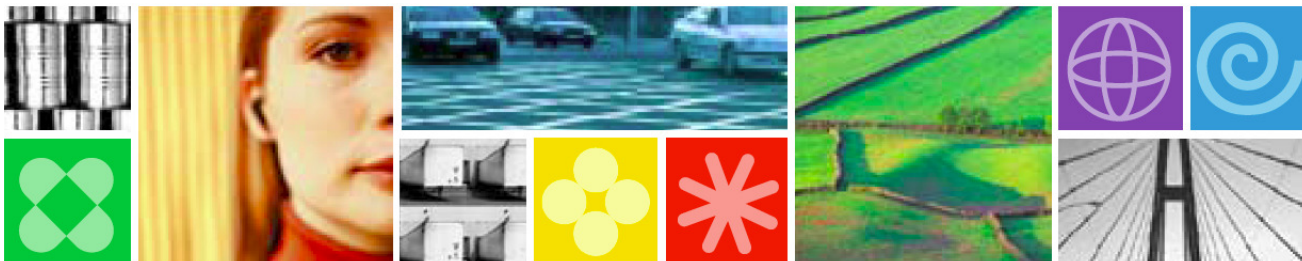




# Smart Steps for Increasing Business Agility with WebSphere

*Dave Andrews*

*Director, Application Integration and  
Middleware Software*





## Abstract

### ***WebSphere delivers capabilities to maximize Business Agility***

***WebSphere is a family of IBM products that empower business and IT professionals to create an agile business through dynamic business processes and infrastructure technology.***

***This presentation is focused on the key parts of the WebSphere portfolio for System z in terms of Infrastructure, Connectivity and Process Management with specific attention to CICS, WebSphere Application Server, Business Events, ILOG and our supporting Tools sets for CICS and Problem Determination.***

***The presentation will bring out the key value propositions for these products especially how the products integrate and interact to create effective business solutions through innovation and performance. Included is the latest information on pricing options that encourage the deployment of even emerging workloads on z/OS.***



## Disclaimer

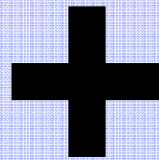
***Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.***



## To Survive... To Thrive... To Succeed

### **Business Agility**

to take advantage  
of new revenue  
opportunities and  
address competitive  
threats



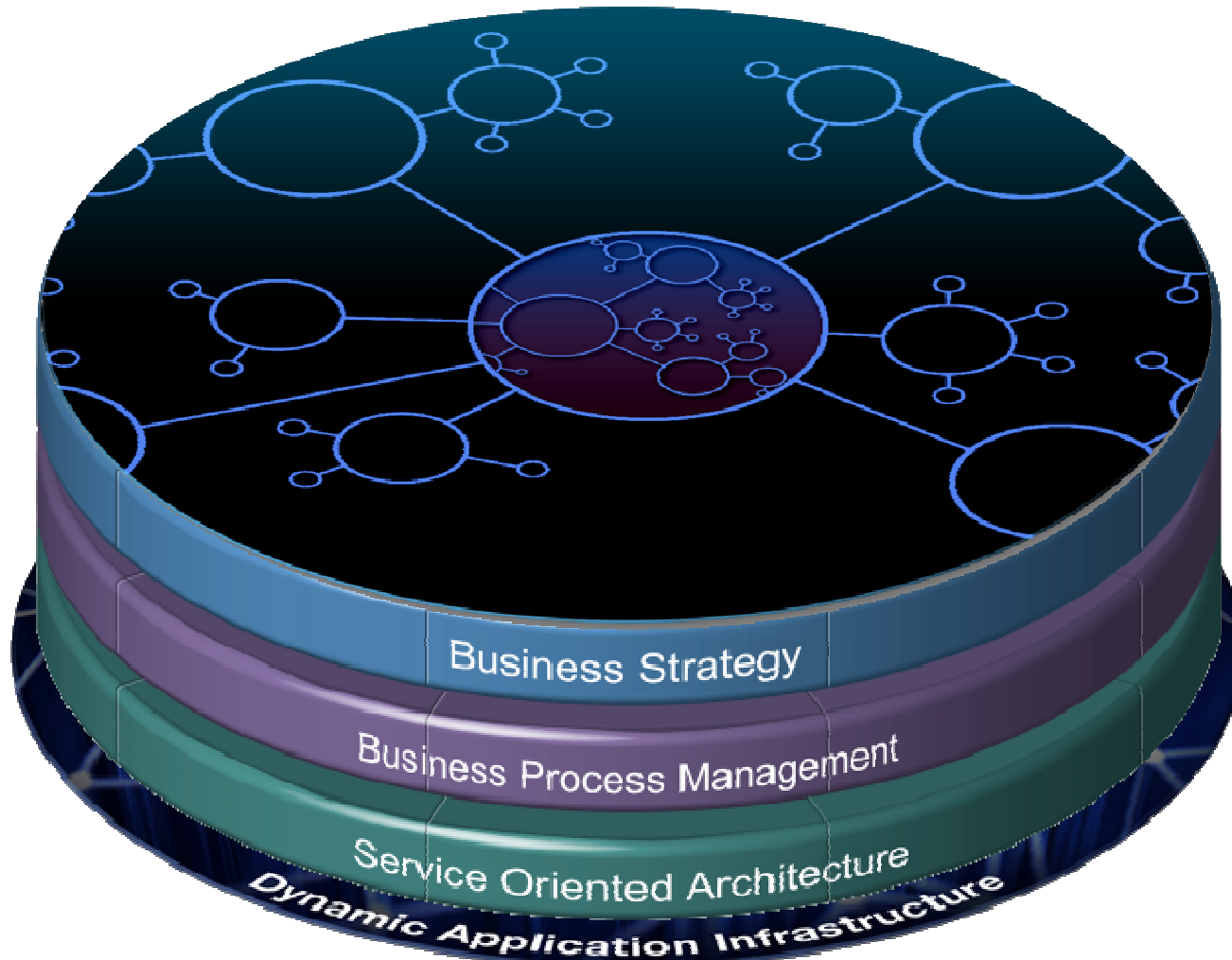
### **Cost Optimization**

to slash operational and  
maintenance expense  
and maximize efficiency  
necessary for all  
economic climates





A dynamic network requires business agility...



