

***What is SOA and Service Orientation –
Why is it important for your Business***

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Vice President WebSphere

February 2006

SOA on your terms and our expertise

ON DEMAND BUSINESS™

What is the top focus of businesses?

What businesses are concerned about

- 75% of CEOs place a high or very high priority on the **ability to respond rapidly**
- Only 1 in 10 CEOs believe that their organization has the ability to be very responsive to react to changing market conditions

What SOA does for business

- Rapid response to changing business conditions
- Allows business processes to be reconfigured quickly and easily
- Protects investments in existing IT systems
- Enables monitoring to capture effectiveness

Responsiveness: the new key competence.

So growth is back on the agenda – but it won't just happen by itself. CEOs all over the world have identified organizational responsiveness, agility and flexibility as necessary competencies. Developing the ability of the organization to not just sense, but to anticipate and respond to the changing marketplace and subsequent customer requirements is one of the great challenges for today's CEO.

CEOs are now focusing on how their organizations read, listen and react to dynamically changing external and internal conditions. As one CEO put it, "we have to implement a competitive

Source: IBM Global CEO Survey, Feb 2004

Where is SOA Going?

- By 2008 SOA will provide the basis for 80 percent of new development projects.
- By 2008, SOAs will enable organizations to increase code reuse by more than 100 percent.

“For anyone involved in IT, the issue is not if SOA will have an impact, but when, and how aggressively you should go out to meet the future rather than waiting for it to come to you”

Service-Oriented Architecture
Adds Flexibility to Business Processes, Simon Hayward, Gartner 2005

Service-Oriented Architecture Adds Flexibility to Business Processes

The business impact of SOA outside of the IT industry lies in the increased flexibility of software as it relates to changing business processes. Software has become a fundamental ingredient in operating the process of almost any business — but the capability and efficiency that this has delivered have often come at the price of locking a business process at the point in time that the software was implemented.

Why SOA now?

- **To keep pace with global competition:**

- “We are taking apart each task and sending it ... to whomever can do it best, ... and then we are reassembling all the pieces”

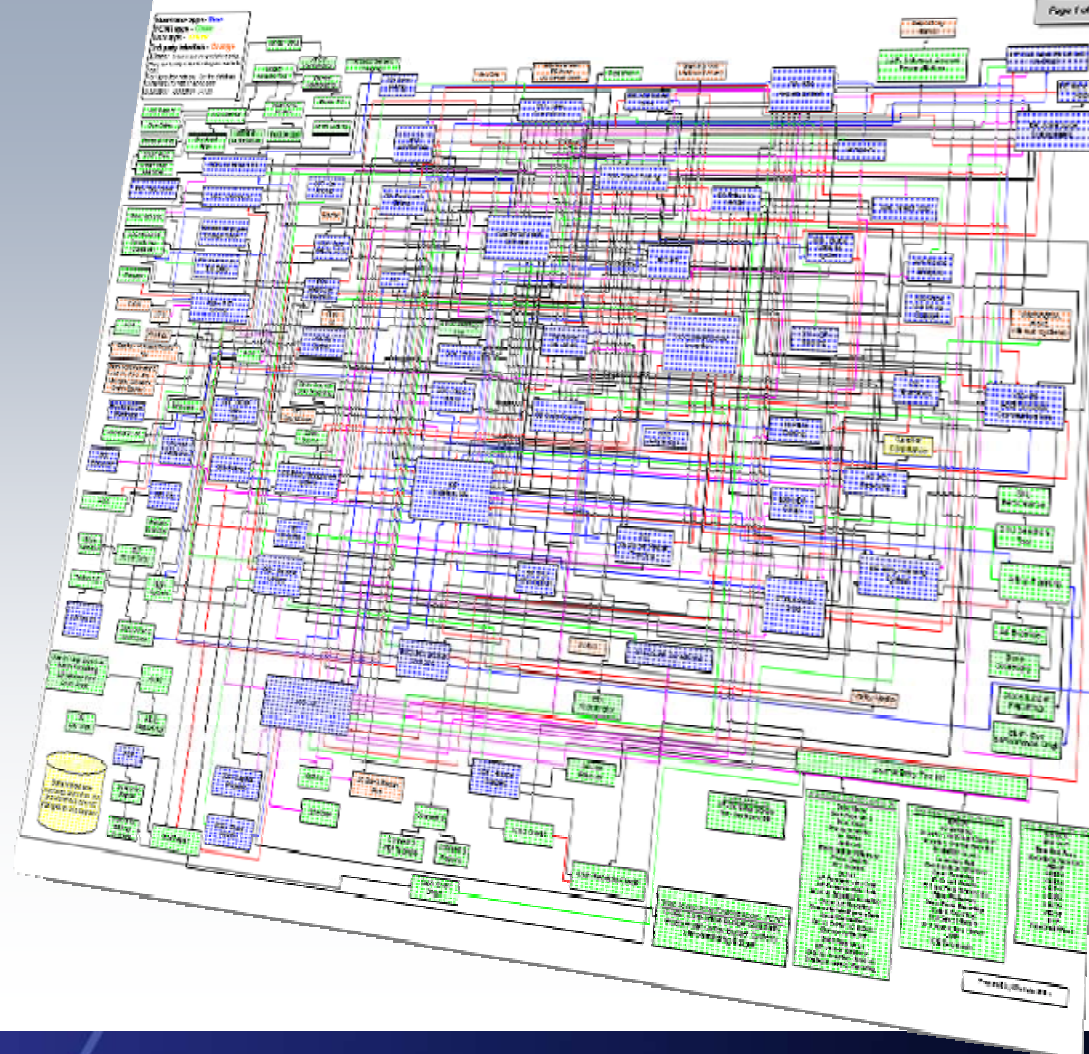
from Thomas Friedman’s ‘The World is Flat’

- **The standards and technology are finally in place, with broad industry support**
- **Availability of best practices for effective governance**
- **The necessary software to get started is available today**



What are the barriers to business flexibility and reuse?

- Lack of business process standards
- Architectural policy limited
- Point application buys
- Infrastructure built with no roadmap
- Disparate information

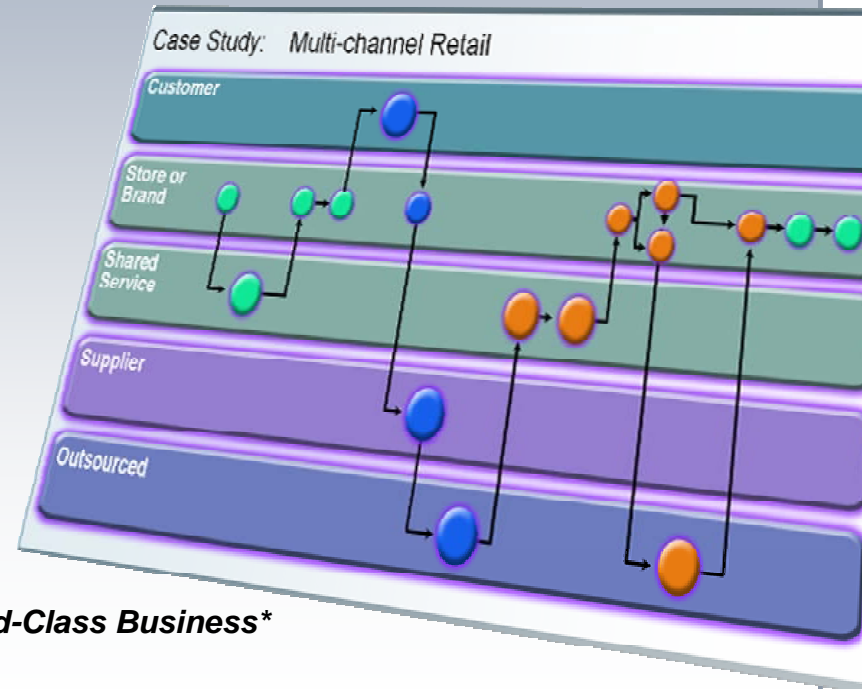


Why SOA for business flexibility and reuse?

Flexible business requires flexible IT

- **Economics:** globalization demands flexibility
- **Business processes:** changing quickly
- **Growth:** at the top of the CEO agenda
- **Reusable assets:** can cut costs
- **Information:** greater availability
- **Crucial for flexibility and becoming an On Demand Business**

*Traditional Business**



*Today's World-Class Business**

*Sources: CBDi

Simply Put, What Is It? Service Orientation? SOA?

... a service?

A **repeatable business task** – e.g., check customer credit; open new account

... service orientation?

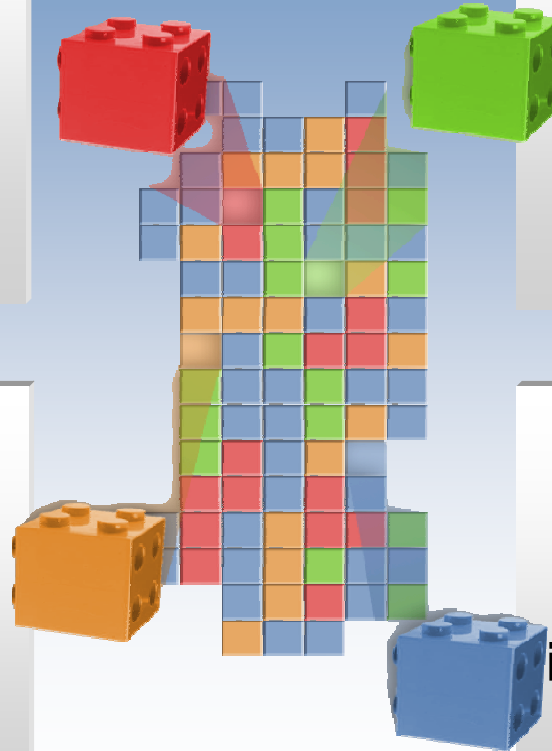
A way of integrating your **business as linked services** and the outcomes that they bring

... service oriented architecture (SOA)?

