



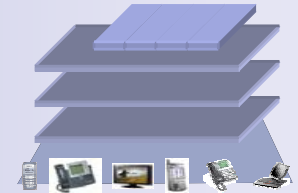
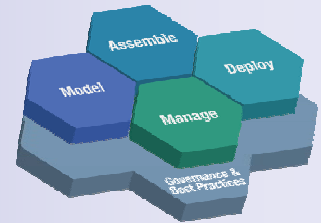
# ***Exploring a Shorter Path to Cost Savings – Leveraging Existing Assets for On Demand Applications***

***Yvonne Perkins, Vice President,  
Application and Integration Middleware Software***



# What We Have Accomplished

<b>September 2005</b>	<p>Announced the new SOA LifeCycle          Developed SOA Reference Architecture          A series of products and services announcement</p>
<b>February 2006</b>	<p>SOA &amp; Telecom announcement</p>
<b>March 2006</b>	<p>PartnerWorld announcement          SOA Governance announcement</p>
<b>April 2006</b>	<p>Entry Points to SOA accelerated through SOA          centric products, offerings, and services</p>
<b>May 2006</b>	<p>SOA and the System z Platform</p>



# Key Takeaways

## SOA is one of IBM's long term strategies to enable innovation

### Customers are adopting SOA on System z

- ▶ *Over 300 customers deploying SOA on CICS Transaction Server V3.1 ... and the fastest uptake of any version of CICS TS*
- ▶ *WebSphere Application Server for zSeries had 21% growth in 2005.... and 25% penetration in z accounts*
- ▶ *zAAPs outperformed expectations by 36% in 2005*
- ▶ *New System z9 processor range from 26 to 18,000 MIPS*

### IBM's view of SOA is business centric

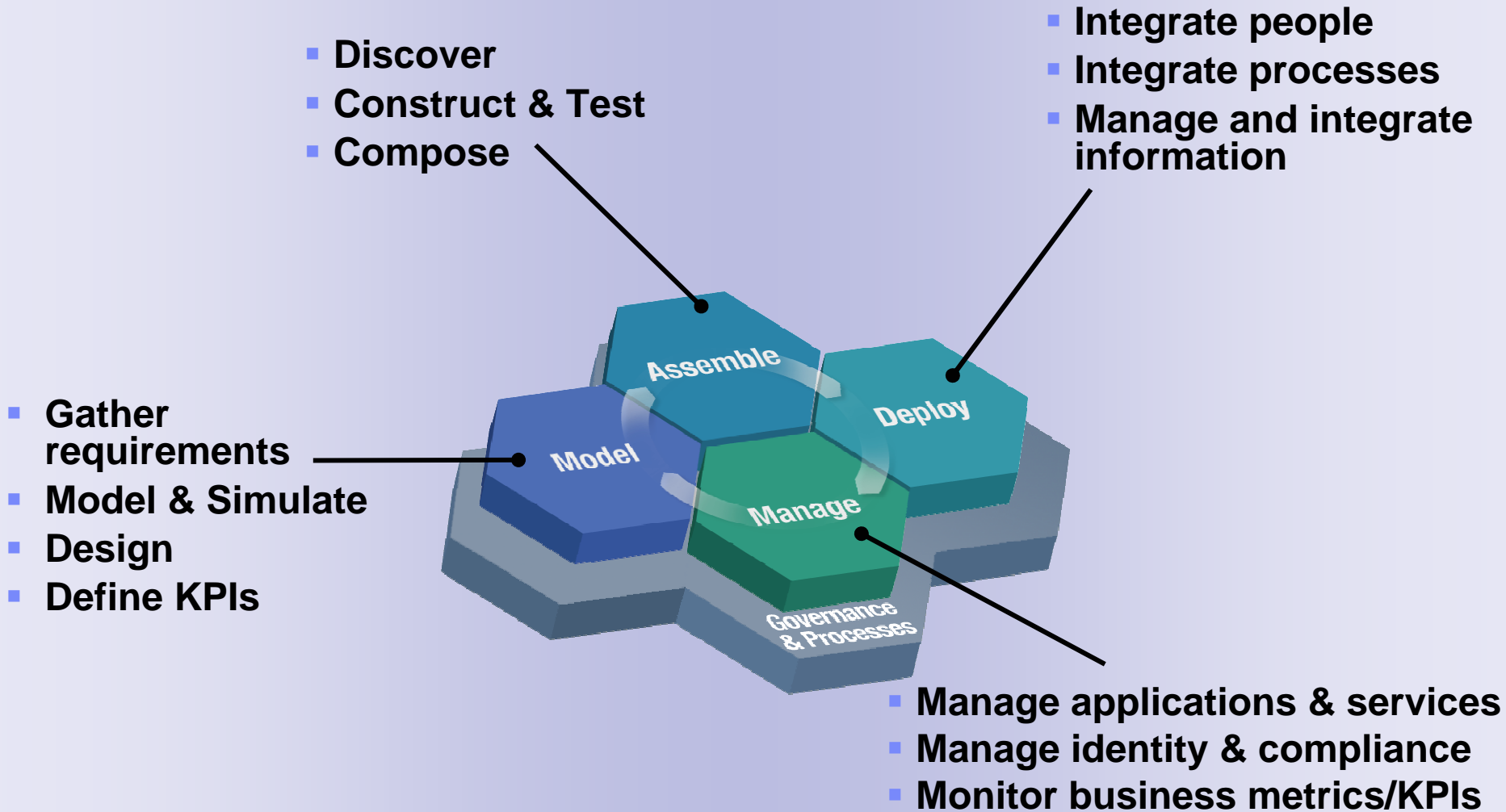
- ▶ People, process and information entry points
- ▶ Reuse and connectivity are critical

