Be ready for tomorrow: Discover the ideal platform for modern applications

The future runs on System z

Yvonne Perkins

Vice President

Enterprise Platform SW / SWG

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We are living in a new landscape

Smarter Planet

instrumented
interconnected
intelligent

people
companies, institutions, industries
man-made systems
nature’s systems

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The need for change is clear – We must work Smarter

The U.S. healthcare system loses more than $100 billion a year to fraud.

$11.5B worth of produce is wasted in India because of outdated post-harvest infrastructure

In North America, up to 22 percent of total port volume is empty containers.

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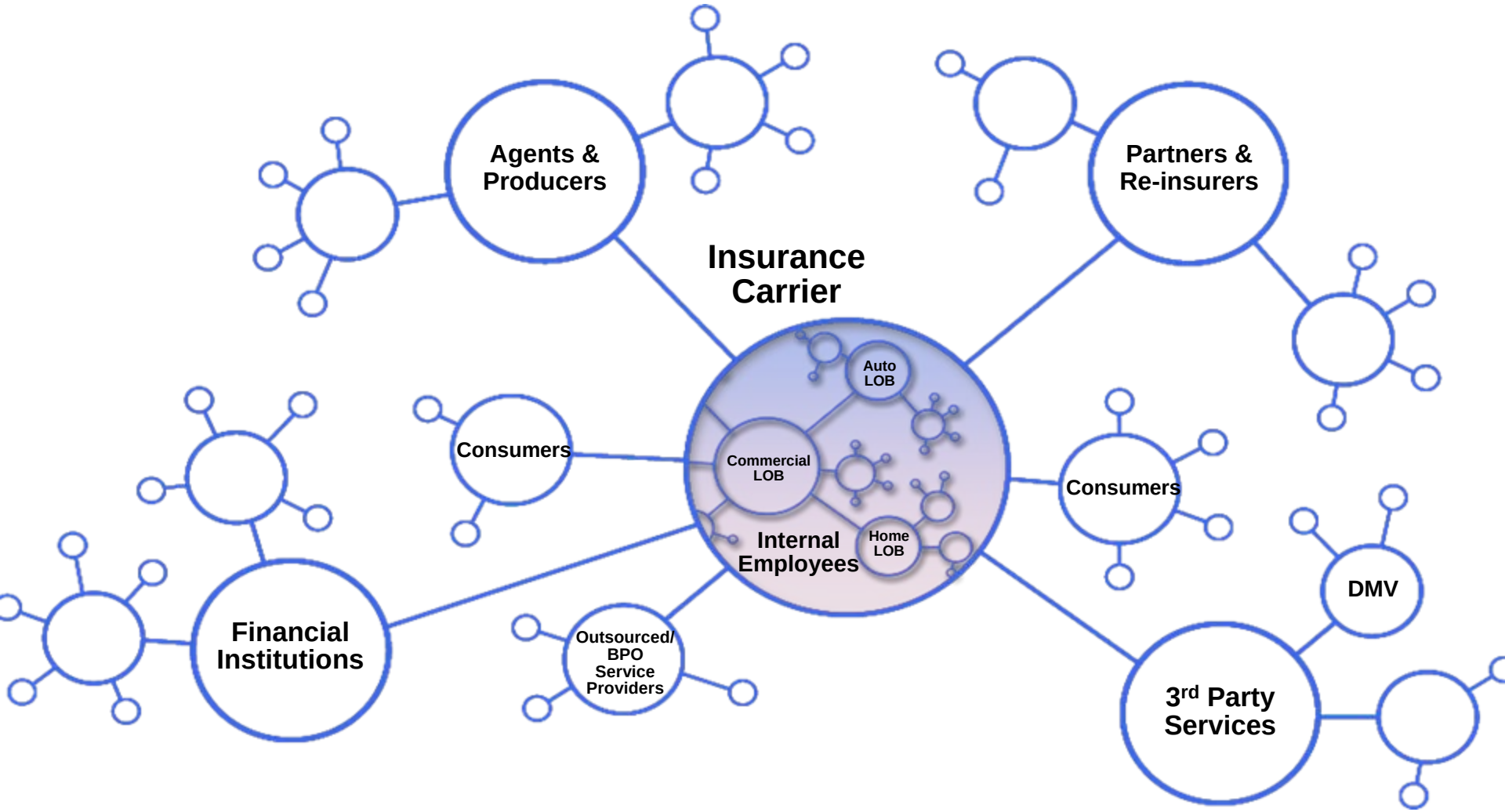
There's a need to look closely at our Business Networks ….