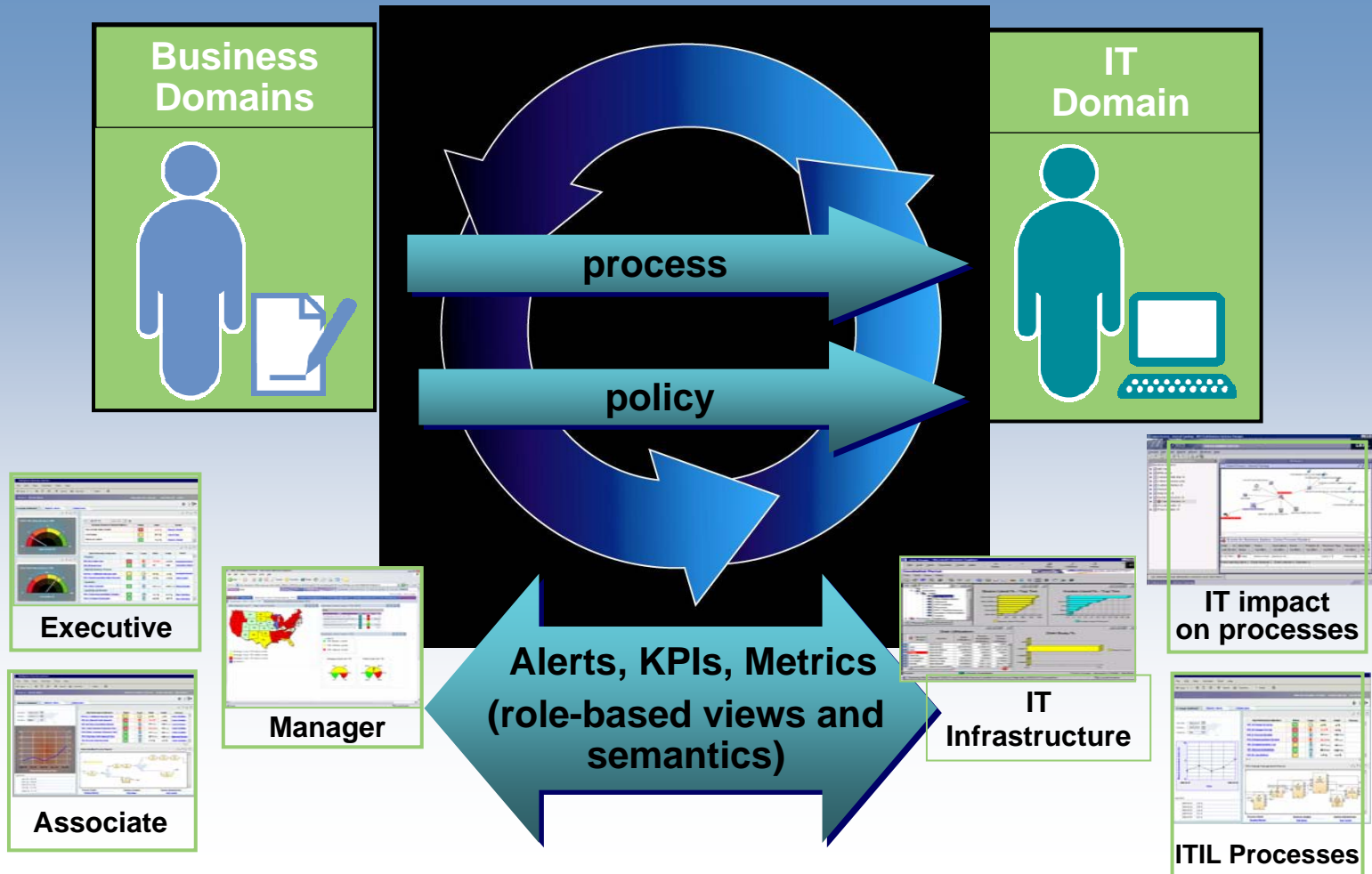
An IT **architectural style** that supports service orientation

... a composite application?

A set of **related & integrated** services that support a business process built on an SOA

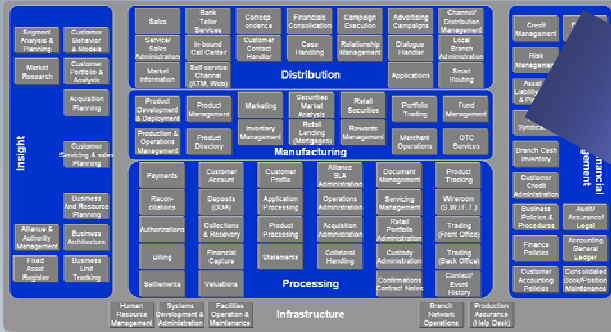


The core of business performance is cross-organizational optimization and innovation

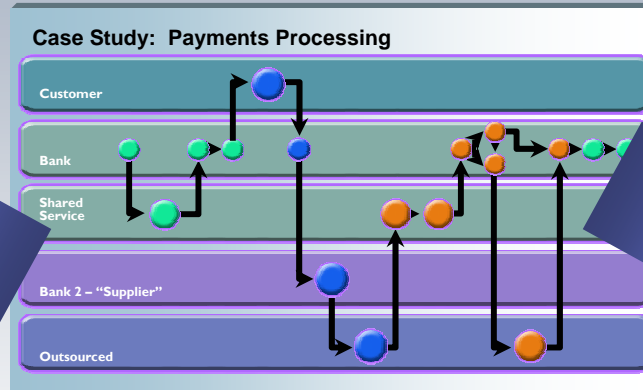


Flexible business requires flexible IT

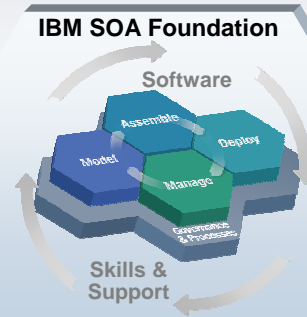
Full Business view



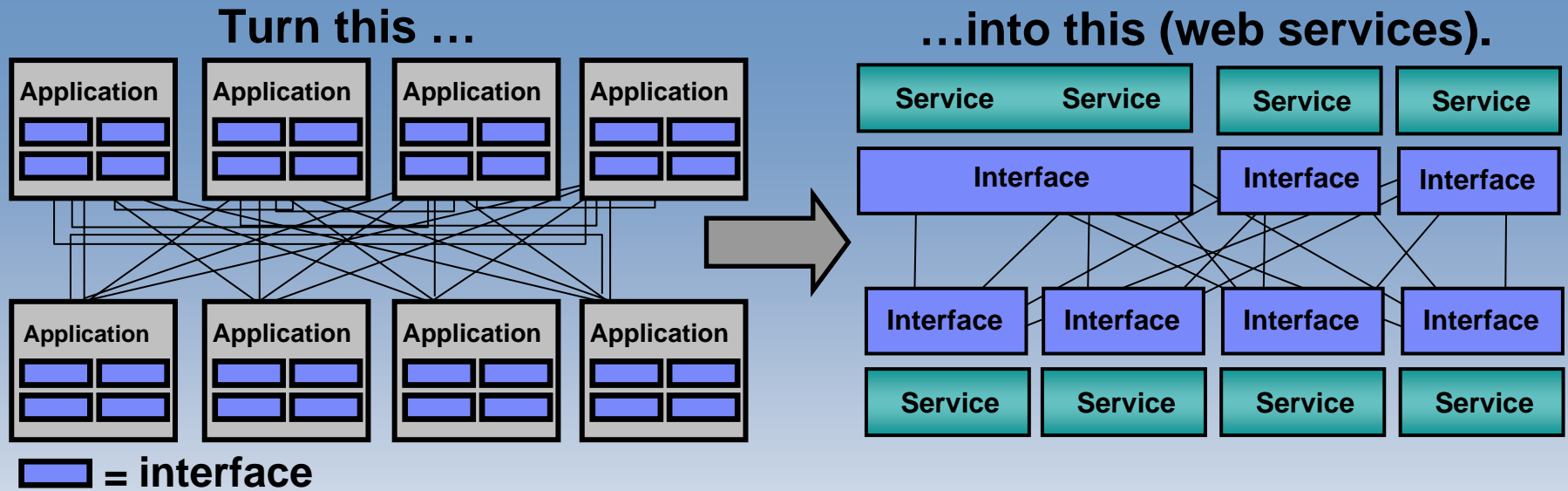
Process to optimize



Creating IT flexibility



Web Services decouples interfaces from their applications...

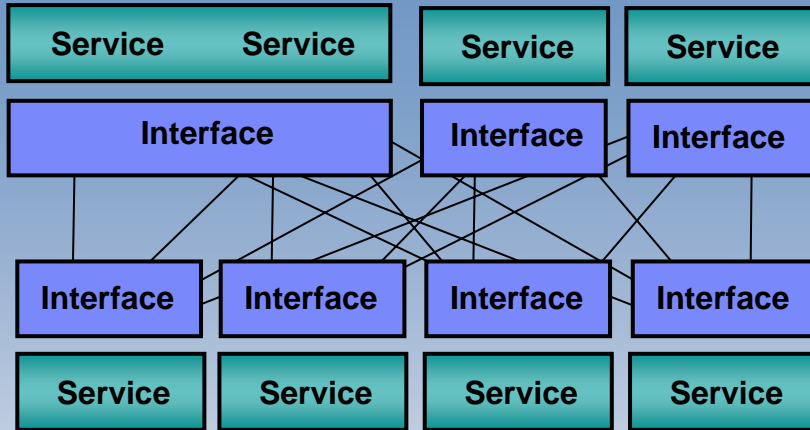


- ✓ Rich business abstractions describe the application interface
- ✓ Decouples the interfaces from the business applications
- ✓ The number and complexity of the interfaces is reduced
- ✓ Business applications and their interfaces become reusable

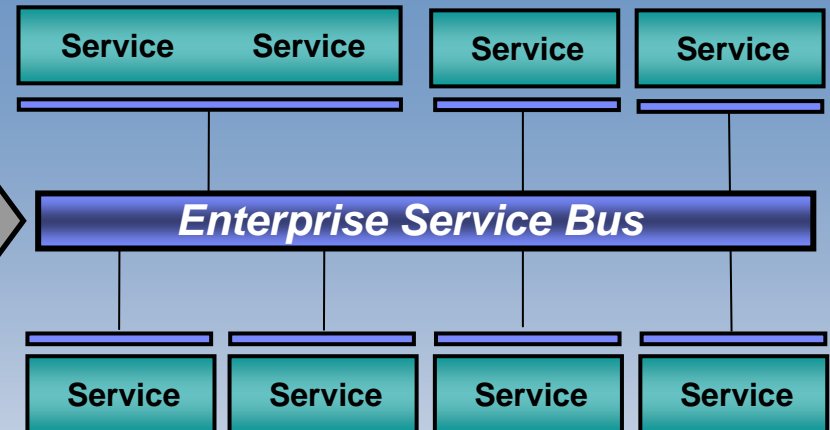
But separate connection points still leaving bloated interfaces

The Enterprise Service Bus shrinks those interfaces further

Turn this (web services)...



...into this



✓ Decouples the point-to-point connections from the interfaces

✓ Allows for dynamic selection, substitution, and matching

✓ Enables more flexible coupling and decoupling of the applications

✓ Enables you to find both the applications and the interfaces for re-use

RESULT → Greater Business Responsiveness

The IBM SOA Foundation

Provides What You Need to Get Started with SOA

IBM SOA Foundation: Integrated, open set of software, best practice, and patterns

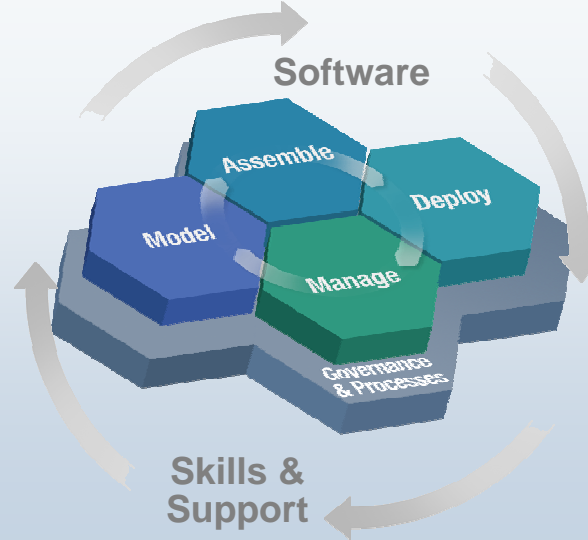
Supports complete lifecycle with a **modular** approach

Extends value of your existing investments, regardless of vendor

Scalable; start small and grow as fast as the business requires

Extensive business and IT standards support; facilitating greater **interoperability & portability**