### Entry points are accelerated by SOA Foundation products including...

- ▶ 4 enhanced System z products
- ▶ 3 new System z products
- ▶ 2 new adapters

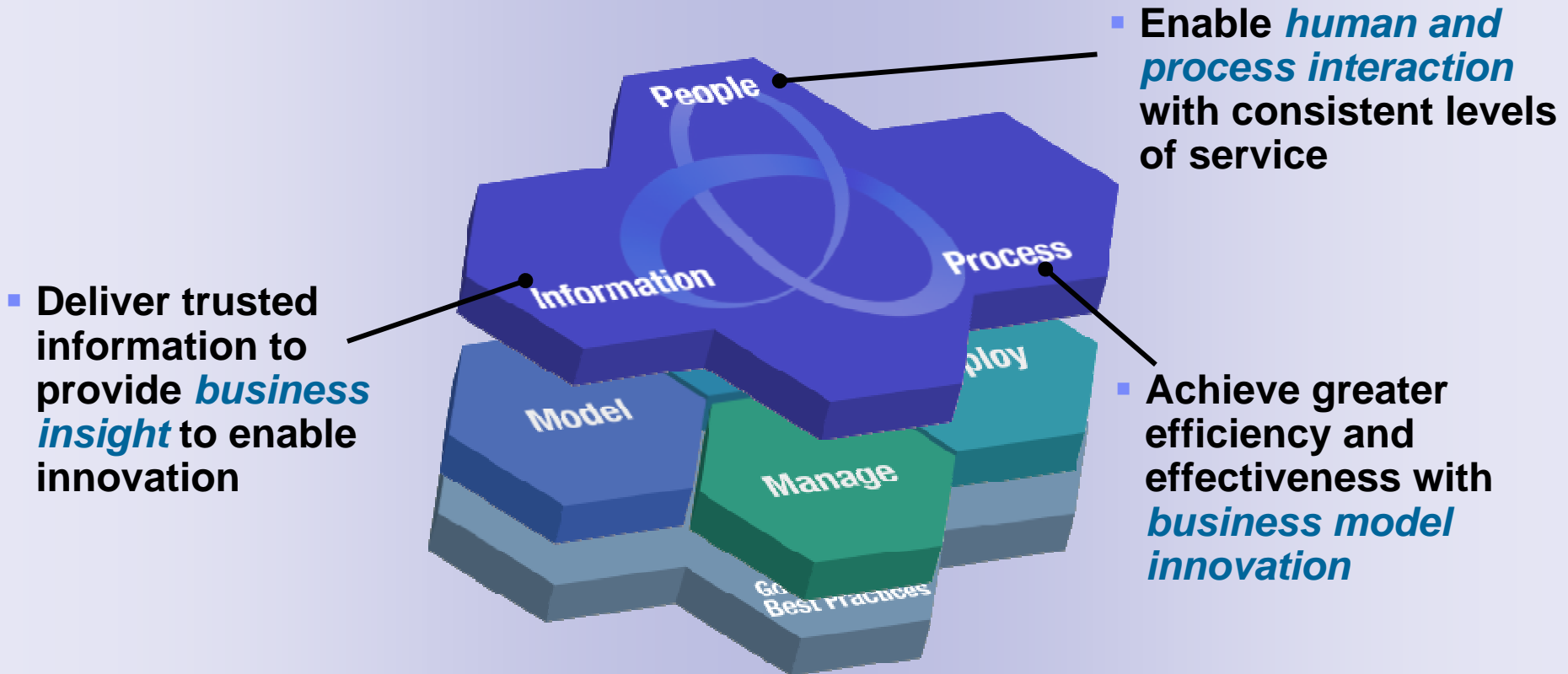


# The SOA Lifecycle



# IBM's View of SOA: Business Centric

## *Built on SOA Lifecycle*



Recent studies of over 1900 customers showed SOA starting points of people, process, information or a combination of all three

# Platform for Business Centric SOA – System z

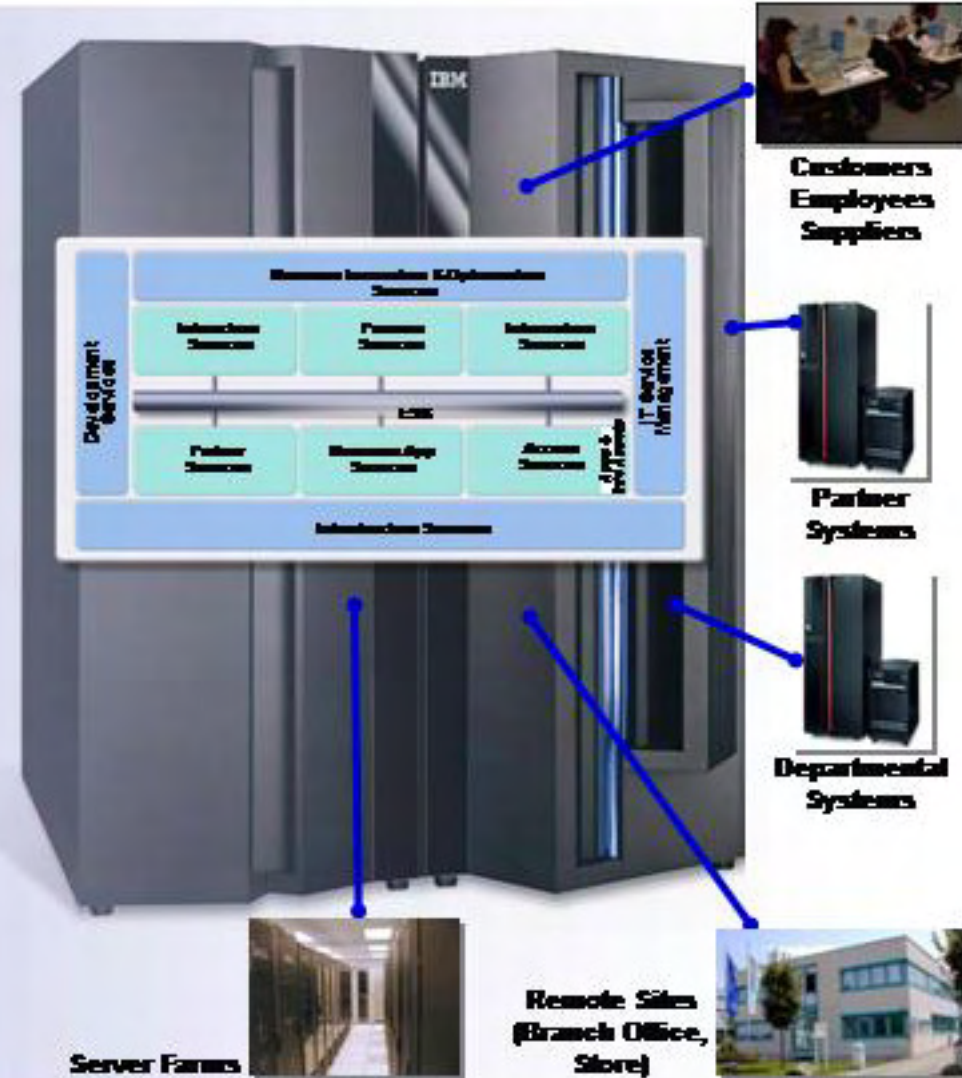
*Delivers all the essential SOA qualities*

## Architecturally compatible:

- SOA Reference Architecture
- Architectural services
- Communications and integration
- Process control
- Reuse of core assets
- Industry standards compliant

## Operationally superior:

- **Security** end-to-end in the enterprise
- **24/7 availability**
- Massive **scalability**
- **Automated recoverability**
- **Centralized** operations



# SOA Entry Points Help Customers Get Started

## *Both Business Centric and IT Focused*

### **Information**

WebSphere Information Server  
 DB2 Viper  
 WebSphere RFID Premises Server / Device Infrastructure  
 Master Data Management

### **People**

WebSphere Portal  
 Front End Tooling Innovation  
 SOA Dashboard Offerings

### **Process**

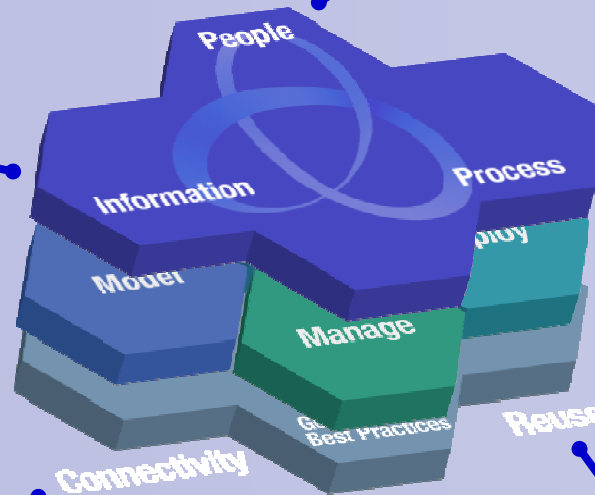
WebSphere Process Server for z/OS  
 WebSphere Business Modeler  
 WebSphere Business Monitor  
 WebSphere Integration Developer

### **Connectivity**

WebSphere MQ  
 WebSphere Enterprise Service Bus for z/OS  
 Web Sphere Message Broker  
 WebSphere Adapters for z/OS

### **Service Deployment and Reuse**

WebSphere Application Server V6.1  
 CICS Transaction Server V3.1  
 IMS V9  
 z/Transaction Processing Facility  
 WebSphere Service Registry/Repository  
 WebSphere Developer for z/OS