...supported by a Dynamic Application Infrastructure



## Three ways to drive Agility while Optimizing Costs

### ***Business Needs***

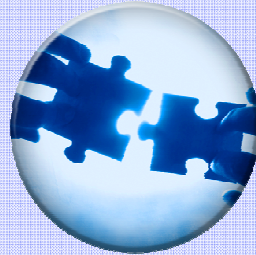
**“Ensure applications consistently deliver on business needs in all situations”**



### ***Common Buying Scenarios***

**Dynamic Application Infrastructure**

**“Adapt & respond to dynamic business situations”**



**SOA Connectivity & Integration**

**“Quickly respond to changing customer expectations and business demands”**



**Business Process Management**



# The power of a Dynamic Application Infrastructure

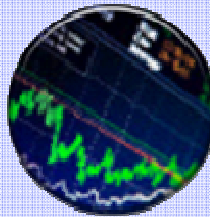


**Modernize Applications**



**Expand client offerings using existing business data with Web 2.0**

**Execute High Volume Transactions**



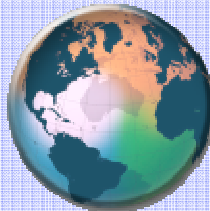
**Reduce business risks with highly available, secure applications**

**Capitalize on dynamic situations**



**Timely insight with low cost situational applications**

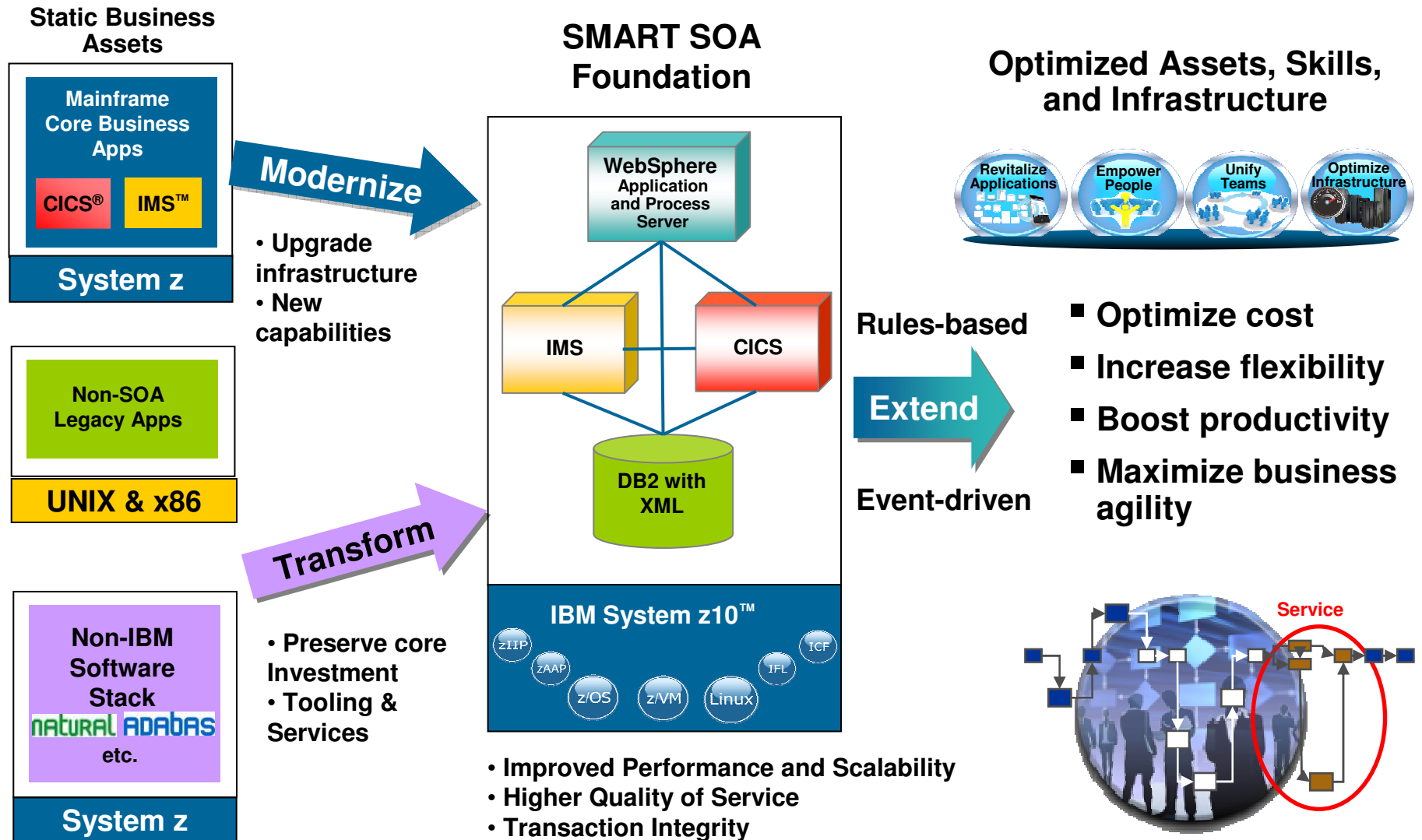
**Manage worldwide operations**



**Rapidly introduce new capabilities throughout the business with centralized administration**



# Modernizing the Enterprise Through SMART SOA





# HUK-COBURG



## Industry Pains

- **Need to access more functionality and spread out its data processing load**
- **Reduce CPU usage to cut operating costs**

## Smarter Business Outcomes:

- **Reduces CPU usage for CICS technology by 400 million instructions per second (MIPS), for savings of \$320,000**
- **Cuts CPU usage in the internal coupling facility by 40%**
- **Achieve CPU savings through threadsafe functionality**



