun. Each 64-bit design provides many performance enhancements including extra hardware registers and 64-bit precision computations. Applications that leverage these features can see significant performance gains on 64-bit hardware, but there can be a downside for 64-bit in particular situations. Multi-core processors are capable of providing the ultimate in powerful, dense and energy-efficient servers. However, they do have different performance characteristics, as well as measurement nuances. There is also a move afoot in the industry towards real-time behavior and WAS is no exception. Clearly the performance characteristics of a soft real-time application server are important and have new aspects. Detailed analysis including performance measurements, JVM statistics and more will be provided using the latest hardware and WAS versions.

### **IBM Java 5 Garbage Collection: From Theory to Practice**

GC is central to the Java language, and a critical component of high-performance Java applications. This session will describe the IBM JDK 5.0 GC algorithms, how they adapt to changing workloads, and provide guidance interpreting and visualizing GC data. Come to this session to learn how to improve overall application behavior, including performance, be it throughput or responsiveness, and footprint, as well as how to analyze performance characteristics and respond to performance data. We also introduce the Extensible Verbose ToolKit (EVTk) to facilitate visualizing and analyzing relevant GC data. Finally, we discuss future directions that the GC will explore, including real time and soft real-time applications.

### **WebSphere Performance Fundamentals**

This session walks the user through fundamental performance topics including capacity planning, testing, and tuning your WebSphere Application Server.

### **Optimizing WebSphere on AIX**

This session will discuss how to optimize and help improve any application's performance for running on AIX. Garbage collection policies, just-in-time (JIT) options, operating system (OS) tuning, plus other features that are unique to running WebSphere on IBM AIX® will be covered.

#### *Entry skills*

- General knowledge of WebSphere Application Server administration and problem determination

#### *Exit skills*

- Improve application performance through tuning AIX and the JVM.
- Improve application performance by utilizing large pages.
- General understanding of the advanced virtualization features of AIX.

### **DTFJ: A New Breed of Tools for Problem Determination**

Diagnostic Tooling Framework for Java (DTFJ) is a new technology and emerging standard, initially developed for IBM JDKs, to facilitate problem determination and introspection of JVMs. The Java Technology Center, WebSphere Serviceability Team and other teams, are collaborating to construct a family of problem determination tools based on DTFJ technology. These tools form the base of an extensible infrastructure to help diagnose problems that occur in various products built on top of a JVM, and they can be used as first-level diagnostics tools specific to the JVMs. This session will focus on the basics of the framework for the tools available today, and show how to use them in practical situations, including examples of use in WAS-specific scenarios as well as general Java problem-determination scenarios.

#### *Entry skills*

- Basic knowledge of Java, JVMs, and so on, and WAS administration

#### *Exit skills*

- Participants will be able to use new DTFJ-based tools to troubleshoot problems in WAS and the JVM



### **Leveraging WebSphere Application Server Tools to Solve Production Problems**

Uncovering and fixing production application problems are difficult for customers to do. Third party tools used to find these problems are often intrusive and affect the performance of these systems significantly. The WebSphere Application Server Problem Determination tools provide a non-intrusive way to pinpoint and fix problems. This lecture provides a methodology for solving production application problems using WebSphere Application Server integrated tools and the new IBM Support Assistant (ISA) tools. The methodology explains how to identify symptoms for common problems, what tools to use to determine a root cause, and finally how to fix the problem. The types of problems discussed include: a memory leak, poor connection management, thread deadlocking and incorrect classloading, and others. The tools include: IBM Guided Activity Assistant (IGAA), Memory Dump Diagnostics for Java (MDD4J), Connection Manager Diagnostics, ThreadAnalyzer (TA), and a Classloader Viewer (CLV).

### **Understanding WebSphere Classloaders: Best Practices for File Placement**

Classloaders are probably one of the most problematic pieces of Java and J2EE today. This presentation explains how classloaders work, and how they affect where you should deploy your application code and utility classes. During the presentation, live demonstrations will be provided as different strategies are presented. Java 2 Platform, Standard Edition (J2SE) classloaders will be explained followed by WebSphere Application Server-specific classloaders, and finally demonstrations of the classloaders' behavior. This presentation applies to WebSphere Application Server 5.x and 6.x.

### **WAS Security — Infrastructure Hardening**

When deploying WebSphere Application Server (WAS), there are a number of security-related activities that must be undertaken in order to create a truly secure WAS environment. A "default" WAS configuration is not particularly secure. This session outlines the weaknesses in a default configuration and lists the specific actions that an administrator should take to create a hardened security environment. This presentations will cover topics such as: protecting the WAS admin infrastructure,

running WAS as non-root, securing the various WAS communication channels, using a DMZ, protecting important files, third-party security integration, as well as some advanced issues. Updated for WAS V6.1!

#### *Entry skills*

- Basic knowledge of WebSphere Application Server concepts

#### *Exit skills*

- A general understanding of how to create a secure WAS environment

### **WebSphere Application Server Security: Certificate, Key, and SSL Management**

WAS V6.1 introduces some new and powerful functionality for creating and managing certificates, key stores, and Secure Sockets Layer (SSL). This radical departure from the previous model should dramatically simplify security management, but it's all new. This presentation will describe what it does.

#### *Entry skills*

- Familiarity with basic certificate and SSL concepts
- Familiarity with WAS security configuration

#### *Exit skills*

- An understanding of how to manage certificates and SSL in WAS V6.1

### **WebSphere Application Server Security: Programming Hints and Tips**

This session discusses a number of commonly encountered application development challenges that are related to security. Items covered include authentication errors, server-side authentication, Java Cryptography Extension (JCE)/ Java Secure Socket Extension (JSSE) usage, and more.

#### *Entry skills*

- Java programming
- Basic understanding of WAS security

#### *Exit skills*

- Understanding how security application programming can improve performance

## **Federated User Repository in WebSphere v6.1**

Virtual Member Manager (VMM) is a new feature in WAS v6.1 that allows for a federation of multiple independent repositories into a single virtual realm. This session will provide an introduction to the new capabilities provided by VMM, as well as an overview of how to configure it to include file, database and LDAP repositories.

### *Entry skills*

- General Knowledge of WAS Security and LDAP

### *Exit skills*

- A good overview of the capabilities of VMM
- Enough information to begin to configure it
- Tips on where to get further details

## **WebSphere Application Server Security: Performance**

This session will discuss the cost of enabling security and explore various options for improving performance through configuration, cache tuning, and directory access tuning.

### *Entry skills*

- Basis understanding of WAS security

### *Exit skills*

- Understanding of how configuration and tuning impact WAS performance

## **Securing WebSphere Application Server with Firewalls**

Although firewalls alone are not sufficient for securing WebSphere Application Server (WAS), they are an important part of an overall security hardened deployment. This session will discuss firewall placement and configuration within a WAS V6.x. and it will provide guidance on when and why firewalls provide valuable cover as well as include cases where firewalls do not provide any value. Because the specifics of configuring individual firewalls vary by product, the session will cover the general configuration (for example, ports to be opened), and will not cover any specific firewall product.

### *Entry skills*

- An understanding of firewalls and basic WAS security

### *Exit skills*

- Understanding the use and misuse of firewalls in WAS

## **WS-security and Policy Set Function in Feature Pack**

This session will discuss the new WS-Security Features in the Web Services Feature Pack, the highlights of this session are:

- WS-Security 1.1
- WS-SecureConversation and WS-Trust Support
- Web Service Security (WSS) API-based programming model for Web Service Client
- Policy Set support—how to enable WS-Security using Policy Set
- Extension points—how to generate and consume a custom token

## **Introduction to SIP**

WebSphere Application Server 6.1 introduced a significant amount of Session Initiation Protocol (SIP) infrastructure. This SIP infrastructure can be used in the telecommunications industry as well as throughout any enterprise as communications move to IP and become more intelligent. This session introduce the audience to SIP, JSR 116 SIP Servlets, the WebSphere implementation of JSR 116, the WebSphere SIP high availability topology with the stateless SIP proxy, and the future of SIP and SIP Servlets (JSR 289).

### *Entry skills*

- Basic Java and WAS knowledge

### *Exit skills*

- An understanding of how to use SIP in WAS environment

## **Using IBM Support Assistant to Solve Software Problems**

This session demonstrates the features and value of IBM Support Assistant (ISA). The session will emphasize how a fictional customer works through common software challenges and uses ISA to find sound solutions and resolve their problems. Through the customer scenarios, ISA features such as integrated search, key product information links, automated data and trace gathering and serviceability tooling will be presented. This session will also introduce ISA as an essential part of the IBM Software Group serviceability vision.

## Using WebSphere with VMware

This session examines how WebSphere can be used in conjunction with VMware or similar virtualization technologies (XEN, and so on) to simplify common WebSphere scenarios, from development through production. We'll look at how to deploy and use WebSphere and VMware together at each stage in the lifecycle. We'll also provide several case studies of successful use of VMware in both development and production. Performance best practices and deployment tips and techniques will be provided.

### Entry skills

- General knowledge on WebSphere Application Server
- A basic understanding of virtualization technology

### Exit skills

- A basic understanding of using WebSphere and VMware together for server containment, rapid deployment and change management
- Tips and techniques for deploying WebSphere and VMware

## Virtualization with Linux for System z

Enterprises are moving applications from tens or hundreds of physical servers over to virtual Linux server on IBM System z™. This session explains how virtualization works with Linux for System z, and how it is possible to define hundreds of virtual CPUs without needing hundreds of physical processors.

### Entry skills

- General knowledge of WebSphere Application Server on Linux on distributed platform
- General knowledge of Linux

### Exit skills

- General knowledge of WebSphere Application Server on Linux for System z
- An understanding of how virtualization works with Linux for System z

## 64-bit WebSphere Application Server on z/OS

WAS 6.1.0.4 is the first version on IBM z/OS® that supports 64-bit. This presentation will cover the benefits, features, system requirements, setup, startup, migration, restrictions and performance considerations of the 64-bit WAS.

## WebSphere Application Server for z/OS Security Overview

This session will provide the foundation for understanding the various aspects of security in a WebSphere Application Server for z/OS environment. The topics covered will include authentication, authorization, confidentiality, security registries and configuration alternatives.

It is a necessity to have a clear business strategy that links business goals with IT. There are many ways to get there. Understanding how a business works and setting priorities can help develop that business strategy. Any number of approaches can lead to the conclusion that SOA is needed. This track will discuss how getting started with SOA is easier with the IBM SOA Foundation—an integrated, open-standards-based set of software, best practices and patterns for SOA.

### **The IBM SOA Business Catalog: Finding Reusable Assets to Accelerate your SOA Deployments**

Reusing assets can save a company time, money, and development effort when deploying SOAs. This session will provide an overview of the IBM SOA Business Catalog, an online directory of SOA assets from IBM and SOA Specialty Business Partners, that can be used in SOA deployments. Attend this session to learn what kinds of assets are available for reuse, how they support SOA Foundation Products, and how to obtain them.

### **SOA Solution Designer Certification Test Preparation**

SOA Solution Designer certification validates the ability of the candidate to assess and translate client requirements for business process flexibility and agility into a service-focused software solution using service oriented architecture principles. This session will help prepare you for the certification test.

#### *Entry Skills:*

- Knowledge of how to be an SOA Solution Designer

#### *Exit Skills:*

- Better preparation for the actual test

### **WebSphere Commerce SOA Strategy**

This session describes the technical strategy and roadmap for evolving WebSphere Commerce to participate within a service oriented architecture (SOA)—both a Web 2.0 Global SOA and an Enterprise SOA—as well as transforming the WebSphere Commerce server into a service oriented business application (SOBA) with deeper exploitation of the SOA Foundation that enables multichannel composite applications. Details about WebSphere Commerce V6 SOA features as well as planned incremental SOA enhancements to V6 will be covered.

### **ESB: From Pattern to Product Suite**

The Enterprise Service Bus (ESB) concept has now become well established as a core architectural building block within a service oriented architecture. In this session our goal is to give a crisp and clear description of the ESB concept, to define the pattern and expose the products supported such as WebSphere ESB, WebSphere Message Broker and WebSphere DataPower. We will discuss the capabilities and features of each and when to use them.

#### *Entry skills*

- A basic understanding of JMS or other messaging technology.

#### *Exit skills*

- A basic understanding of ESB component and patterns.

### **IBM FileNet P8 within an SOA Environment**

Business Process Management (BPM) and service oriented architecture (SOA) are complementary technologies that can help make IT more responsive to the business needs by delivering reusable business services and process management faster, resulting in business agility. We explore the similarities, differences, and synergies between BPM and SOA. We look at FileNet BPM Web services features and discuss how FileNet BPM can be leveraged in an SOA environment such as IBM WebSphere SOA.

### **IBM Software Strategy and Product Overview**

This session will provide a little insight into the IBM Software Group (SWG) strategy by a member of the SWG Architectural Board.

### **Content Architecture and Strategy**

Putting the management of enterprise content, such as documents, blogs, wikis, forms and Web content, in the hands of business users is critical to streamlining business processes and making the organization more responsive. In this session, we will describe the architecture and strategy behind IBM's content offerings, including "Geneva" and WCM, and explain how these offerings will help customers effectively manage and use content in support of their business goals.

#### *Entry skills*

- General knowledge of one or more areas of content management,

#### *Exit skills*

- General knowledge of IBM's architecture, strategy and offerings for content management

### **Information in Your SOA: Creating SOA Services Around Integrated Information (product focus: Information Server)**

This session details how to build reusable services around information. It includes a discussion of how to understand source system data to discover where to get the right information, along with techniques for cleansing and transforming data into a complete and accurate record. The session outlines how integrated information services can be quickly defined and deployed into application servers without extensive programming. The discussion also includes a description of how these services can be incorporated into new SOA business processes.

### **Creating Granular, Reusable Information Services with SOMA (focus on SOMA, Industry Models, Rational Data Architect, and Information Server)**

This session details how IBM's service oriented modeling and architecture methodology can be employed to help identify and deploy reusable information services. The session will describe how techniques like business vocabulary management, industry model decomposition, and data profiling can be used to define services that provide a high impact, and that are at the right granularity to be likely to be reused within your organization.

### **Creating a Service-Oriented Dynamic Data Warehouse (focus on Information Server and WAREHOUSE 9)**

This session details how your enterprise data warehouse or data mart can become a source of rich analytical information within your SOA. Topics for discussion include using a SOA to trickle feed your data warehouse, defining dimensions that provide high impact reusable SOA information, plugging warehouse information services into SOA business processes, and optimizing information access for SOA. Detailed customer case studies will be presented during this session, and best practices will be reviewed.

### **Master Data Management**

Master data entities such as customer, product, account, and so on, play a critical role in any enterprise architecture, but particularly in a service oriented architecture (SOA). A key characteristic of master data and its associated services is that they support multiple major business processes and represent frequently accessed services and data. Therefore, master data management is critical to the development of SOA. It provides a common source of accurate, consistent and comprehensive master information, exposed through consistent services that can be leveraged across business processes and applications. In this presentation, we will present general concepts and demonstrate the value in a case study around customer master data.

### **Designing SOA Services with IBM Rational software Architect**

This hands-on workshop introduces how you can use a top-down model-driven development approach to modeling services using IBM Rational Software Architect. You will use service models represented at different levels of abstraction (Business Process, Unified Modeling Language [UML], Web Services Description Language [WSDL], and Java) and leverage Rational Software Architect support for visualization and transformation from one level of abstraction to the other. We also discuss the use of UML profiles for domain specific languages like Service-Oriented. Key to reaping the benefits of SOA is the reuse of existing assets. We show how to use existing design patterns to address requirements on your services. After going through this workshop, you should be able to design services in Rational Software Architect and use the capabilities at your disposal around UML profiles, design patterns, reusable assets, transformation, and Web services.

### **Introduction to IBM Rational RequisitePro**

The IBM Rational RequisitePro solution is an easy-to-use requirements management tool that lets teams author and share their requirements using familiar document-based methods while leveraging database-enabled capabilities such as requirements traceability and impact analysis. The result is better communication and management of requirements with the increased likelihood of completing projects on time, within budget and above expectations. This session will provide an overview of RequisitePro including integrations with other tools like IBM Rational Software Architect, IBM WebSphere Business Modeler and IBM WebSphere Integration Developer.

### **Data Modeling with Rational Data Architect**

Design your database in the context of the IBM Software Development Platform. Understand how to establish the bridge between software design and information design. Deploy the database and map how your service interface relates to it. The presentation and demonstration will contain:

- RSM/RSA and RDA transformation and working together
- Working with logical and physical data models
- Deploying the database
- Synchronization between models and the database
- Understanding XML interfaces
- Mapping between database structures and XML schemas

You will learn how to integrate data modeling in your software development process.

### **Demystifying RFID: WebSphere's Role in an IBM RFID Implementation**

What is radio frequency identification (RFID)? How can it be used to solve business problems? Whether you are in a technical or nontechnical role, discover the benefits of driving business processes using RFID events and learn about the architecture of an RFID solution and IBM products that form the base platform for an integrated RFID-enabled solution. Highlights include: Introduction to RFID technology and standards, Overview of IBM WebSphere Premises Server.

#### *Entry skills*

- Interest in RFID

#### *Exit skills*

- Knowledge of hardware and software in an RFID implementation
- Awareness of RFID technology and RFID standards
- Understanding of IBM's RFID implementation

### **Composing Business Solutions using Service Component Architecture**

Service-Oriented Architecture (SOA) is the latest model for building business solutions. This session will discuss how Service Component Architecture (SCA) is used to create service-oriented solutions, composing together existing and new services built from a variety of technologies such as Java, C++, and Business Process Execution Language (BPEL). SCA's declarative approach to infrastructure services such as security and transactions will be covered, along with its late-binding capabilities for selecting protocols and access methods. SCA's part in current and future IBM products will also be covered.

#### *Entry skills*

- Basic understanding of service-oriented architecture,

#### *Exit skills*

- Knowledge of SCA and its use in building business solutions based on the use of a service oriented architecture
- Understand which current and future products will provide SCA and how these relate to building business solutions for customers

### **SOA Roadmap for System i**

IBM System i™ is an important part of the IBM SOA strategy, and this session will focus specifically on the SOA Roadmap for System i. We'll talk about the technology many clients are entitled to that can help launch SOA projects in their organizations. The various SOA entry points will also be discussed and how System i and i5/OS fit. Throughout the session we will integrate customer stories where applicable.

#### *Entry skills*

- A basic knowledge of Web Services
- Basic knowledge of the IBM SOA Foundation

#### *Exit skills*

- Relate the SOA Entry Points back to System i capabilities
- A basic understanding of how you can start simple with SOA on System i, leveraging tools you might already have and grow fast with the IBM SOA Foundation portfolio

### **Why Good Architecture Matters for SOA**

Current software development patterns and practices must evolve to help create the flexible architectures required to achieve the goals of SOA. This presentation will introduce some of the key architectural concerns for SOA, and discuss the methods, tools, and best practices at the heart of successful service-oriented solutions.

### **Nine Steps to SOA Enablement on System z**

Many businesses today rely on mainframes for their mission critical data and applications. These CICS, IMS, and Batch workloads run the majority of business transactions implemented worldwide. In today's business climate it is simply not practical to reimplement all of these transactions in order to add business functionality. To move these applications forward in an SOA-enabled enterprise, customers need a plan. This session will introduce a strategy for business transformation on System z through SOA application technologies.

### **Introduction to IBM's Approach to SOA Governance**

Recently, there has been a great deal of hype around SOA governance. Whenever a conversation comes up around service oriented architecture, the term governance is soon to follow. Find out why. This session will show you what SOA governance is, the role it plays in SOA, why it is important, and IBM's approach to delivering SOA governance. This presentation will feature IBM's SOA governance methodology, which lays out a multi-phase framework to implement an SOA governance model. The session will cover the technical, and more importantly, the organizational aspects of SOA governance. The audience will walk away understanding why SOA governance is not just a technical problem, and what can be done to implement an SOA governance model.