…which are becoming broader…and much more dynamic

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Achieving a dynamic business network presents challenges

3%

of companies report they have achieved **"process excellence"**

68%

of executives report that **integration challenges** impede collaborative relationships with partners

85%

of CEOs require **more visibility** into their businesses

Businesses are restrained by organizational silos

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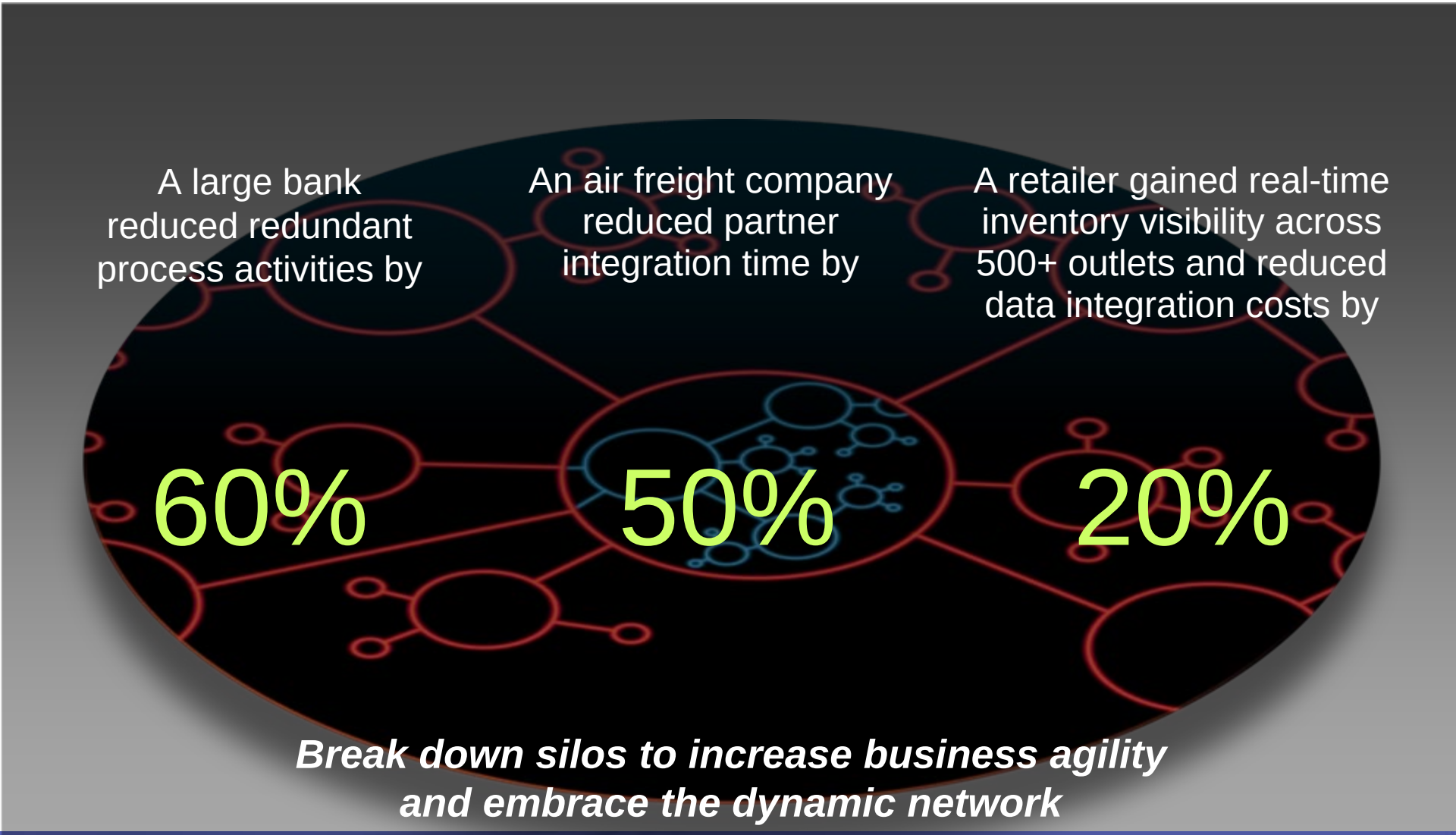
…and tremendous opportunities