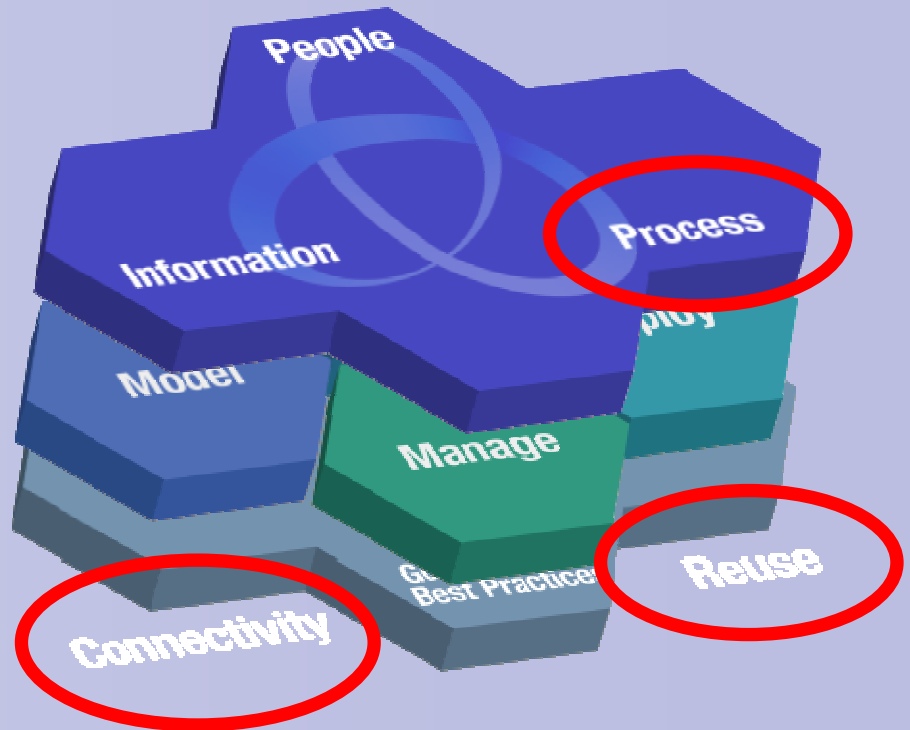


# SOA Entry Points in Process, Connectivity and Reuse

*IBM's strategic SOA investments in System z*

## ***System z as a platform for:***

- *Business services*
- *Business connectivity*
- *Process Management*





# SOA Entry Point to Creating & Reusing Services

*Create and Deploy Flexible, Service-based Business Applications*

## z Value

- Flexibility and elimination of duplication for reduced cycle times and lower project risks
- Expanded access to core applications and business rules
- Consultant studies have found it 5X less expensive to re-use existing applications than to write new applications

## Start with

- Identify high-value existing enterprise assets and service-enable them for reuse
- Fill in gaps by creating new services for today's business needs and future reuse
- Registry/repository to facilitate centralized access and control of reusable services



# A bright and rising future for CICS Transaction Server

*Rock-solid deployment platform, 100% aligned with SOA technologies*

## **CICS Transaction Server V3.1**

- Build Web services with no change to existing applications
- Highest levels of data integrity and security
- Optimized throughput and performance
- Simple and intuitive management
- New SOA Statement of Direction
  - ▶ Extended integration of the CICS Service Flow Runtime with WebSphere Process Server
  - ▶ CICS integration with WebSphere Service Registry/Repository
  - ▶ Support for Event Driven Applications

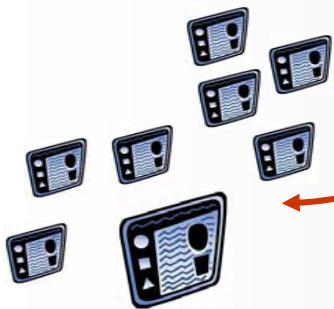


# IMS Application Integration with IMS SOAP support

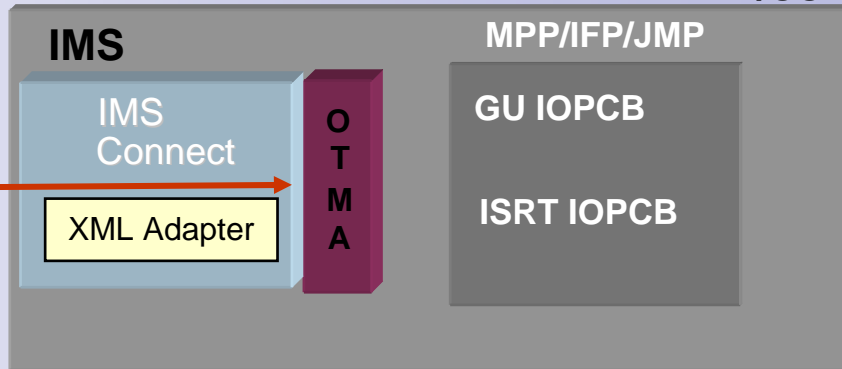
## IMS V9



- Enables Reuse of IMS Applications as Web Services
  - ▶ Support Webservice specifications
  - ▶ Leverages open standards and utilizes flexible tooling support
- Provides IMS Transaction Interoperation with Client Applications
  - ▶ Independent of location, programming language, and platform
  - ▶ SOAP Clients can be Microsoft .Net, SAP, Java, etc.



*request via SOAP*



IMS Soap Gateway  
 GA December, 2005  
 Download at [ibm.com/ims](http://ibm.com/ims)

XML Adapter  
 Beta in progress  
 GA July, 2006

z/OS

# Drive your business: WebSphere Application Server

*Add resiliency to critical business applications deployed to z/OS, while using open standards to prepare for the future*

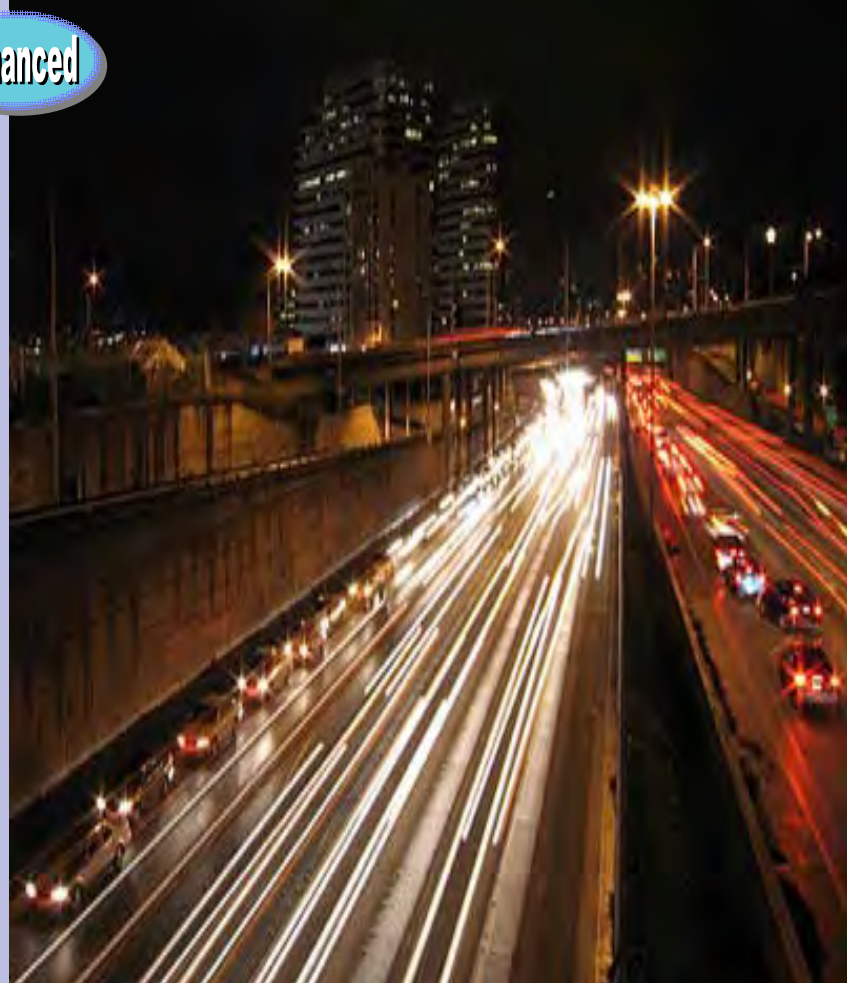
## **WebSphere Application Server V6.1**

- Common code base for application portability and consolidation to System z
- Ease-of-use features help accelerate time to value
- Have confidence applications are secure and available
- z/OS platform integration provides advanced availability, scalability, workload management, and security

## **WebSphere Extended Deployment V6.0**

- Reuse core business logic with new business patterns
- Automate system responses to application health and business demands

enhanced



# Bank of Montreal Exploits its Re-usable Assets

*Integration with the mainframe is essential for BMO's SOA*

## Actions & Benefits:

To increase customer satisfaction, BMO needed a new teller application that integrated with its sales and CRM systems

“WebSphere was very attractive to us because of its ability to integrate with our existing main-frame legacy systems.”