### **IBM SOA Strategy and Roadmap**

TBD

### **Architecture Simplification**

Simplification means the elimination of "unnecessary detail". This session will address numerous aspects of architecture simplification that lead to an agile environment. Addressed will be the reasons to simplify and value of doing simplification. The major part of the presentation will discuss an approach to architecture simplification that covers 17 topics. Topics range from business influencers to technical aspects, all of which are supported by process components. We will also discuss will be what can be measured to validate the value of the simplification. Finally, steps will be identified on how to obtain support to initiate a simplification program.

#### *Entry skills*

- Project lif-cycle understanding and experience in all phases of life cycle
- Understanding of enterprise architecture
- Intermediate to advanced skill level

#### *Exit skills*

- Reasons to simplify and understanding of areas of simplification
- Simplification as an approach
- When and where simplification should be recommended
- Simplification measurement

### **The Realization of the SOA Foundation through IBM Products and Services**

This session takes a close look at the role which selected IBM products and services play in enabling the SOA Foundation. The session specifically focuses on how these products adhere to the architectural principles of the SOA Foundation. Additionally, the session explores work that is underway or being considered to further refine the integration, interoperation, and consistency of these products with these architectural principles. This session also examines a number of the professional services offerings that can assist in instantiating the SOA Foundation in customer environments.

### **The SOA Foundation Architecture and Scenarios**

This session provides an overview of SOA Foundation architecture. The session reviews the Foundation architecture as we currently understand it, as well as, some of the trends that will likely evolve and refine the architecture for enabling SOA applications. This session also explains the role of SOA scenarios in enabling entry-points to adoption for SOA, as well as, helping shape the products that make up the IBM instantiation of the SOA Foundation.

### **Nonfunctional Requirements in a service oriented architecture**

IBM software can be used to implement a service oriented architecture. Irrespective of which particular technology or product is chosen, any SOA implementation must be able to fulfill nonfunctional requirements: availability, reliability, usability, maintainability, portability, scalability and performance. If these concepts are designed into the SOA infrastructure architecture at the beginning, they can then be implemented regardless of technology choice. For enterprise class customers, nonfunctional requirements should be seen as just as important as functional ones. However, they are rarely given the same status; they are usually left as an afterthought. This presentation discusses the importance of implementing them as an integral part of your service oriented architecture: common traits, recurring designs and identified patterns that must be applied irrespective of technology or product, to provide an SOA implementation that can exist and thrive in the real world.

### **Using J2EE patterns to foster reusable, cross-brand application components**

This session will take a look at some of the core J2EE patterns that are used in application development such as business delegates, session facades, transfer objects, and so on, and examine their roles in creating reusable application building blocks and setting up the framework for a cross-brand IBM solution. Best practices and real-life solutions will be discussed.

#### *Entry skills*

- Knowledge of J2EE application development/design (intermediate)
- Familiar with IBM SW products and brands (intermediate)

#### *Exit skills*

- Ability to build reusable application component
- Understanding in leveraging the cross-brand capability of IBM software
- Ability to select and apply specific J2EE patterns in developing solutions on top of IBM software

### **Top 10 SOA Issues (and how to address them)**

In this session, we will describe common technical challenges of SOA and Web services projects. It covers the best practices and lessons learned from a variety of real life projects, across architecture, (but more specifically) design and implementation. The content of the session has evolved over several years and is based on many customer projects. Focus is on the technical concerns that were commonly met in these projects, as well as means to overcome them. Our top 10 issues are:

- How do I get started with an SOA Project?
- What is a good service?
- When do you adopt a standard or a specification?
- Will my services scale and perform?
- Hints for designing “good” WSDL
- How to adapt existing/non-SOA requestors and providers?
- To ESB or not to ESB
- What about service registries? Is anyone using UDDI?
- Is my service secure? What threats do I need to be concerned with?
- What does it mean to have SOA Governance?

### **SOA Platform and Scenarios**

This session examines the eight documented implementations defined to solve known business challenges faced by customers. This session uses the experiences of the fictitious company JK Enterprises to illustrate these solutions. The session relates the business challenges faces to the IT environment. It also focuses on the SOA implementations which show how the business challenges were analyzed to create requirements, and how those requirements were implemented as a series of solutions that IBM refers to as SOA scenarios.

### **RUP/SOMA**

This session discusses highlights of service oriented modeling and architecture. It also reviews the key activities that are needed for the analysis and design which are required to build a service oriented architecture.

### **Designing Multichannel SOA solutions using IBM’s User Interface Strategy**

This presentation explains the IBM recommended user-interface technologies that can be used to build modern computer systems that allow human to interact. The session describes how organizations can architect, design and develop user interfaces that directly connect into an SOA. The session covers recommended technology choices for internet self-service, extranet, call center, branch, teller, kiosk, ATM, PDA and voice. It also explains how to develop highly reusable components on top of the SOA that enable a high degree of reuse of the Model-View-Controller framework.

This presentation positions the technologies against the IBM products that delivery them to market. This includes overviews of IBM Lotus® Expeditor, IBM Lotus Sametime, IBM Lotus Hannover, IBM WebSphere® Portal, and IBM WebSphere Application Server. The presentation closes with a competitive view against Microsoft®, Adobe® and Sun Microsystems®.



### **The WebSphere Voice Server—Technical Overview**

WebSphere Voice Server (WVS) product brings new capabilities to WebSphere Application Server (WAS). With WVS, you can authenticate with WAS using your voice, hear text as voice output from WAS, and speak to WAS using voice recognition. WVS also contains a SIP enabler component called the Voice Enabler (VE) which exploits the new SIP feature added to WAS 6.1. WVS also adds two new protocols to WAS. One provides a real-time media capability (RTP) and the other a new protocol that is standard for speech servers (MRCP). WAS adds reliability, scalability and availability to WVS. Come to this session to learn how WVS adds voice to WAS. This session will present the fundamentals of the WVS, explain how it exploits WAS as a foundation architecture, and discuss the advantages that the WAS platform brings to WVS.

#### *Entry skills*

- General knowledge of WAS and architecture skills

#### *Exit skills*

- General knowledge of the WVS and understanding of its value add to WAS

### **Everything You Wanted to Know About WAS, but Were (NOT) Afraid to Ask**

This session will cover a number of common questions and the underlying architectural issues that need to be considered when deploying applications to WebSphere Application Server. The questions often arise because there are the issues that can make or break an application deployment and turn it into a success or failure. In cases where a definitive answer isn't possible, this session will summarize the items required for a well thought out and successful deployment.

### **WebSphere Business Services Fabric—Product Overview**

This session is an introductory product overview of the WebSphere Business Services Fabric (WBSF), formerly Webify. WebSphere Business Services Fabric is an end-to-end SOA platform to model, assemble, deploy, manage and govern composite business services. It provides the design-time tooling, runtime environment, industry reference models, and prebuilt SOA assets to enable rapid development of loosely coupled composite business services.

### **WebSphere Business Services Fabric hands-on workshop**

We will introduce the various components of the WebSphere Business Services Fabric (formerly known as Webify) and how these components fit in a SOBA life-cycle methodology. We will create a reference solution that will tie up several existing services for the 'ABC Insurance Company' into a business process to get the true business value.

### **Advanced Web Services Interoperability**

This session will cover advanced Web services interoperability topics in various scenarios:

- **Service Creation:** We will discuss new interoperability topics such as cross-platform attachments using MTOM (with demo), reliable messaging, SOAP 1.2 and WebSphere interoperating with new platforms such as .NET 3.0 (WCF) and Axis2.
- **Service Connectivity:** What does it mean in real life when connecting heterogeneous platforms together with WESB?
- **User Interaction:** The ubiquitous nature of Web services opens up many new usage scenarios (such as Accessing legacy assets from user applications like Microsoft Office or Web 2.0). We will examine the interoperability aspect of this and demonstrate how to leverage WebSphere Web Services from an Excel worksheet.
- **Business Process Management:** Technically, BPEL flows can invoke any Web services offered by any platforms. We will share some real life hints and tips in bringing heterogeneous Web services together in a Process Flow.

### **WebSphere Web Services Strategy**

This session reviews what will be launched for WebSphere Web Services over the course of the next 18 months within WebSphere® Application Server. The session discusses the design and strategy for the new WebSphere Web Services architecture and how works with open source.

### **Web Services Best Practices**

Interoperability is a core principal of Web services and it does not happen automatically. Interoperability must be considered at every step from design, testing, implementation and back to testing. This process can be accelerated by using the expertise and experience of others. This session discusses taking the advice of senior practitioners who have gained expertise with production-tested applications by working in the field. This session provides numerous examples of "what to do" and "what to avoid" to gain maximum interoperability without sacrificing performance.

### **Introduction to WebSphere Early Programs**

Did you know that you can participate in prerelease alpha and beta programs to get early access to WebSphere software? WebSphere Early Programs can help you get the information you need to start planning for and developing your next environment or application. Many WebSphere products are available through these programs, including WebSphere Application Server, WebSphere Commerce, and the WebSphere Product Integration portfolio. In this session you will learn how participating in WebSphere Early Programs can give you a competitive edge, by giving you early access to upcoming products, providing you with detailed product education, a personal relationship with WebSphere product experts, and the ability to give feedback on defects and product features.

### **TurboCharging WPS Development using Second Generation Patterns**

First generation Patterns captured expertise in text form, allowing it to be passed on at human learning speeds and accuracy. Second generation “Pattern Implementations” exploit new Pattern Technologies to shrink-wrap expertise in custom tooling, enabling it to be applied to development tasks at compute speeds and accuracy. Business Process Development is particularly well placed to gain from this area—much process design can be built very naturally in pattern form. Early experience shows that large productivity gains, and significant quality improvements can be easily achieved. In this session we will examine the new Patterns Technology opportunity and its potential, and give practical examples of its application using WPS.

### **Understanding the WebSphere Remote Server Customer Experience**

During this session we will describe the WebSphere Remote Server (WRS) product and how it can be part of an SOA solution. WRS is focused on the retail space as a key part of the Store Integration Framework, but it can be used as an integral part of other solutions. Topics covered will be an overview of WRS, a definition of the customer scenarios where it is beneficial, a summary of the overall value proposition, a description of our competitive advantages, and an overview of the implementation process.

### *Entry skills*

- General knowledge of IBM middleware products

### *Exit skills*

- WRS product content
- Characteristics of retail environment
- How to extend WRS in a retail SOA environment

### **WSRR: What's New in V6.0.2 and Roadmap for 2007**

WSRR Development Architect and Product Manager will describe the latest developments in WSRR, highlighting the key features in WSRR V6.0.2 and the roadmap for the rest of the year.

### **Enabling SOA Governance Using WSRR**

This session will provide a logical linkage between IBM's SOA Governance approach (as outlined by the SOA Governance and Management Method) and the functionality provided in WSRR. The session will go into using WSRR's classification functionality to model various business domains and establish and enforce decision rights. We will look at service life-cycle management using WSRR's state model functionality. The participant will understand how to associate policies with services using WSRR. Finally, we will cover how WSRR facilitates communication across all interested parties to keep service providers and consumers on the same page.

### **Basic Usage of WSRR**

This lab will provide the attendee with practical experience using WSRR as a metadata registry and repository. The attendee will publish, retrieve, decorate and create relationships among registry entities. They will gain experience using the WSRR Web Console and the Eclipse 3.x plugin for WSRR. Other topics covered include: concepts, versioning and governance life cycles.

### **Highly Available Reference Architectures for Linux on IBM System z**

When deploying a key Linux application on System z, how do you ensure that it will remain up and running through planned and unplanned outages? This session shows a series of high-availability reference architectures for Linux on System z, including HTTP, WebSphere Application Server, IBM DB2 Universal Database™, Oracle, and DB2 on z/OS.

### **Industry Model Technical Deep-Dive**

IBM Industry Models provide industry-proven models that span data, process, and services. These models can greatly accelerate the rollout of a SOA project. This session will discuss how the models facilitate and accelerate the implementation of a SOA, including information, processes, and services. Included in the discussion will be customer case studies that outline the experiences and best practices of specific customers.

### **SOA-Enabling Your Mainframe Data**

This session details techniques and customer case studies for easily publishing mainframe data sources as shared services within a SOA. The discussion includes a description of how multiple heterogeneous sources can be integrated together and how these services can be incorporated into new SOA business processes. Data sources including DB2, IMS, VSAM, Software AG Adabas, CA-IDMS, and CA-Datacom will be discussed.

### **SOA as a dynamic information infrastructure**

This session details how to design a dynamic information infrastructure using an SOA. Issues discussed include how to align your databases and content repositories within your SOA, how to build and deploy a reusable information platform within your SOA, and how to incorporate enterprise application data from applications like SAP R/3 into your SOA.

### **Architecting WebSphere Interchange Server for high availability**

The availability of WebSphere® Interchange Server (ICS) is critical. However, it is often just an afterthought to the design process. This session describes how Alltel has architected its ICS and integration services for high availability.

### **SOA Solution Patterns: Solution architecture for service creation and reuse**

SOA Solution Patterns are an important part of SOA solution realization. They provide focus on the solution development process and guide the selection of the technology that best suits the problem at hand. SOA Solution Patterns also provide a point of reference for deployment standards in an organization. This session introduces IBM-developed SOA Solution Patterns with a focus on service creation and reuse. It describes the role of SOA Solution Patterns in establishing the realization of an SOA implementation and provides examples of SOA solutions captured as standardized architectural patterns within an organization.

### **Flexible application infrastructure for your enterprise or SOA applications**

IT architecture managers who need to deploy Web application infrastructures will benefit from learning about IBM's industry-leading methods and roadmaps to design and implement new Web services technologies. This session covers engineering an integrated, flexible and reusable application infrastructure to support your Web, Java™ Platform, Enterprise Edition (Java EE) or service-oriented architecture (SOA) applications.

### **Service Lifecycle Management Considerations for SOA**

To support service delivery requirements for a SOA, there are important considerations for creating a comprehensive service management framework. This session will demonstrate best practices from customer engagements in multiple industries implement SOA-based solutions, including those which specifically address service management challenges. Learn how IT processes such as Process Reference Model for IT (PRM-IT) which includes considerations for ITIL, COBIT and other industry-accepted practices can be made actionable to support new SOA-based service level requirements.

### **SOI—Service Oriented Infrastructure**

As applications continue to move to a more modular, service-based architecture, the need for infrastructure to provide a stable, flexible, extensible and manageable environment becomes critical to success. Service Oriented Infrastructure (SOI) focuses on the underlying enterprise foundation that enables the development and deployment of composite applications. This session describes the principles of SOI, infrastructure requirements to support this effort and the challenges of implementation at an enterprise level, heavily leveraging IBM software.

This sub-track focuses on deploying innovative business models quickly with reusable and optimized processes. Through a life cycle approach we can help your business model underperforming processes, remove bottlenecks, then simulate and deploy the optimized process. Next, we can help you create flexible linkages between multiple processes across the enterprise and outside the firewall to suppliers and partners. Then we can show you how to monitor the process to measure and track performance. The process entry point encompasses a range of software and solutions to enable people to interact with SOA.

## **Approaches for WebSphere and SAP Integration**

There is an increased demand to extract data or content from packaged applications such as SAP to create new functionality as part of an integration solution. WebSphere is the premier middleware platform of choice for composite applications. This session presents a high-level overview of the different approaches to access SAP from WebSphere. The approaches can be broadly classified into data layer and presentation layer integration. In data layer integration, WebSphere products such as Process Server, Message Broker or ESB can be used in conjunction with WebSphere Adapters. In the presentation layer, WebSphere Portal and associated tools can be used for integration. This session describes the various options that are available and the product mappings. This session will serve as a starting point for a more in-depth investigation of the chosen option for the integration, and it will also point the audience to resources and assets that are available for a given approach.

## **Business Process Development with BPEL**

As SOA becomes more prevalent, the crucial question is how to tie those services together to do real work. This session will look at the Business Process Execution Language (BPEL), an open standard from OASIS, that describes process definitions and workflows. We'll illustrate how to go from a trio of documents, BPEL definition, XML Schemas, and the WSDL description for invoking the process, to a variety of useful documents, including PDF and Scalable Vector Graphics (SVG) files to document the process and XForms models to structure the user interface and the data flows. You'll see the power of a model-driven development in which all of the models are XML-based and built on open standards. We'll build the model, and we'll generate the XForms and other components of the application. We'll also change the models and regenerate them, ensuring that they stay synchronized.

### *Entry skills*

- Basic knowledge of an SOA architecture and BPEL

### *Exit skills*

- Knowledge of how to use BPEL to create composite applications

## **Business Process Choreographing Enterprise Transactions**

Come witness the power of choreographing enterprise IMS and CICS transactions. This session will help you understand the business value and advantage offered by WebSphere Integration Developer to orchestrate IMS/CICS SOA applications. See a demo of streamlining business process to solve real world challenges.

## **Common Event Infrastructure—A Technical Study**

The Common Event Infrastructure (CEI) is the framework for routing and persisting business events within the WebSphere Business Integration environment. This session will present the technical implementation details of how the Common Event Infrastructure functions, as well as its fundamental usage in a WebSphere Business Integration environment. Come to this session to understand the pieces of the CEI and how to apply them to meet the needs of your customer's applications.

### *Entry skills*

- General knowledge about WebSphere Application Server, WebSphere Enterprise Service Bus, or WebSphere Process Server
- General knowledge of the Java Naming and Directory Interface (JNDI)
- A basic understanding of business events

### *Exit skills*

- Technical knowledge how the Common Event Infrastructure functions in a WebSphere Business Integration environment

## **A Fresh Look at Human-centric Workflows: New Human Tasks Features in WPS**

Human-centric workflows represent a very important scenario in business process automation. The Human Task Manager (HTM) component of WebSphere Process Server (WPS) can be used to implement virtually every business process where human intervention is required to make decisions, or to handle situations that cannot be automatically resolved by a computational algorithm. Version 6.0.2 of WPS introduces some new and powerful features to the HTM, aimed at expanding even further its range of applicability. This session will provide a quick review of the base functionality of the HTM and will then discuss in

more detail the functions added by the latest release. We will focus on group work items, follow-up tasks, and on the tooling functions that make it easier to create client applications for interacting with the HTM.

### *Entry skills*

- High-level understanding of the human interaction features of WPS 6.0

### *Exit skills*

- Understanding of the state-of-the-art of the human interaction support in WPS

## **Whirlwind Tour of the WebSphere Process Server Human Task Manager**

The session gives attendees hand-on experience on using the main features of the WebSphere Human Task Manager (HTM). Participants will learn to: create inline and standalone human tasks using WebSphere Integration Developer; Use HTM programming API to retrieve and claim human tasks to build custom user interfaces for viewing and completing the assigned human task; and use HTM JSF components for rapid development of a task-management user interface. Perform advanced configuration of HTM for dynamic staff assignment, and runtime evaluation of human task variables, such as expiration. Create escalation to notify higher authorities of unclaimed tasks.

## **WebSphere InterChange Server to WebSphere Process Server Migration**

Now that it's been a year and a half since IBM WebSphere Process Server V6.0 has been released, how can you protect your investment in WebSphere InterChange Server (ICS)? Is there a migration path or do we have to start over? What tooling is available in WPS 6.0.2? Should we migrate now or later? What are the best practices around migration? These and many more migration-related questions will be answered in this session.

## **Migrating Business Process Applications to WebSphere Process Server**

Business processes and staff integration is a major component of a successful SOA. IBM has released major revisions of their integration/workflow server. Customers with existing business process applications are eager to migrate these assets to run on the latest platform. This session will help you understand the steps required to migrate both your existing business process applications and process portlets from WBISF v5 to WebSphere Portal v6 and WebSphere Process Server. This presentation highlights: the intersection and divergence in product capability, the automated source-code migration tools, and the manual effort required to migrate your existing BPEL and process portal applications.