## Why Dynamic Application Infrastructure?

Deliver on business objectives and reduce operating costs



# The Right Platform for Any Situation

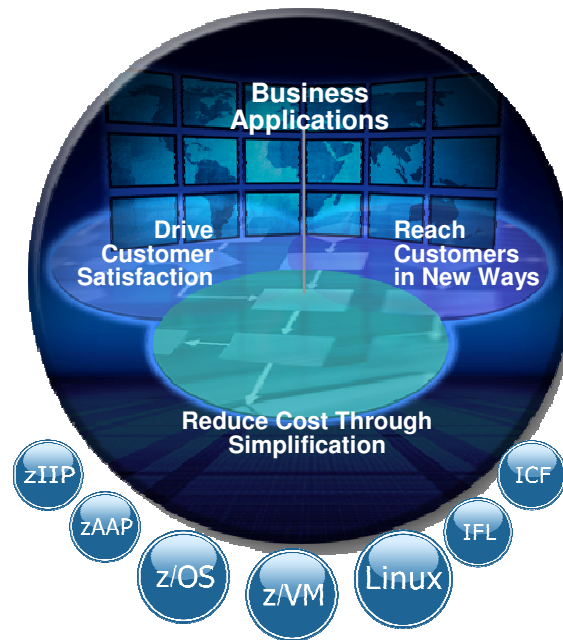


Modernize and transform your environment

**IBM WebSphere  
Application Server  
for z/OS**

Performance, Security  
and Innovation

**IBM WebSphere  
Compute Grid for z/OS**



**IBM CICS Transaction  
Server**

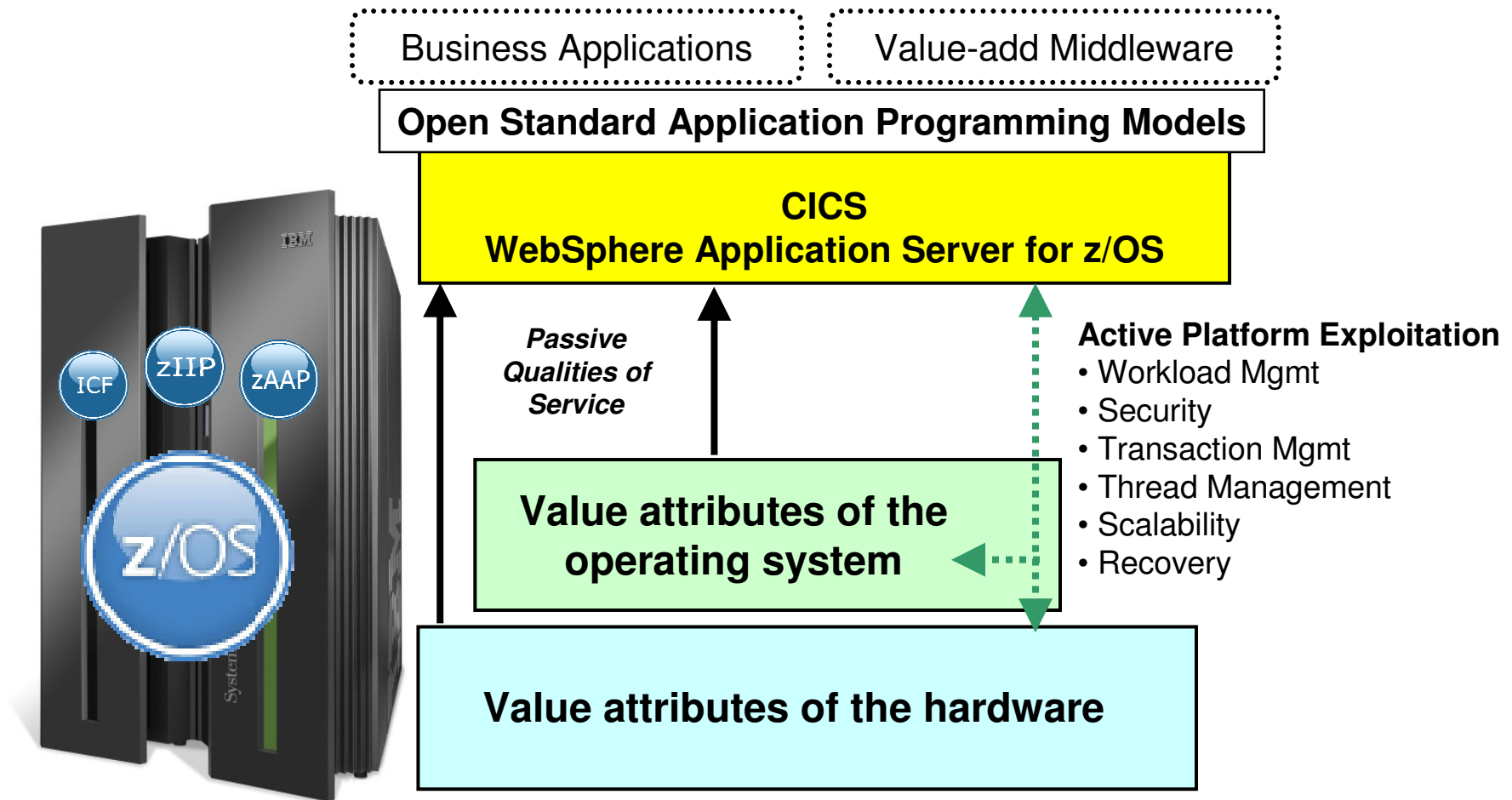
Understanding,  
Optimization  
and Control