— Randy Oswald, senior vice president, technology and solutions, BMO Financial Group



Used flexible **Web services** to transform core CICS systems to integrate with Siebel CRM



Built an SOA using **WebSphere's** open standards for interoperability between disparate products and platforms



**Improved productivity & efficiency** with reduced operating costs using WebSphere integration on z/OS

Capabilities used: WebSphere Message Broker, WebSphere Application Server, CICS



# Identify Assets

## *WebSphere Service Registry and Repository*

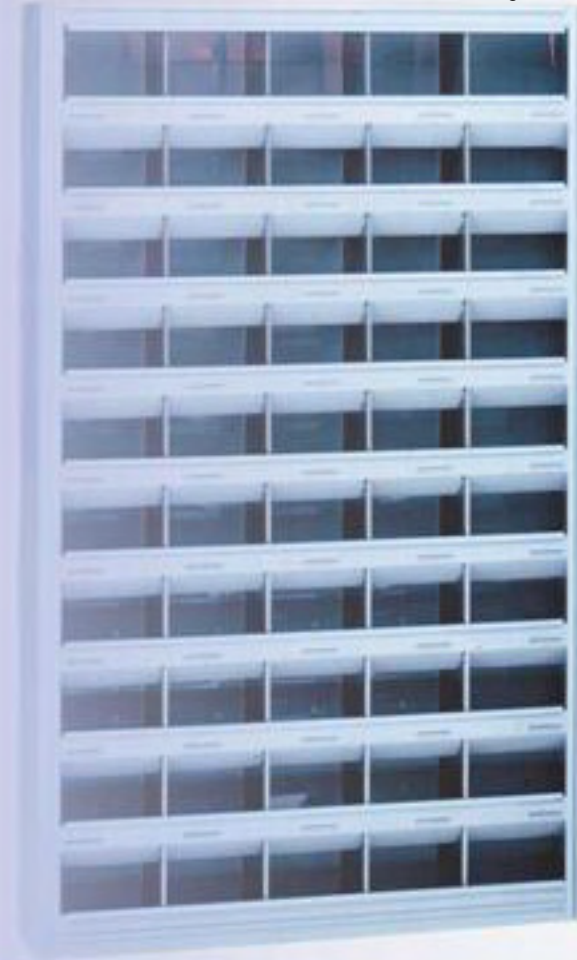
***An enterprise-wide service registry and repository improves visibility, reusability, adaptability, and manageability of services***

### **The WebSphere Service Registry and Repository ...**

- **A repository for service metadata**
  - ▶ for example, WSDL and XSD
- **For publication of services**
  - ▶ to advertise their capabilities
- **For finding suitable services**
  - ▶ for reuse and runtime agility
- **For capturing service dependencies**
  - ▶ to support change management
- **An extensible framework**
  - ▶ to support validation and notification

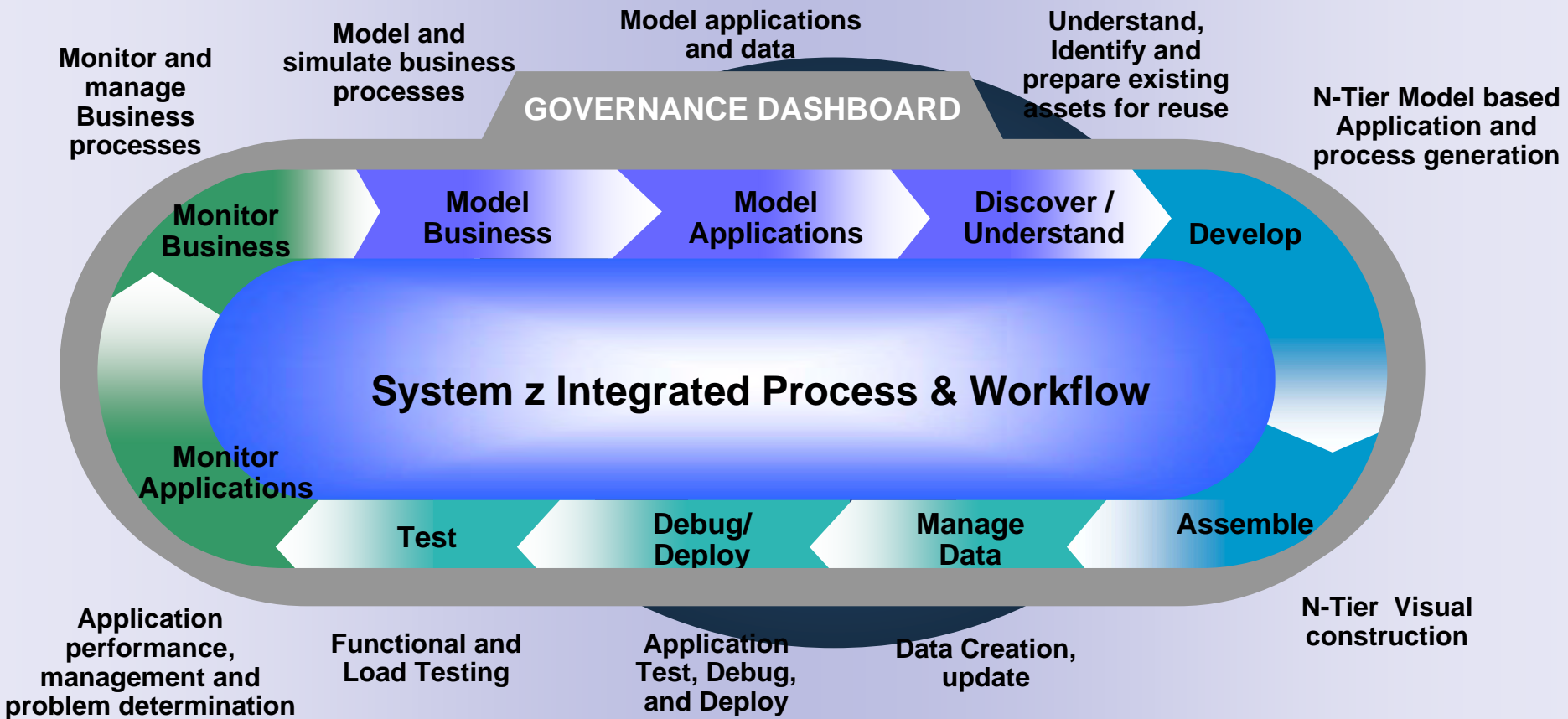
**NEW!**

*Platform for  
Business Connectivity*



# System z Application Lifecycle

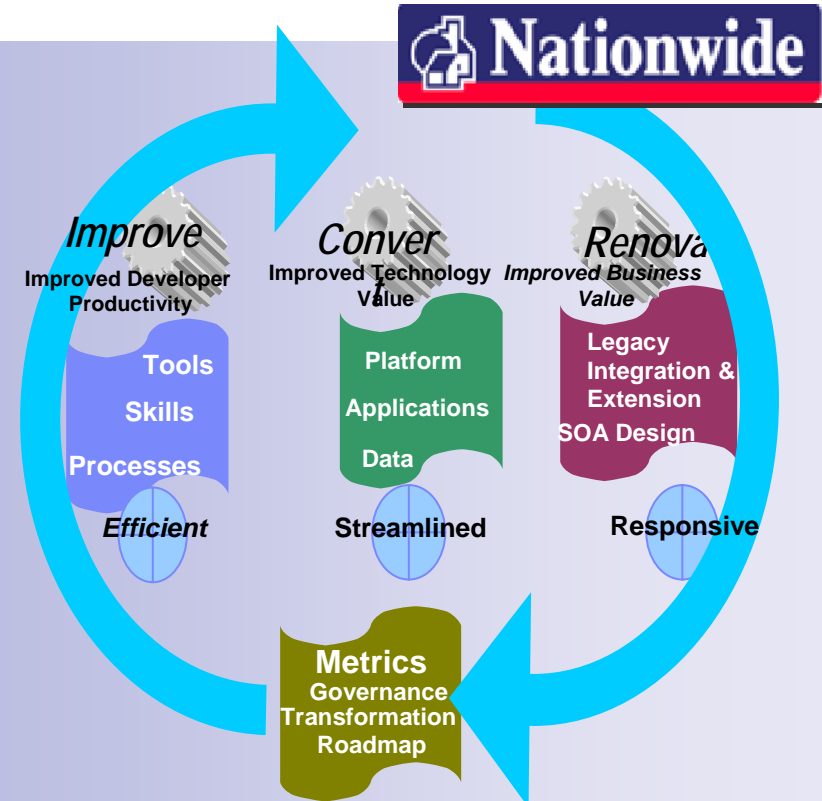
*The scope of IBM tools for deploying SOA*



# Nationwide establishes Mainframe Center of Excellence

*Leverage and modernize the mainframe environment with IBM tools*

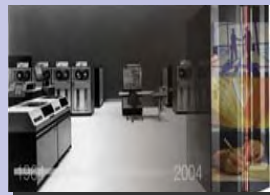
- The enterprise understands that to simply abandon mainframe applications is to lose a significant competitive advantage.
- The enterprise prefers a strategy to preserve and renovate critical business processes by developing and managing an incremental modernization roadmap.
- Modernization encompasses not only the applications but also the architecture, processes, tools, infrastructure and developer community.