IBM SOA Foundation



Leveraging existing IT Infrastructure

ORACLE

SAP

bea

CICS

DB2

WebSphere

IMS

Microsoft

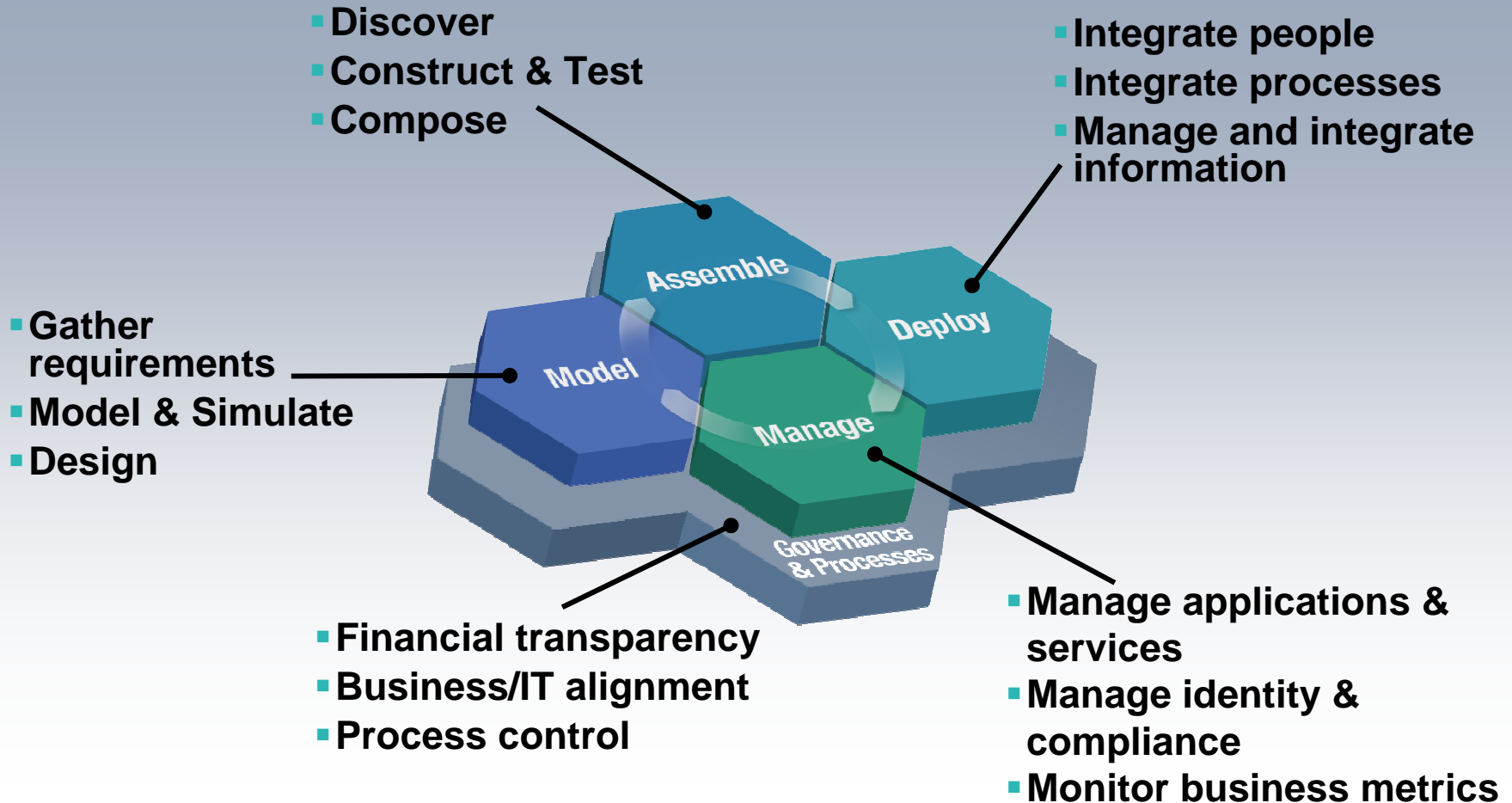
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Custom Apps.

IBM

How are customers thinking technically about flexible IT through SOA?

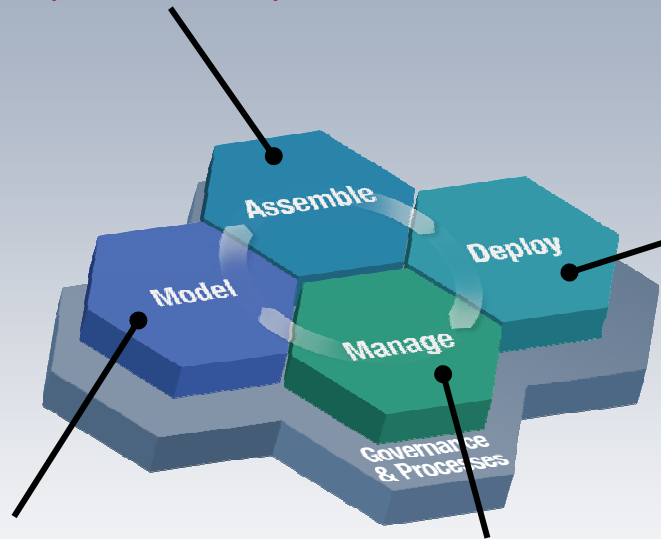
The SOA Lifecycle



SOA Foundation & Additional SOA Enabling Products

Part of a broader portfolio to meet your every need

WebSphere Integration Developer
Rational Application Developer
WebSphere Developer for z



WebSphere Business Modeler
Rational Software Architect
WebSphere Studio Asset Analyzer*
CICS Interdependency Analyzer*

WebSphere Business Monitor*
Tivoli Composite Application Manager*
Tivoli Identity & Access Manager*

Process:

WebSphere Process Server*
WebSphere ESB & Message Broker*
WebSphere Partner Gateway & Adapters*
CICS Transaction Gateway*

People:

WebSphere Portal*
WebSphere Everyplace Deployment
Workplace Collaboration Services

Information:

WebSphere Information Integrator*

Application Infrastructure

WebSphere App. Server & Extended Deployment*
CICS Transaction Server*

* Indicates products currently running – or with stated plans to run – natively on System z9 and zSeries.

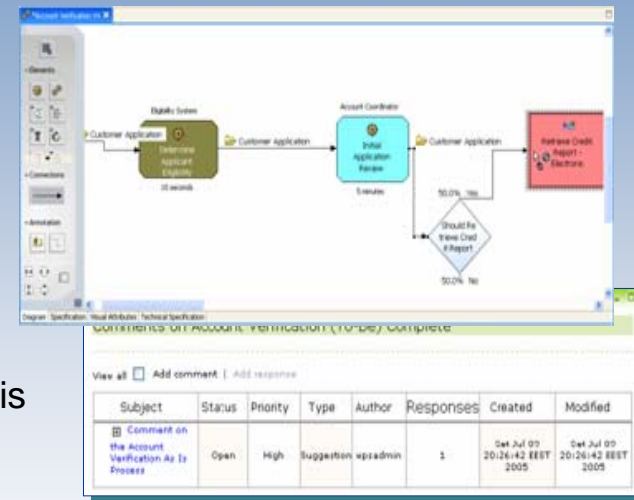


WebSphere Business Modeler V6

Modeling business processes for SOA roll-out

Modeling For Compliance/Documentation

- Document processes for use by a business to understand the business process
- Customers use output for training, collaboration, documentation requirements for compliance regulations (Sarbanes-Oxley and Basel II)
- Linkage to real-time monitoring provides a feedback mechanism for reporting requirements needed for compliance



Modeling For Redesign

- Document both the current state and future state business process and the comparison to determine Return on Investment (ROI) analysis
- Six Sigma and Process Improvement are common methodologies

Modeling For Execution

- Modeler can create artifacts from the business model and make them available in technology development tools to reduce the overall implementation time of new business processes.



WebSphere Integration Developer V6

Assembling composite applications with ease

Streamlining process design hand-off between business and IT

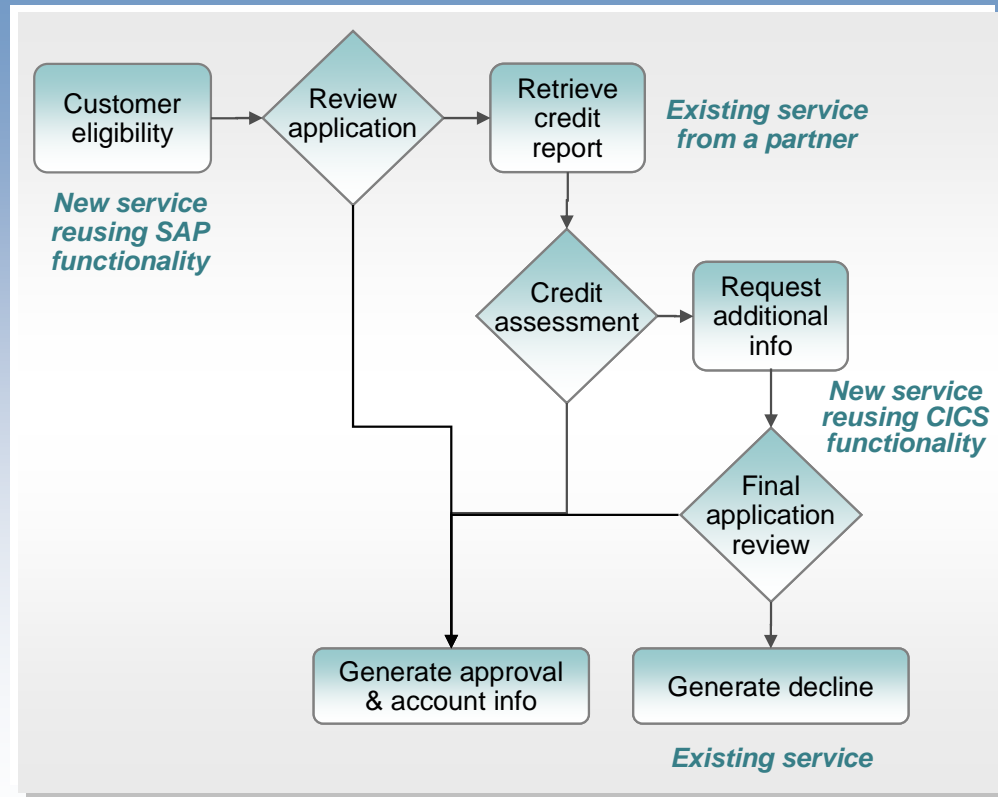
- Import and work with business process models directly from the business analyst (WebSphere Business Modeler)

Simplifying and speeding development

- Easy to use tools where everything can be done through the GUI
- Single way to define all types of processes (human, automated, rules, etc.)