**IBM CICS Tools**

**IBM Problem Determination  
Tools for z/OS**



# Combining Industry Leading Runtimes and z/OS Delivers Superior Customer Value





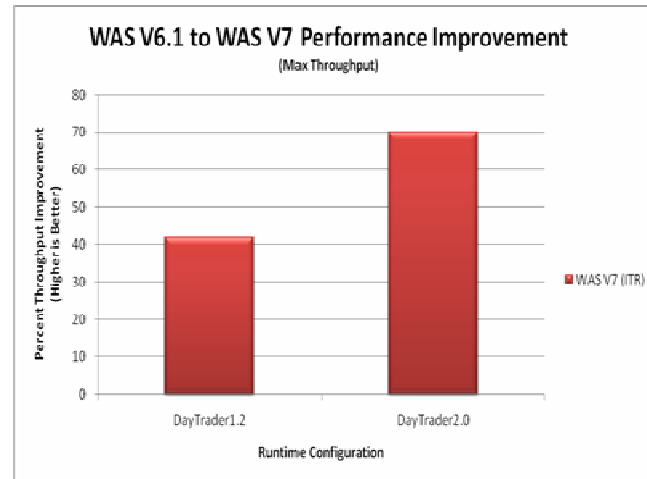


# Achieving Maximum Performance Through Currency



## Runtimes

- *WAS V7 vs. V6.1 up to:*
  - 42% faster for J2EE apps
  - 47% faster for Web Services
  - 70% faster for Java EE apps



## Compilers

- *z/OS XL C/C++ v1.11*
  - Improved a customer application ~20%
  - Enhanced system programming capabilities
  - Supporting latest Middleware and tools

## Hardware

- Generation to generation price / performance gains
- Unique value of specialty engines
- Ability to reduce energy costs by up to 80%







## When location matters, why not z/OS? Performance Optimization through collocation



- **Support for a broad range of Application/Data placement**
  - Network connection across heterogeneous environments
  - Sysplex connection across z/OS images
  - Cross memory connection within a z/OS image
- **When Application and Data are in the same z/OS**
  - Up to 34% overall CPU savings
  - 52% more throughput
  - DB2 z/OS: JDBC Local (Type 2) now yields 28%-38% better results
  - CICS Transaction Gateway (CTG) Local is 18% more efficient
  - 3-year TCO are price neutral



More information

WPS z/OS performance report: [in the performance library](#)  
WebSphere z/OS co-location paper: [in the techdocs library](#)



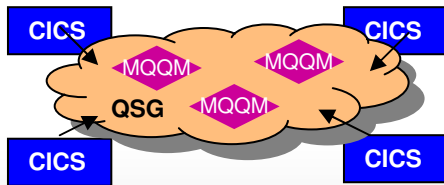
# CICS is at the heart of smart business



## Revitalize Business

“Real-time visibility for smarter decisions and actions”

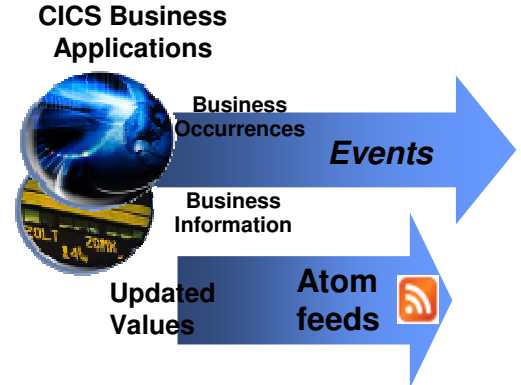
### Integrated Tool Solutions



Tighter MQ Integration



### Event source for Dynamic Business Networks



Integration for LOB and COBOL business rule mgmt.

## Revitalize Infrastructure

“Greater efficiency and reduced costs”

## Revitalize Applications

“Faster and easier to respond to change”



# CICS Explorer – The New Face of CICS Transaction Server

*Reduce the need for multiple interfaces*



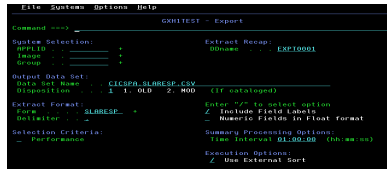
**Before...**

**Now ...**

**Web**



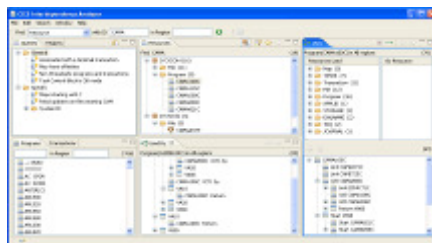
**ISPF**



**CICS 3270**



**Eclipse**



**IBM CICS Explorer**

Explorer Edit Search Window Help

Find Resource with ID in Region

Queries Regions CPU time Response time CICS CM perspective

Supplied Samples

- CICS
  - Affinities
  - Exits
  - General
    - All programs using files
    - All transactions by region
    - Commands in QR mode by program
    - Dynamic COBOL calls by program
    - Programs last used before a given date
    - Programs that use resources starting from a given date
    - Resource usage by program
  - Migration
  - Specific
  - Threadsafe
  - Webservices

Programs Transactions

\* in Region (26)

CRTP

DB21

HELO

IMS1

KAT1

N424

Transaction(V200) in All (28)

Resources used

Transaction (1)

Program

ENQNAME

File (1)

TD (2)

V200

Start FINS500

Start V550

Start FIN200

Start TSTCSM

Transaction detail for: CRTP

Start date=2007-01-12, Start time=06.55.00, Applid=IVCYZC20, Transaction ID=CRTP

Threadsafe: CPU time: Response time: Storage: File usage:

Response time: (averages)

2 transaction(s): 0 TCB mode switches (average). 0.005015 seconds average response time per transaction

Response measurement	Time (avg)	Count	%Overall	% of total
Response time:	0.005008	-	-	-
User Dispatch time	0.002816	2	56%	-
User CPU time	0.000608	2	12%	-
CICS Key 8 TCB CPU time	0	0	-	-
J8 TCB CPU time	0	0	-	-
L8 TCB CPU time	0	0	-	-
S8 TCB CPU time	0	0	-	-
T8 TCB CPU time	0	0	-	-

CICS CM perspective

Name	CSD/Context
CICSPXL1	CICSPXL1
DM01CSD1	CICSUSR.V3R2.CICSDM0
DM01CSD2	CICSUSR.V3R2.CICSDM0

Lists in (DM01CSD1) (5)

- CMLABL1
- DFH\$TVPL
- DFH\$LIST
- LISTDEMO
- LISTXPT1

Groups Search Results

Orphaned groups for DM01CSD1 (84)