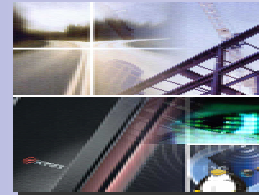
## Architecture & Design Excellence



## Application Excellence Process & Tools



## Infrastructure Excellence



## People Excellence





# SOA Entry Point to Connectivity

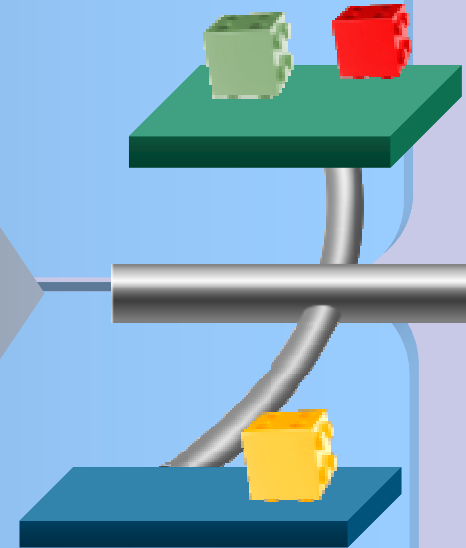
## *Connectivity to Support Business Centric SOA*

### **z Value**

- Deliver services through new business channels for a secure, consistent user experience
- Service-based connections with trading partners
- Potential savings of 2 – 4x over custom-built integration or FTP

### **Start with**

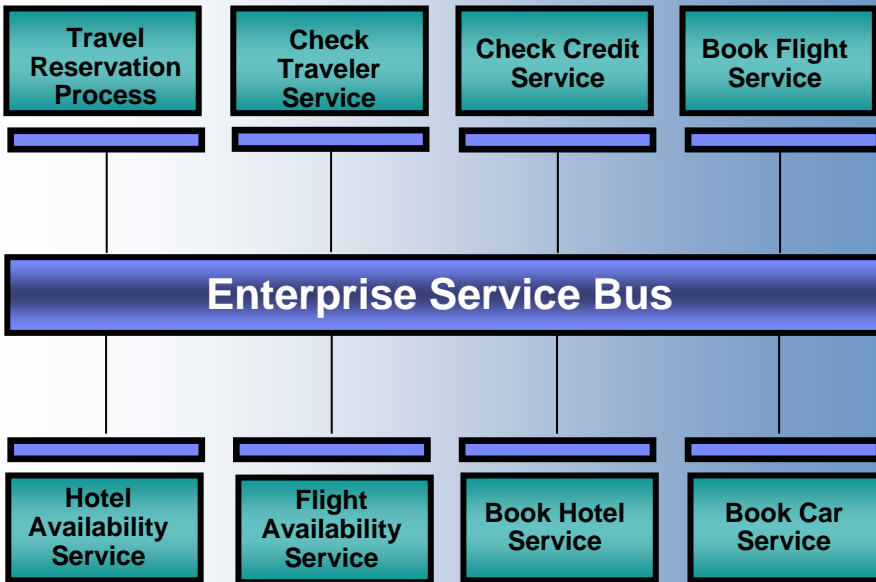
- Messaging backbone as the foundation for SOA connectivity
- Enable mediated exchange between services, by leveraging an ESB
- SOA appliances integrate for ESB functions in a hardware form factor



# Connect Services

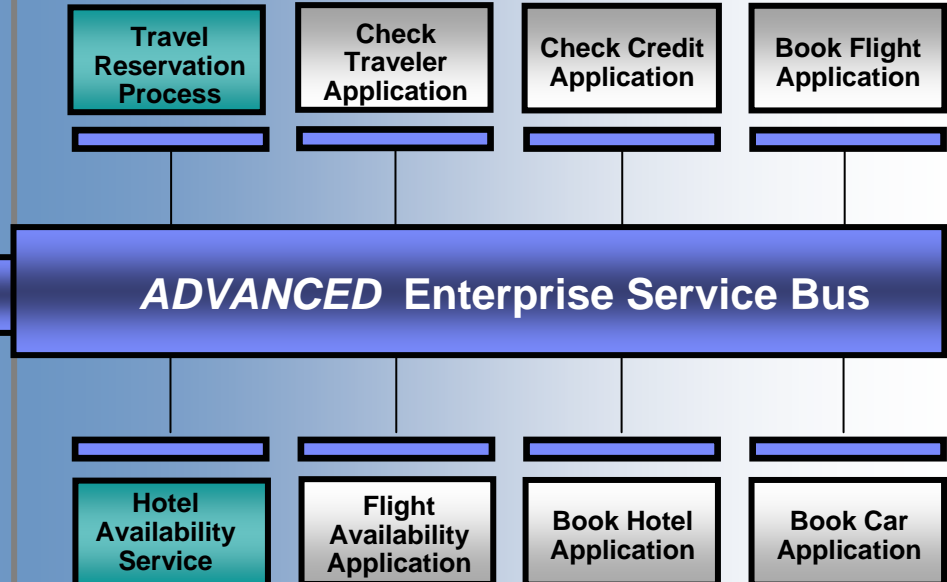
*Connecting People, Process and Information*

**1** If all your applications conform to the Web Services standards...



...then all you may require is an **ESB** focused on standards-based service integration.

**2** If not all your applications conform to the Web Services standards...



...then you may require a more **advanced ESB** focused on the integration of services with existing non-services assets.



# Connect Services

*Quickly service-enable your assets with versatile adapters*

## **Broad support, including Linux**

- WebSphere Adapters for JDBC (J2EE 1.5) and FlatFile support Linux on System z
- Widening the depth of IBM's BPM and application integration portfolios

## **Pre-built adapters**

- For PeopleSoft Enterprise, SAP Software, Siebel Business Applications,
- Enterprise Metadata Discovery (EMD) specification support, with wizard-driven metadata configuration using WebSphere Integration Developer V6.0

## **Build your own adapters**

- WebSphere Adapter Toolkit to facilitate development of custom JCA 1.5-compatible adapters



# Connect existing and new services & other assets

*Avis creating value with their System z assets*

## Actions & Benefits:



Provided shared access to **corporate-wide data** across SOA Infrastructure



Flexible integration through **WebSphere MQ Message Broker**, reusing existing applications as Web services



**Accelerated service delivery time** to address customer requirements and competitive pressures

Objective to be **first to market** with new capabilities, lower development time and costs

Capabilities used: IBM WebSphere Message Broker, WebSphere MQ, WebSphere MQ, DB2, and Tivoli on Z/OS



# SOA Entry Point to a Process Centric Approach

## *Business Process Management for Continuous Innovation*

### z Value

- Innovative, SOA driven business models deployed quickly with flexible processes
- Centralize business critical processes with the core services and communications hub necessary to support the enterprise



### Start with

- A single process – model an underperforming process, and deploy as an enhanced process.
- Flexibly link multiple processes across the enterprise & to suppliers / partners. Monitor the process to measure & track performance.