### *Entry skills*

- General knowledge of WBISF, Portal, WebSphere Process Server and tooling
- A basic understanding of Web services standards: XSD, WSDL, WS-BPEL, and so on

### *Exit skills*

- An understanding of the steps required to migrate WBISF workflow and portal applications to WebSphere Process Server 6.0.x

## **Business Processes — Modeling Methodologies and Best Practices**

The session shows methodology methods that apply when using WebSphere Business Modeler v6.x for business process modeling. It explains how companies should start with business process modeling, in what order various process objects should be created and how they should be assigned to processes and activities. Assigning them allows you to finally have a complete and rich process model for documentation as well as for analysis. This includes what skills are required, and what questions should be asked when optimizing existing business processes. In addition, the session shows features of WebSphere Business Modeler used to better communicate process model definitions between various parties involved in Business Process Management projects.

## **Introduction to Modeling and Analysis using WebSphere Business Modeler**

IBM WebSphere Business Modeler supports process improvement by capturing a comprehensive view of the way companies do business. A clear understanding of how a process works is a prerequisite to meeting the demands of a constantly changing environment. This lab focuses on creating a business model, adding information and running simulation and conduct analysis. This is an ideal lab for participants to quickly become familiar with the Modeler features and its simulation power.

## **WebSphere Modeler and Monitor 6.02 updates**

This session provides an overview of IBM WebSphere® Business Modeler and IBM WebSphere Business Monitor and highlights some of the new capabilities of the Version 6.0.2 release. Highlights include the new integration of the Business Modeler to IBM Rational® Requisite Pro and the IBM WebSphere® Service Registry and Repository, and the new Business Activity Monitoring features of the Business Monitor.

## **Developing BPM/BAM Applications**

Explore the new WebSphere Business Monitor Programming Model. This session will discuss how you can enable your BPEL processes, SCA components, ESB, or any of your own services to emit CBE events, and then extract relevant information from these events in real time to update metrics and key performance indicators (KPIs) for WebSphere Business Monitor Dashboards. A number of scenarios will be used, for example, starting from Modeler or starting directly from WID. Pros and cons and best practices with the different scenarios will be given. We will also discuss the direction of the future releases and some of the new work that is already in process to integrate Web 2.0 technologies with the BPM stack.

### *Entry skills*

- Know how to use WPS/WID to build a BPEL, ESB, SCA, SOA application
- Some understanding of CEI and Common Base Events (CBEs)

### *Exit skills*

- Enable your WID applications for BAM
- Create your own Monitor Models
- Demonstrate WebSphere Monitor, for example, its Dashboards, and explain BAM

## **WebSphere Business Monitor Overview and Roadmap**

This session will give a technical overview of the capabilities of the latest release of the WebSphere Business Monitor product, and a roadmap for its future direction. It will cover the Monitor programming model, highlighting the concepts involved in defining monitor models and in enabling an application for emitting events to be monitored. It will also offer a brief demo of the product, including use of the Monitor Toolkit, the Monitor Server, and the Monitor Dashboards, and will offer a question and answer session at the end.

## **MQWF to WPS migration—Tools and Real-life Experiences**

This session will begin with a short architecture overview of WebSphere MQ Workflow 3.6 and WebSphere Process Server 6.0.2. It will talk about the language constructs available in the Flow Definition Language (FDL), as well as the Business Process Execution Language (BPEL). It will also take a detailed look at how the “FDL to BPEL conversion tool” transforms FDL into the BPEL language in the WebSphere Integration Developer 6.0.2. Other migration aspects like the User-Defined Program Execution Server (UPES), Program Execution Agent (PEA) and Program Execution Server (PES) and more will be discussed as well. The second part of the presentation will go through a current real-life project of a bank that works on such a migration from MQWF to WPS, and emphasize the lessons learned.

### *Entry Skills*

- A basic understanding of MQWF and WPS will be helpful

### *Exit Skills*

- Understand the FDL and BPEL language constructs and conversion tools
- Understand the different migration aspects and challenges

## **WebSphere Business Integration 6.02 Update**

Business Process Management and connectivity are key on-ramps to SOA. The recent update of key WebSphere Business Integration products through the 6.02 delivery has strengthened and enriched the overall integration capability in WebSphere. The new 6.02 features of WebSphere Business Modeler, WebSphere Business Monitor, WebSphere Process Server, WebSphere Enterprise Service Bus, WebSphere Integration Developer and WebSphere Adapters will be highlighted in this multiproduct presentation. Emphasis will be on scenarios where multiple products are used together. The integration points between the 6.02 products and WebSphere Service Registry and Repository will also be outlined.

### *Entry skills*

- Basic WBI concepts from past releases

### *Exit skills*

- Basic awareness of WBI V6 products such as WebSphere Business Modeler, WebSphere Business Monitor, WebSphere Integration Development and WebSphere Process Server

## **WebSphere Process Server and WebSphere ESB 6.02 Update**

WebSphere Process Server and WebSphere ESB comprise key components of the overall Business Integration capability within WebSphere. This session will briefly review the features and functions of WPS and WESB 6.01 and will then focus on new features delivered in the 6.02 release. Attendees are assumed to have a basic working knowledge of WebSphere Process Server. Features and functions in 6.02 will be described in terms of scenarios and in terms of the various roles that are performed while using WebSphere Integration Developer, WebSphere Process Server and WebSphere ESB to build integration solutions.

### *Entry skills*

- Basic awareness of WebSphere Enterprise Service Bus and WebSphere Process Server and the capabilities that they have in V6.0/6.01.

### *Exit skills*

- An upgrade of that prerequisite knowledge to the current 6.02 version of these products.

## **WebSphere Business Process Management—**

### **Technical Overview**

After attending this presentation you will have a good understanding of the IBM WebSphere Business Process Management products and how they relate. You will be well prepared to attend deep dive sessions on various topics and be able to relate the details to the bigger picture. This presentation will introduce the SOA life-cycle of model, assemble, deploy and manage, as well as governance from a Business Process Management point of view. You will understand the basics about WebSphere Business Modeler, WebSphere Integration Developer, WebSphere Process Server and WebSphere Business Monitor, as well as WebSphere Service Registry and Repository.

#### *Entry skills*

- None

#### *Exit skills*

- Understand the basics about WebSphere Business Modeler, WebSphere Integration Developer, WebSphere Process Server and WebSphere Business Monitor and WebSphere Service Registry and Repository

### **WebSphere Process Server Programming-Model Best Practices— an Experience-Based Approach**

Imagine you are called in as a consultant to a major insurance company wanting to transform their legacy customer relationship management (CRM), policy and claims applications to exploit state of the art programming models and platforms. Naturally, today you would turn their attention towards service oriented architecture (SOA). This session examines the best practices for developing SOA applications targeting IBM WebSphere Process Server (WPS) and the Service Component Architecture (SCA) programming models upon which it is based. The session first focuses on how to decompose a complex enterprise system into various subsystem or functional components, then how to choose an appropriate SCA programming model implementation type for each, and finally how to compose these components in an end-to-end solution within WPS. A real-world case study from the insurance industry is used to provide a concrete reference example throughout the presentation.

#### *Entry skills*

- Fundamental SOA concept
- Basic WebSphere Process Server knowledge
- Basic J2EE programming-model knowledge and basic OO Analysis and Design skills

#### *Exit skills*

- An understanding of the best practices in using WPS and SCA
- When to use macroflows, microflows, BPEL, adapters, mediators, and EJBs in a WPS application.

### **WPS Integration with Legacy Java and J2EE**

Most enterprises have Java and J2EE applications that expect data as Java objects. WebSphere Process Server (WPS) models data as XML schemas and processes data as Service Data Objects (SDO) or Business Objects. Existing applications that expect data as Java objects cannot consume SDOs directly. Customers face difficulties in integrating the two environments which must co-exist. Developers have to write complex custom code to integrate WebSphere Process Server with existing applications. WebSphere Process Server 6.02 simplifies this integration by providing tools to generate mappers that handle conversion between data objects and Java objects. The goal of this deep dive lecture is the following: explain key concepts in the conversion between SDO and Java, explain Java to WSDL mapping, discuss problems with duplicate namespaces and types and how refactoring can solve these issues, and list best practices. The lecture will be applicable to an intermediate level WPS user or developer.

### **Introduction to WebSphere Integration Developer (WID)**

This session will gently introduce WebSphere Integration Toolkit. If you are new to WebSphere Enterprise Service Bus or WebSphere Process Server, or they are in your future, this talk is your “hello world” introduction to the tools for them.

#### *Entry skills*

- None

#### *Exit skills*

- A basic understanding of the pieces that make up a simple mediation flow or business process, and how to author them.



## Testing and Debugging SOA Applications with WebSphere Integration Developer

WebSphere Integration Developer (WID) offers a comprehensive set of capabilities not only for developing but also for testing your WebSphere Process Server (WPS) and WebSphere Enterprise Service Bus (WESB) integration logic. This session will focus on how to effectively use these WID test and debug tools. If you use WID or plan to use WID, you should attend this session. It will also touch on potential future enhancements in the WID test and debug tools.

### Entry skills

- A basic understanding of WebSphere Integration Developer

### Exit skills

- How to test components in isolation
- How to test and debug complete and incomplete modules
- How to test and debug multimodule applications

## Mapping options in WebSphere Integration Developer

WebSphere Integration Developer is used by developers to write integration logic aimed at WebSphere Process Server and WebSphere Enterprise Service Bus. Mapping is a key requirement of integration logic, and within WID, there are a number of options for mapping data and interfaces. This session will enumerate those options and briefly introduce you to their respective tools. We will also look ahead at possible changes in the mapping landscape going forward.

### Entry skills

- Basic knowledge of WebSphere Integration Developer,

### Exit skills

- Knowledge of the various options within WID for mapping data and interfaces
- Basic understanding of how to get started with the respective mapping tools

## Lab: Build a Simple Business Process

This hands-on lab will cover the development and testing of WS-BPEL 2.0 business processes using IBM WebSphere Integration Developer V6. Begin by designing a workflow using the Process Editor. Package the business process with its corresponding interface into a business module. Finally, deploy and test the business module using the Business Process Choreographer (BPC) Client and the Integrated Test Client.

### Entry skills

- Experience with Eclipse-based development tools, such as IBM Rational Application Developer, Develop Enterprise Java (J2EE) applications for IBM WebSphere Application Server
- Develop Web services for IBM WebSphere Application Server

### Exit skills

- Create a business module in IBM WebSphere Integration Developer
- Design a business process using the Process Editor
- Test a business process using the BPC Client and the Integrated Test Client

## WebSphere B2B Integration: WPG and Strategy/Roadmap

The session will describe IBM's view of B2B integration, B2B evolution and market trends and industry standards evolution. It will explain how B2B technologies and standards can be leveraged to extend SOA-based intra-enterprise integration to inter-enterprise integration in a seamless, reliable and secure manner using infrastructure and industry standards. The presentation will also include a summary of WebSphere Partner Gateway (WPG) functions and include a product roadmap covering future releases and expected content.

### Entry skills

- Understanding of business integration

### Exit skills

- Understanding of B2B technologies and standards
- Understanding of the evolution of market and industry trends
- Understanding of how B2B fits with SOA and BPM
- Understanding of the function of B2B gateways

## Clustering WPS

Clusters enable you to satisfy many nonfunctional requirements for your WESB and WPS modules. In this session we will discuss how to set up your clusters to solve some of the more advanced nonfunctional requirements. The examples in this session will address disaster recovery involving multiple sites, singletons, hardware replacement and continuous availability. Come to this session to understand how clusters are more than just simple scalability when used to solve your customer's specific needs.

### Entry skills

- General knowledge of WPS deployment environments
- General knowledge of WAS clusters

### Exit skills

- Understand options available for setting up a cluster to expand its utility

## **Validating and Troubleshooting your WPS ND Topology**

Network Deployment environments enable you to satisfy many of the nonfunctional requirements for WESB and WPS modules. Sometimes isolating problems in these environments can cause you to become overwhelmed with all of the data. There are logs associated with each server in the environment and it is not always obvious which logs contain the valuable pieces of data. In addition, the logs do not always contain all of the necessary data. Come to this session to understand how to obtain, sort and analyze the available data to determine that your environment is working or what is wrong when there is a problem.

### *Entry skills*

- General knowledge of WAS ND environment
- General knowledge of WPS

### *Exit skills*

- Understand the role of an IVT in your analysis
- Understand how to select the most fruitful data to analyze
- Understand a best practice approach to troubleshooting WPS and WESB deployment environments
- Understand a best-practices approach for building your deployment environments

## **Template Driven Configuration of WPS ND Topologies**

This session details a capability that is being planned for the IBM WebSphere® Process Server (WPS) / WebSphere Enterprise Service Bus Version 6.1 release. Clustering has become a de facto standard for scale distributed systems and applications. WPS network deployment is the way clusters are set up using the WPS product. The expertise needed to configure and set up these systems goes beyond the capacity of a single system administrator or software developer. With template-driven configuration, the network development and database configurations will be automated when the user selects one of the standard topologies. This process is designed mainly to reduce the time it takes to set up proof-of-concept environments.

## **Design your WebSphere Process Server infrastructure successfully**

There are different ways to design your IBM WebSphere® Process Server infrastructure. This session presents an overview of different topologies and highlights the characteristics and advantages of each. Come to this session to learn how choosing an adequate design option can help prevent unbalanced situations, dead messages and hanging long-running Business Process Execution Language.

## **WebSphere Process Server 6.0.2 Technical Overview**

WebSphere Process Server V6.x is IBM's Business Integration platform built on SOA core technologies. It combines a comprehensive set of integration and workflow capabilities in a single, standards-based integration server. A BPEL-based workflow engine, powerful human task support, business rules engine and simplified integration model are just few of the benefits that allow you to build powerful service-based integration scenarios. In this session, you will learn about product features and capabilities and what value they might provide to your organization. This session is targeted on all customers *new* to that area wishing to learn something about the product before they attend any deep-dive sessions.

### *Entry skills*

- General or no knowledge of WebSphere Process Server
- Understanding of basic workflow and integration concepts

### *Exit skills*

- Good understanding of WebSphere Process Server
- Good understanding of the value the product provides for any SOA

## **Best Practice on Error Handling in Business Processes and Human Tasks**

This session focuses on best practices for error handling in IBM WebSphere® Process Server (WPS), specifically Business Process Execution Language (BPEL) processes and human tasks. Starting from basic knowledge about invocation styles, exception kinds and operation types, the presentation shows the service component architecture layer exception handling related to BPEL and Human Task Manager. The session also explains BPEL microflow and long-running specific error handling like fault handling, continue on error and built-in retry behavior. Additionally, the session discusses compensation as one alternative to error handling and the means of error handling within human tasks. Attendees discuss and develop an error handling strategy within WPS customer projects, either by dealing with errors programmatically or by administrative actions. Applications developed with this knowledge will react in a well defined way, when error conditions occur.

## **Rich Clients for WebSphere Process Server**

How can non-Web-based clients be integrated with WebSphere Process Server? How can the WebSphere Process Server APIs be used there and how can you design an easy-to-maintain client application? This session shows several different approaches in WebSphere Process Server 6.0.1 and 6.0.2.

### *Entry skills*

- WebSphere Integration Developer basics
- WebSphere Process Server basics
- Java basics

### *Exit skills*

- WebSphere Process Server API skills
- Integrating non-Web-based clients with WebSphere Process Server applications

## **Top Best Practices for Implementing WPS Solutions**

This double session is a survey of the best practices for developing in WebSphere Process Server (WPS) using WebSphere Integration Developer (WID) V 6.0.2. The session focuses both on using WPS for process management and on using it as an integration broker. The first perspective includes best practices for Process Choreography (BPEL), Business State Machines, Human Tasks (HT), the creation of UI for processes, and integration with Portal. The Integration Broker usage discusses Mediation Modules from WebSphere ESB versus WPS modules, how to use Adapters and native bindings, Business Objects (BO) transformation, possibly through WebSphere Transformation Extender, and how to isolate the back end (that is, the enterprise information system [EIS]) data and logic from those of the process.

### *Entry skills*

- Familiarity with WebSphere Process Server and WebSphere Integration Developer
- Understanding of the most common use cases of the WPS product (integration broker and process automation)
- Familiarity with the SCA programming model and the Service Data Objects (SDO) framework
- Experience with BPEL processes

### *Exit skills*

- Understanding of the key best practices for using WPS as an integration broker
- Understanding of the key best practices for Process Automation with WPS

## **Best Practices for using Business Rules in WebSphere Process Server**

Business rules can be a critical piece of integration applications. With business rules, logic can be easily specified and then easily changed as the needs of the business change. This session will discuss the features of Business Rules in WebSphere Process Server, including the new 6.0.2 features. The session will also look at proper usage patterns for WebSphere Process Server Business Rules and best practices. Finally, it will discuss a decision guide on choosing when to use WebSphere Process Server Business Rules and other vendor's business rules.

### *Entry skills*

- General knowledge of WebSphere Process Server
- General knowledge of business rules

### *Exit skills*

- Understand the usage patterns for business rules in WebSphere Process Server
- Understand the best practices for using business rules in WebSphere Process Server

## **Performance Best Practices for WebSphere Process Server**

One of the critical aspects of a solution based on IBM WebSphere® Process Server (WPS) is the performance characteristics of that solution. This session begins with a general description of the WPS performance landscape. The presentation then explains several key areas of performance including architectural and implementation best practices, tuning and best practices. Since WPS leverages many other IBM based technologies, the presentation will include information regarding IBM WebSphere Application Server and IBM DB2® Universal Database. Presentation attendees gain an understanding of key performance topics including specific, prescriptive recommendations and best practices.

## **WPS /WESB 6.0.2 for z/OS Update**

This session will provide a technical update for WPS and WESB 6.0.2 for z/OS mapped over the current functionality available in WPS/WESB 6.0.1.x for z/OS today. Focus will be on features and functions added to WPS/WESB 6.0.2, as implemented on WAS 6.02.17 for z/OS. Any WAS z/OS QOS features utilized for WPS/WESB will be discussed. This session will also provide a discussion of WPS/WESB 6.0.2 deployment patterns implemented during system testing, including best practices, where appropriate. A brief overview of performance measurement findings and outlook for WPS/WESB 6.0.1.2 /6.0.2 z/OS, and a preview of WPS/WESB 6.1 z/OS future functionality.

### *Entry skills*

- Familiarity with general concepts of WebSphere Application Server for z/OS, structure QOS and usage.
- Some familiarity with WPS / WESB 6.0.1.4 and WBI predecessor products.
- Familiarity with WPS /WESB (WBI) deployment patterns is helpful.

### *Exit skills*

- Ability to understand how WPS and WESB 6.0.2.x is installed and used for SOA-based WBI solution on WAS 6.02.xx on z/OS
- Understand usage patterns, some best practices, that have been observed during delivery for Systems, and performance benchmarks for WPS for z/OS.
- Get a brief understanding of the future direction of WPS/ WESB 6.1 for z/OS.

## **Dynamicity aspects of business processes and human tasks in WPS**

This session outlines dynamicity features and best practices for business processes and human tasks in IBM WebSphere® Process Server Version 6. One of the challenges to deal with in the business integration arena, is to react to various changes, such as business-driven changes. Another aspect is that not everything is known upfront when building your integration application. Concepts that allow being prepared for such scenarios are explained during this session. The session explains topics including versioning of business processes and human task, dynamic invocation of services, and ad-hoc collaborations using human tasks.

## **Performance Improvements in WebSphere Process Server and ESB Server 6.0.2**

The performance of WebSphere Process Server and WebSphere ESB Server has been an area of intense focus by the development and performance teams across the WebSphere organization, and is of vital interest to both our customers and the IBM services and consultant community as they build high-performing scalable SOA solutions with our products. While performance has been improving dramatically with every service release since 6.0, this session will particularly focus on the major performance improvements that were delivered in 2006 over the 6.0.1.x and 6.0.2 releases, and educate attendees on exploiting these new performance features via new best practices and tunings. We will cover these in detail in terms of end-to-end benchmarks that reflect common customer scenarios, and using key performance metrics including throughput, response time, CPU and memory utilization, SMP scaling, and clustering. Finally, we will discuss future work and forthcoming performance improvements in 2007.