- DFH\$ACCT
- DFH\$AFLA
- DFH\$BARR
- DFH\$BARF
- DFH\$BAT
- DFH\$BMSP
- DFH\$BR
- DFH\$BRKL
- DFH\$CBTS
- DFH\$CCI

wimvs2d.hursley.ibm.com

More info and downloads at [ibm.com/cics/explorer](http://ibm.com/cics/explorer)



# Increase productivity with integrated tools



- CICS Performance Analyzer V3.1
- CICS Interdependency Analyzer V3.1
- CICS Configuration Manager V2.1
- CICS Transaction Gateway V7
- OMEGAMON XE for CICS V4.2
- Rational Developer for System z V7.6

<http://ibm.com/cics/explorer/download>





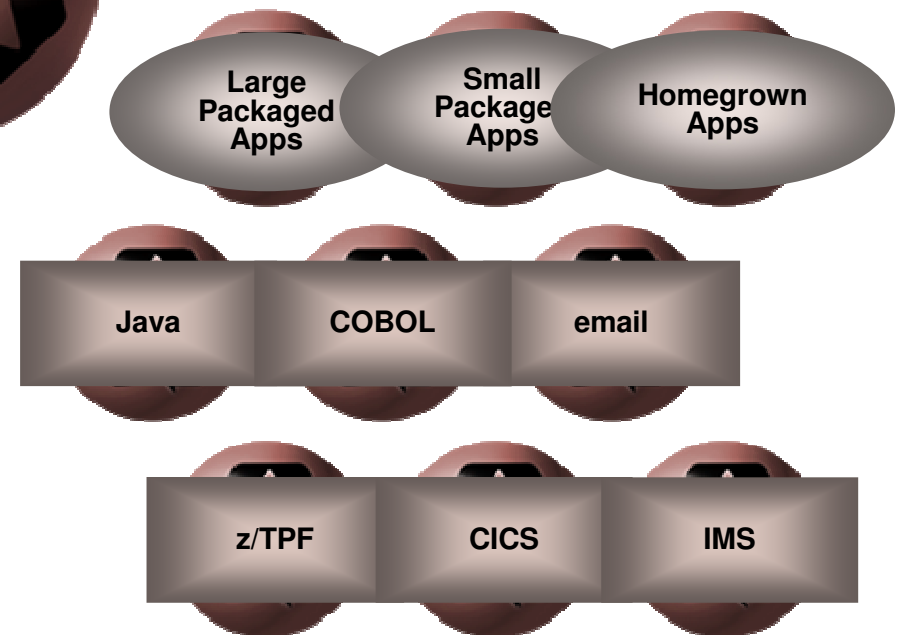
# Reuse Business Applications

*Enable Agility Required for Smart Business Outcomes*



## Get More Value from Applications & Expand Business Opportunities

- Service-enable existing packaged and existing apps
- Create new, reusable services
- Extend reusable services to the web
- Consume external reusable services



## Benefits

- Extend ROI by reusing prior investments
- Reduce risk and costs by leveraging robust applications
- Speed time to market with faster development cycles





## Three ways to drive Agility while Optimizing Costs

### ***Business Needs***

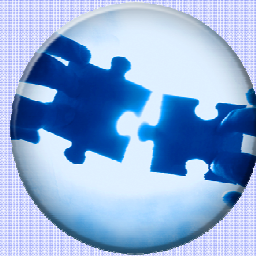
**“Ensure applications consistently deliver on business needs in all situations”**



### ***Common Buying Scenarios***

**Dynamic Application Infrastructure**

**“Adapt & respond to dynamic business situations”**



**SOA Connectivity & Integration**

**“Quickly respond to changing customer expectations and business demands”**



**Business Process Management**



# An edge in the market – SOA Connectivity & Integration



**Confirmed Flight Booking**



**Lower process disruptions with reliable data movement**

**Central Airport Checkpoint**



**Create new revenue-generating services from current core business applications**

**Routing Bank Transactions**



**Adapt business faster by easily connecting services & apps**

**Centralized Information Source**



**Reduce cost & duplication by leveraging existing assets**



# Ball State University



## Industry Pains

- **The need to streamline administrative systems and ensure integrity**

## Smarter Business Outcomes:

- **SOA with Enterprise Service Bus to connect siloed applications without hand-coding individual API calls**
- **Resolve name and address discrepancies in 10 months, as opposed to several years**



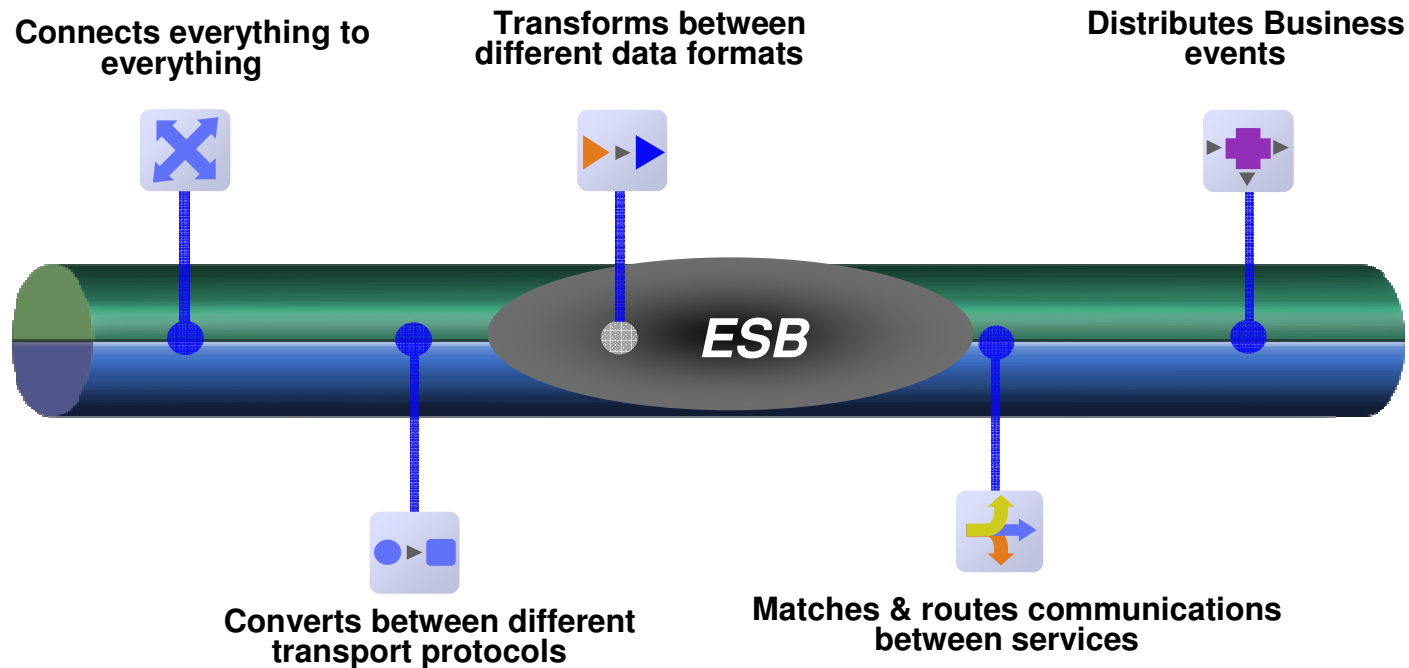
## Why SOA Connectivity & Integration?