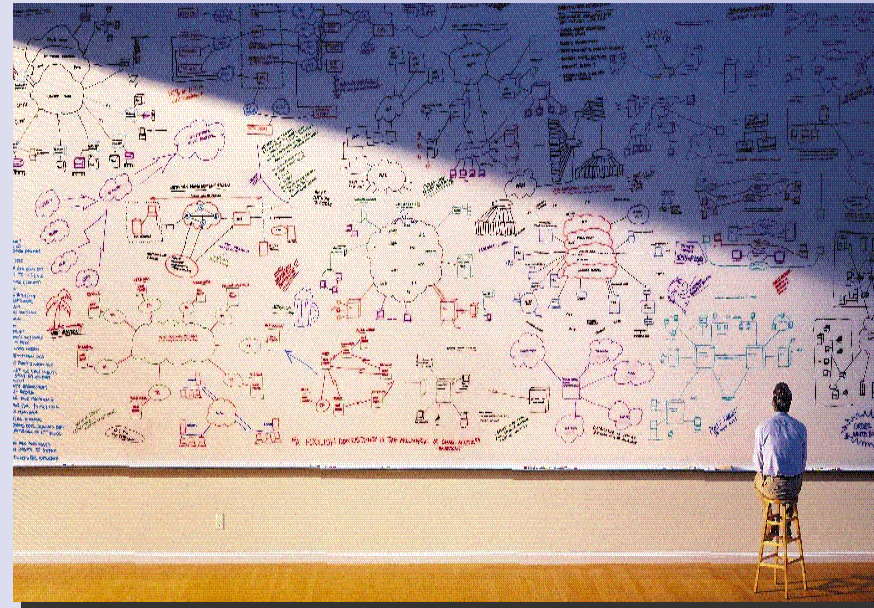
# WebSphere Process Server for automated SOA runtime

*A deployment environment for composite applications to ensure maximum flexibility at the speed of business*

**NEW!**

## **WebSphere Process Server for z/OS**

- Centralize your business process and share them across the enterprise
- Extend the value of core applications and databases, with the qualities of System z.
- Add connectivity and mediation support for Web services and JMS applications anywhere
- Innovate new standards-based solutions for easy assembly/deployment of service components



**System z for when your processes absolutely must be available**

# ISVs on System z

## A strong SOA ecosystem



"We have many customers engaged today in SOA Proof of Concepts. To meet the increased interest, we are expanding our SOA skills and offerings."

— *Joe Mertens,*  
*Executive Vice President*



"AFS ... relies on zSeries hardware, WebSphere Application Server and DB2 to power the largest ASP for commercial lending in the US with over \$1.3 trillion in loans being processed per day. The zSeries platform also supports our development with multiple environments including Linux"



"Our move to the zOS world was boosted by the IBM ISV Partnership programs which allowed us to benefit from excellent IBM benchmarking centers such as Montpellier for zOS and the IIC-Paris for AIX."

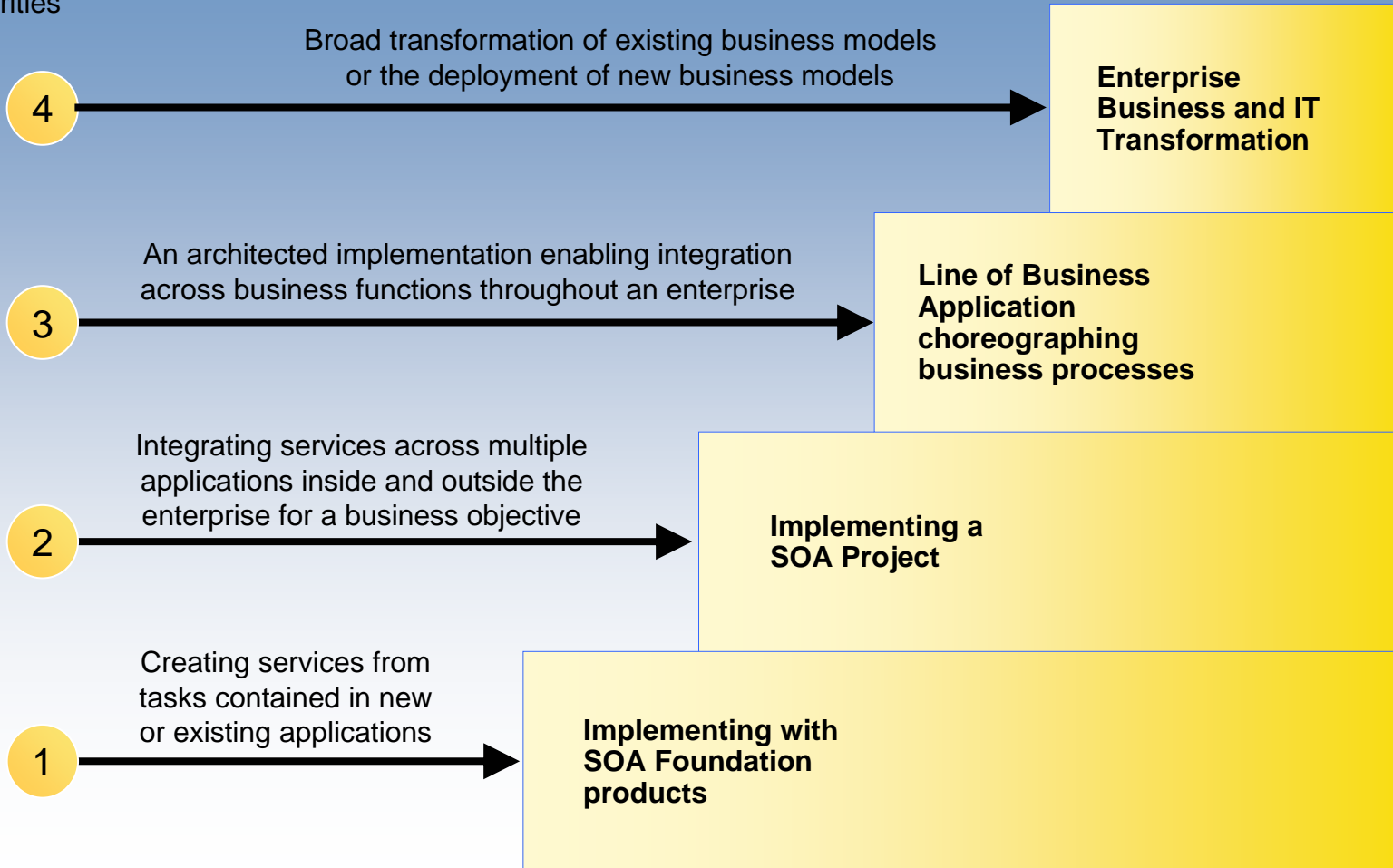


"IBM is once again demonstrating its commitment to the System z platform, by delivering Software that enables a SOA and helps customers manage the underlying infrastructure. Vicom Infinity has made SOA our #1 priority ...."

# Organizations can take different paths to eventual adoption of SOA depending on your business goals and IT constraints.