A large bank reduced redundant process activities by

60%

An air freight company reduced partner integration time by

50%

A retailer gained real-time inventory visibility across 500+ outlets and reduced data integration costs by

20%

Break down silos to increase business agility and embrace the dynamic network

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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

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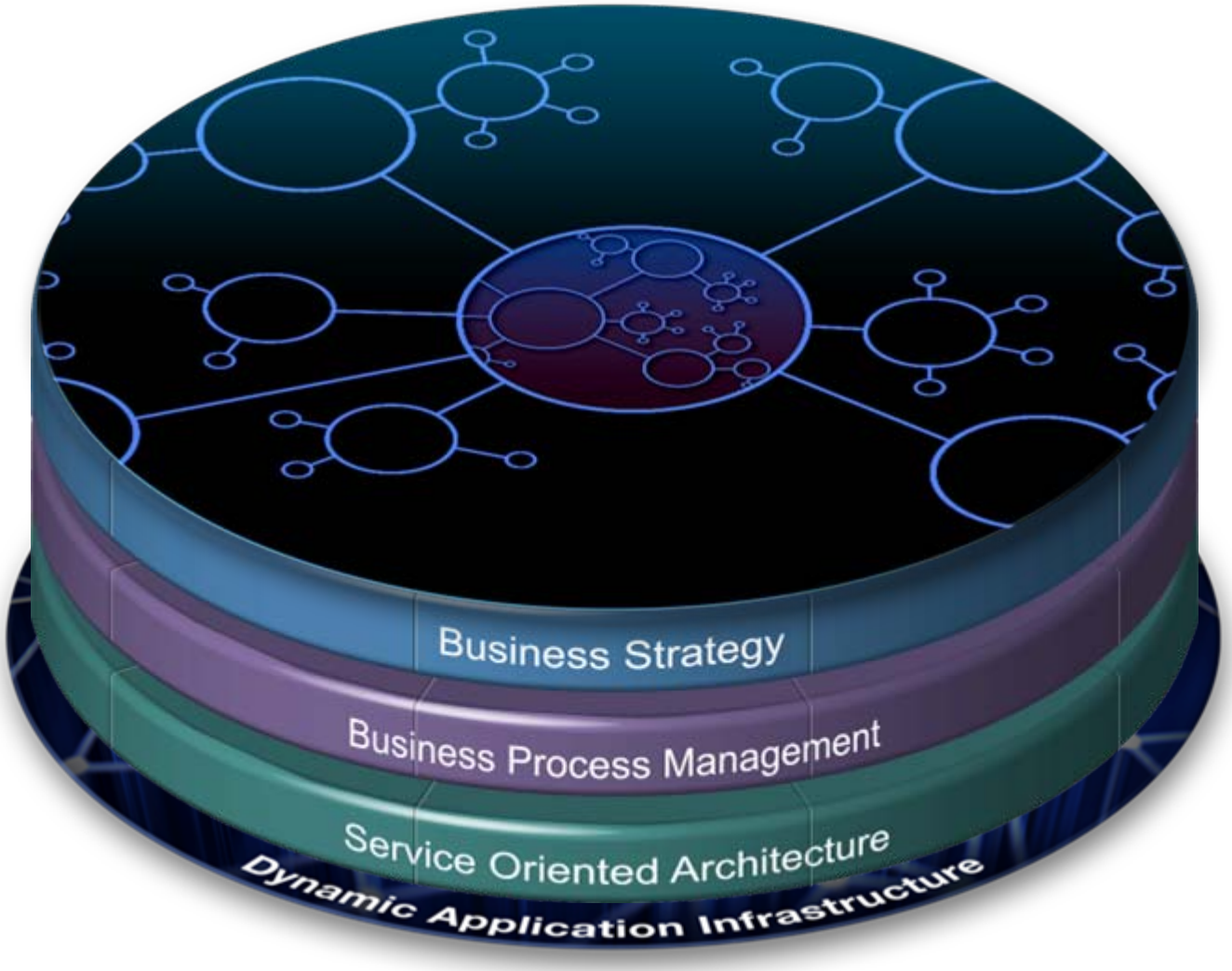
A dynamic network requires business agility…