Communication between decoupled back and front ends, choosing the destination for a message, and transforming it into the correct format





# Agility and savings begin with Integration The Enterprise Service Bus (ESB)



**Optimize Costs by:** Integrating new customers and partners up to 80% faster, Improving performance more than 10x - with lower costs, and Achieving full ROI within as few as 6 months

IBM WebSphere  
Message Broker for z/OS

IBM WebSphere  
Enterprise Service Bus

IBM WebSphere  
MQ for z/OS



## Service Visibility & Governance



- **Trust: Publish & find Your Services to extend business applications**
- **Manage & govern your ESB messaging & services**
- **Secure: Ensure consistent policy enforcement**

**IBM WebSphere MQ File Transfer Edition for z/OS**

**IBM WebSphere Service Registry & Repository for z/OS**



# Governance for File Transfers

## WebSphere MQ File Transfer Edition



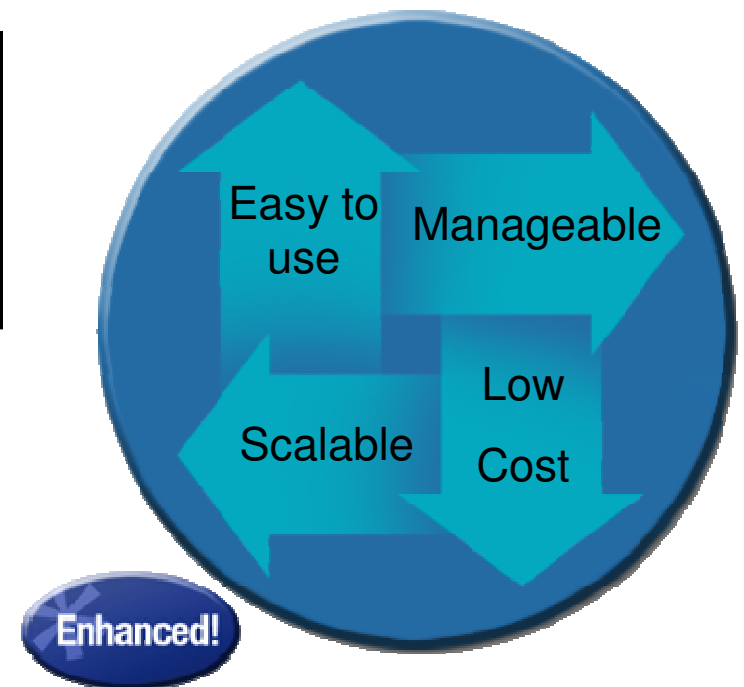
- **Most data moves from application to application using file transfers**
  - Lowest common denominator for Integration
- **Provide the visibility & manageability to move key business data reliably & securely**
  - Inside and outside the Enterprise

### *Reducing Costs*

- Lower maintenance upkeep by 15%-25%
- 50% to 70% reduction in file management cost

### IBM WebSphere MQ File Transfer Edition

- Builds upon MQ's proven transport
- Delivers robust solution for Managed File Transfer
- Purpose-built to integrate with IBM's SOA portfolio





## Three ways to drive Agility while Optimizing Costs

### ***Business Needs***

**“Ensure applications consistently deliver on business needs in all situations”**



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**Business Process Management**



# The power of Business Process Management



**Supply Chain Management**



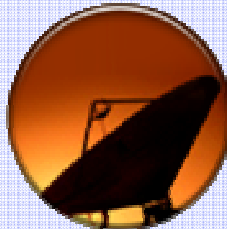
**Automatically adjust forecasts and shipments to increase accuracy and reduce costs**

**Retail Inventory**



**Detect and respond to inventory changes in real-time to meet customer demands**

**Telecom Services**



**Quickly deliver more compelling and profitable service bundles to increase customer retention**

**Insurance Claims Processing**



**Improve productivity and customer satisfaction by automatically routing claims to the right knowledge worker**



## “European Bank”



### European Bank

#### Industry Pains

- **The market for home loans has been transformed by a new breed of independent mortgage brokers who now account for 40 percent of the market**
- **To respond to this marketplace change they needed a channel to reach these brokers**

#### Smarter Business Outcomes:

- **Mortgage application processed in just hours compared with 2-3 days taken by competitors; independent mortgage broker channel now accounts for substantial portion of their business after only 6 months, far exceeding expectations; new channel added without significantly increasing staff levels**



### Why Dynamic Business Processes?

WebSphere Process Server improved the reuse and efficiency of service components to reach the independent mortgage broker market