## Entry Points

Based On Business Priorities

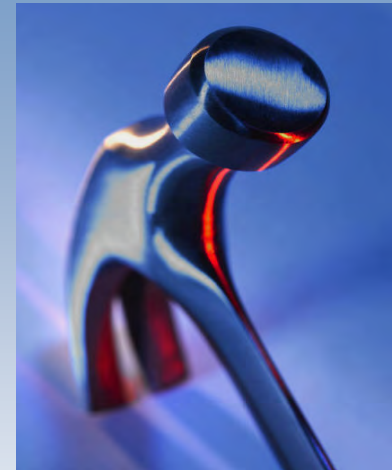


Business Value



# What is a System z Infrastructure Architecture Workshop?

- Consultative, solutions based approach that is business problem focused; non-industry specific (typically 1-2 days)
- Uses established methodologies, concepts, and patterns based on proven results
    - ▶ Identify and document the current (AS-IS) environment
    - ▶ Develop a proposed future state (TO-BE) architecture
    - ▶ Discover and document needed capabilities to arrive at (TO-BE) architecture
  - Combination of white boarding, presentations, subject matter expertise (includes both client & IBM resources)
  - Interactive, collaborative “JAD” session
  - Positions IBM’s SOA Reference Architecture and Cross Brand SWG product capabilities
  - Focuses on leveraging mainframe assets and maximizing value of System z as a platform
  - Promotes internal client dialogue and brainstorming



***System z Focus: Leveraging existing assets and platform capabilities...***

# CICS On Demand Seminars - CODS

- Hear from CICS experts on how CICS can support your SOA
- Agenda tailored for your environment
- Great opportunity to get CICS developers, system programmers and architects together to explore how CICS could fit into your SOA architecture

## CICS in an On Demand Environment Seminar Agenda (Sample)

Integration with CICS using Web Services

Application Development for Composite CICS Applications

WebSphere Developer for System z

Services Flow Modeller

Using CONTAINERS and CHANNELs to break free of the 32KB limit

Optimize your CICS systems for mixed workloads with CICS Tools

Next steps to an on demand environment

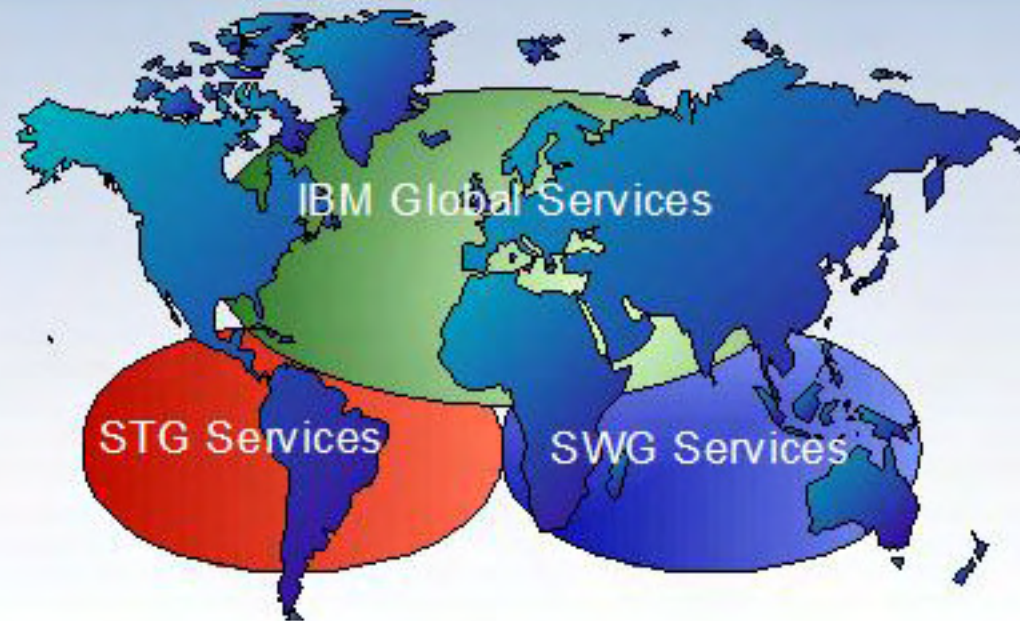


# System z and System z9 Center of Excellence

*zCoE – Is ready to help you!*

- Modernize and Extend Legacy Assets
  - ▶ Improve User Interface and Connectivity
  - ▶ Improve Application and Data Integration
  - ▶ Provide SOA Solutions
- Extend Usage of Platform
  - ▶ Create new application code on System z
  - ▶ Host Linux applications on System z
  - ▶ Invest in new applications and solutions
- Improve Operational Efficiencies
  - ▶ Improve TCO across Hardware / Software
  - ▶ Improve platform skills
  - ▶ Improve operational and management processes

Partnering across IBM brands and organizations to provide YOU a single point of contact for System z Services



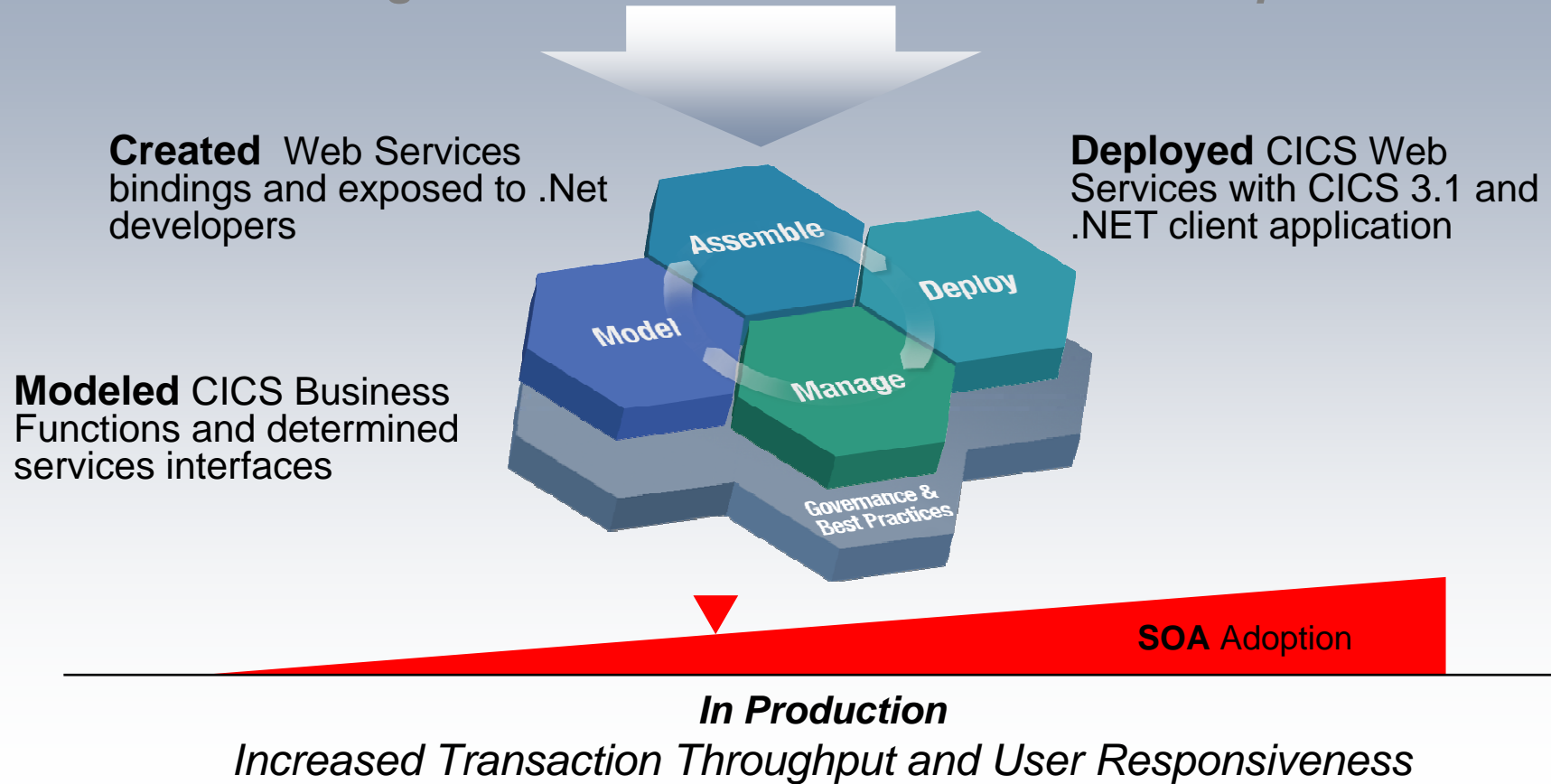
System z and System z9 Center of Excellence