## **WebSphere BPM End-to-End Tools Demo—from Modeling to Deployment**

WebSphere Integration Developer (WID) is IBM's development tool for constructing SCA modules that can be deployed to WebSphere Process Server (WPS) and monitored using WebSphere Business Monitor. This tool-centric session is an end-to-end live demo. It will show the steps involved in development, deployment and testing of a WPS application and its Monitor Model. Both the application and Monitor Model will be deployed to a WebSphere Business Monitor unit test server to test the application and to verify the monitored Key Performance Indicators (KPI). The KPI will be displayed using a new JSP-based lightweight test environment that is equivalent to the portlet-based production environment.

This sub-track provides the technical knowledge that you need to make the most out of major product enhancements in the CICS Transaction Server, allowing you to increase the ease of application integration, enhance application transformation and improve enterprise management.

## **IBM CICS Transaction Server Version 3: An overview**

Come hear the very latest news! IBM CICS® Transaction Server Version 3 delivers major new functions in the areas of access to CICS, application transformation and enterprise management.

## **The next generation of distributed CICS**

TXSeries® for Multiplatforms, distributed CICS® transaction processing monitor (TPM) has recently been updated to support evolving business IT requirements. This session provides an overview and update on how TXSeries for Multiplatforms Version 6.1 improves user experience. It now delivers a vastly simplified infrastructure with significantly enhanced functions. For example, the integration of Distributed Computing Environment (DCE) and other components, and the introduction of an intuitive, Web-based administrative console.

This session describes the most common deployment scenarios that many customers are adopting worldwide. The session agenda also includes a comparative overview of distributed and mainframe CICS and can demonstrate how using TXSeries in combination with CICS Transaction Server for z/OS® and WebSphere® SOA Foundation offerings can enable end-to-end, robust and business-critical enterprise middleware solutions.

## **CICS Transaction Gateway and CICS Universal Clients: Introduction, Overview and APIs**

The Customer Information Control System (CICS) Transaction Gateway (TG) is a market-leading connector proven to be a high-performing, secure, scalable and tightly integrated method of e-business access to CICS. It benefits from ease of installation and flexible configuration options, which requires few or no changes in CICS. CICS TG provides a range of networking options and provides a choice of Java™ and non-Java client APIs, as well as, a suite of J2EE™ Connector Architecture resource adapters. This session provides a broad overview of the core product features in CICS TG Version 7.0; outlines the different application programming interfaces provided; discusses the different connectivity options; and provides a summary of the Client daemon and Gateway daemon runtime components.

## **IBM Technology Futures on Java Access to Data**

This presentation describes new technology being developed by IBM that will provide significant improvements in SQL and XML database access for Java applications. This technology will provide programming API improvements for the Java developer, management and monitoring improvements for the DBA and system programmer, and performance advantages that make the deployed application run faster and more consistently.

## **CICS Transaction Gateway: Product Update and Strategy**

The CICS Transaction Gateway (CICS TG) is a market leading connector proven to be a high performing, secure, scalable and tightly integrated method of online business access to CICS. It benefits from ease of installation and flexible configuration options, that requires minimal or no changes in CICS. It provides a range of networking options and provides a choice of Java and non-Java client APIs. This session will provide information on the usability, systems management and performance enhancements in the latest version of the product as well as providing an insight into future strategic directions.

## **Implementing the CICS Transaction Gateway on z/OS**

With application developers writing Java applications, applets, servlets, and EJBs to access business-critical applications, the CICS Transaction Gateway provides a strategic connector between Java applications and CICS. CICS TG running on z/OS provides a robust, scalable, easy-to-use, and secure complement to a Web application server. Come learn all about how to install, configure, and operate the CICS Transaction Gateway on z/OS.

## **Implications of Threadsafe in CICS Transaction Server**

Properly coded threadsafe applications can be beneficial to your business. However, how do you determine if an application is ready for the threadsafe environment? This session will explore issues relating to ensuring your applications are ready to take advantage of threadsafe.

## **Beyond the 32k Commarea Limit**

Extending the commarea limit of 32K has been a customer requirement for many years. Although customers have designed workarounds, with the increasing use of large amounts of data, in particular XML messages, the 32K limit has become a major inhibitor to application development and reuse. This presentation will show the new channel container mechanism available in CICS TS V3.1, which allows large amounts of data to be transferred between programs and transactions in the same way as commareas. In addition, the use of containers provides a way to improve the structure of the data and hence simplify the design of applications.

## **Integrating CICS into Composite SOA Applications**

Learn how to fully integrate CICS applications in Composite SOA applications. In this session we will cover how to use the latest features of XML Services for the Enterprise (XSE) and Service Flow Modeler (SFM) to build CICS applications that are service providers and consumers. See how to call Web services from CICS and use XSE to build the necessary resources. See how to use SFM to include a Web-service invocation in a service flow. We will also discuss using Tivoli Composite Application for SOA to monitor Web services on CICS.

### *Entry Skills*

- Basic Understanding of Web-services interfaces
- Basic Understanding of invoking CICS applications

### *Exit Skills*

- How to invoke Web services from CICS
- How to integrate Web services in CICS Service Flows
- How to enable monitoring of CICS Web services

## **CICS open transaction environment**

IBM CICS® Transaction Server Version 1.3 introduced the first phase of Open Transaction Environment (OTE) whose long-term aim is to make the CICS application-execution environment truly open. This allows applications to be defined to execute under their own Trusted Computing Base within CICS and allows CICS to better exploit multiple processors. In CICS Transaction Server (TS) Version 2.2, the Java™ Virtual Machine, and the CICS-DB2 Attachment Facility exploited OTE. OTE capabilities were further extended in CICS TS Version 3.1. This session describes the latest components to jump on the OTE bandwagon in the newest CICS TS release.

## **Enterprise Batch Modernization**

This presentation will discuss some recent findings on a study on enterprise batch modernization in IBM. Bulk processing is important in every industry, and this presentation will discuss some best practices that we have built over several engagements, modernizing the clients' batch computing. We will also talk about the various offerings from IBM on different platforms for batch computing. Batch computing is part of almost every legacy transformation to SOA, and needs to be addressed at an early stage to get maximum efficiency for a 24x7 processing and utilization of resources.

## **Host Access Transformation v7 Update**

This session presents the highlights of the new release of HATS, HATS v7, being released in March, which provides additional options for your customers in the area of Enterprise Transformation and SOA. It will include discussion of improvements for the iSeries customer, the new screen combination wizard, options for providing tabular data in spreadsheet format and more. It will also discuss a new rich client option that allows you to deploy to an Eclipse 3.2 Rich Client Platform or the new Lotus Expeditor 6.1 platform.

### *Entry skills*

- General knowledge of Host Access Transformation Services (HATS) and Rich Client platform or Lotus Expeditor.

### *Exit skills*

- Knowledge of new features in HATS V7

## **CICS and TCP/IP High Availability**

The almost universal acceptance of Transmission Control Protocol (TCP/IP) networking has demanded many improvements in the IBM zSeries® networking infrastructure in order to offer the same qualities of service for TCP/IP networks as historically provided for mainframe-based System Network Architecture networks. This session explains how the TCP/IP load balancing technology provided by IBM Communications Server for IBM z/OS® can be utilized by z/OS subsystems such as IBM CICS®, CICS Transaction Gateway, or IBM WebSphere® MQ, to provide the performance, recovery and high availability characteristics required in a modern zSeries enterprise environment. The session will also introduce you to the port-sharing, Virtual IP Address and Sysplex Distributor functions of Communications Server, contrast these with proprietary TCP/IP load-balancing solutions, and provide real-life examples of how they have been exploited in customer environments.

## **CICS Interdependency Analyzer: A Technical Introduction**

Understanding runtime cross-system resource interdependencies within your CICS applications can be critical to your ability to maintain and change these applications. Documentation and source code might not be available, and manual investigation of these dependencies might not be an option due to project schedule constraints. This session will demonstrate how the CICS Interdependency Analyzer runtime tool can automate the collection of CICS resource interdependency data, including CICS calls to DB2, IMS and WebSphere MQ. This session demonstrates how this tool can help you understand the resource usage in your CICS systems and improve your ability to maintain, enhance, and control your business applications.

## **Exploiting the IBM JVM in CICS**

IBM CICS® Transaction Server (TS) Version 3 uses the IBM persistent reusable Java™ Virtual Machine (JVM) to provide reusable JVMs for running CICS Java applications and Enterprise JavaBeans. This provides dramatic performance benefits over earlier CICS JVM support. This session gives an overview of the new technology and how to tailor it inside CICS. It also discusses considerations for setup, management, scaling and performance. The session also covers the new functions added in recent releases of CICS TS, including shared classes and the reusable mode.

## **Avoiding Problems through Proper Setup of Java and CICS**

IBM CICS® first introduced Java™ support in CICS Transaction Server (TS) Version 1.3 and Enterprise JavaBeans™ (EJB) support in TS Version 2.1. Many problems can occur when setup and configuration are not performed correctly. This session demonstrates how to set up and configure Java and EJB support in a CICS TS environment.

## **Writing Java Applications for CICS**

Java applications are running under CICS? Of course! But you will need to have an understanding of the JCICS API to interact with CICS from your Java program. This session provides an understanding of JCICS terminology and the capabilities of the JCICS API. This session also relates familiar procedural concepts to the equivalent concepts in Java.

### *Entry skills*

- Familiarity with CICS procedural application coding.

### *Exit skills*

- Basic understanding of how to write CICS Java applications (and how to learn more).
- As an operations/systems person, the ability to communicate with developers who do write such applications.

## **CICS TS V3 Migration Planning**

The newest release of CICS Transaction Server for z/OS delivers a wealth of new function based on three strategic themes of: access to CICS, application modernization and enterprise management. It takes advantage of the latest technology to help improve your existing capabilities. This session will help you answer the following questions:

- What issues are you facing when migrating from earlier releases?
- What new CICS functions will require an upgrade to hardware or software levels?
- What CICS functions have been removed in this release?

## **CICS Performance Analyzer for z/OS: A Technical Introduction**

Attend this session for an introductory look at the latest CICS Performance Analyzer for z/OS (CICS PA), a CICS performance-reporting tool recently available from IBM. This session shows how the CICS Performance Analyzer for z/OS uses the CICS Monitoring Facility (CMF), CICS Statistics, DB2 Accounting, MQ Accounting and z/OS System Logger System Management Facility (SMF) data to produce a comprehensive and easy-to-use suite of performance reports and data extracts concerning the performance and resource usage of your CICS systems. The session highlights some of the latest enhancements to CICS PA, including CICS Statistics support, Historical Database enhancements, and support for CICS Transaction Server V3.1, and shows you how CICS PA can be used to identify performance constraints, allowing you to make tuning adjustments to your CICS systems and application programs in order to achieve optimum performance as well as management reporting of CICS service levels and capacity planning.

## **CICS and VSAM Performance Considerations**

This session will cover performance considerations for various flavors of VSAM within CICS. Included in this session will be a performance comparison of Record Level Sharing (RLS) to traditional CICS and VSAM File Control.

## **CICS Trace Table — The Basics**

The trace table has an abundance of valuable information. If it seems confusing, attend this session, and within an hour, you will understand how to translate a trace table. This session reviews basic trace entries and how to interpret them. This session also describes how to locate IBM CICS® statements in an application program, and much more, just by looking at a trace table. Various methods of controlling and viewing trace entries are also discussed. Bridge the trace translation gap, and attend this session!

## **CICS Transaction Debugging Using Dumps**

The later releases of IBM CICS® simplify the debugging effort for the application programmer. Much of the information previously found in control blocks is now formatted within the dump. Other information can be obtained by using the debugging cookbooks discussed in this session. Learn how to quickly identify the environment, isolate a problem, and relate the situation to an application program in a COBOL for MVS™ environment. Determine where to look when the transaction abends with an invalid offset and also how to identify the environment when called programs are involved.

## **CICS Transaction Problem Investigation — A Case Study**

IBM CICS® transaction debugging involves a number of diagnostic techniques. Recent enhancements to CICS have meant that it is worthwhile to review how to approach a failing CICS transaction from the perspective of a case study. This session presents an example which demonstrates how to debug a problem involving CICS recovery, the MVS™ System Logger, and the Kill function within CICS. The case study provides a step-by-step guide to approaching the investigation of a failing task. Dump information, trace data, messages, job -og entries and LogStream activity are all considered as part of the investigation, as are the application save areas involved in the stack of the failing task. The task executes PL/I, COBOL, Assembler and Java™ application programs.

## **Debugging Java Problems in CICS**

This session provides hints and tips on where to begin when debugging Java™ related problems in an IBM CICS® environment. We will take a look at what documentation to gather for a problem, how to analyze this documentation, and when to contact IBM Level 2 customer support for further assistance.

## **Debugging Storage Violations in CICS**

Storage violations can be quite frustrating. Knowing what documentation to gather and what to do with the documentation is half the battle. This session discusses diagnostic approaches for debugging storage violations.

## **Mining Performance Gold from CICS Statistics**

This session includes presentation of the essential IBM CICS® statistics for performance management and capacity planning activities. For maximum effectiveness on the job, attendees will learn: Important considerations for parameters affecting the data collection; the minimum set of reports required to support a particular activity; the important fields on the key reports and; how to avoid some potential pitfalls. Samples of the most useful reports are presented. The emphasis is on quick techniques that help “mine” the mountain of information collected by CICS.



## **Solving Problems Using the CICS Trace Table**

The trace table is one of the most helpful debugging tools for IBM CICS® application and system programmers. This session takes the basics one step further to discuss using the trace entries to identify and solve problems. Abends, loops, waits, storage, Open Transaction Environment, and trace overviews of Web and Web services are some of the areas that will be addressed by this session. At the end of this session, participants will be convinced that the CICS trace table is a great way to make debugging easier!

## **CICS Health Check**

How healthy is your IBM CICS® environment? This session discusses the various components available to determine the health of CICS. It introduces an outline of what to look for to perform a CICS health check that will identify the status of the CICS environment. Included in this session are some possible actions you can take to keep CICS performing at its best.

## **Taking CICS Web Security to the Next Level**

This presentation introduces recent changes to the z/OS System Secure Sockets Layer (SSL) component, and explains how CICS can exploit them to provide additional function and improved performance of its own support for SSL. Topics for discussion include Transport Layer Security (TLS), which is the more recent follow-on version of SSL, additional cryptographic cipher support, SSL session-id caching, and certificate revocation lists.

## **Integrating CICS Services with Service Flow Feature and WDz**

Service Flow Modeler (SFM) extends the XML enablement tooling in WebSphere Developer for zSeries to support easy-to-use, visual, drag-and-drop aggregation of commarea and terminal-based applications into high level business functions. These new compositions can be deployed as Web services that run in either a CICS hosted runtime or a WebSphere Application Server hosted runtime. In this session, we will demonstrate how to use SFM and walk through sample usage scenarios.

## **Implementing Web Services for SOA in CICS TS V3.1**

CICS TS V3.1 provides tooling and runtime changes to enable you to more easily implement Web services in CICS. These changes build upon the SOAP for CICS feature, which was available in CICS TS V2.2 and CICS TS V2.3, but now the support is fully incorporated into CICS. There are tools provided

to assist you in preparing existing application programs to become Web services and also to assist with starting from Web Services Description Language (WSDL) and implementing a program in CICS which can act as the Web service as defined in the WSDL. This presentation explains the tooling provided and how it can be used. It also explains the runtime support for Web services. If you need to know the technical detail of Web services in a CICS environment, then this presentation will be useful to you.

## **How IBM can transform your z/OS environment to SOA**

SOA is a journey to derive increased business value from existing and new IT infrastructures and applications. This session will discuss some of the challenges faced by companies wanting to take advantage of SOA to transform their business as well as focus on the technologies and capabilities offered by IBM tools and products to facilitate fast and more efficient adoption of SOA on the Mainframe. This session will discuss how IBM Services come together to provide the most comprehensive set of capabilities to transform client environments on z/OS to adopt and use SOA. We will use real, live examples to discuss how you go about an SOA transformation.

### *Entry Skills*

- How to adopt SOA on the mainframe
- How IBM Services can help you be successful with your SOA projects on the mainframe
- The technology, tools and products available on the mainframe to help you adopt SOA.

### *Exit Skills*

- Basic understanding of SOA, mainframe and related products

## **CICS System Management**

IBM CICSplex® System Manager (CPSM), IBM CICS® Performance Analyzer (CICS PA), IBM Tivoli® OMEGAMON XE, the monitor and Baseboard Management Controller MAINVIEW are the most common products to manage CICS systems. This session discusses how to use these products to manage CICS resources. It introduces how these products can be used together and independently to get the best performance out of CICS and how to use them to monitor the CICS environment.

## **CICSplex Systems Manager (CPSM) Overview**

CICSplex System Manager is a major part of CICS Transaction Server, providing systems management for CICS. It supports a range of tasks including resource definition, operations, monitoring, resource thresholding, dynamic workload management, and automation as well as integrating with various Tivoli management products. It provides a comprehensive system management API and browser interface to the system management function. This presentation introduces you to these facilities.

## **Support for ECI over TCP/IP in CICS TS V2.2 or Later**

CICS has supported ECI clients over SNA since CICS/ESA V4.1. With CICS TS V2.2 or later, ECI support is extended to TCP/IP attached clients. This presentation explains a little about what ECI is and the existing SNA support. The topic also explains a little about sockets domain along with some internal changes to CICS that were necessary for this support. The impact of these changes to externals is also explained. The main content of this session deals with using clients over TCP/IP directly to CICS. If you are planning to migrate from a SNA client network to a TCP/IP network or for the initial setup of a TCP/IP network of clients and gateways, this session is for you.

## **Using CICS as a Webserver to Deploy Microsoft .Net Winforms**

This session discusses how to use IBM CICS® as a Web server to deploy Microsoft® .NET Winforms using smart client technology. After a brief introduction to CICS Web support (CWS) and HTTP processing, this presentation explains the system requirements for a Transmission Control Protocol/Internet Protocol (TCP/IP) connection for use with CWS. The session also describes how a CICS program can deliver a .NET Winform and how the .NET Winform can communicate with CICS via XML to send and receive application data. The session will provide participants with sample code to send to .NET Winforms, to experiment with receiving and parsing an XML message and producing an XML response.

## **What's new in IBM Tivoli OMEGAMON XE for CICS on z/OS V310**

This session explores the new features of IBM Tivoli OMEGAMON® XE for CICS on z/OS V310 that was announced on June 21, 2005. As well as an overview of some of the features common to the OMEGAMON XE family of monitors, you will also see the 30 new reports that are available in the new release, and the support that has been included for

CICS/TS 3.1, as well as some of the architecture that supports the product. If you have been wondering what OMEGAMON XE for CICS is, or what's included in the new release, come to this session to get the answers to your questions.

## **IBM Announces V7 of the z/OS Applications Development Tools**

Come and see what new features are available in Version 7 of the IBM Application Development Tools. We will look at the Debug Tool, Fault Analyzer, Application Performance Analyzer and File Manager. We will look into how these tools can make a programmer's and system programmer's lives easier as new applications are developed and existing applications are debugged and updated.

## **IBM CICS tools for VSAM**

This session discusses how to use IBM CICS® as a Web server to deploy Microsoft® .NET Winforms using smart client technology. After a brief introduction to CICS Web support (CWS) and HTTP processing, this presentation explains the system requirements for a Transmission Control Protocol/Internet Protocol (TCP/IP) connection for use with CWS. The session also describes how a CICS program can deliver a .NET Winform and how the .NET Winform can communicate with CICS via XML to send and receive application data. The session will provide participants with sample code to send to .NET Winforms, to experiment with receiving and parsing an XML message and producing an XML response.

## **CICS and WebSphere Interoperability: An Overview**

This session explains why an online business requires an end-to-end view of software infrastructure, something IBM has embodied in its Software Strategy for online business and WebSphere platform, and shows how CICS Transaction Server and WebSphere Application Server provide the essential basis for that infrastructure. With the latest releases of WebSphere Application Server, CICS Transaction Gateway and CICS Transaction Server, customers have many choices of interoperability enabling existing applications and skills to be reused within an online business infrastructure. These choices are explored by means of a various scenarios showing how CICS Transaction Server and WebSphere Application Server fit together, and how they both play key roles in solutions in the wider e-commerce space.