Maximizing re-use

- Ability to leverage existing services and develop for future reuse



WebSphere Developer for zSeries

Assemble Services Across Platforms

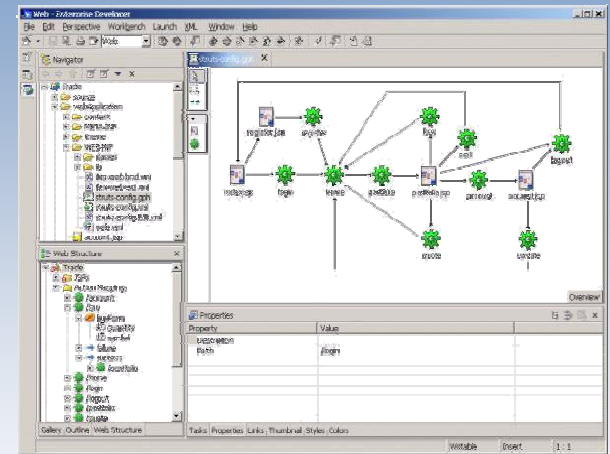


Create composite applications with Core Assets

- Bridges mainframe and client-server development
 - For end-to-end integrated processes running across platforms
 - Shared developer repositories and tooling framework

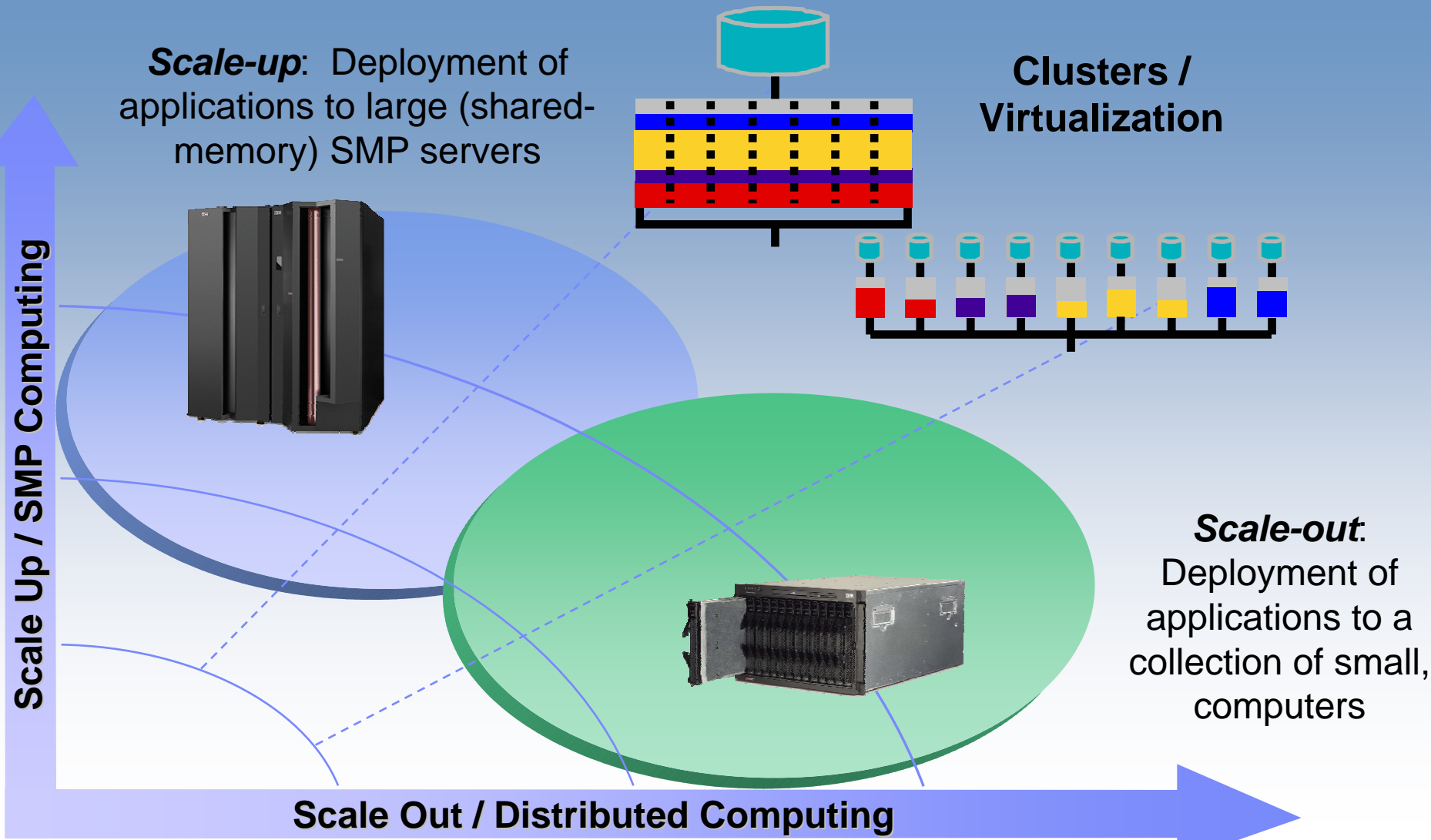
- For deployment to WebSphere, CICS, IMS, DB2 and batch
 - Cross platform development
 - Workstation based development tool
 - Workstation based mainframe application analysis tool

- Develop SOA systems that combine Web services, web applications and traditional applications
 - Cobol, PL/1, EGL (4GL)
 - Java, J2EE, WSDL, Java Beans, XML adapters
 - Portlets and complex user interfaces
 - Service flow modeler for CICS and HATS

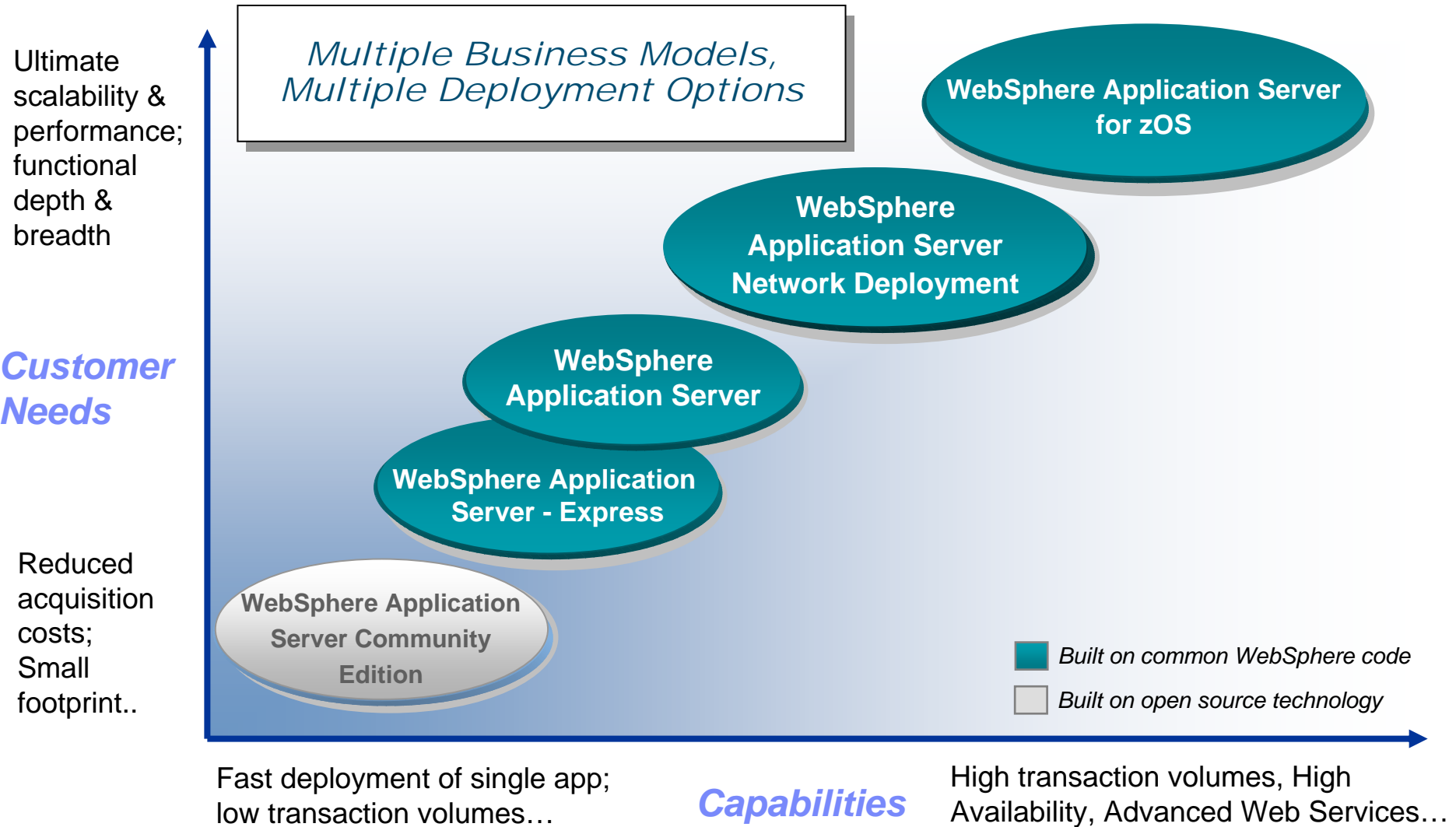


WebSphere Developer for zSeries became generally available in June 2005.

Techniques for achieving scale and availability



The WebSphere Application Server Family Summary



WebSphere Application Server v6.0.2

Enabling a robust, flexible SOA runtime environment



J2EE Enhancements

- J2EE 1.4 Compliance
- Java Server Faces (JSF) support
- Programming Model Extensions
- WebSphere Rapid Deployment (WRD) framework for simplified J2EE application construction and deployment
- Embedded JMS provider implementation with exceptional scaling, and interoperation with MQ

Ease of Use

- Packaging aligned with distributed platforms
- Deployment Plans to support strong separation of application configuration requirements
- Mixed cell support
- Unified clustering for consistent cluster management and improved workload balancing
- Administration Improvements
- Tooling enhancements

Common code base

- z/OS and distributed platforms

Web Services

- Services Oriented Architecture support
- Web Services Gateway with pre-defined mediations, workload balancing
- Service Data Objects, WS-I Basic Profile 1.1 Conformance
- Multi-protocol support (SOAP/HTTP, SOAP/JMS, Local Optimization) under a common JAX-RPC client interface

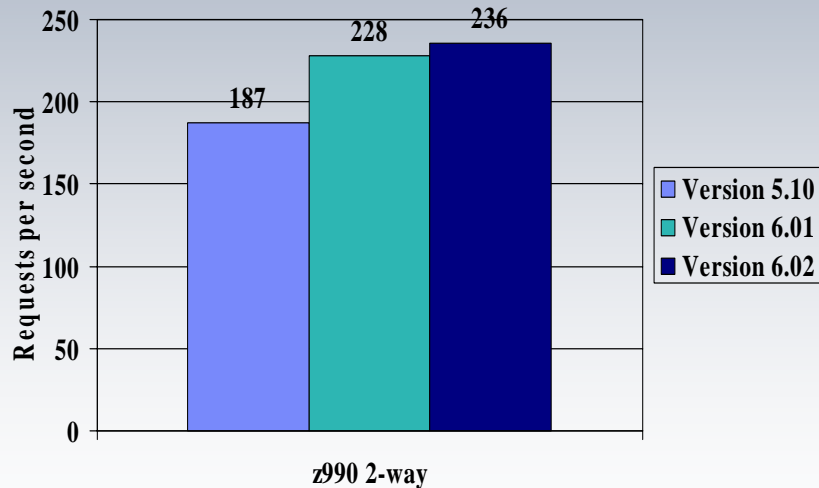
WAS z/OS Performance – Trade Scenario

5-15% improvement from V5.1 to V6.0.2!



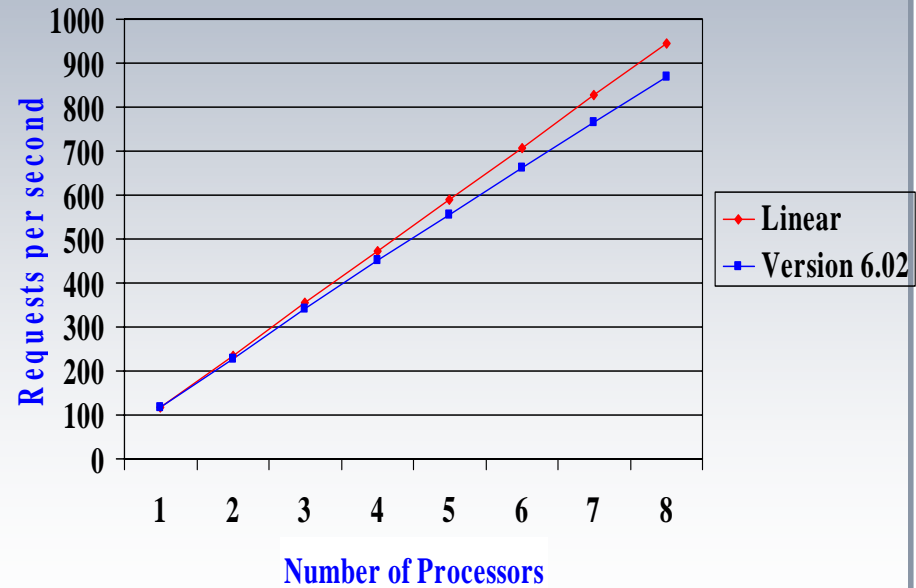
Trade EJB Throughput

No Dynacache
External MQ



More is better!