…supported by a Dynamic Application Infrastructure

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Three ways to drive Agility while Optimizing Costs

"Ensure applications consistently deliver on business needs in all situations"

Dynamic Application Infrastructure

"Adapt & respond to dynamic business situations"

Connectivity & Collaboration

"Quickly respond to changing customer expectations and business demands"

Business Process Management

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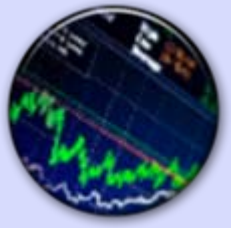
The power of a Dynamic Application Infrastructure

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

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Modernizing the Enterprise Through SMART SOA

Static Business Assets

Mainframe Core Business Apps

CICS® IMS™

System z

Non-SOA Legacy Apps

UNIX & x86

Non-IBM Software Stack

natural ADABAS etc.

System z

Modernize

Transform

SMART SOA Foundation

WebSphere Application and Process Server

IMS

CICS

DB2 with XML

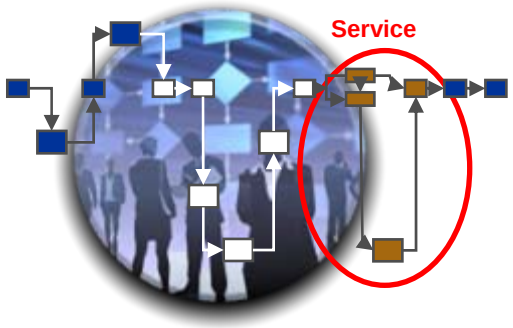
IBM System z10™

zIIP zAAP z/OS z/VM Linux IFL ICF

Extend

Optimized Assets, Skills, and Infrastructure

- Optimize cost
- Increase flexibility
- Boost productivity
- Maximize business agility



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The Right Platform for Any Situation