## **Introduction to WebSphere Developer for System z**

This session will overview key capabilities of WebSphere Developer for System z including remote access to the mainframe USS and Multiple Virtual Storage (MVS) files, JES, remote edit compile, and debug, Web Services and the CICS Service Flow Modeler, and distributed build and debug. We'll also introduce modern application architectures and demo a reference application with a J2EE/JSF/EGL front end linking through Web Services to COBOL business processing.

## **Developing CICS COBOL and PL/1 Applications with WDz**

Using WebSphere Developer for zSeries, discover how to create and update CICS applications, ease the development process, and debug CICS applications. This session will also demonstrate the ability to create front ends that logically wrap existing CICS applications so that they are front-ended using XML/SOAP. Leveraging the new CICS TS 3.1 capabilities, we will demonstrate how to create CICS Web services.

## **Developing Web UI Based CICS Apps with WDz, Java Server Faces and EGL**

In this session you will see how you can build state-of-the-art WebSphere Server Web applications that access and render CICS data in a contemporary, browser-based user-interface, providing access to CICS, DB2, VSAM and IMS data and application processing from the Internet! This session will demonstrate the combined power of the tools in WebSphere Developer for zSeries (EGL, JavaServer Faces [JSF], Eclipse, the Debugger, Site and Page Designer) and show how they work in concert, to allow z/OS developers to create state-of-the-art Internet applications, with no Java or J2EE language skills.

## **Building and Deploying Web Services with CICS TS V3.1 and WD**

This two-part workshop gives you a chance to get some practical experience with the Web services support in CICS TS V3.1. In Part 1, you will use the new Web services assistant tool and resource definitions to expose an existing CICS COBOL program as a Web service. You will then modify a CICS COBOL program to invoke a Web service, again using the help of the assistant. In Part 2, you will use the latest WebSphere Developer for System z to import and visually map between an existing service description (WSDL) and COBOL copybook, and then generate the required components to run them in CICS. It is expected that you will attend both parts of the workshop.

## **Enable CICS to Participate in Web Services/SOA— Process Manager for CICS**

The Web services support in IBM CICS® Transaction Server (TS) Version 3.1 enables your CICS programs to be Web service providers and requesters. CICS supports a number of specifications including Simple Object Access Protocol Version 1.1 and Version 1.2, Web services security and Web services distributed transactions. This presentation describes configuring IBM CICS® Web services support for HTTP based and IBM WebSphere® MQ based solutions, and highlights how Web services can be used to integrate J2EE™ applications running in IBM WebSphere Application Server. The session discusses the following: the Web services standards and Web services support provided by CICS TS Version 3.1; the details of configuring CICS Web services using both HTTP and WebSphere MQ; using Web services to connect to CICS from a service integration bus; and CICS TS support for IBM WebSphere Service Registry Repository.

## **Web Services, Security and Transactions**

CICS Transaction Server V3.1 will include support for the Web Services Security and Atomic Transactions specifications. This session provides an overview of these specifications with particular reference to how they are implemented in CICS. Possible deployment topologies are discussed as well as the configuration and setup process. Other security mechanisms and transaction management options are also covered, such as using the transport level security features such as SSL.

## **CICS Web Services Atomic Transactions**

CICS TS V3.1 provides support for Web Services Atomic Transaction (WS-AT), a standard defined by IBM, BEA and Microsoft to implement Web services support for two-phase-commit (2PC) transactions. WS-AT provides a solution for two-way communication between CICS and another Web services platform (such as WebSphere) supporting the use of distributed transactions. This session is based on a project with a savings bank carried out in the IBM Design Center at Montpellier, France. It outlines our experience in running a proof of concept based on a specific set of customer requirements.

The topics covered in the presentation include:

- 2PC fundamentals
- WS-AT implementation of 2PC
- Standards overview: WS-Coordination, WS-Addressing, WS-Atomic Transaction
- CICS support for WS-AT
- Proof-of-concept results

## **CICS Web Services Security Scenarios**

CICS Web services can be secured using transport based security mechanisms such as HTTPS or SOAP message security based on the WS-Security specification. This session outlines different security scenarios that demonstrate how you can secure a CICS Web services environment. The scenarios are taken from one of the popular IBM Redbooks™ titled "Implementing CICS Web Services," as well as customer projects run by the IBM Design Center. The session covers the security configuration of both CICS and WebSphere Application Server.

## **Using the CICSplex Web user interface and creating customized views**

During this hands-on workshop participants use the IBM CICSplex® System Manager Web user interface (WUI) to display and manage CICS resources within a CICSplex. Session participants examine and use the product-supplied set of views and also learn the process for customizing views for particular needs. This workshop demonstrates how to display data using two-column detail views. This session expounds upon information presented in "Using the IBM CICSplex Systems Manager Web user interface with CICS Transaction Server Version 3.1.

## **Implementing CICS Web services: A Customer Example**

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 customer's 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, IBM Parallel Sysplex®, WebSphere Datapower and Tivoli monitoring.

## **CICS, the z/OS Workload Manager and Performance**

This session takes an in-depth look at CICS Transaction Server and the z/OS Workload Manager (WLM). Topics in this session include: z/OS WLM definitions, transaction classification, flow of classification across the IBM CICSplex®, how to set and monitor your transaction goals, and many other enhancements in support of the z/OS workload manager. Gain hints and tips for classifying your transactions as well as learning about the CICS parameters that can affect and influence the z/OS Workload Manager. Also learn about analyzing the z/OS WLM reports from Resource Measurement Facility (RMF) and the CICS Performance Analyzer (CICS PA) as well as the related performance monitoring data from the CICS Monitoring Facility (CMF) and CICS Statistics. This session also discusses the z/OS Workload Manager goal mode enhancements for CICS workloads that were made available in IBM OS/390® Release 10 and the reporting enhancements available in z/OS Release 2 and 3.

## **Dynamic Workload Management using CICSplex Systems Manager**

With each successive release of CICS Transaction Server (TS), its dynamic workload-management capabilities have increased. This presentation discusses dynamic routing from its humble beginnings in CICS/ESA 3.3 utilizing CICSplex SM, to the latest additions in CICS TS 3.1. With this latest release, dynamic routing now embraces transaction routing, dynamic distributed program link (DPL), EXEC CICS START requests (with or without an associated TERMLID), balancing of CICS business transaction services (BTS) activities, Enterprise JavaBeans (EJB), and Link 3270 Bridge applications. It also covers recent functional additions provided by authorized program analysis report (APAR) activity.

## **CICS and WebSphere Application Server integration with the CICS TG JCA Resource Adapters**

The CICS Transaction Gateway (CICS TG) is widely used for connecting J2EE applications in WebSphere Application Server with CICS applications. This session will discuss the different deployment topologies available to you when using the J2EE Connector Architecture (JCA) and the CICS TG, and explain how the qualities of service differ for each one. It will cover both the z/OS and distributed platforms and encompass issues such as two-phase commit transactional integration with XA, connection management and pooling, and end-to-end security.

This sub-track will focus on the tools that allow you to quickly and easily add new function and applications to your company's solutions portfolio. It will also provide the knowledge that's needed to create new applications and reuse existing ones to create a totally integrated solution throughout the enterprise.

### **Exploring the Eclipse Web Tools Platform—What's Up with WTP?**

This session provides a broad overview of what projects comprise the Eclipse Web Tools Platform (WTP). Special emphasis is placed on exploring the new projects in WTP Version 2.0 like Dali/Enterprise JavaBeans™ and JavaServer™ Faces. This session also explains what else is new in WTP 2.0 and where the platform is headed in the future. Come to this session if you are already a WTP adopter or if you are planning on adopting WTP as a platform for your product, or if you just want to hear more as a developer about what tools are available in WTP 2.0.

### **Developing Eclipse RCP-based Application for WebSphere Platform**

WebSphere is dominant in the enterprise marketplace, a mature J2EE/SOA middleware product providing services for a wide variety of clients. At the same time, Eclipse RCP has grown in popularity as an alternative client side technology. Tie these two together and you have an attractive combination for certain end-to-end applications, as well as for Web-based clients. In this session, we will first briefly examine the RCP technology and its history. Secondly, we will present the WebSphere APIs which allow for external client connections. We will then outline the step-by-step process of developing RCP applications for WebSphere, including the development environment (tools, classpath, and so on), packaging and deployment. Code examples and demos will be given throughout the session.

#### *Entry skills*

- General knowledge of WebSphere Application Server
- A basic understanding of Eclipse

#### *Exit skills*

- Understanding the development and deployment process of WebSphere RCP applications

### **Enterprise Java Evolution**

Enterprise requirements have continued to evolve, requiring a new look at Java EE and SOA programming models. Java EE v5 tackled ease of use, but still needs work to stay current while reducing complexity. SOA has been focused on addressing dynamicity in the enterprise, but is evolving to address industry trends in this space. This talk will highlight new capabilities being introduced into the WebSphere family covering EE5 and SOA as well as cover the latest news and directions in Java EE v6 and future SOA programming model trends.

#### *Entry skills*

- General knowledge of Java Enterprise Edition

#### *Exit skills*

- Understanding of how Java EE version 5 has simplified development, what factors are affecting the future direction of Java EE, and how the WebSphere Family is introducing these technologies into its platform.

### **Open JPA**

The Java™ Persistence API (JPA) specification (a member of the Enterprise JavaBeans™ Version 3 family of specifications) greatly simplifies the development of persistence-aware Entities using the Plain Old Java Object (POJO), development model. The development of POJO only requires a simple editor such as Notepad, vi, or emacs. But, the use of an integrated development environment such as Eclipse or AST greatly enhances the development experience. This session discusses the code/build/test environments and how they can benefit the development of JPA POJO.

### **EJB 3 Feature Pack**

EJB 3 is a major upgrade to the EJB technology. EJB 3 makes it simple and easy to write Enterprise Applications using a simple POJO Architecture. In this talk you will learn how EJB 3 has changed. We will cover differences in Session Beans, Message Driven Beans, and discuss persistence with JPA (Java Persistence Architecture).

#### *Entry skills*

- General Knowledge Java Enterprise Edition.

#### *Exit skills*

- You will have an overall view of how EJB v3 has simplified development.

### **Building EJB v3 applications with the EJB v3 Feature Pack**

Enterprise JavaBeans™ (EJB) Version 3 is a major upgrade to the EJB technology. EJB Version 3 makes it simple and easy to write enterprise applications using a simple Plain Old Java™ Object architecture. This session explains how EJB Version 3 has changed. The session explains the differences in Session Beans and Message Driven Beans, and discusses persistence with Java Persistence architecture.

### **Introduction to DojoToolkit**

Coding rich Internet applications by hand using JavaScript is a very difficult task. Having to deal with cross browser dependencies, the dynamic nature of the language, DOM manipulation, and many other details make it a very tedious task. The Dojo Toolkit attempts to provide a rich set of browser libraries that provide a rich widget libraries, IO abstractions, browser differences, and a whole set of other functions meant to make it easier to build rich Internet applications. This session will give an overall overview of the Dojo Toolkit. We will also look at some of the value add IBM's Web 2.0 platform adds on top of Dojo.

#### *Entry skills*

- General knowledge of Web development and Ajax

#### *Exit skills*

- Understanding of how to use the Dojo Toolkit

### **WebSphere Real-Time: Predictable Performance for Java applications**

Java is maturing and it is no longer about just for applets and servlets. Java can now be used for running applications that require consistent, predictable, deterministic performance using WebSphere Real-Time. This will discuss the significant enhancements that have made to the J9 Java Virtual Machine (JVM) and TR Just-in-Time (JIT) Compiler. It will introduce our new Garbage Collector called Metronome and then discuss the class libraries were written to conform to the Real-Time Specification for Java, which is also referred to as JSR#1.

### **Rational Roadmap and Strategy**

This session discusses the IBM Rational® platform strategy for enabling better governance of software and system delivery and provides an overview of the current and future product roadmap.

### **Introduction to IBM Rational Asset Manager**

Come learn how IBM Rational Asset Manager can help you:

- Manage your SOA assets
- Prescribe and enforce enterprise architecture
- Govern production and consumption of any type of asset including open source components.

Rational Asset Manager (RAM) is a new product from IBM that is a development time software asset management repository. In this session, the RAM product manager will be giving an overview and demonstration of the product.

### **Rapid Application Development with IBM Rational Application Developer**

IBM Rational Application Developer (RAD) is a rapid application development platform for designing, developing and deploying well-architected, n-tier J2EE applications—without having to deal with underlying platform complexities. In this hands-on workshop you'll take advantage of the RAD techniques and optimized code construction facilities to implement and deploy a complete executable application. Rational Application Developer automatically constructs all of the “plumbing” code that is required for your selected deployment technologies. No J2EE knowledge is required to produce this application because Rational Application Developer enables a broad range of developers to be highly effective members of teams building applications for today's sophisticated n-tier platforms. You will leverage the industry leading technologies like JavaServer Faces, Service Data Objects (SDO), AJAX, Web Services, EJBs and Portals to design, construct and test these applications.

### **Rational Application Developer version 7 and Beyond**

IBM Rational® Application Developer (RAD) for WebSphere® Software extends the widely acclaimed Eclipse tool framework with a variety of visual construction development tools. RAD helps Java™ developers rapidly design, develop, assemble, test, profile and deploy high quality Java/J2EE™, Portal, Web, Web services and SOA applications. This session discusses the current functions of RAD and provides insight into its future direction.

### **Introduction to IBM Rational Software Architect**

Rational Software Architect (RSA) is IBM's premier offering for creating high-quality, well-architected, high-performing SOA-based software systems, and to do so in less time and at lower cost. This presentation will answer your questions with respect to how RSA helps your customers do these amazing things. Along the way, we will focus on RSA's integrations to WebSphere Business Modeler and Rational RequisitePro, RSA's advanced system modeling capabilities, and the newly enhanced support for code review and patterns-based software development.

### **Introduction to Rational Business Developer**

Creating a Web Service using the newly announced Rational Business Developer is easy even for programmers unfamiliar with Web Services technologies and standards. In this session, we will introduce Rational Business Developer and the concept of an Enterprise Generation Language (EGL) Service and its versatile use both within the context of EGL-based applications as well as across solutions built upon a service oriented architecture. Practical examples will demonstrate how to define, test and generate Web Services using the EGL service abstraction, and how external Web Services can easily be included and used within EGL applications.

### **WebSphere Application Server SOA Feature Pack for SCA and SDO**

The session will provide an overview of the WebSphere SOA Feature Pack, which includes an implementation of the Service Component Architecture V1.0 (SCA) and Service Data Objects V2.1 (SDO) specifications. The presentation will briefly cover the basic feature pack concept, and will then dive into the scheduled delivery and technical content focusing on the SCA and SDO features and extensions provided by the feature pack. SCA and SDO samples will be presented, as well as information on how to position this feature pack with WebSphere Process Server and WebSphere Enterprise Service Bus.

### **Service Component Architecture and Apache Tuscany**

Service Component Architecture (SCA) is a flexible and extensible programming model and assembly framework for service-oriented applications with a variety of component types implemented using different languages and underlying technologies. SCA has been defined by the Open SOA collaboration ([www.osoa.org](http://www.osoa.org)). The Tuscany project in the Apache incubator provides a freely available implementation of SCA for components implemented in Java, C++, Ruby, Python, JavaScript and PHP. Tuscany also includes Service Data Objects (SDO) and a Data Access Service (DAS). This session will describe the main features of SCA as implemented in Apache Tuscany, showing how SCA can be used together with SDO and DAS to provide a full-featured SOA programming model, with code examples and a demonstration.

#### *Entry skills*

- General understanding of Service-Oriented Architecture
- Basic familiarity with Java and XML

#### *Exit skills*

- Service assembly and composition
- Basic understanding of SCA, SDO, DAS, Apache Tuscany

### **Introduction to SOA Design**

The keys to building successful service-oriented business systems include (1) ensuring the systems support the functional needs of the business and (2) architecting the systems so that they meet nonfunctional requirements, such as performance, scalability, security, and maintainability. SOA Design is the part of the SOA solutions process that addresses these activities. This session provides an overview of the key components of an SOA design; describes, compares, and contrasts the IBM methods (mainly CMB, SOMA, and RUP SOMA) that can be used to support SOA Design; describes what needs to be modeled during each phase of SOA Design; and sketches out one scheme by which IBM tools and methods can be used to realize SOA Design.

## Composite Business Services for Building Adaptable, Reusable SOA solutions

SOA Composite Business Services (CBS) enable the shift from a labor intensive model to an asset model based on composition of loosely-coupled, distributed assets to deliver flexible reusable solutions. CBSs may include legacy applications, ISV packaged apps, and network delivered services. We must provide middleware accelerators to expedite the stitching together of CBSs that support multiple business intents (such as, standards adherence, multi-tenancy, dynamicity, configurability, security, and so on). We implemented banking scenarios to showcase modeling, assembling, deploying and managing of CBS. These use WebSphere Business Services Fabric (WBSF), WSRR, WBM, WID, WPS, WPF, Portal, DB2 v9, DataStage, Tivoli's TDS, TAM and TFIM. We present best practices, challenges and integration issues uncovered in partnership between SWG Strategy and China's CSDL. Attendees will be able to reuse our assets and understand the choices for delivering flexible SOA solutions.

## Introduction to UML 2

Modeling has been an essential part of engineering, art and construction for centuries. Complex software designs that would be difficult for you to describe textually can readily be conveyed through design diagrams. Each diagram focuses on one aspect of your application. Modeling provides three key benefits: visualization, complexity management and clear communication. UML stands for Unified Modeling Language and is the standard language for visualizing, specifying, constructing, and documenting the artifacts of a software-intensive system. UML was approved by the OMG as a standard in 1997. Over the past few years there have been minor modifications made to the language. UML 2 is the first major revision to the language. You can use UML with all processes, throughout the development life cycle, and across different implementation technologies. In this session you will learn basic UML 2 notation and see how UML 2 diagrams can be used throughout the development life cycle.

### Entry skills

- Basic knowledge of software design

### Exit skills

- Working knowledge of basic UML2 notation and how (and when) the various diagram types are used during development

## Rapidly build SOA-based dashboards with WebSphere Dashboard Framework

This session will introduce you to WebSphere Dashboard Framework, a powerful tool for building standards-based, active dashboards. First, we will demonstrate a live dashboard application. Next, we will build (from the ground up) one of the data-driven portlets within the dashboard, including creating the Web services that wrap the back end systems. Finally, we will show how to quickly customize the portlets for different roles or user characteristics.

### Entry skills

- Understanding of WebSphere Portal and/or WebSphere Application Server

### Exit skills

- Understanding of how to use WebSphere Dashboard Framework to create and customize dashboard portlets based upon a SOA

## Web 2.0 and Mashups—How to Build SOA Web applications in five minutes

"A mashup is a Web site or application that combines content from more than one source into an integrated experience." [Wikipedia]. This session will discuss the evolution of the Web application paradigm that is being fuelled by the extreme popularity of blogs and wikis, creating new ways of interacting and truly enabling the read/write Web. As most IT shops today experience an extreme shortage of resources, the continuous pressure to deliver new applications is welcoming a new paradigm – situational applications. Quickly developed and easily assembled from existing (SOA) middleware enablement, these applications take advantage of the simplicity of Web 2.0 technologies like blogs and wikis and services from the Internet (like ATOM and RSS). This session will cover how IBM leverages Web 2.0 technologies to provide a robust development environment for mashups (currently available from alphaWorks Services). It will then demonstrate the applicability of IBM's technology using a case study from the Media Industry where situational applications are business as usual for journalists and production editors/directors.

### Entry Skills

- Basic knowledge of current Web application structure
- Basic understanding of the terms "blog", "wiki".

### Exit Skills

- Basic understanding of the "situational application" paradigm and the technologies used to implement it.



### **What is Web 2.0?**

There is a lot of buzz around Web 2.0. Web 2.0 is not a technology, but a culture. In this session, you will learn what Web 2.0 is, what technologies enable Web 2.0, and how it fits into your enterprise.