Trade Scaling





2H06 “z Deliverables”

64-Bit Support on WAS 6.1

- Allows WebSphere Application Server to run in 64-bit virtual addressing mode
 - Today JVM heap limited to 1G
 - Removes restriction on amount of virtual storage available to both the applications and the server
- Addressing mode will be configurable on a per server basis
 - One node can contain both a 31-bit server and a 64-bit server
- Post GA deliverable:
 - Current target is late 2H06

“Apache HTTP Server” on z/OS on WAS 6.1

- Meet customer demands for “Apache” on zOS
 - Provide an easier to use HTTP server on z
 - ❖ same skills required as on other platforms
 - ❖ doesn't require deep z skills to use
 - Port of the distributed code base onto z platform
 - Focus on making Z-IHS look/feel like D-IHS
 - No additional function beyond what is in D-IHS in initial release
- Currently in beta
- Post GA deliverable
 - Current target is late 2H06

WebSphere Portal V5.1



Framework Services

- Quickly develop and deploy portal applications
- Customize and personalize delivery

Integration Services

- Leverage existing IT investments
- Simplify access to processes, content and applications

Content Services

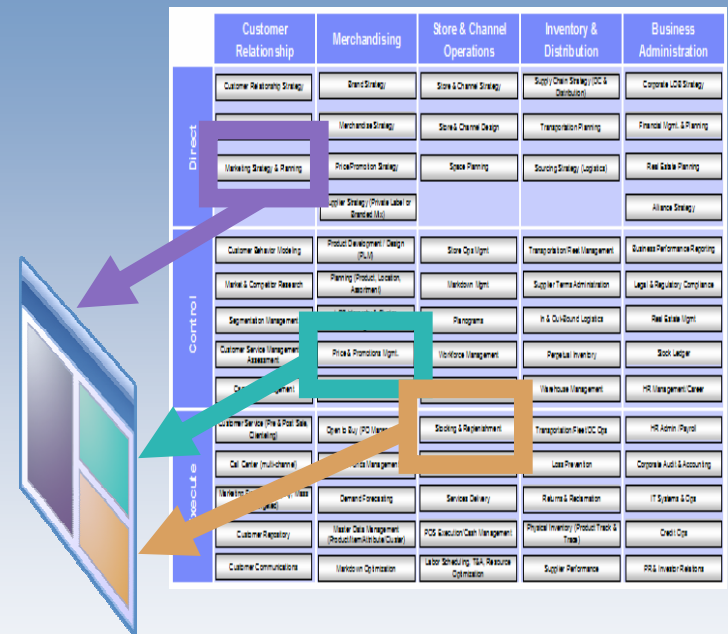
- Delivers pre-built productivity components
- Create, manage and search content and web assets

Collaboration Services

- Delivers ready-to-use collaborative components
- Find, connect, and work with people

WebSphere Portal on z

- Functional Parity with WebSphere Portal for Multiplatforms V5.1
- Close to 100% code compatibility
- Easier and More Intuitive Installation and Configuration
- Selected Exploitation of z/OS Qualities of Service
- Performance equal to or better than WebSphere Portal for Multiplatforms V5.1
- Enterprise Characteristics of the z/OS Platform
- Includes support for the zSeries Application Assist Processor (zAAP)



New in CICS Transaction Server V3.1 – Ease of Integration

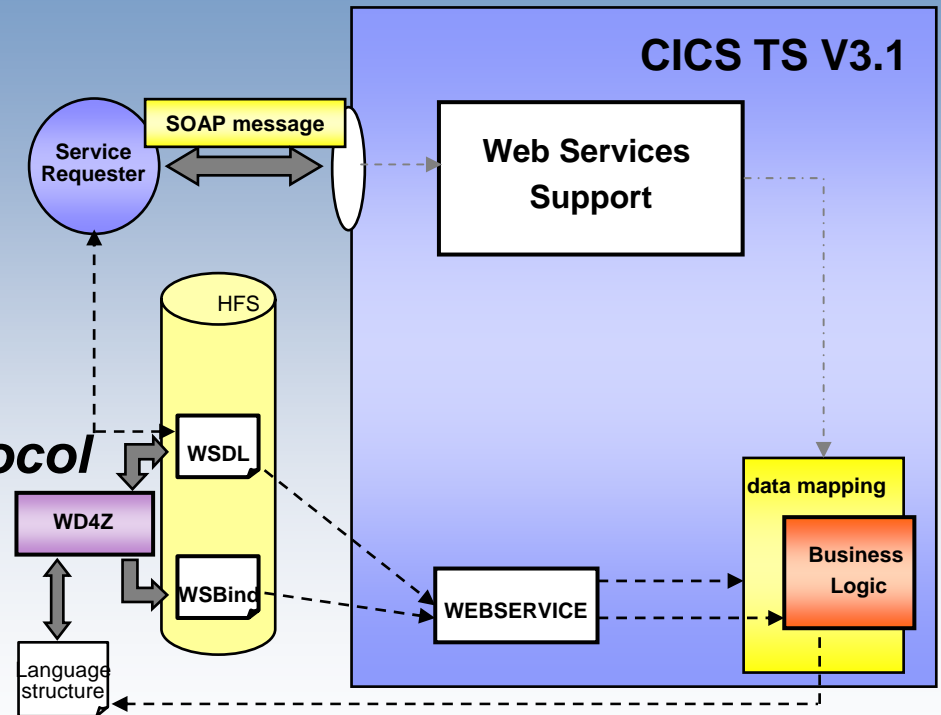


Exposure of CICS-based applications as Web Services for integration in a Service Oriented Architecture (SOA)

- Enables standards based interfaces via Web Services
- Provides a simple method for re-factoring CICS applications
- Allows CICS to be both a Web Services provider and requestor

Support industry leading SSL protocol

- Enables fine-tuned control of network security
- Provides a faster and more comprehensive security solution through exploitation of advanced z/OS security features



WebSphere Process Server V6

Deploying processes within BPM enhances your SOA project



Simple, flexible deployment of processes

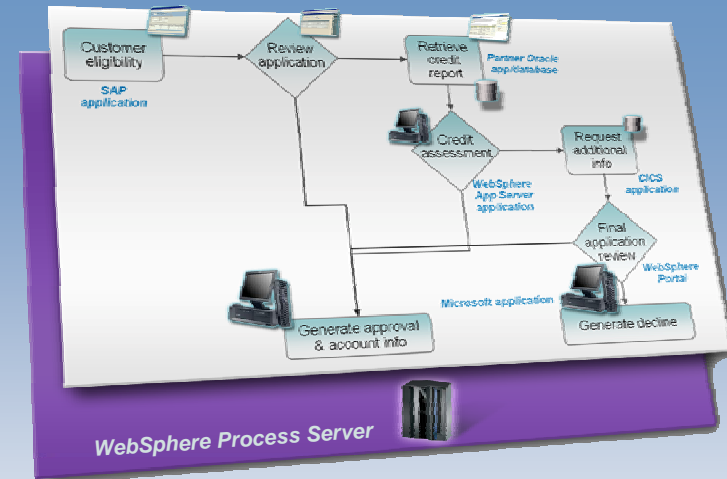
- Built and optimized on the market leading application server, IBM WebSphere Application Server

Powered by Enterprise Service Bus (ESB)

- Built on top of an open standards based ESB
- Flexible connectivity infrastructure for integrating applications, data, and services to power your SOA

Dynamically modify deployed processes

- Making plug-and-play of process components a reality
- Change business rules quickly and easily



*"Once the up-front analysis and definition work are completed, the Business Integration infrastructure allows us to implement new business processes at a rate of one every few weeks for medium to complex processes."
 – EAI Project Manager, Electrabel*

WebSphere Extended Deployment for z/OS V6.0.1

Delivering high qualities of service to your SOA



Business flexibility

- *Delivers full WebSphere J2EE batch environment, which can be processed in conjunction with OLTP*
- *Management of both WebSphere and non-WebSphere servers*

Simplify large scale production implementations

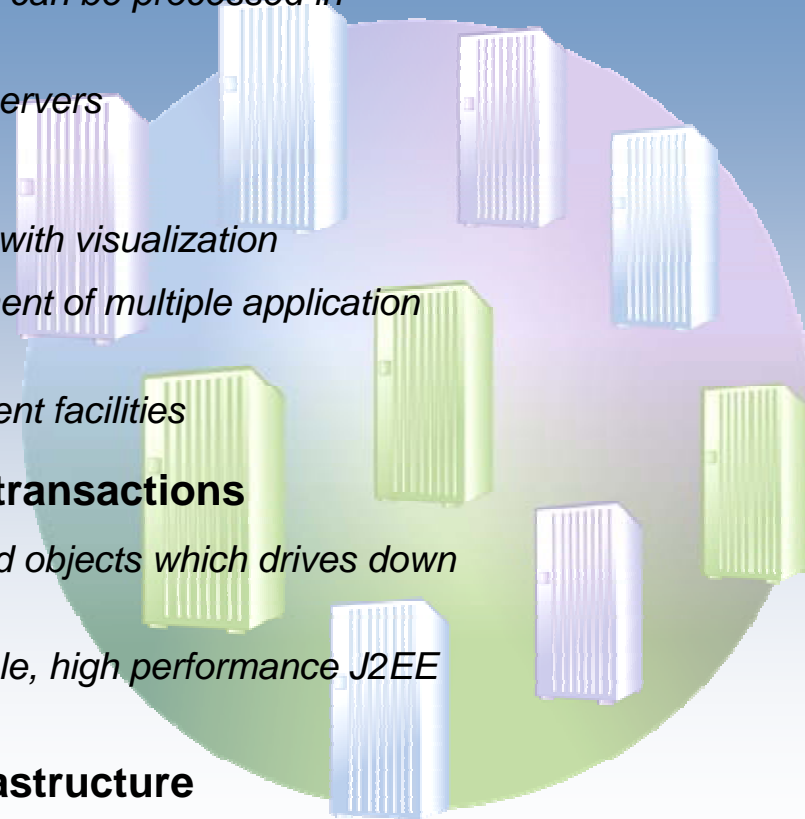
- *At-a-glance assessments of system vitality and success with visualization*
- *Interruption-free application updates to manage deployment of multiple application versions in production environments*
- *Controlled implementation of proactive health management facilities*

Improve the performance and throughput of your transactions

- *ObjectGrid provides a caching framework for client based objects which drives down non-productive datasource transactions*
- *Partitioning facility enables development of highly scalable, high performance J2EE applications*