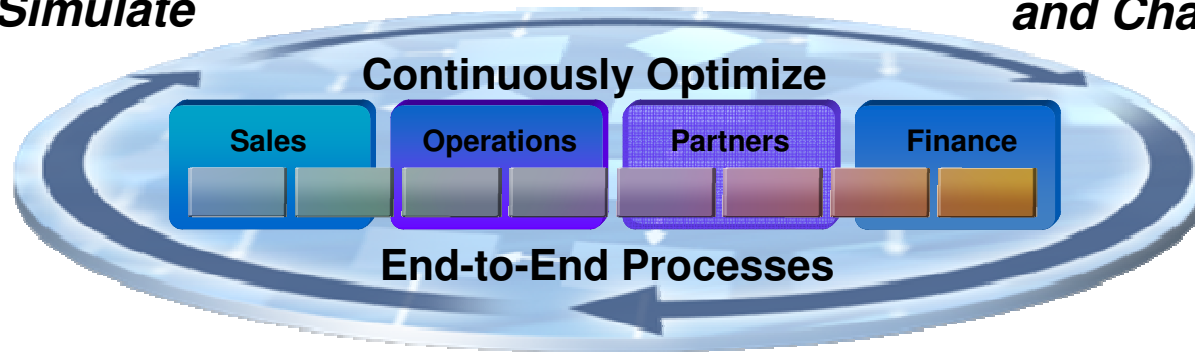
# Process Automation

*Improves operating efficiency and reduce costs*



**Model and Simulate**

**Rapidly Deploy and Change**



**Monitor, Predict and Act**



Streamline business activities

Complement and extend existing applications

Leverages reusable process components

Lower Costs

Reduce cycle time

Easier to Manage

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

**IBM WebSphere Business Monitor**

**IBM WebSphere Business Modeler**





## Insight contained in business events all around us



### What is a Business Event?

An action that has occurred, or the absence of it occurring, which has relevance to the business

Nearly **4 Trillion** RFID events are emitted each day



Large companies can experience up to **800 Billion** business events (shipments, weather, customer contacts, delays) daily