#### *Entry skills*

- General Web Applications Experience

#### *Exit skills*

- Understanding what Web 2.0 is about, what technologies enable Web 2.0, and how Web 2.0 can benefit your enterprise.

### **Introduction to XML**

X-M-L? You hear the letters all the time! If you are in need of a basic understanding of eXtensible Markup Language (XML) and some of the related standards, this session assumes no prior knowledge. Learn the basics—not just, what it is, but why it's one of the hottest buzzwords today.

### **Getting Started with PHP**

The lab will present an opportunity for practitioners to learn how to develop a simple application in PHP. Upon completion they will be able to write a simple PHP app capable of reading and writing information from a database as well as simple xml parsing.

### **From Models to Forms: Building Applications Around XForms**

Version 1.1 of the XForms standard was recently released by the W3C. Lost in the hype around Web 2.0 and Ajax is the fact that your visually-attractive Web 2.0 application actually needs to do something useful. In this session we'll illustrate an application based entirely on XML-based models: A BPEL process definition, an XML schema for data structures and a WSDL file that describes how to use the process. Given that standards-based starting point, we'll illustrate how to generate XForms applications that run in common browsers. Even more important, we'll change the business process definition and

the data structures underlying the application, then use XSLT to regenerate the interface. This ensures that the beautiful Ajax interface stays synchronized with the model of the application itself.

#### *Entry skills*

- Basic understanding of current Web application technologies and structure

#### *Exit skills*

- A clear view of how Ajax, Web 2.0 and other open standards can be used together to build a robust and useful application.

### **How to use PureXML within a SOA: The end to end story**

SOA handles large volumes of XML data. Learn how to use XML within a SOA to manage this critical data. This session details techniques and case studies for managing XML data within a SOA to provide persistence. Issues related to storage, audit and retrieval will be discussed, along with reliability and performance.

### **A radically simplified Web 2.0 Platform Introduced and Demonstrated**

Rich Internet Applications and Web 2.0 are all the rage today for good reason. They introduce a new reality on the world of web application development. But building these types of applications can be difficult. This session introduces a new platform under development within IBM that provides a radically simplified way to build Web 2.0 style Rich Internet Applications. The session includes demonstrations to illustrate the power of this new platform.

### **Transforming XML Data with XSLT**

EXtensible Markup Language (XML) has become the standard for data interchange and eXtensible Stylesheet Language (XSL) is the language for transforming data from one XML application to another. For example, in an SOA solution, you might need an XSL transform to exchange information among different services. In this hands-on session you use the tools of Rational Application Developer to create an XSL file to convert data between two XML schemas and then run the transform. Much of the knowledge gained in the "Introduction to XSLT" session is put to practical use in this lab.

#### *Entry skills*

- Familiarity with XML, XML schema, and DTD
- Conceptual knowledge of XSL from attending session "Introduction to XSLT" or equivalent background

#### *Exit skills*

- Ability to create and modify XSL stylesheets and XSLT transforms
- Familiarity with the XML tools of Rational Application Developer

### **Introduction to XSLT**

EXtensible Markup Language (XML) has become the standard for data interchange and eXtensible Stylesheet Language (XSL) is the language for transforming data from one XML application to another. For example, in an SOA solution, you might need an XSL transform to exchange information among different services. This lecture gives an introduction to XSL transforms (XSLT). The focus is on XML to XML transforms for the purpose of converting data that is valid for different XML schema, rather than on XML to HTML or other transforms that prepare data for presentation. This session provides the background for a subsequent hands-on session.

#### *Entry skills*

- Familiarity with XML, XML schema, and DTD, Familiarity with programming concepts such as subroutine invocation and recursion
- Knowledge of a particular language is not required

#### *Exit skills*

- Ability to read and understand XSL files,
- This lecture prepares participants for the session: Transforming XML data with XSLT

# \* messaging, integration and connectivity

The overall purpose of this sub-track focuses on services connectivity. Service connectivity is an IT-centric entry point to SOA that encompasses a range of software and solutions designed to help simplify your IT environment with a more secure, reliable and scaleable way to connect within and beyond your business. Through a life-cycle approach we can help you model, assemble, deploy and manage your tactical SOA-based projects to help connect your systems in a way that grows as you grow. We also can help you establish SOA governance guidelines to enhanced organizational efficiency.

## **Using WebSphere Adapters with WebSphere ESB 6.0.2**

Do you need to integrate enterprise applications (such as, SAP, Siebel, JD Edwards, Oracle E-Business) with IBM's WebSphere ESB? This session will discuss the basics of the WebSphere Adapters v6.0.2 and show how they can be used with WebSphere ESB (WESB) v6.0.2. We will examine configuring Adapters, using Enterprise Service Discovery to gather metadata about enterprise systems like SAP, and wiring the automatically-created SCA components in a WESB mediation module. High availability configurations will also be touched on.

### *Entry skills*

- General knowledge of WebSphere ESB

### *Exit skills*

- General Knowledge of WebSphere Adapters architecture and usage
- General knowledge of how to use Enterprise Service Discovery
- General knowledge of how to wire Adapter components into WESB mediation modules

## **WebSphere Adapters enablement for series of IBM Products**

IBM WebSphere® Adapters were only supported on WebSphere Process Server (WPS) in the first two releases (V6.0.0 and V6.0.2). With release V6.1, the adapters would run as a first class component for WebSphere Message Broker (WMB), WebSphere Application Server (WAS) and Federation Server.

WebSphere Adapters have been redesigned to decouple them from any specific runtime. A contract has been defined as part of the connectivity strategy across IBM for the use of common adapters in various runtimes. As long as runtimes comply with that contract, they would be able to leverage WebSphere Adapters for connectivity to different protocols/applications.

## **WebSphere Application Integration Portfolio Overview**

This session will provide a basic overview of the WebSphere portfolio of application integration products. Come learn about WebSphere MQ, WebSphere Message Broker, WebSphere ESB, WebSphere DataPower SOA Appliances, WebSphere TX (formerly DataStage TX), and WebSphere Adapters. This session will cover the role of each product in the portfolio as well as the current capabilities of each product.

### *Entry skills*

- Basic concepts like "Web service", "Web application".

### *Exit skills*

- A basic understanding of how the various WebSphere integration products work and how they can be used together or alone

## WebSphere MQ Certification Review

Are you planning to take any of the WebSphere MQ V6.0 Certification Tests while you're here at the Conference? Is the thought of taking that certification test keeping you awake at night? Then come to this session for a last minute tune-up. You will have the chance to review sample questions, talk about test strategies, and get answers to your questions about the topics covered by: 994—System Administration test, including WebSphere MQ planning, installation and configuration, distributed queuing and clustered queue management, operations, problem determination, and security, 996—Solution Design test, including assessing and positioning WebSphere MQ, WebSphere MQ solution concepts, designing a solution using WebSphere MQ features, and message and naming standards.

### Entry skills

- Preparation for one or more of the above tests

### Exit skills

- An improved chance of passing those tests.

## DataPower SOA Appliance Hands-On Lab

This hands-on lab will provide a series of exercises to configure DataPower services to handle XML documents and proxy Web Services. SOA Appliances are critical components for security and performance. Their multi-faceted roles as DMZ security gateway, ESB on-ramp, multi-protocol transformer, or back-end performance accelerator makes them invaluable to SOA architectures. Learn how to implement some of this functionality in this fun and exciting hands-on lab.

You will:

- Create a Loopback XML Firewall
- Create a Transforming XML Firewall
- Investigate Troubleshooting Tools
- Create a URL Rewrite Policy
- Create a new WS-Proxy
- Implement Service-Level Monitoring
- Add a processing filter action
- Add Custom Error Handling
- Use Multiple WSDLs
- Config Automatic WSDL Refresh

## The (XML) Threat is Out There

Technologies such as SOA, Web Services, SOAP, and XML are the new frontier for hackers and there are whole new classes of threats built around these “firewall-friendly” technologies. This session will show several classes and types of XML attacks, how they can be used to affect availability in Web services hosts, and how DataPower can be used to prevent such attacks. Systems based on XML, such as those hosting Web Services and SOA interfaces, are susceptible to attack. Most large corporations that get attacked keep it private, hence there is no “buzz” to build awareness. If you don't take specific steps to protect yourself, you are exposed. DataPower SOA/security devices provide many protections against these types of threats. A real scenario is illustrated to point out the ease of compromising these types of systems. If you are hosting Web Services or SOA interfaces, you are exposed until you take specific steps to counter any potential attacks.

### Entry skills

- Basic knowledge of SOA technologies, Web Services, SOAP, XML
- Basic security terms like “denial of service attack”

### Exit skills

- An understanding of how to counter security attacks aimed at these technologies.

## Specialized Hardware for SOA Integration and Connectivity

IBM SOA appliances are purpose-built network devices that simplify, help secure, and accelerate your XML and Web services deployments. These specialized SOA appliances redefine the boundaries of middleware while extending SOA infrastructure in an easy to deploy, drop-in solution, offering an innovative, pragmatic approach to harness the power of SOA while simultaneously enabling organizations to leverage the value of their existing application, security and networking infrastructure investments. Key topics to be addressed in this session include: The importance of SOA appliances to the SOA foundation, Extending ESB functionality using SOA appliances, How to protect valuable data exposed by XML Web services in an SOA, Centralized Web services management, service-level management and SOA policy, Integrated message-level security.

### Entry skills

- Basic knowledge of Web services and XML design and deployment.

### Exit skills

- An understanding of how IBM SOA appliances can be used to assist in such deployments.

## **Use Customer Cases and Scenarios for SOA Appliances**

WebSphere DataPower SOA Appliances redefine the boundaries of middleware, extending IBM's SOA foundation with specialized, consumable, dedicated SOA appliances that combine superior performance and hardened security for SOA implementations. In deployments since 2002, these SOA appliances are continuing to create tremendous customer value by simplifying, helping secure and accelerating SOA. This session details strategic scenarios, customers' SOA appliance deployments, industry use cases and application examples including integration with other leading IBM products such as WebSphere MQ, WebSphere Application Server, WebSphere Service Registry and Repository; IBM zSeries, iSeries, Tivoli Access Manager, Federated Identity Manager and ITCAM for SOA.

### *Entry skills*

- Basic knowledge of SOA design and deployment.

### *Exit skills*

- An understanding of how IBM SOA appliances can be and have been used in real-world customer situations

## **Enterprise Service Bus: Architectural and Product Overviews**

This session will review the core principles and capabilities of an Enterprise Service Bus from a technical perspective. It will explore how these are delivered by the IBM ESB family, WebSphere Enterprise Service Bus, WebSphere Message Broker and WebSphere DataPower SOA Appliances, and how they can be enhanced through integration with other SOA Foundation products to provide capabilities such as dynamic service selection and service management.

## **ESB Performance Best Practices**

The Enterprise Service Bus is a strategic component in any SOA solution. This session discusses performance considerations around topology, data flow, and overall architecture that impact an ESB. It will also cover tuning advice and lessons learned from actual customer deployments.

### *Entry skills*

- Understanding of ESB concepts and how it is used in a complete application environment

### *Exit skills*

- An understanding of how to improve the performance of an ESB itself and the performance of other parts of the environment interacting with the ESB.

## **ESB Best Practices**

This session will examine the best practices across a life cycle for building, testing and deploying an Enterprise Services Bus (ESB). It will also discuss best practices for planning and designing an ESB, governance best practices for putting an ESB in place in a customer environment, quality assurance best practices for testing the ESB infrastructure and applications deployed to it, and implementation best practices for your ESB. This includes operational aspects, for example, how to maintain an existing ESB deployment, add additional services or version existing ones. The session will show examples of customer ESB's demonstrating best practices, and the results if they were (or were not) put in place.

### *Entry skills*

- Understanding of ESB concepts and how it is used in a complete application environment

### *Exit skills*

- An understanding of the best ways to use an ESB throughout the application life cycle.

## **Guidelines for choosing your ESB**

This session includes an overview of the enterprise service bus (ESB) architectural pattern. It also describes some ESB composition patterns. This session also helps identify decision criteria that can be used to select which IBM products implement the ESB pattern and offers some examples based on relevant scenarios.

## **Messaging Featured Session with Panel Q and A**

Andrew Bainbridge and product strategists share their vision on technical trends and future directions for the WebSphere Application Integration family of products, including WebSphere MQ, WebSphere Message Broker and WebSphere ESB. A short presentation will be followed by discussion with a panel of IBM product developers and technical leaders who will be available for a question and answer session.

### *Entry skills*

- Basic understanding of the WAI family products, key concepts and key product features

### *Exit skills*

- Your questions on these products answered.

# \* messaging, integration and connectivity

## **Introduction to the default messaging provider in WAS**

This session introduces the Java Messaging Service (JMS) in WebSphere Application Server (WAS) and its mapping onto the Service Integration Bus (SIB). The basic concepts of SIB are covered.

### *Entry skills*

- Knowledge of basic messaging concepts such as “messages”, “queues”, “topics,” and more

### *Exit skills*

- An understanding of the features provided by the default messaging provider in WAS

## **Using WebSphere MQ and WebSphere Application Server together**

This session covers how to access WebSphere MQ from applications running in WebSphere Application Server (WAS) and vice versa. We will cover use of the WebSphere MQ JMS provider as well as connecting to WMQ from the Service Integration Bus using both the WebSphere MQ Link and WebSphere MQ Server constructs.

### *Entry skills*

- An understanding of the features provided by the default messaging provider in WAS (which is covered in session Introduction to the default messaging provider in WAS)

### *Exit skills*

- How to make applications running on MQ interact with WAS applications, how to make applications running on WAS interact with MQ applications.

## **Introduction to WebSphere ESB**

WebSphere Enterprise Service Bus builds on the solid foundation of WebSphere Application Server and Service Component Architecture to provide a platform for implementing an ESB. It provides the features expected for such a platform, including protocol translation, XML transformation and routing across Web Services and messaging technologies. In this session, we will explore the technical features which facilitate the development of ESB solutions. This session includes an update on the major new features contained in the V6.0.2 release.

### *Entry skills*

- General knowledge of ESB concepts

### *Exit Skill:*

- Basic understanding of SCA concepts,
- A good understanding of the features of WebSphere ESB
- A basic understanding of how to develop and deploy ESB solutions

## **Introduction to WESB version 6.0.2**

This is a lab that will take approximately 2 hours. It will introduce the WESB to students

## **WESB 6.0.2 Update including Performance**

This session will provide a detailed technical description of WESB V6.0.2 focusing on the new features added in this latest release, particularly as they relate to performance.

### *Entry skills*

- Understanding of previous version of WESB

### *Exit skills*

- Understanding of features new in V6.0.2 and how this new version performs.

## **WESB Admin—Deployment, Resources, Dynamic Modification**

This session includes a detailed look at the capabilities of WESB made available to the SOA deployer/administrator through the administrative console and scripting.

### *Entry skills*

- Understanding of the basic functions of WESB

### *Exit skills*

- A good understanding of how WESB can be administered through the console and through scripting.

## **WESB ND/XD Topologies**

This session is a deep dive look into WebSphere Enterprise Service Bus (WESB) issues which need to be considered in configuring ND topologies and areas where XD can help.

### *Entry skills*

- Basic concepts of ND such as clustering, load balancing and failover

### *Exit skills*

- Understanding of WESB issues peculiar to ND environments
- Understanding of how WebSphere XD features can help with these issues.

## **Using Web services and the WebSphere Service Registry and Repository with WebSphere ESB**

This session includes a detailed look at how WebSphere Service Registry and Repository (WSRR) enables dynamic service selection within the WebSphere ESB.

### *Entry skills*

- Knowledge of SOA and services concepts and technologies, especially services discovery

### *Exit skills*

- An understanding of how WSRR works, its purpose and features.

## **Administration and Operations Options for WebSphere Message Broker**

In this session we will cover a broad range of administration capabilities in WebSphere Message Broker (WMB). We will cover Eclipse-based graphical administration, command line administration and programmatic administration. Topic areas will include deployment, operations, runtime versioning. Come to this session to understand the right ways to effectively administer and operate the broker.

### *Entry skills*

- Knowledge of the basic features of WMB.

### *Exit skills*

- An understanding of how to administer a MB installation using the graphical interface, commands and scripting, or Java APIs.

## **An Introduction to WebSphere Message Broker**

For both new and experienced users of application messaging and IBM WebSphere® MQ (WMQ) transports, this session describes how to connect together all the applications in an enterprise in innovative ways that provide enhanced, dynamic functions. It also describes how the powerful components of WebSphere Event and Message Brokers provide a flexible, transport-independent messaging backbone.

By extending the event broker's message distribution capabilities, message brokers allow for more complex integration, including message transformation using ESQL, Java™, graphical mapping and XSLT, and message enrichment using external data sources, such as a relational database.

This session also covers how Eclipse visual tools allow users' to construct graphically the application connectivity requirements with either user-, IBM-, or third party-supplied components. There is also a product demonstration to help further explain the kind of processing that can be achieved.

## **WMB Hands-on — Web Services Lab**

WebSphere Message Broker V6 provides the ability act as both a Web Services requester and a Web Services provider. This Lab provides a step-by-step hands-on tutorial showing you how, from a newly installed V6 broker, to create a simple a message flow that provides a Web Services front for a legacy application. The lab will demonstrate the HTTP nodes, the new MQGet node and the ESQL used to perform the transformation between the SOAP based Web Service Request and a Custom Wire Format (C-based) legacy application.

## **Real World Experiences with WebSphere Message Broker**

This session is designed to walk you through the various aspects of implementing and running the Message Broker in a production environment. Numerous examples of how not to set up the environment, support techniques ('you did WHAT?'), and common usage issues will be discussed.

## **WebSphere Message Broker and MQ Publish Subscribe technologies**

To complement the point-to-point messaging style, WebSphere MQ and WebSphere Message Broker also feature Publish Subscribe capabilities for distributing messages to multiple recipients. This session describes the Publish Subscribe messaging model, together with the MQ and JMS application programming interfaces. We'll describe how these interfaces can be used with both MQ and Message Broker. We'll also discuss the different transport options available including Realtime and Multicast capabilities, and when do use different Publish Subscribe configuration in some real-world scenarios

## **WebSphere Message Broker: Designing for Performance**

This session will help you design an efficient and effective WebSphere Message Broker implementation from a performance perspective. We'll discover that there are many factors that determine the level of performance achievable within a WebSphere Message Broker message processing system. We'll help you understand the critical factors for high performance, things such as message structure, message navigation and message copying, business logic processing costs, interaction with resource managers such as MQ and databases, and application messaging styles. This session looks at key design and configuration choices and how they affect these critical factors. This session will enable you to get the most from your brokers; allowing you to design an optimally performing broker implementation, or understand and improve the implementations you already have in your enterprise.

## **WebSphere Message Broker: File Processing options**

Increasingly, users are integrating file based systems into their ESB as critical integration technologies. There are a raft of possibilities for processing files with WebSphere Message Broker, including File Extender nodes, VSAM and QSAM nodes, PM4Data, WTX and JTEXT adapters. This session will cover all the major technologies so that you can understand how to get the most for each and when they are most applicable.

## **WebSphere Message Broker: Using Web Services Effectively**

This session will demonstrate how to use WebSphere Message Broker effectively in Web Service scenarios. You will understand how to turn existing applications to Web Services. After a brief overview of Web Services and related technologies, such as SOAP, WSDL and UDD, then session examines in detail the nodes and parsers of WebSphere Message Broker v6 which turn it into a powerful Web Services consumer, provider and intermediary. WebSphere Message Broker provides a powerful ESB technology to enable your enterprise for Web Services.

## **WebSphere Message Broker: WSRR Integration and Exploitation**

This session will explain how WebSphere Service Registry and Repository, the key underpinning for SOA governance, can be exploited by WebSphere Message Broker. After a brief introduction to the two technologies, we'll spend time understanding in detail the new Message Broker nodes which provide registry integration. We'll also discuss common usage scenarios and provide a real-life customer example which uses registry to bring governance to WebSphere Message Broker ESB technology.