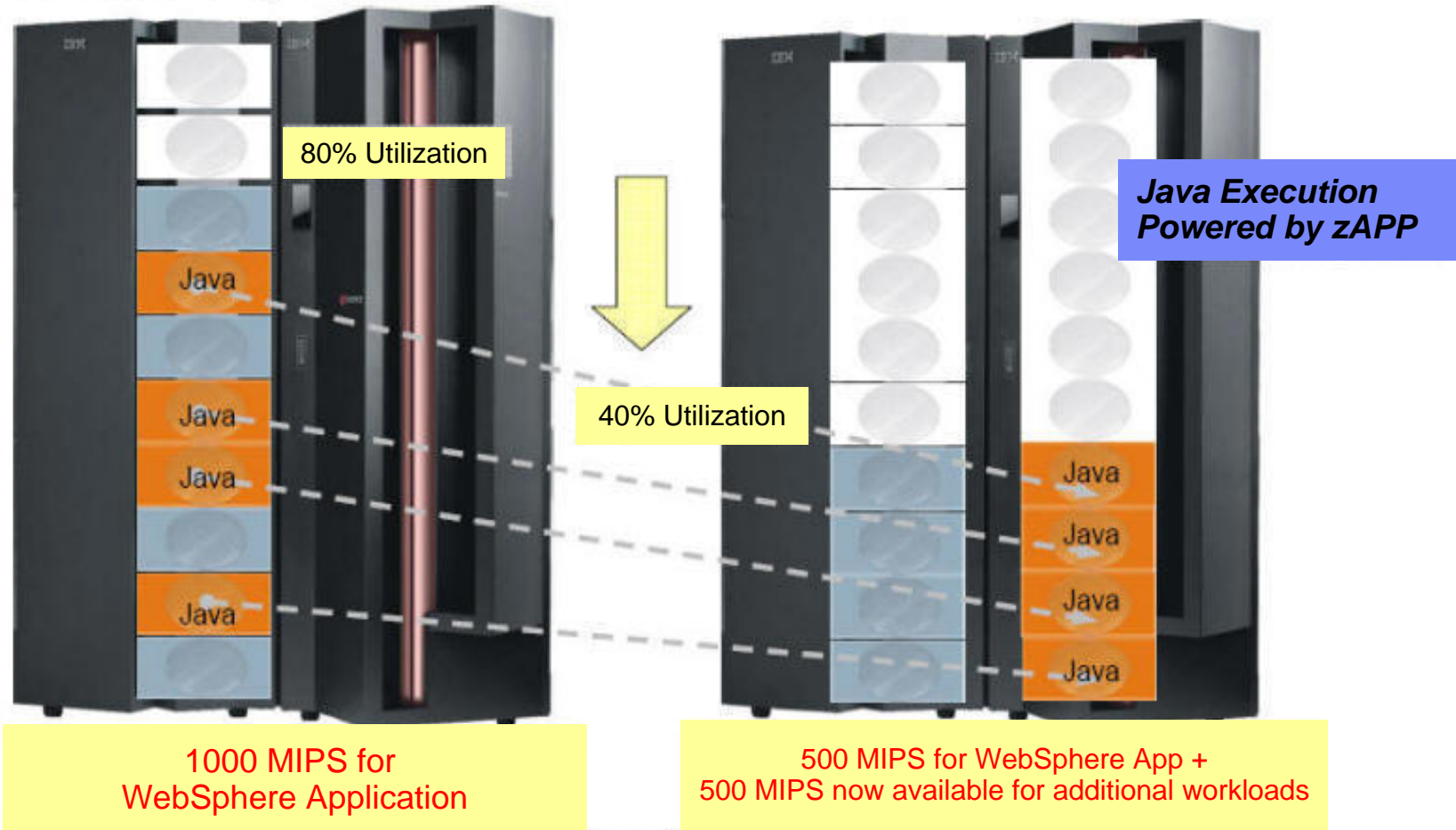
Deliver added intelligence to your application infrastructure

- *Integration with z/OS WLM enables improved Edge-of-Sysplex routing capabilities using the On Demand Router*



WebSphere Application Assist Processor for z/OS

Consider a WebSphere Application that is transactional in nature and requires 1000 MIPS today on zSeries



In this example, with zAAP, we can reduce the standard CP capacity requirement for the Application to 500 MIPS or a 50% reduction. *For illustrative purposes only

WebSphere Business Monitor

Monitoring business performance across your SOA



View and modify your business in real time

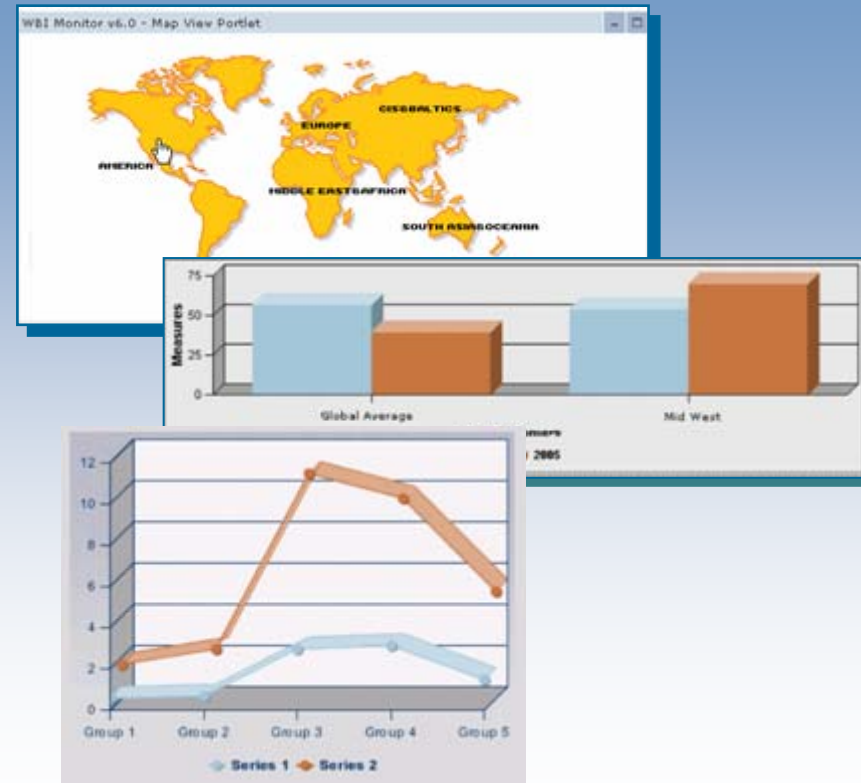
- Management dashboards and reporting capabilities, including trending information
- Tools to define or customize your dashboards
- See how your business is performing before issues arise
- Set KPI's based upon Key Performance Objectives

Ability to intervene in deployed processes

- Action Manager – supporting real-time response and action as performance data is received

Supporting continuous process improvement

- Ability to export data to WebSphere Business Modeler for analysis and process improvement
- Run modeling simulations based on real data from the business monitor



WebSphere Business Monitor

IBM Brings Together Process and Enterprise Information



External Information
Information affecting performance

Risk Factors
Manage risk

Monitored Actions
Track status of projects

Collaboration
Work with teams to resolve situations

The screenshot displays the Business Performance Management Workplace interface. It features a navigation bar with 'Documents', 'Welcome', 'My Work', 'My Newsroom', and 'My B.M.'. The main content area includes several components:

- Internal SLAs:** A section with circular indicators for 'ClaimProcess' (red with an 'X') and 'Help Desk' (green with a checkmark).
- Scorecard:** A table with columns for 'Symbol', 'Trend', 'Current', and 'Yesterday'. It lists metrics like 'ATC', 'ESLD', 'REG', and 'REG'.
- Express Claims Table:** A table with columns for 'Objectives', 'Status-Trend', 'Actual', 'Target', and 'Variance'. It lists metrics such as 'Resource Cost (100 Claims)', 'Duration Per Claim (Days)', and 'Impacted Express Claims in Cost (100 Claims)'.
- Alerts:** A section titled 'Alerts' with a notification for 'IVR router down'.
- Bar Chart:** A chart showing 'PERCENTAGE' on the x-axis and 'Percentage' on the y-axis.
- CSR Performance:** A grid of colored squares representing performance metrics.
- Navigation and Tools:** Includes 'My Portal', 'Administration', 'Edit my profile', 'Actions', 'Help', and 'Log out' options.

Scorecards
Key Performance Indicators for business units

Business Alerts
Notification of situations that require response

Reports & Analyses
Understanding trends by combining real-time performance and historical information

Prompted Actions
Options provided to improve performance

Monitored Processes
Metrics of critical business processes

IBM Customer Order System

Transformed with SOA to a flexible, dynamic environment

The Challenge

- Backlog of unmet business requirements
- Lengthy development cycle
- Lack of skills to maintain legacy code.

Real Results

- Reduced time and cost of new releases by 25%
- Business logic adaptable in real-time by business users
- Improved business insight and better performance for faster order fulfillment

How they changed

- Created a business model and standardized, reusable components
- New environment supports real-time transaction processing and increases resiliency with built-in performance monitoring through KPI's

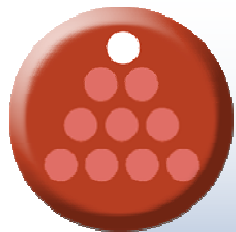


SOA Foundation is more than just software



Governance and Process

- SOA Center of Excellence
- Rational Unified Process (RUP)
- IT Infrastructure Library (ITIL)



Best Practices

- SOA-Related IP
 - Patterns
 - Redbooks
- Engagement Experience



Education

- Introduction to Value and Governance Model of SOA
- Web services for managers
- Technologies and Standards for SOA Project Implementation
- Design SOA Solutions and Apply Governance

IBM SOA Offerings

IBM understands service orientation and your business



Expertise in aligning business and IT processes

- SOA consultants, architects and IT specialists
- Dozens of SOA-enabled business solutions
- Unique intellectual property and methods

Thriving ecosystem of partners (ISVs, SIs, Resellers)

- 100+ partners in SOA community

Extensive Industry experience and best practices

- Over 1000 customers worldwide

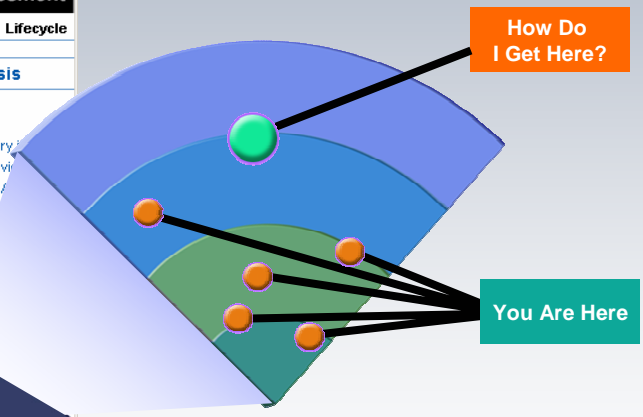
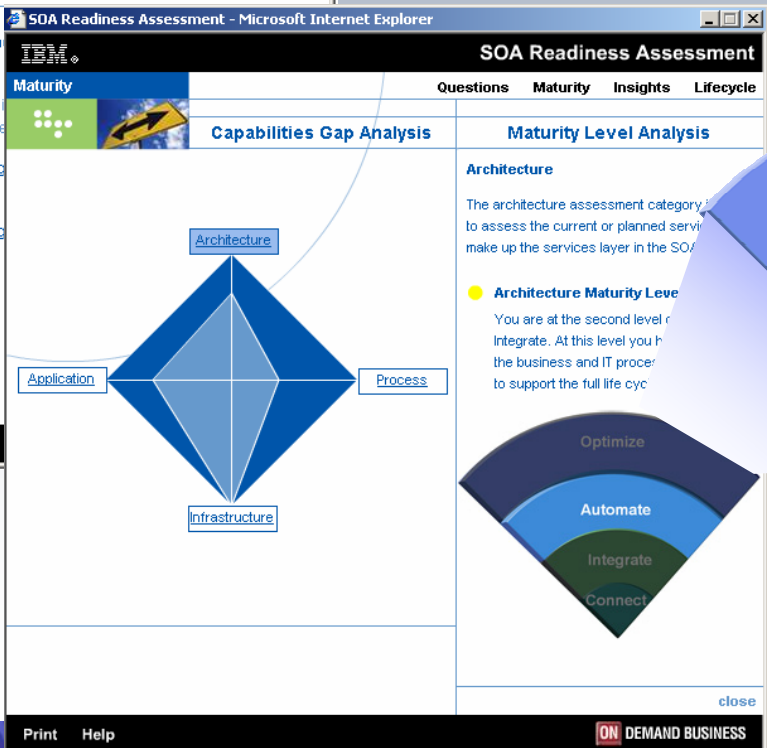
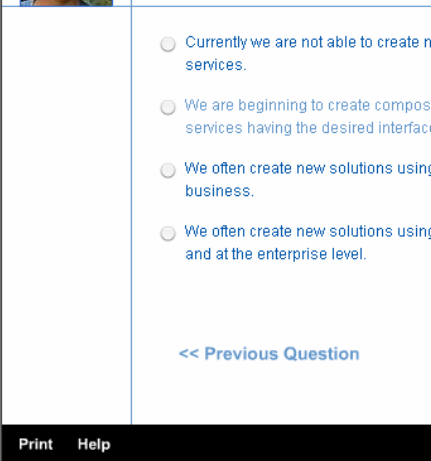
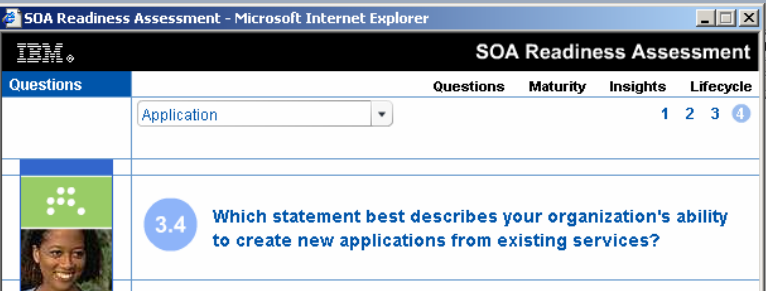
Unmatched breadth and depth of products