Over **190 Billion** emails are sent daily





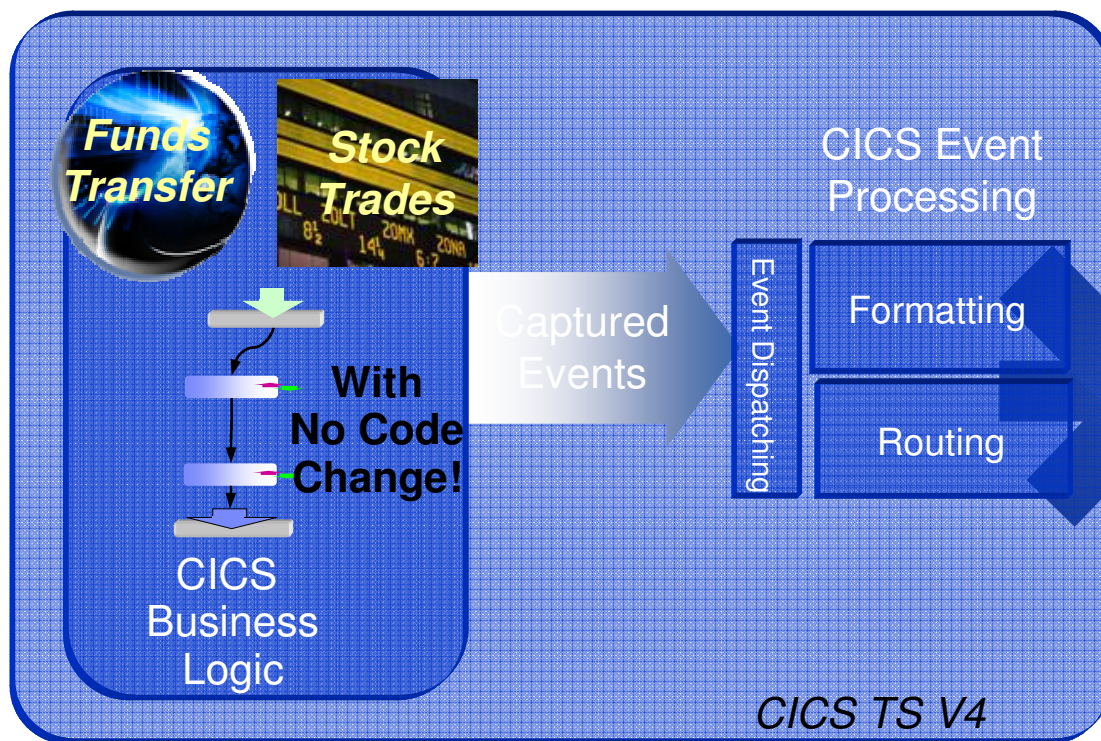


# Capture mainframe events for smarter business outcomes



## CICS Event Sources

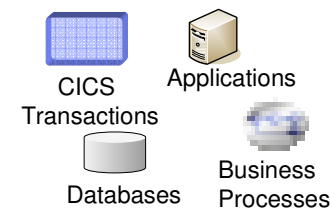
## Detect fraud and take action



WebSphere  
Business Monitor



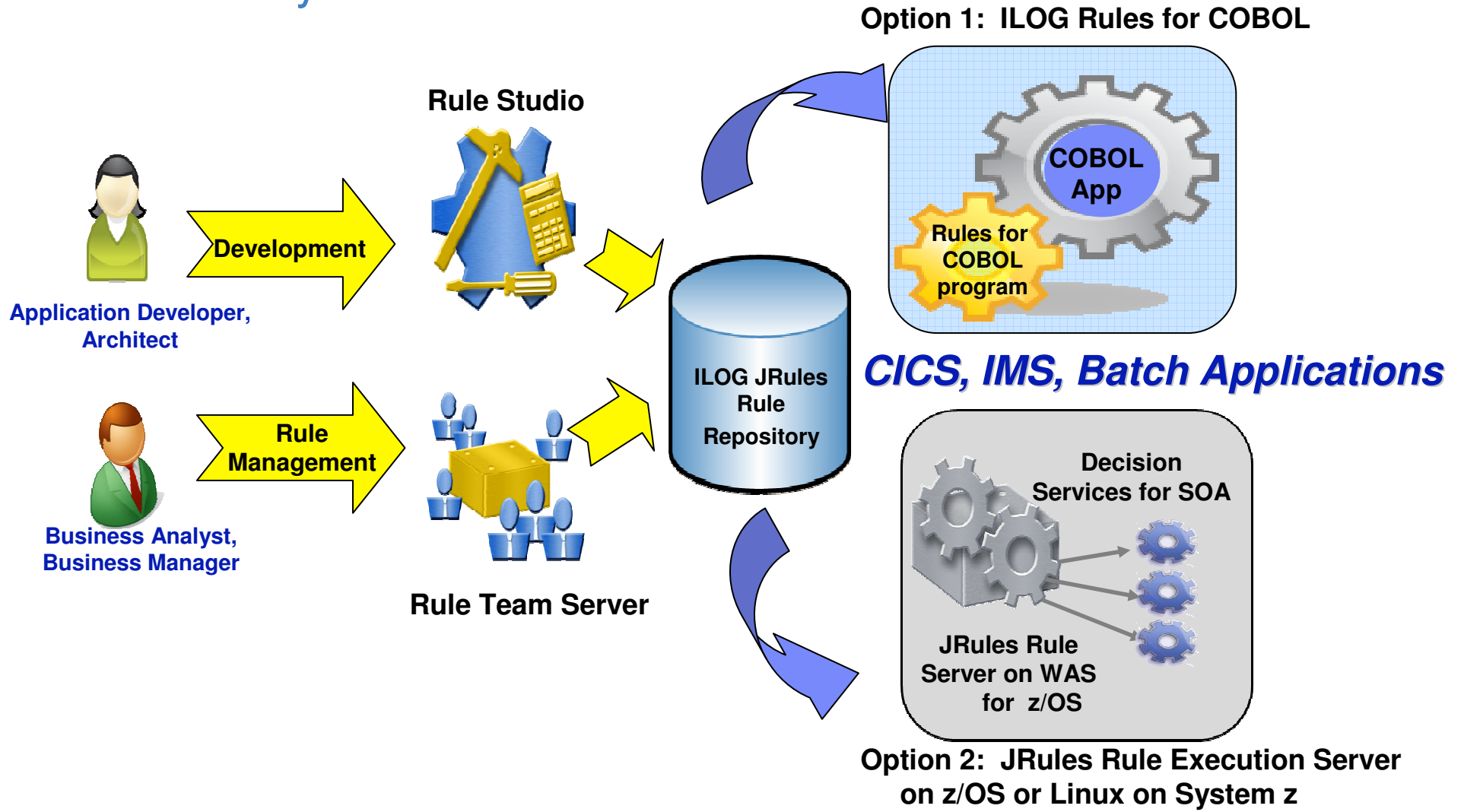
WebSphere  
Business Events



Other Event  
Consumers



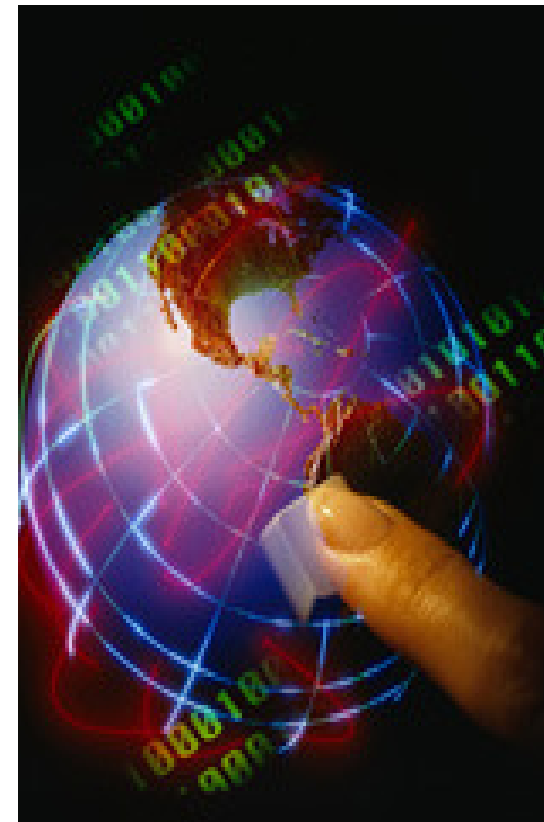
# ILOG Business Rule Management Solutions on System z





## Benefits of a Dynamic Application Infrastructure on System z

- Integration with Existing Assets
- High performance
- Server consolidation
- Dynamic scalability
- 99.999% Availability
- Exploitation of Java/J2EE
- Uninterrupted support
- Low TCO of applications
- Performance Optimization through collocation





# Impact 2010 HIGHLIGHTS

## Impact 2010 - The Premier Conference for Business and IT Leaders

Discover new innovative ways to work smarter and achieve business agility now. Impact 2010 provides a unique setting to bring company executives and technologists together at a single event providing a unique opportunity for them to discover how to align business objectives with IT, interact with technology and business leaders and experts from around the world and ultimately optimize their business performance and results.

A new Business Program that will focus on:

- **optimizing business processes**
- **improving decision management**
- **empowering the changing workforce, and globalization**

An enhanced Smart SOA and BPM Technology Program:

- **Dedicated with tailored workshops and hands on labs**

A bigger focus on your industry!

- **300+ industry leading experts on site**

A new Interactive Symposium

- **Bringing LOB and IT together in consultative sessions**

A new Product Technology Center offering:

- **Open labs, tech zones, and product demos**

A new and improved Track structure with:

- **200+ client speakers, 50 Birds of a Feather sessions, & free certification testing**

A state-of-the art Solution Showcase Center!



Join us in Las Vegas  
The Venetian Hotel  
May 2 to 7, 2010

[www.ibm.com/impact](http://www.ibm.com/impact)



# Let's Build a Smarter Planet on System z





THANK  
YOU