## **Transformation options for WebSphere Message Broker V6**

There are many different ways to achieve message transformation in WebSphere Message broker, using ESQL, Java, Mapping and XSL transformation technologies. Use this session and find out the core strengths of each technology and how to get the most from them in different scenarios. After this session, you'll have the broad understanding required to understand when to use the different transformation options.

## **Practical Examples of Message Modeling**

This session demonstrates how to model real-world messages using the WebSphere® Message Broker message definition editor and importers. The session outlines a step-by-step approach to message modeling. It also explains, in detail, how to model formatted text messages. It concludes with a case study that uses binary COBOL, Comma-Separated Value (CSV) and Simple Object Access Protocol (SOAP) XML messages in a simple integration scenario.

## **Introduction to Micro Broker**

Are you trying to connect your people who work outside the office to the enterprise? Do you need to know if an unmanned device is working, do you need to obtain information from that unmanned device? This session will explore how Micro Broker can provide your enterprise with information from the field, be that a sales person using a laptop computer or PDA, a fire alarm system or a sensor monitoring a pipe line. Micro Broker provides the piece in the jigsaw, allowing a true end to end messaging solution when used in conjunction with other IBM messaging products.



## What's new in WebSphere Message Broker?

This session will discuss a detailed overview of WebSphere Message Broker, IBM's Advanced Enterprise Service Bus, including highlights of the latest additions to the Message Broker since the Version 6 release. This session will highlight some of the exciting new features in Message Broker, including significant enhancements to the Message Broker Toolkit. In addition, this session will provide insight into the strategic direction for the Message Broker, including the Message Broker's critical role in helping IBM clients on their path to service oriented architecture.

### Entry skills

- Basic concepts in messaging such as messages, queues and mediation.

### Exit skills

- An understanding of WMB, its features, latest additions and future directions

## Introduction to WebSphere Message Brokers Toolkit

This session will gently introduce WebSphere Message Brokers Toolkit. If you are new to WebSphere Message Broker or it is in your future, this session is your "Hello World" introduction to the tools for it.

### Entry skills

- None

### Exit skills

- A basic understanding of the pieces that make up a simple message broker flow, and how to author those pieces.

## WMQ and WMB on z/OS Problem Determination Lab

WMQ and WMB are often viewed as confusing when trying to determine what might be causing a problem. This session will show you where to look for problems, how to find the appropriate documentation, and how to resolve some basic problems.

## A Practical Approach to WebSphere MQ Security on z/OS

This session takes a step by step practical approach to WebSphere MQ for z/OS security. It looks at some of the ways you could use the facilities provided by WebSphere MQ for z/OS to control access to your WebSphere MQ resources.

### Entry skills

- Basic knowledge of WebSphere MQ

### Exit skills

- Knowledge of the security features of MQ for zOS

## Advanced WMQ Queue Manager Clusters

This session builds on the Introduction to WebSphere MQ clustering, session, and covers advanced workload balancing (including some of new features introduced in WebSphere MQ V6.0), routing messages into and out of clusters, overlapping clusters, further concepts and administration.

### Entry skills

- Introduction to WebSphere MQ clustering or equivalent

### Exit skills

- A deeper knowledge of WMQ clustering

## Architecting Solutions for Performance on Distributed WebSphere MQ

Various qualities of service are provided by MQ with higher throughput balanced with the higher resilience. The Solutions architect will combine various options of MQ so the business objective of a well performing solution can be achieved. Solutions fail if excessive use is made of heavyweight resources (CP, Disk, Memory). This session will identify various MQ heavyweight objects so alternative designs could be considered to provide an efficient solution.

### Entry skills

- Basic knowledge of MQ concepts and architecture

### Exit skills

- An understanding of how to balance various configuration choices in MQ with use of heavy-weight resources to achieve a target QOS

## Getting your z/OS Queue Manager into Production

This session discusses the following topics often overlooked during the design and deployment of an MQ solution: high-availability (HA) considerations, including log placement and naming logs so you can avoid catalog failure problems; collection of statistics; using monitoring, for example, Tivoli OMEGAMON such as channel stop; queuing full backup of page sets and CF; minimum IBM RACF™ definitions; using extended security; making changes to production; change control; change management; disaster recovery; loss of CF, DB2, Resource Recovery Services (RRS), CICS and so on; management of digital certificates, such as check expiry and renew; use of firewalls; and handling poisoned messages.

### Entry skills

- Broad knowledge of MQ, especially queue managers.

### Exit skills

- An understanding of more esoteric topics and “gotchas” often not found until deployment to production begins.

## Hints and Tips for WebSphere MQ Application Programming

This session covers various aspects of the MQI and makes some recommendations on the options and their usage. It also warns against some of the common mistakes. Subjects such as message persistence, transactions, data conversion and message sizes are covered. Whether fairly new to MQ or an experienced MQ programmer come along and hear the good, the bad and the ugly of the MQI. Before attending this session, you should have a basic knowledge on WebSphere MQ Application Programming.

## Introduction to the WebSphere MQ Queue Managers

The WebSphere MQ Family provides a suite of products enabling the full spectrum of application integration environments from the simplest pair of applications requiring basic connectivity and data exchange to the most complex business process management environments. This session introduces the foundation product of the Family—the WebSphere MQ queue managers. This session will explain the basic rationale of the message/queuing family, the primary features and functions of the queue manager products and point out which other sessions might be of interest at the conference. The session concludes with a brief overview of the other

WebSphere MQ Family members, pointing out their primary features and their positioning within the Family. No prior knowledge of any WebSphere MQ Family products is assumed.

### Entry skills

- Basic Internet concepts only.

### Exit skills

- A broad understanding of the WebSphere MQ family of products, their primary features and how they can be best used for a particular situation.

## Introduction to WMQ Queue Manager Clustering

WebSphere MQ provides support for clustering of queue managers. A cluster is an easily administered, highly available, scalable collection of queue managers. WebSphere MQ applications can take advantage of clustering with the minimum of effort. This session covers design considerations, system administration, basic workload balancing, problem determination and some internals of clustering.

### Entry skills

- Knowledge of basic messaging concepts, knowledge of the basic features of WebSphere MQ.

### Exit skills

- An understanding of how queue managers can be clustered, and the advantages of doing this.

## Keeping Channels Up and Running

This session discusses some techniques for keeping your WebSphere MQ channels up and running, concentrating on TCP/IP channels. We will look at the kinds of problems that can occur and the various mechanisms by which your channels can recover from or avoid these problems. This discussion will cover features such as Retry mechanisms, Dead Letter Queue, HeartBeats, AdoptMCA, TCP/IP KeepAlive, Batch Interval, Batch HeartBeats and Disconnect Interval.

### Entry skills

- Basic knowledge of MQ features and use, basic TCP/IP concepts

### Exit skills

- An understanding of the issues and techniques involved in keeping MQ channels operational

## **Understanding and Using WMQ Administration and Event Interfaces**

Lots of information can be gathered from WMQ queue managers, and lots of administration can be done, using MQ messages. This session goes into details of these events, and will show how to write and understand such messages. It also shows how applications might generate their own reports. It covers PCF programming, including its use on z/OS.

## **WebSphere MQ Channel Security with SSL**

You've gone to great lengths to control who has access to your queues, but would you care if someone could see the contents of your messages as they were transported across the network to another queue manager? Have you thought about encrypting the traffic across your channels? Would you like to be able to automatically authenticate the partner queue manager? Would you like all this to be integrated with your channels and provided free with WebSphere MQ? In WebSphere MQ v5.3, a protocol known as Secure Sockets Layer (SSL) was introduced into MQ channels. It is a protocol widely used in many products which transport information across insecure networks; you are probably already using it with your Web browser, for example. The SSL protocol provides us with the security benefits of partner authentication, encryption and message integrity.

### *Entry skills*

- Basic knowledge of WebSphere MQ concepts and features

### *Exit skills*

- An understanding of how to use SSL to further secure your messages as they flow across the network.

## **WebSphere MQ for z/OS — Advanced Shared Queues**

This session introduces the WebSphere MQ clients: what they are; on which platforms they run, and how customers use them in their applications. We will mainly focus on the 'C' MQI client but will also introduce the Java and XMS clients. The session will discuss a number of basic implementation considerations including when it might be appropriate to use each client. The intent is to familiarize you with the things necessary to succeed with a simple WebSphere MQ client implementation.

## **WebSphere MQ Extended Security Edition**

This session will describe the new features and value of using WMQ ESE. WMQ ESE is a comprehensive integration and security management solution that combines IBM WebSphere MQ and IBM Tivoli Access Manager for Business Integration into a single product offering. WMQ ESE offers significant additional security services over those included in IBM WebSphere MQ. These include: – Application-level data protection including digital signatures of individual messages and optional encryption for applications running on either WMQ servers or WQM clients, – Access control on Queue resources for local applications running on WMQ Servers, – Access control of Server queue resources accessed by remote applications using the WMQ client, – Detailed, message level, auditing of enforcement of security policy – Remote management of these security policies across an enterprise through a Web browser interface.

## **WebSphere MQ for distributed platforms — Product Internals**

This session discusses how WebSphere MQ is implemented on distributed platforms. This is an overview of the internal architecture of the queue manager, and it shows how the various components interoperate.

### *Entry skills*

- Basic MQ concepts and features

### *Exit skills*

- Knowledge of broad implementation details of MQ on the distributed platforms

## **WebSphere MQ for z/OS — Introduction to Shared Queues**

This session explains what shared queues are, how channels can be configured with shared queues, and how applications can exploit shared queues to achieve high availability and scalability. This session is ideal for those who have limited or no knowledge of shared queues and wants to gain a basic understanding of what is provided.

### *Entry skills*

- Basic WebSphere MQ concepts and features, basic concepts in availability and scalability

### *Exit skills*

- Understanding of shared queues within WMQ.

## **WebSphere MQ for z/OS— Product Internals**

This session discusses how WebSphere MQ is implemented on z/OS. Come hear an overview of the internal architecture of the queue manager, showing how the various components interoperate.

### *Entry skills*

- Basic MQ concepts and features

### *Exit skills*

- Knowledge of broad implementation details of MQ on the z/OS platform

## **WebSphere MQ Performance for z/OS**

This session looks at how you should define and use your z/OS queue managers in an enterprise so that you gain the best performance. The session will also cover how to identify performance problems, and describe what you can do about them. It also includes some of the performance and scalability changes introduced in V6.

### *Entry skills*

- Basic MQ concepts and features

### *Exit skills*

- A basic understanding of how to performance tune MQ on the distributed platforms plus where to learn more.

## **WMQ JMS and XMS Programming**

This session is an introduction to the Java Message Service as an API for performing messaging using WebSphere MQ or another messaging provider from Java. It provides guidance on writing JMS applications, for both point-to/point and publish/subscribe messaging. Differences between MQI application programming and JMS are highlighted; however, a detailed knowledge of WebSphere MQ or the MQI is not required. A basic understanding of Java application development is assumed. This session will also introduce IBM's non-JAVA version of JMS known as the IBM Message Service (XMS) client.

### *Entry skills*

- Basic Java programming skills, basic MQ concepts and features

### *Exit skills*

- An understanding of how to write messaging code using JMS and XMS

## **WMQ, Web services, and the Web**

This session provides an overview of some of the new interfaces and technologies being explored to enhance WebSphere MQ's Web services support, and to make WebSphere MQ more accessible from the Web. It includes details of: The HTTP -> MQ SupportPac which enables direct access to MQ from Web browsers and HTTP clients, WebSphere MQ's new API for the PHP scripting language (Simple Asynchronous Messaging or SAM), Updates to SOAP/JMS and the WebSphere MQ Transport for SOAP support

### *Entry skills*

- Basic MQ concepts and features
- Basic Web Services concepts

### *Exit skills*

- Understanding of how MQ can be used in support of Web services architectures

## **WebSphere MQ Update**

This session will give the latest information on WMQ, including a preview of function for the next version. It will concentrate on technical details of new APIs, Administrative interfaces and integration points with other products, including higher-level solutions in the SOA stack.

### *Entry skills*

- WMQ features in prior releases

### *Exit skills*

- Knowledge of the latest features of WMQ, upcoming features and future directions

## **Case Study: Using WebSphere Message Broker at Pep Boys**

Pep Boys is one of the leading sellers of replacement tires in the USA. Along with vehicle repair and maintenance capabilities, they also serve the commercial auto parts delivery market. In this session, representatives from Pep Boys share their experiences using WebSphere® Message Broker (WMB) and how it compliments WebSphere MQ Series to produce an Enterprise Service Bus (ESB) solution. Pep Boys uses MQ as its message transport mechanism. WMB allows near zero latency processing of point-of-sale (POS) transactions to line-of-business back office systems. Message flows transform data that is then deployed to distributed systems for maintenance updates. Message broker functions as a service provider using WebSphere for Windows® and MQ to process request/reply messages between Windows and MVS CICS® systems. Message broker acts as an ESB, transforming information between disparate environments.

## **Introduction to development using IBM WebSphere Transformation Extender**

This hands-on session guides attendees through the process of transformation development using IBM WebSphere® Transformation Extender (WTx). Attendees learn to build type trees and maps to develop these transformations. Also, this session discusses the variety of Industry Packs and deployment options available.

## **Hardening WebSphere MQ Security**

Is your WebSphere MQ network secure? Are you sure? Most WebSphere MQ implementations are vulnerable in some way, including a surprisingly large percentage that unknowingly allow anonymous administrative access. This presentation goes beyond the basics to show how the various WMQ security components interact, as well as critical configurations that are commonly overlooked. Topics include hardening against anonymous administrative authority, user impersonation and denial of service attacks.

### *Entry skills*

- Basic MQ concepts and features,
- Knowledge of basic security in WMQ

### *Exit skills*

- The ability to conduct a thorough security assessment of an MQ environment and make any necessary remediation.

## **High Availability for WMQ and WebSphere Message Broker**

WebSphere MQ can be made highly available using features of the product or operating system, on distributed and z/OS platforms. This session will describe and compare these features, and show how they can be effectively used together for extremely reliable environments. The high availability features of WebSphere Message Broker and advice on adding your own applications to an HA configuration are also discussed.

### *Entry skills*

- Basic MQ and MB concepts and features,

### *Exit skills*

- Understanding of how to achieve high-availability in an MQ/MB environment

## **WPS/WESB 6.0.2, JMS and WMQ Support and Best Practices**

WebSphere Process Server (WPS) and WESB rely on messaging support for information exchange with a variety of applications and resources. This session will introduce SCA Imports and Exports for JMS, JMS/WMQ and WMQ. It also covers concepts like Interface Binding, Method Binding (Function selectors) and Data Binding. The major focus of this presentation is the best practices on WMQ legacy application integration, which will cover MQLink replacement, Function Selectors, Content Based Routing and COBOL data processing. Finally best practices of integrating a WPS/WESB clusters with a WMQ Cluster will be discussed.

### *Entry skills*

- Basic WPS and WESB concepts and features

### *Exit skills*

- Knowledge on integrating legacy MQ applications with WPS and WESB

## **Using WebSphere Transformation Extender to Support your SOA**

Best Practices for implementing WTX

This session will cover how utilization of best practices during WTX engagements enables successful implementation of WTX solutions regardless of integration environment.

### *Entry Skills*

- None

### *Exit Skills*

- The attendee will gain a general knowledge of common best practices, procedures, and techniques for implementing WTX solutions, and how these best practices can be applied to WTX engagements regardless of the integration need.

## **WebSphere Transformation Extender within the WebSphere Family**

WebSphere Transformation Extender serves as IBM's universal transformation engine platform. In addition to the powerful stand-alone functionality, WTx can be used to extend the modeling, connectivity, and transformation capabilities of many other IBM products, such as WebSphere Message Broker, WebSphere ESB, WebSphere Process Server, WebSphere Partner Gateway, and others. This session will provide an in-depth introduction to the WTx family of products as well as the critical role they play as part of the WebSphere family. It will also discuss potential services offerings and provide a roadmap with our plans for further integration of WTx and its tools into the IBM portfolio.

### *Entry skills*

- Basic WebSphere family products concepts

### *Exit skills*

- Understanding of how WTx fits in with the rest of the family of products

Web portal software provides a single access point to Web content and applications, personalized to each user's needs. This sub-track highlights how IBM WebSphere Portal software extends the portal concept with support for workflows, content management, simplified usability and administration, open standards, security and scalability.

## **Developing Composite Applications and Mashups for WebSphere Portal**

Data is everywhere. Weather, logistics and customer data are accessible through information conduits so end-users can make rapid and informed business decisions. In the session, we will discuss the Java Portlet Specification, Java Server Faces, Service Data Objects, Composite Applications and Mashups. Come to this session to learn how to leverage JSF/SDO and WebSphere Portal to create new business value through composite applications / mashups. We will be using a hands-on lab to work with the technologies and reinforce topics covered in the presentation.

## **Geneva Team Collaboration Overview, Architecture and Roadmap**

Geneva is Lotus' next-generation collaboration offering that allows teams and communities to share information and collaborate through places accessible through Web browsers, Sametime and Notes clients, Windows Explorer and Microsoft Office as well as through public Web service and REST interfaces. This session gives an overview of typical usage scenarios, describes the functions and components provided by Geneva such as Document Libraries, Team Wikis, Team Blogs, Forums, Lists, and so on, and how they can be used in these scenarios. It also provides an architecture overview of Geneva, which is powered by WebSphere Application Server and WebSphere Portal technology, including typical deployment options, and explains how Geneva will integrate with other offerings such as WebSphere Portal, Sametime, and Ventura. The session concludes with a live demo showcasing the current capabilities of Geneva and roadmap information on future development for Geneva.

### *Entry skills*

- Basic Internet and Web concepts

### *Exit skills*

- An understanding of the Geneva product and how it can be used with other IBM products

## **JSR168 portlets in WebSphere Application Server**

This session covers the programming model for JSR168 portlets in the WebSphere Application Server. It will explain the most important new concepts that distinguish programming JSR168 portlets from programming servlets. The session will also help you to make good use of portlet-specific programming concepts including some important best practices. We will provide detailed explanations on how to develop portlets and portlet applications by demonstrating examples.

### *Entry skills*

- Basic programming experience with servlets

### *Exit skills*

- Good understanding of what makes portlets preferable to servlets in some situations, Comprehensive overview of the programming model for JSR portlets,
- Ability to make optimal use of the provided programming model

## **Common WebSphere Application Server Problems in Portal Environment**

WebSphere Portal Server runs on top of WebSphere Application Server. As more customers adopt WebSphere Portal Server, the WebSphere Serviceability Team has seen an up tick in the number of engagement in WebSphere Portal Server environments. There are some common WebSphere Application Server problems which appear in the WebSphere Portal Server environment. This session will discuss those common problems and how to avoid them.

### *Entry skills*

- Basic WAS concepts and features
- Basic WPS concepts and features

### *Exit skills*

- An improved knowledge of how to install and configure WPS with its underlying WAS to avoid certain common problems

## **Business User Workflow in IBM WebSphere Portal 6.0**

One of the new key features of IBM WebSphere Portal Version 6.0 is the support for business users to easily create collaborative, human facing workflows for composite portal applications. By using the Workflow Builder Portlet users can easily assemble workflow-driven applications with no need for programming or process deployment. This capability builds on top of WebSphere Process Server and the Human Task manager as the execution environment and fully integrates into WebSphere Portal. This session will give an overview of what Business User Workflow is, what type of scenarios it is targeted for, what features and limitations it provides and how it is positioned relative to native Process Server development. Find out more about the details behind this feature that allows Business users to flexibly create and manage their own workflows and easily assemble and customize workflow-driven applications for WebSphere Portal.

### *Entry skills*

- Basic WebSphere Portal concepts and features,

### *Exit skills*

- An understanding of the Business User Workflow feature in WebSphere Portal

## **WebSphere Portal: The Front End to SOA**

Portals provide a framework enabling customers to create Web sites that integrate their applications and information, and as a result can greatly improve the productivity and efficiency of the users of the site. The WebSphere Portal platform leverages components from across the IBM Software Group to provide a framework that provides efficient creation and deployment of composite applications built on a service-oriented architecture (SOA), enabling integration of the user experience, providing role-based access to integrated business processes, enterprise applications, content and search services, security and user profiles, along with a complete set of application development tooling. This presentation explains the key features of WebSphere Portal with an emphasis on what is new in the latest release of WebSphere Portal V6.0 as well as a glimpse of some of the things that are coming soon.