**Contact: Brian Senn – [senn@us.ibm.com](mailto:senn@us.ibm.com)**

# SOA lifecycle in action at a State Agency

*Enhancing throughput and user responsiveness*

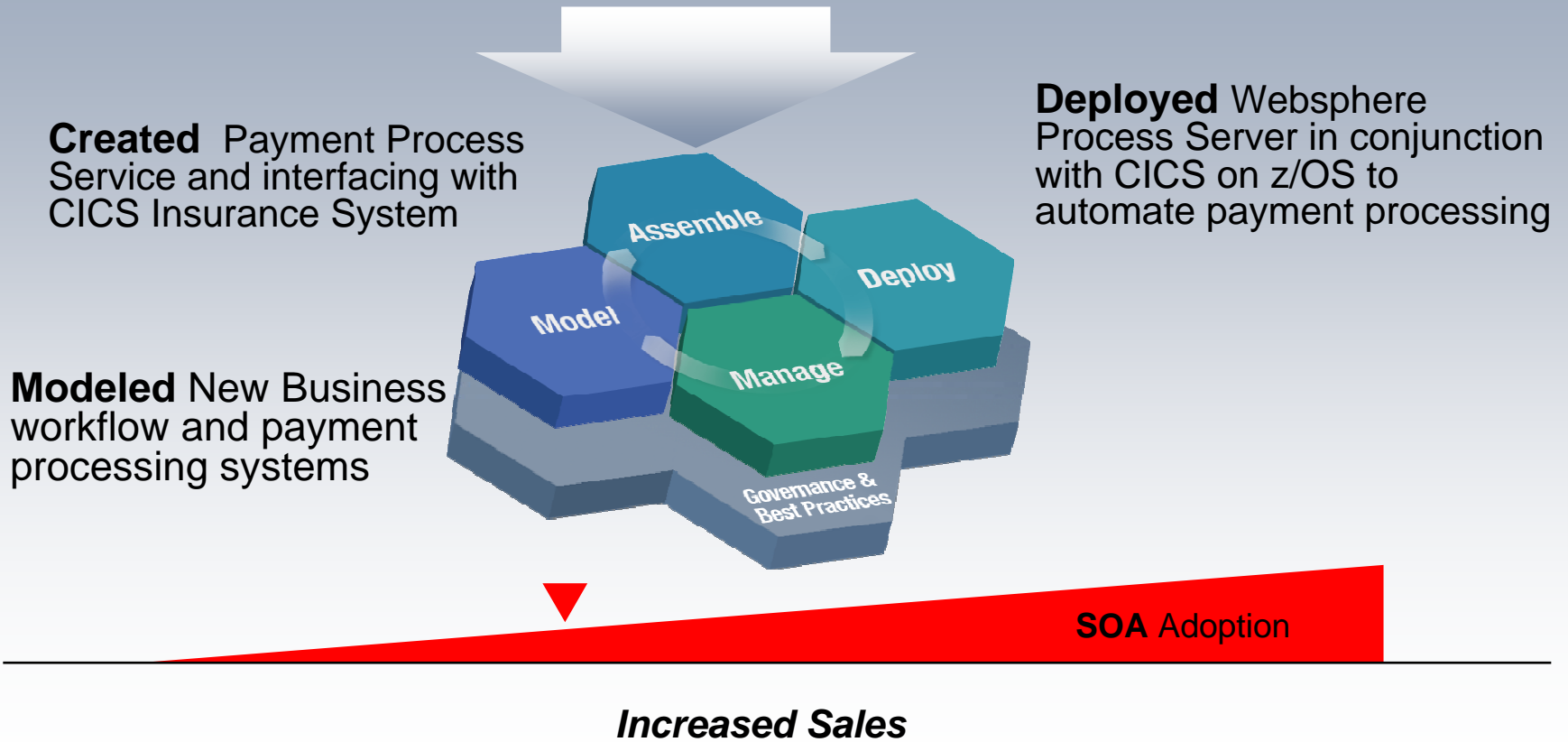
## *Interfacing CICS WebServices with .NET development*



# SOA lifecycle in action at a Major Insurance Company

## *Automating Initial Insurance Payment with Credit Card System*

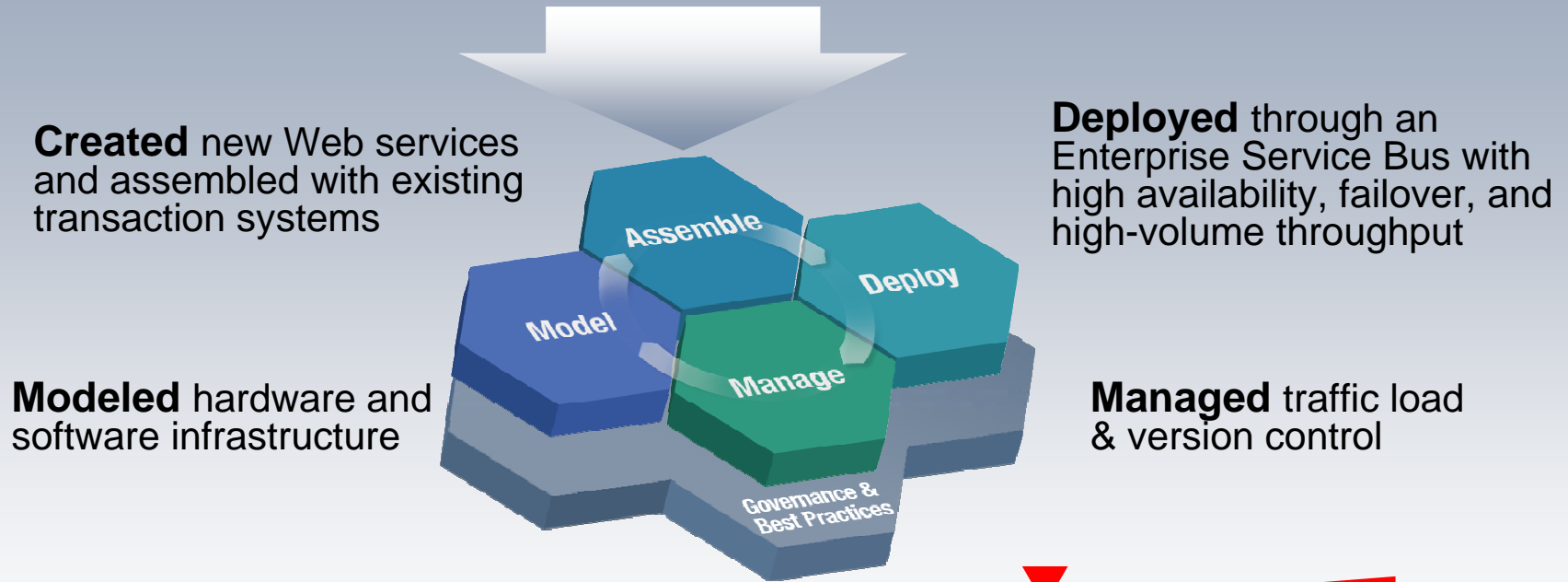
### *Integration of CICS into New Business Workflow with WPS*



# SOA lifecycle in action at Office Supply Company

*Enhancing customer order management using SOA*

*Worked with business end users to define project*



**SOA Adoption**

**4 Month Project**

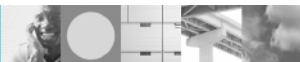
*Part of a plan expected to save over \$20M!*



# Enabling innovation that matters for System z

- IBM's view of SOA is business centric
- IBM is investing in System z as a SOA platform
  - ▶ Business centric entry points for People, Process, Information
  - ▶ Deployment of business services
  - ▶ Enterprise Connectivity
  - ▶ Process and Systems management
  - ▶ Application Development for System z
  - ▶ System z9 Enterprise Class and Business Class
- IBM customers are rapidly **converging on SOA and System z**

THANK  
YOU





# Backup

# Standard Life's Re-usable Assets

*Transactions reused as Web services*

## Actions & Benefits:



Flexible integration through **WebSphere MQ Message Broker**, invoking CICS and IMS applications as Web services

Lowered development costs and risk by reusing **Web services based** code assets

Over 50% of Business Services are re-used, **saving >\$5M** in development costs



Offer agents timely value-loaded portal access to data through **WebSphere Application Server**



# Business Centric Qualities of Service

## Enterprise qualities of SOA:

- **Confidence** in business delivery
- **Flexibility** to pursue new opportunities
- **Protected** access to business functions and data
- **Control** of business processes
- **Compliance** with governance and audit requirements

**The best platform** for providing these qualities of service to the Enterprise continues to be the mainframe