- Over \$1B/yr invested in SOA
- IBM leads over 50 standards bodies
- Over 300 SOA-related patents

IBM SOA Assessment Tool

On line or on site

Receive actionable recommendations customized to your level of SOA maturity



Find out at ibm.com/soa or contact soa@us.ibm.com

Why IBM WebSphere software for SOA?

Nobody has the same breadth and depth

- Broad portfolio relied on by over 87,000 customers
- #1 across application integration middleware
- Extensive ecosystem – more than 4,000 partners and 3,150 active ISV solutions

Nobody invests more

- IBM investing over \$1B a year around SOA and Web services
- Over 6,700 IBM developers
- Over 10,750 IGS technical practitioners trained on WebSphere

Award winning SOA products



IBM tops elite vendor list -Intelligent Enterprise Editors' Choice Awards (April 2005)



IBM Overall Winner in Application Integration Middleware

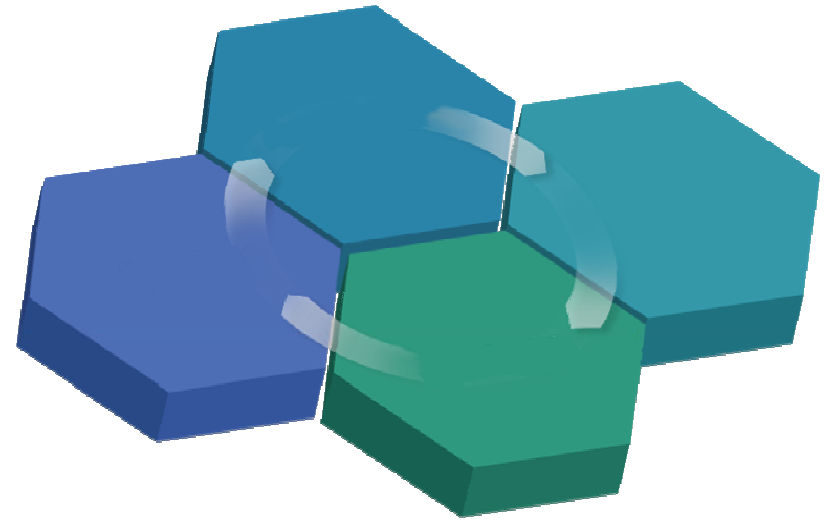
-CRN Channel Champions Award (March 2005)



WebSphere: "impressive management options, support for Web services and general ease of use..."

– Network Computing (February 2005)

Thank
YOU



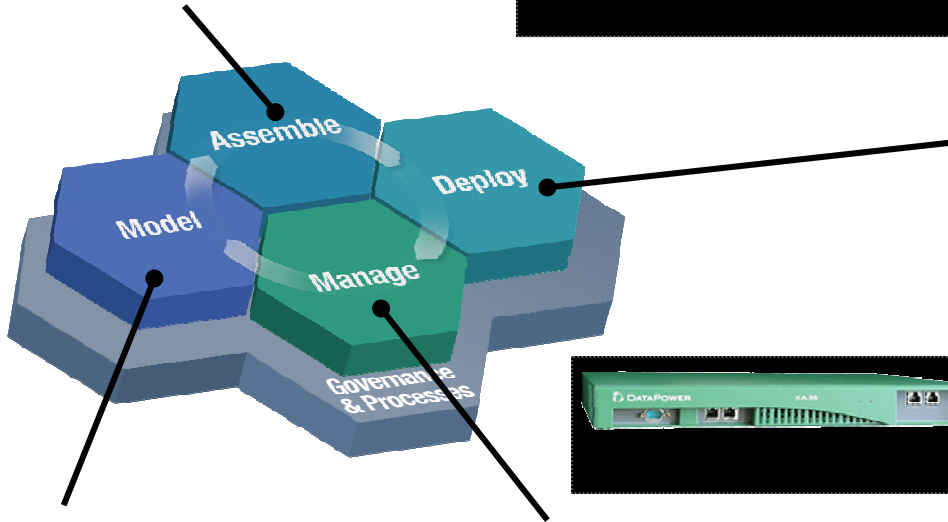
Q&A

Back-up

DataPower Continues SOA Foundation Enhancement



WebSphere Integration Developer
Rational Application Developer



People:

- WebSphere Portal
- WebSphere Everyplace Deployment
- Workplace Collaboration Services

Information:

- WebSphere Information Integrator



WebSphere Business Modeler
Rational Software Architect

WebSphere Business Monitor
Tivoli Composite Application Manager

Tivoli. software *does*

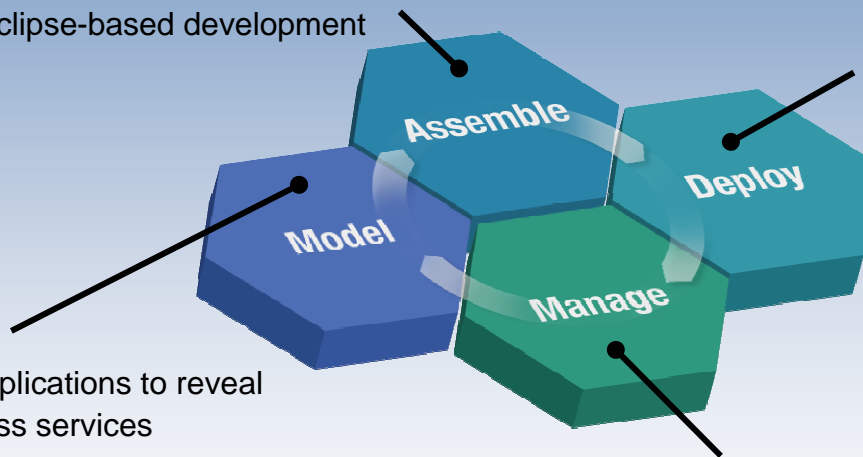


Enhance business flexibility with zSeries

Meet new requirements by leveraging your most valuable zSeries assets

IBM can help you build a service oriented architecture around your core zSeries applications

- Improve cooperation between your mainframe and client-server application teams using open integration technologies and common tools
- Program zSeries (WAS, CICS, IMS and DB2) with the latest Eclipse-based development workbench



- Analyze your applications to reveal reusable business services
- Trace usage patterns / service levels

- Use the latest middleware and management tools to reduce operational overheads

- Automatically generate web-interfaces for core CICS and IMS applications
- Create state-of-the art user interfaces without deep programming skills
- Integrate multiple core and new applications within the same workspace
- Compose business level web services from existing CICS and IMS transactions
- Retain mainframe availability, scalability, security and recoverability
- Connect applications right across your enterprise, across all platforms

Choose SOA from IBM so that you can maximize re-use and avoid the cost and risk of new application development projects.

Gartner Magic Quadrants: IBM in 11 Leader's Quadrants

IBM in Leaders Quadrant

- **Object-oriented Analysis and Design Tools** (as of 10/2004)
 Magic Quadrant for OOA&D Tools, Update for 2005, Michael J. Blechar, 17 September 2004
- **IT Project and Portfolio Management** (as of 6/2005)
 Magic Quadrant for IT Project and Portfolio Management, 2005, Matt Light, Daniel B. Stang, 22 June 2005
- **Methodware** (as of 8/2003)
 Magic Quadrant for Methodware, 2003, M. Light, 28 August 2003
- **Web Services Platforms** (as of 7/2005)
 Magic Quadrant for Web Services Platforms. David Mitchell Smith, Charles Abrams, Daniel Sholler, Daryl C. Plummer, Michele Cantara, 12 July 2005
- **Integration Backbone Software** (as of 4/2005)
 Magic Quadrant for Application Integration Suites, 2Q04, J. Thompson, R. Schulte, M. Cantara, J. Correia, K. Iijima, L. F. Kenney, B. Lheureux, Y. Natis, M. Pezzini, J. Sinur, P. Malinverno, 15 April 2005
- **Enterprise Application Servers** (as of 4/2005)
 Magic Quadrant for Enterprise Application Servers, 2Q05, Y. Natis, M. Pezzini, K. Iijima, 15 April 2005
- **Programmatic Integration Servers** (as of 2/2005)
 Magic Quadrant for Programmatic Integration Servers, 2005, Dale Vecchio, 25 February 2005
- **Horizontal Portal** (as of 5/2005)
 Magic Quadrant for Horizontal Portal Products, G. Phifer, R. Valdes, D. Gootzit, K.S. Underwood, L. F. Wurster, 18 May 2005
- **Enterprise-Scope Application Platform Suites** (as of 7/2005)
 Magic Quadrant for Enterprise-Scope Application Platform Suites, Yefim V. Natis, Massimo Pezzini, Daryl C. Plummer, Cameron Haight, Kimihiko Iijima, 20 July 2005
- **Smart Enterprise Suites** (as of 5/2004)
 Magic Quadrant for the Smart Enterprise Suite, 2004, G. Phifer, F. Caldwell, S. Hayward, J., Lundy, T. Eid, 17 May 2004
- **J2EE Application Server Management** (as of 4/2005)
 Magic Quadrant for J2EE Application Server Management, 2005, C. Haight, 4 April 2005

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Selecting an ESB Depends Upon Your Requirements



Full J2EE, JMS, and Web Services focus

Integration of Services with non-Services Applications

	WebSphere ESB	WebSphere Message Broker
Web Services Support	●	●
Message Transport & Protocol Switching	●	●
Intelligent Routing & Message Logging	●	●
Event Driven Processing	●	●
Transformation of XML Data Formats	●	●
Transformation of non-XML Data Formats		●
Complex Event Processing		●
Sensor & Device Integration		●
Native Integration with CICS & VSAM		●
Third party JMS integration		●