SOA Enabled Agile Integrated Application Environment

Modernize and transform your environment

IBM WebSphere Application Server for z/OS

Practical reuse of on-line Java assets in Batch

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

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HUK-COBURG

HUK-COBURG
Aus Tradition günstig

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

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

Business Applications

Value-add Middleware

Open Standard Application Programming Models

CICS
WebSphere Application Server for z/OS

Passive
Qualities of Service

Active
Platform Exploitation

Value attributes of the operating system

Value attributes of the hardware

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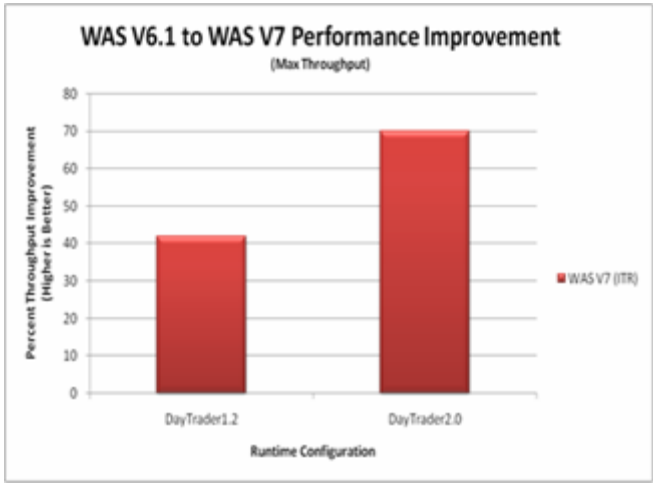
Achieving Maximum Performance Through Currency

Runtimes
- *WAS V7 vs V6.1 up to:*
  - 42% faster for legacy 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%

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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 libra

WebSphere z/OS co-location paper: in the techdocs libra

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Revolutionize the economics of development
Rational Software Delivery Platform

RAA, HATS EGL

- **Increase flexibility**

Rational Developer for z

- **Boost productivity**

Rational Team Concert for System z

- **Maximize Business agility**

Compilers

- **Defer capital expense**

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UniCredit

Improves developer productivity and testing efficiency for mainframe development

The challenge

- Modernize its development platform for core financial business software
- Development and testing efficiency for new and existing applications
- Make COBOL development more attractive to younger programmers

Business value

- Similar development environment for COBOL and Web applications — attractive to younger developers
- Estimated 15% increase in development and 10% increase in testing productivity

Solution

- More than 200 developers began using IBM Rational Developer for System z software to develop applications for IBM System z servers with IBM DB2 and IBM Information Management Systems software

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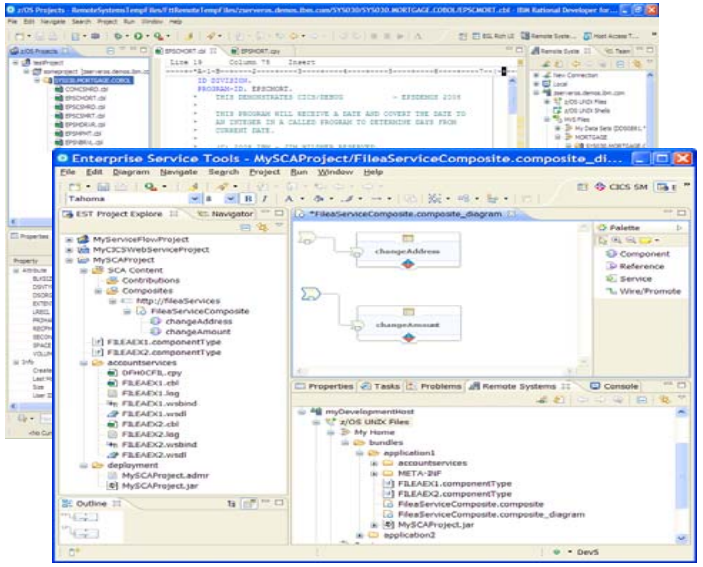
Maximize the value of your people

Leverage existing domain knowledge and new talent



Modern Integrated Development Environments

Eclipse-based for all platforms and languages

- ~15% improvement in develop productivity[1]
- 50% - 80%[1] reduction in host CPU consumption
- Attract new talent

[1] Aggregation of results from a productivity study conducted by IBM System z customers

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User interface modernization

Deploy the ideal UI for your application,

- Create a modern Web UI from an existing green screen
- Customize a highly interactive, graphical Web 2.0 UI

Deliver greater customer satisfaction

- Lower training costs
- Fewer user errors

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CICS Explorer – The New Face of CICS Transaction Server