### *Entry skills*

- None

### *Exit skills*

- General knowledge of WebSphere Portal features, specific knowledge of features in V6.0
- An understanding of some future directions

## **Where are the Portal Standards heading? JSR 286 and WSRP V2**

IBM WebSphere Portal foundation supports use of application and portal standards, including the Standard Portlet API (JSR 168) and Web Services for Remote Portlets (WSRP) published specifications. This presentation will provide an overview of the current support for these standards in WebSphere Portal and how they can be best applied. Understand the strategic direction of portal and portlet standard APIs and how you can apply the capabilities in your portal applications.

### *Entry skills*

- Basic Understanding of JSR 168 and WSRP v1,

### *Exit skills*

- Good Understanding of the new JSR 286 and WSRP v2

## **Web 2.0, AJAX, and REST in WebSphere Portal**

This session gives an overview of Web 2.0, AJAX and REST, and what WebSphere Portal 6 and related products offer as of today in this context. It will also introduce the technical vision and outline of how WebSphere Portal will adopt Web 2.0 concepts and exploit AJAX and REST to a greater degree in future releases. The session concludes with a look to Web 2.0, AJAX and REST features planned for WebSphere Portal and related products in the future, and a live demo.

### *Entry skills*

- Basic WebSphere Portal concepts and features,

### *Exit skills*

- An understanding of how Web 2.0, AJAX and REST relate today and will relate tomorrow in WebSphere Portal.

## **Creating Rich Internet (AJAX) Applications with WebSphere Portlet Factory**

WebSphere Portlet Factory (WPF) helps to automate the creation of easy-to-use Internet applications that include drag and drop, inline editing, and intelligent page refreshing. It uses standard AJAX mechanisms and widgets from the Dojo toolkit to provide this functionality. This session will show how to use WebSphere Portlet Factory to quickly build rich Internet applications that use these exciting Web 2.0 technologies.

### *Entry skills*

- Basic AJAX concepts and features

### *Exit skills*

- Understanding of the features in WebSphere Portlet Factory which help create applications using AJAX features



### **IBM WebSphere Portal 6—Operational Architectures and Procedures**

There are always two sides to architectures. Functional and Operational aspects need to be considered together to build successful solutions. This session describes the operation side of this equation. This session will provide you with an insight on how WebSphere Portal 6.0 can improve operation productivity and efficiency. New features like multiple LDAP support, Portal data separation, configuration management improvements and more will be presented. You will see how alternative portal operational architectures can be improved with WebSphere Portal 6.0. Architecture considerations presented in this session can be applied to define the most efficient and cost effective infrastructure to operate WebSphere Portal 6.0. The session concludes with an overview of the enhancements in tools and techniques for configuration management of WebSphere Portal.

#### *Entry skills*

- Basic Portal concepts and features

#### *Exit skills*

- An improved understanding of the operational aspects of Portal

### **Discover the portlet runtime in WebSphere Application Server**

Portlet development becomes easy by using the portlet runtime provided by WebSphere Application Server. In this presentation, we'll introduce the concepts and benefits of this portlet runtime. We'll provide detailed explanations on how to use the features of WebSphere Application Server, how to run and manage portlets and portlet applications following examples.

### **IBM WebSphere Portal 6—Technical Overview**

This session provides a technical overview of WebSphere Portal 6.0, and a detailed look at the technical details supporting the new capabilities of WebSphere Portal 6.0. The session will offer insights on the new features and how they can be exploited and customized to further improve the experience and productivity gains delivered by WebSphere Portal within your organization. The session provides an overview of the overall architecture and extension and customization points and how they can be used to create successful portal solutions that are ready for the future. The session will provide an overview major new features, including user interface technology improvements, templateable composite applications, attribute-based administration, programming model enhancements, improved operations,

enhanced content services, search engine support, development tooling enhancements, updates to performance, and platform directions.

#### *Entry skills*

- None

#### *Exit skills*

- An understanding of WebSphere Portal V6.0 at a technical level

### **Extending SOA Beyond the Data Center and onto the Desktop**

The common understanding of Service Oriented Architecture (SOA) describes how to aggregate information from a wide variety of sources, independent of the underlying technology within an IT center. This session provides an in-depth look at IBM's universal server-managed client platform that delivers the same SOA capability "beyond the IT center" on desktops, laptops, and mobile devices. In this session, you'll learn how this client platform supports composite applications that allow for the seamless integration and composition of both new and pre-existing applications and services such as AJAX, Web, VisualBasic, Flash/Flex, Native C/C++, Swing, ActiveX or Rich Client Platform (RCP) applications. By analogy to IT Center SOA, this client platform also enables the Enterprise to transform legacy applications, such as the End Of Life VisualBasic applications, into middleware services that can be reused and supported on different operating systems (e.g. Linux, MacOS). You'll also learn how this client platform enables developers to leverage a consistent standards-based programming model for extending both new and existing WebSphere Application Server, WebSphere Process Server, WebSphere Portal, Workplace Forms, DB2 and other applications and information assets to participate in the desktop composite application fabric while optionally enabling disconnected operations.

### **SOA Taking Form—Using Workplace Forms to Consume and Expose Services**

Forms are the most pervasive way business process document and a natural way to deliver SOA-based applications to your end-user constituents. In this session you will learn how IBM has created a Forms Services Platform made up of reusable and extensible services components to integrate forms into ERP, CRM, content repositories, databases and workflow systems enabling faster deployment of business processes that rely on forms to initiate or personalize the capture of information for a business process.

This sub-track features sessions on maintaining a secure, scalable and manageable infrastructure in the enterprise. IBM, through its Tivoli management product line, provides critical technology for managing and securing the infrastructure. When it comes to managing your SOA, there are a number of Tivoli products that can help. This sub-track also highlights how WebSphere Extended Deployment optimizes the resource utilization and management of your IT infrastructure while enhancing the quality of service for your business-critical applications.

## **Lowdown on Performance—Web Services, WPS, WESB, WMB, WSRR and DataPower**

This session will focus on SOA performance as it relates to the WebSphere portfolio. The portfolio view will start with basic Web services; build to choreographing and integrating these services across WPS, WESB, WMB, and WSRR and end with leveraging DataPower to accelerate the WebSphere products. Historical views on SOA performance will show how we have improved performance this and last year. Current release performance improvements as well as future improvements will be discussed. SOABench, a benchmark that focuses on SOA performance across these products will be discussed followed by a short demo. Finally, the discussion will focus on best performance practices when implementing SOA solutions.

### *Entry skills*

- A basic understanding of the WebSphere family of products

### *Exit skills*

- An understanding of how these products perform when used together and how this performance was measured.

## **Diagnosing and Solving Complex WebSphere Applications using ITCAM**

This session will discuss the deep dive diagnostic capabilities of ITCAM (IBM Tivoli Composite Application manager) family of products. The session will explain how to automate and capture application run time data such as thread dumps, heap, resource metrics and so on, to help solve WebSphere/J2EE application performance and availability problems in Test and Production environments. It will explore a number of techniques to inspect a running application and collect production data for hard to recreate problems that can then be analyzed off-line. It is a must attend for any application SME (Subject Matter Expert) and IT Operations manager who is responsible to keep their mission critical WebSphere applications running with minimum disruption. The session will also review what is new in the product family.

### *Entry Skills*

- An understanding of the WebSphere administration

### *Exit Skills*

- An understanding of how these products perform when used together and how this performance was measured

## **Managing your SOA environment to deliver business flexibility**

Today's rapidly evolving SOA environments need comprehensive management to achieve the goal of business flexibility.

Understanding services and how they are connected enables accurate testing of services before they are deployed to make sure all paths through a service are tested. In production it is important to understand services traffic as it flows through the environment and see where bottlenecks are occurring. With this information dynamic management can be used to take actions to insure business results are achieved.

## **SOA Performance Best Practices**

An SOA implementation must do more than function properly as initially configured and have the flexibility and potential for expansion inherent in a good SOA. It must also perform to the required targets. Because flexibility is the hallmark of an SOA, it can also be difficult to determine the best test cases to measure and validate its performance. This session discusses the experiences IBM and others have had with SOA implementations and their performance characteristics (both before and after tuning). From that experience, we have derived a number of best practices for designing performance tests, taking valid measurements and tuning the SOA based on the results of those measurements.

## **SOA Security**

For those who have been tasked to implement SOA security, this session discusses the concepts and vocabulary needed to work with SOA security issues. This session describes the various security services and positions them in the context of an SOA security reference architecture. This session also discusses product mappings and examples of realizations of the architecture, based on customer experiences. No knowledge of the Web services (WS-\*) standards is necessary. However, a reasonable understanding of security concepts is required to get the most out of this session.

## **Composite Application Management—Lab**

This is a scenario-based lab that will provide hands-on exercises in a preconfigured typical composite application environment using the following products in the infrastructure: IBM Tivoli Monitoring, ITCAM for WebSphere/J2EE, ITCAM for SOA, WebSphere Service Registry and Repository (WSRR), WebSphere Application Server or WebSphere Process Server,

and so on. A simple application will be used to demonstrate application problem occurrence, notification and resolution. We will also explore capabilities for a dynamic selection of an alternative service based of certain predefined situation using ITCAM for SOA prebuilt SCA mediation primitive and registry components.

## **Service Management and SOA Governance**

How can service management enable and provide effective SOA Governance? This presentation will look into the elements and challenges of SOA Governance. We will see how IBM Service Management approach can help SOA Governance. The presentation will also look at the operational infrastructure elements required to realize a practical service management in the context of SOA Governance. IBM Service Management portfolio from Tivoli and the related asset and service registry products from Rational and WebSphere will be explored.

## **Web Services Security**

In this session, we take a step back from all the Web services (WS-\*) standards for a moment and talk about what we're trying to achieve. This session discusses, at an architectural level, what aspects to consider when engineering a distributed system which leverages Web services. What is the overall architecture from a security perspective? What aspects can be externalized into infrastructure? What identities might be propagated? What are the options for propagating them? What aspects of message/data security are relevant? Knowledge of the WS-\* standards is beneficial, but not necessary.

## **SOA security model**

Securing access to information is important to any business. For implementations structured according to service oriented architecture (SOA) principles (to help business needs met by IT environment), security is even more critical. Due to the loose coupling of services and applications, and their possible operations across organizations and trust boundaries, new challenges arise. Securing the perimeter (firewalls, routers, etc.) is no longer sufficient for a flexible, on demand business. This session discusses how security fits into the SOA lifecycle and introduces an SOA security reference model recently developed by a cross-functional IBM team. This model captures the essence of business security services, policy management infrastructure and infrastructure securing services that act as building blocks for a comprehensive SOA security solution.

## **WebSphere XD Data Grid — Architecture and what's new in XD 6.1**

This session shows how to use ObjectGrid to implement Highly parallel global scale data intensive applications using a DataGrid architecture. The session shows the DataGrid capabilities of ObjectGrid and shows how ObjectGrid can manage grids with policy based redundancy across multiple global data centers

## **WebSphere XD Operations Optimizer 6.1**

This presentation will focus on all of the new content of WebSphere XD Operations Optimizer for both WebSphere (ND and CE) and non-WebSphere (BEA, WebLogic, Tomcat, PHP) servers. Specific emphasis is placed on XD's autonomic, monitoring, and health capabilities.

## **Managing Identity Context across Service Requests**

Businesses increasingly integrate with other businesses, partners and suppliers to be efficient. One of the key challenges in these situations is the need to reduce cost of managing identity lifecycle for identities from other companies, and to provide an improved user experience for users to navigate across business applications without being prompted multiple times. Federated Identity solutions from Tivoli Federated Identity Manager help address these challenges, and this session will discuss patterns, use cases and how Tivoli's Federated Identity Manager helps address these challenges.

## **WebSphere XD Computer Grid — Architecture and what's new in XD 6.1**

Maturing SOA environments frequently discover the need to reuse services in non-interactive applications, handling such tasks as report generation, mass mailings, bulk updates, and other background activities. The WebSphere Extended Deployment Compute Grid adds background job processing to the WebSphere environment, providing a structured and controlled environment to support this workload type. In this session we'll explore the latest innovations in job processing, including the new native job type, simplified J2EE batch programming model and unit test environment, the all-new Job Management console and scalable scheduler, external scheduler Integration, plus many more exciting new features.

See how to build a brand new Compute Grid environment in just minutes with the radically simplified configuration support—live! See a job submission and monitoring demo. Come see how WebSphere Extended Deployment Compute Grid's extensive array of powerful features has everybody's heads turning!

## **WebSphere Extended Deployment (XD) Dynamic Operations**

Hands-on Lab: WebSphere Extended Deployment (XD) Dynamic Operations, Gary Stone - Sr. Software Engineer, Jennifer Ricciuti - Software Engineer. This hands-on lab exercise will allow the students to work in a group of machines configured to emulate, a realistic XD cell. The student will complete the configuration of the environment and test that the, on-demand router is properly routing traffic to the application servers running in the cell. They will, then use a load generation tool to generate client requests to the XD environment. By using initial configurations values they will see how XD Dynamic Operations perform application prioritization and placement in the cell. These tests will be monitored using the XD visualization tools to follow the changes to the servers configuration in real time.

## **Overview and What's New in XD 6.1**

This session discusses new concepts and features in the latest release of WebSphere® Extended Deployment (XD), Version 6.1. The session discusses topics such as full support for managing non-WebSphere middleware environments and the new middleware applications and servers support, building data grids with ObjectGrid v6.1, support for native applications with Compute Grid and running high performance Session Initiation Protocol (SIP)-based applications.

The session describes new management and monitoring capabilities and discusses changes to the product's packaging and installation model. This session also provides an overview of XD and serves as an excellent foundation for the more detailed XD sessions that discuss more specific aspects of the product.

## **WebSphere XD — Best Practices**

This session will demonstrate WebSphere XD Best practices, including areas such as ( but not limited to), Health Management, Service Policy, Dynamic clustering, Application Placement and performance goals. Integration of XD to other stack products such as WebSphere Process Server (WPS) and Portal Server best practices will also be introduced.

## **How to Virtualize and Optimize your enterprise**

This session will focus on how enterprises can use Virtualization and Optimization capabilities found in the WebSphere XD solution to increase the value of WebSphere and non-WebSphere Application Server installations. This session will specifically discuss how IBM Global Services together with Software Group is helping real world customers gain greater business flexibility and value from their J2EE applications, and how those customers are positioning themselves for SOA, by deploying WebSphere Extended Deployment solutions.

## **Why You Need to Manage the End User Experience of Your SOA Applications**

Do you know what your customer is experiencing? Can you say with confidence that you can answer that question? Or is your organization more likely to be told how the end user experience is not satisfactory by a customer calling in to customer service? Poorly performing applications can have serious financial consequences on the bottom line results of the business. If you're charged with maintaining and optimizing applications for your organization you need to do more than monitor the systems and subsystems that support these SOA applications. Composite Application Management recognizes that SOA applications are more than the sum of the parts that support them. Real SOA applications run across multiple architectures including distributed servers, web servers, application servers, mainframes. In order to maintain the highest performance and availability of your SOA applications you must have the right processes and tools in place. This presentation will cover why it is important to understand and manage the customer experience in addition to managing the application resources.

## **IBM Service Management: Manage Integration and Integrate Management**

SOA implementations are starting to grow in scope and complexity. It will not be long until we witness a convergence of IT management being treated as a Business Service. To realize the full value of SOA initiatives, from entry pilots to advanced levels of implementation, organizations need to prepare their IT infrastructure and system management to best support the service orientation demands on the underlying operational environment.

## **Common Pitfalls of SOA implementations**

Learn how to avoid performance bottlenecks, create policies which address scalability and fault tolerance challenges, as well as other IT considerations when implementing SOA-based solutions. While SOA hides the complexity of the infrastructure from the user, it increases the need for an enterprise IT perspective, because high quality, high performance SOA requires high performance from every part of the enterprise. IBM services experts share how to craft an IT performance plan in heterogeneous environments to create predictable and policy based approaches to insure new services-based performance requirements are met.

## **Monitor and manage resources & services from a business outcome perspective**

As the one-time line between corporate and IT management has all but vanished, IT departments are responsible for developing and supporting strategies that yield measurable, positive business results. All levels of IT managers need to collect, monitor and act on information regarding the use and performance of IT assets and services and communicate that information to the pertinent executives and managers across their enterprises as well as to the members of their IT delivery organizations and partners. This session will demonstrate how new IT dashboards provide the visibility you need to drive better IT planning, increase productivity and gain insights and establish and report on metrics that demonstrate the business value of IT.

## **Systems Management and Monitoring**

The advent of composite applications requires that the management and monitoring of these assets be inherent in their design. This session describes the process and software used to manage the maintenance and monitoring of Aetna's J2EE™ systems. It also discusses application development (built to manage aspects of IBM frameworks) and deployment of IBM Tivoli® Composite Application Manager (ITCAM) products for management and monitoring.

### **Autonomic Computing: Strengthening Manageability for SOA Implementations**

Securing access to information is important to any business. For implementations structured according to Service Oriented Architecture (SOA) principles to help business needs met by IT environment, security is even more critical. Due to the loose coupling of services and applications, and their possible operations across organizations and trust boundaries, new challenges arise. Securing the perimeter (firewalls, routers, etc.) is no longer sufficient for a flexible on demand business. In this session, we will discuss how security fits into the SOA lifecycle and introduce a SOA security reference model recently developed by a cross-functional IBM team. This model captures the essence of business security services, policy management infrastructure and infrastructure securing services that act as building blocks for a comprehensive SOA security solution.

### **SOA, interoperability and Security: All Roads Lead to Web Services Security**

Web services based implementation to realize SOA provides an interoperable approach to SOA, and thus web services security help address the challenges that come about in SOA. In this session, we will discuss how web services security helps meet the challenges posed in an SOA environment. The web services security roadmap represents a combined initiative by IBM and Microsoft to provide a framework for web service security. The WS-Security Roadmap defined several emerging requirements for security in the web services environment, complementing today's solutions to provide comprehensive security countermeasures. The speaker will discuss in detail the WSS-Core specifications and how it defines the use of several existing and emerging technologies at the SOAP message level. He will also look at how IBM products support the existing and emerging standards, and he will end this part of the presentation with a discussion of the future evolution of the WS-Security Roadmap.

### **Federating Identities using Tivoli Federated Identity Manager**

Businesses increasingly integrate with other businesses, partners and suppliers to be efficient. One of the key challenges in these situations is the need to reduce cost of managing identity lifecycle for identities from other companies, and to provide an improved user experience for users to navigate across business applications without being prompted multiple times. Federated Identity solutions from Tivoli Federated Identity Manager help address these challenges, and this session will discuss patterns, use cases and how Tivoli's Federated Identity Manager helps address these challenges.

### **Understanding Your Applications through Messaging**

When building new applications or re-using current applications, the components that glue these applications together are often neglected. The messaging backbone and Message Broker now become part of your applications and must be managed right alongside the applications themselves as part of the application. Many times, changes in the infrastructure can have a profound effect on your applications. This session concentrates on how to configure and monitor messaging applications and infrastructure to make sure they are performing up to your expectations, how to affect scalability of your applications, and the importance of testing as part of your application lifecycle.

### **The ABC's of Tivoli Security and Management of WebSphere and SOA Resources**

This session will take a look at answering the question: Where should I start with security and management of my WebSphere environment? It will also look at the best practices associated with application management.

### **Best Practices for Performance and Availability Management of Applications on zOS**

Learn how to visualize the availability of transactions that span across CICS and IMS. Managing transactions that have hung or failed gracefully with minimal impact to production performance. Support for SMF, WLM and multiple servant regions. Be able to view resource consumption that can be used for chargeback.



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