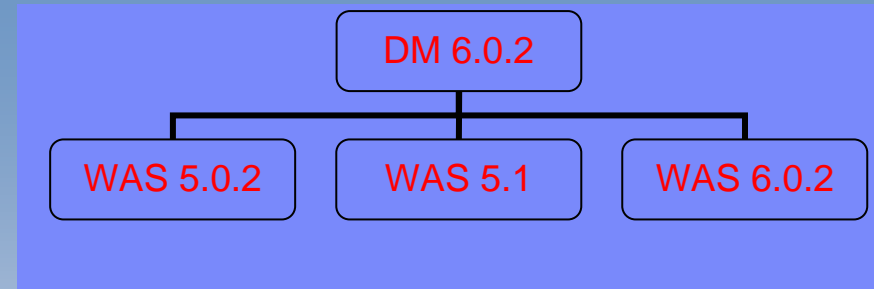
Web Services Standards Evolution in WebSphere

WebSphere 5.02/5.1	WebSphere 6.0	WebSphere 6.1
JAX-RPC (JSR-101) 1.0 <ul style="list-style-type: none"> ▪ New standard API for programming Web services in Java 	JAX-RPC (JSR-101) 1.1 <ul style="list-style-type: none"> ▪ Additional type support & Fault support ▪ Security - isUserInRole() 	Performance Enhancements <ul style="list-style-type: none"> ▪ SAAJ Changes ▪ SOAP/JMS ▪ New Parser (Banshee replacing B2B)
JSR-109 1.0 <ul style="list-style-type: none"> ▪ New J2EE deployment model for Java Web services 	JSR-109 – WSEE 1.1 <ul style="list-style-type: none"> ▪ Tighter integration with J2EE 1.4 ▪ Handlers support for EJBs 	SOAP JMS Enhancements <ul style="list-style-type: none"> ▪ Caching enhancements ▪ Text message enhancements
SAAJ 1.1 <ul style="list-style-type: none"> ▪ APIs for manipulating SOAP XML messages 	SAAJ 1.2 <ul style="list-style-type: none"> ▪ extends DOM (easy to cast to DOM and use) 	WS-N (Notification) WS-I BSP (Basic Security Profile) WS-BA (Basic Activity)
WS-Security <ul style="list-style-type: none"> ▪ Security Extensions WS-I Basic Profile 1.0 <ul style="list-style-type: none"> ▪ Profile compliance 	WS-Security <ul style="list-style-type: none"> ▪ OASIS draft 17; Following WS-I Security Profile WS-I Basic Profile 1.1 (Attachments support) WS-TX AT WS-Addressing	<p>The diagram illustrates the Enterprise Service Bus (ESB) as a central platform. It shows 'Existing Apps and Legacy Systems' on the left and 'New Service Logic' at the bottom. The ESB is depicted as a blue structure with arrows indicating data flow. Key components include 'Service Orchestration', 'Portal Service', 'SOAP Connected Component (e.g. .Net)', 'B2B Interactions', and 'Common Runtime Environment'.</p>
UDDI4J version 2.0 ((client))	UDDI v3 support <ul style="list-style-type: none"> ▪ both registry implementation and client API library ▪ Client UDDI v3 API different than JAXR (exposes more native UDDI v3 functionality N/A in JAXR) 	
WS Engine Enhanced <ul style="list-style-type: none"> ▪ Apache SOAP 2.3 ▪ New high performance SOAP engine supporting both HTTP and JMS 	JAXR support	

Mixed Cell Support in 6.0.2

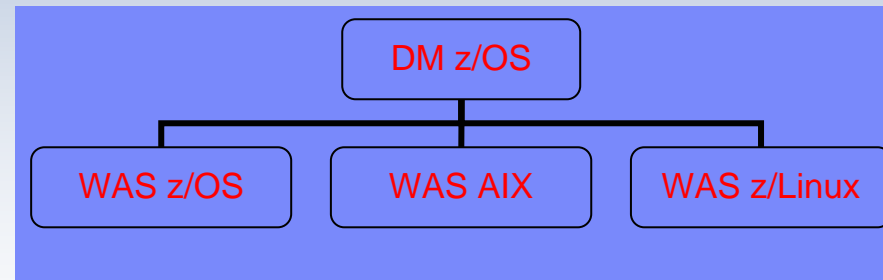
■ Mixed Version Cells

- A cell can contain V5.0.2, V5.1 and V6.0.2 nodes at the same time
- Eases Migration to V6.0.2
- Maintains single point of management



■ Mixed Product Cells

- A cell can contain both WAS multi-platform and WAS z/OS
- The Deployment manager can be on either multi-platform or z/OS
- Maintains single point of management
- Limitations: No SAF security, No mixed clustering



IBM's On Demand Workplace (ODW) is a production showcase for WebSphere Extended Deployment

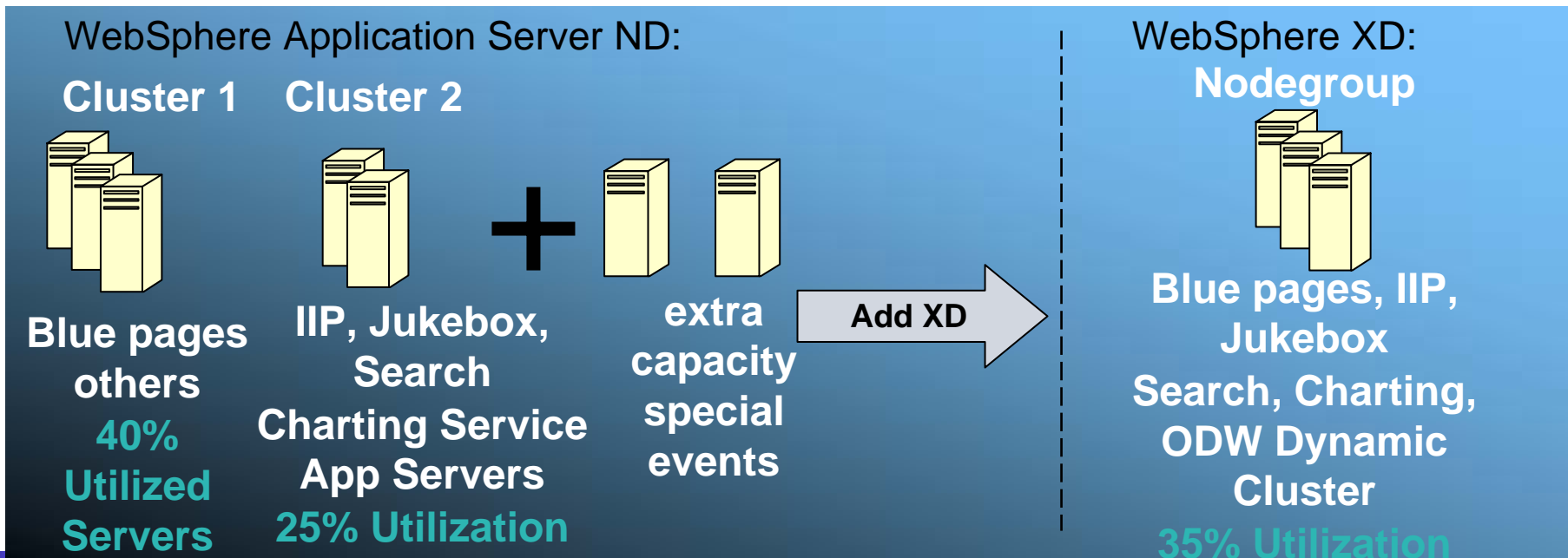
Challenge

Reduce hosting costs, increase resiliency and ability to dynamically increase capacity on-demand

Solution

Leverage WXD virtualization features for server consolidation and increased utilization

- Improved **application resiliency** and **increased efficiency** through virtualization
- Achieved **cost savings of 25%**
- Enhanced **monitoring** in a more complex environment.



Business Flexibility with WebSphere Process Server



What is the business challenge?

- Multiple applications and systems not optimized to support business processes.
- Difficult to collaborate among departments and systems.
- Inflexible processes with slow response time.
- Need improved business flexibility.

Action taken

- Single process integration infrastructure based on SOA using WebSphere Process Server and WebSphere Integration Developer
- Standards based BPEL processes that transform existing infrastructure to SOA
- Single server and tool to create and manage business processes

Benefits

- Profitable use of existing applications to support new product development
- Improved business flexibility with dynamic and adaptive processes

Standard Life Assurance Company

Building a competitive edge with a collaborative SOA

The Challenge

- Used batch process to publish information to the web; impacted ability to provide latest information for IFAs (Independent Financial Advisors).
- Needed competitive, multi-channel portal offering to provide IFAs updated information, along with newer, more helpful services.



How they changed

- A collaborative SOA using web services was developed to automatically transfer information seamlessly between backend systems and an IFA portal.
- IFAs are now able to provide customers with a thorough view of Standard Life's offerings, leveraging current data and advanced, robust, business tools.
- The solution was developed using Rational Application Developer, WebSphere Message Broker, IBM WebSphere MQ.

Real Results

- IFAs can instantly retrieve up-to-date information and access more than 300 advanced business services provided by Standard Life.
- 900% more OLTs = increased competitiveness
- 1.6 Million mainframe transactions daily
- More than £3 million in development costs saved
- Voted Company of the Year by IFAs

Istituto Clinico Humanitas

Remote Access to Patient Records

The Challenge

Allow doctors, working remote with emergency facility, to quickly and securely make with the highest possible performance.

How they changed

Implemented a robust IBM Mobile Enterprise Solution, providing a highly secure electronic Patient Records system that conformed to legal requirements and enabled doctors to consult health data at any time and from any place.

Real Results

- Improved service by providing immediate care for emergency patients without doctor on the scene.
- Reduced costs by providing Specialists / Doctors services on-call (from their home)
- Created new service for TechoSP in competitive field, allowing integration of hospital applications in secure data transport.



Travelex United Kingdom

Faster to market with new services using an open, flexible infrastructure

BUSINESS CHALLENGE:

In a market traditionally dominated by large banks, Travelex leverages its agility and innovative use of e-commerce technology to differentiate itself in the foreign exchange market. However, its infrastructure lacked the standardization and integration to enable quick development and launch of new services – threatening the company’s ability to remain competitive. Travelex needed open, flexible systems that would enable continued growth and innovation.

SOLUTION:

With the help of IBM Business Partner Osmosis Integration, Travelex consolidated its disparate systems onto an open IBM WebSphere-based service oriented architecture, enabling fast rollout of new applications and services. The integrated development environment is built for the reuse of valuable software components to save time and money.

BENEFITS:

- New service development cycle time reduced by 30%
- Administrative and application support costs reduced by 20%
- Transaction processing time reduced by 85%
- Easy integration with partners using the open IT platform that is compatible with virtually any customer’s systems



“We were the classic model of a company that had grown very large very quickly. To keep our competitive edge, we needed underlying systems that would complement—not impede—our agility as a business.”

Peter Beuken, Head of IT,
Commercial Foreign Exchange, Travelex

Implemented using:

- WebSphere Application Server - Enterprise
- WebSphere Application Studio Developer
- WebSphere Business Integration Server
- WebSphere Message Broker
- WebSphere MQ

Key Links

- **For Customer Videos/Webcasts of the story/Events**
 - www.ibm.com/soa
- **SOA Readiness Assessment**
 - http://www.ibm.com/websphere/soa_assessment
- **SOA Customer Presentation**
 - <http://www.ibm.com/soa>
- **Business Case for SOA, CBDI Report**
 - http://www-306.ibm.com/software/solutions/webservices/pdf/cbdi_report_soa.pdf
- **SOA Project Definition (Free)**
 - WSSOA@us.ibm.com
- **SOA Jumpstart (Free)**
 - <http://ausgsa.ibm.com/~wwbistew/stew/stew2004/BI/BIArchitects/SOAJumpstart.html>