Reduce the need for multiple interfaces

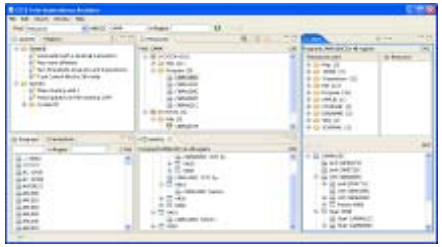
Before…

Web

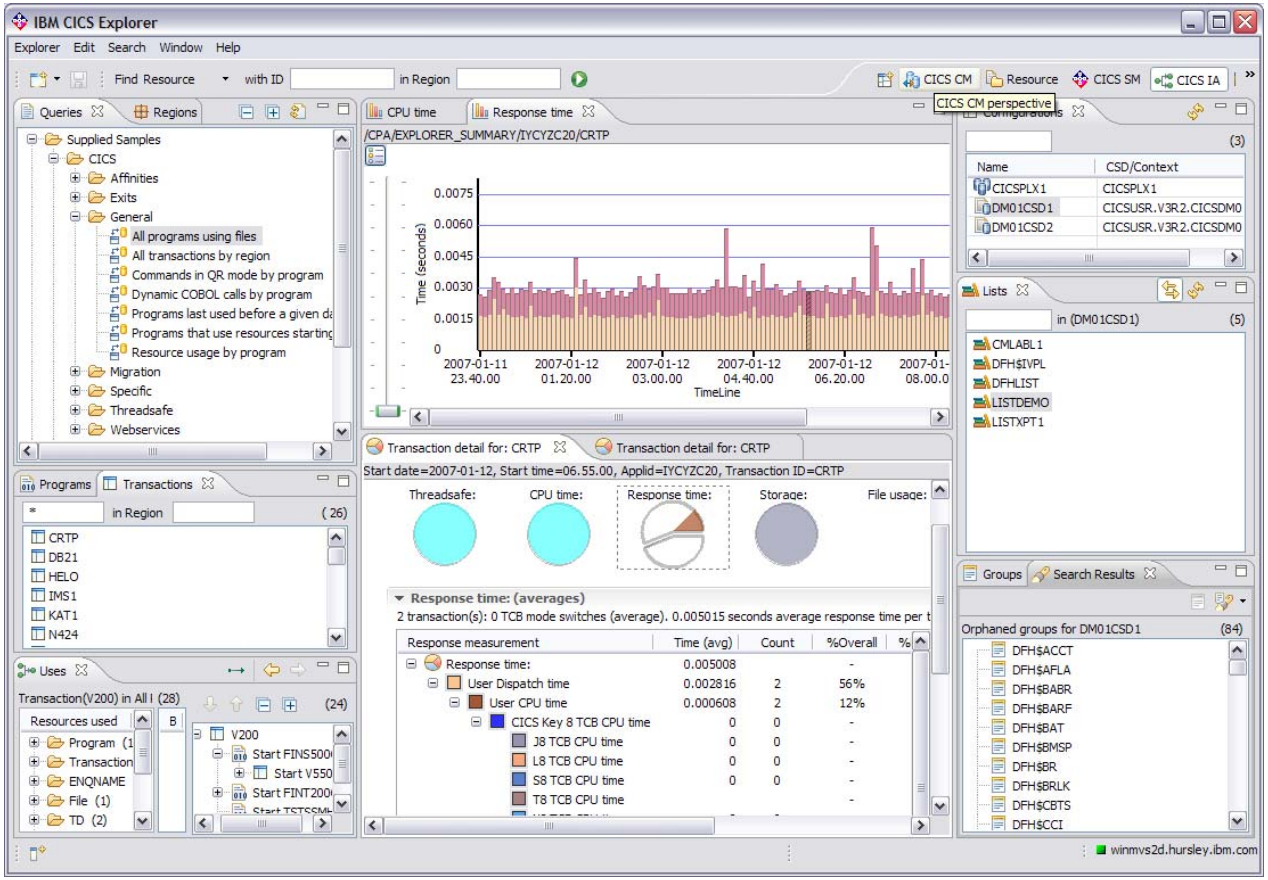
ISPF

CICS 3270

Eclipse



Now …



More info and downloads at ibm.com/cics/explorer

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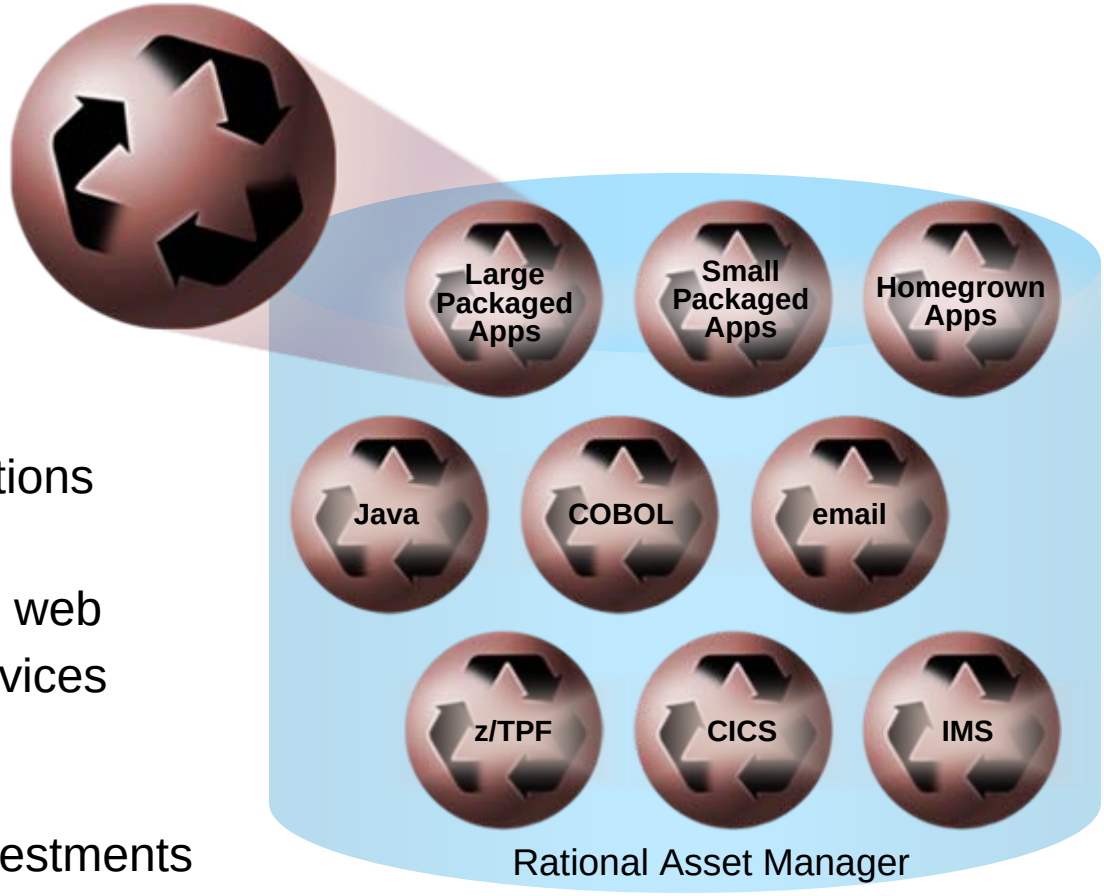
Reuse Business Applications

Enable Agility Required for Smart Business Outcomes

Get More Value from Applications & Expand Business Opportunities

- Create a proactive asset management culture
- Deploy a reuse infrastructure
- Service-enable existing applications
- 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

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Business Process Management

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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

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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

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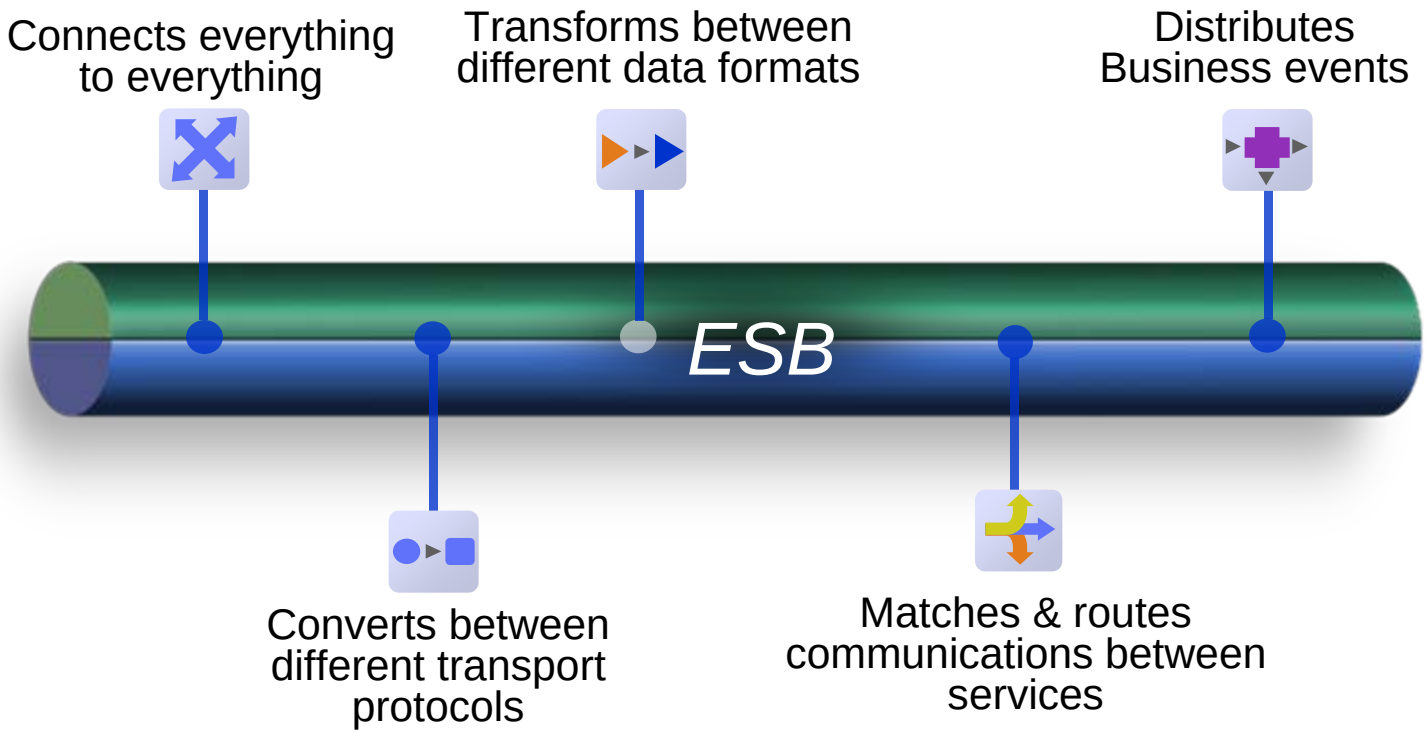
Agility and savings begin with Integration

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

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Execute efficiently through global collaboration & agility

Reduce costs, improve governance, and assess risk as a unified team

- Unify globally diverse teams of all sizes
  - Support developers, stakeholders and partners on multiple projects
  - Deliver enhanced scalability, security, availability and performance
- Enable teams to adapt rapidly
  - Provide enhanced agile planning and schedule risk assessment
- Integrate existing tool and infrastructure investments
  - Consolidate and reduce costs
  - Support a diversity of programming models, platforms and tooling

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Sodifrance SA, an IT services company

Boosts development team productivity, minimizes errors and rework

The challenge

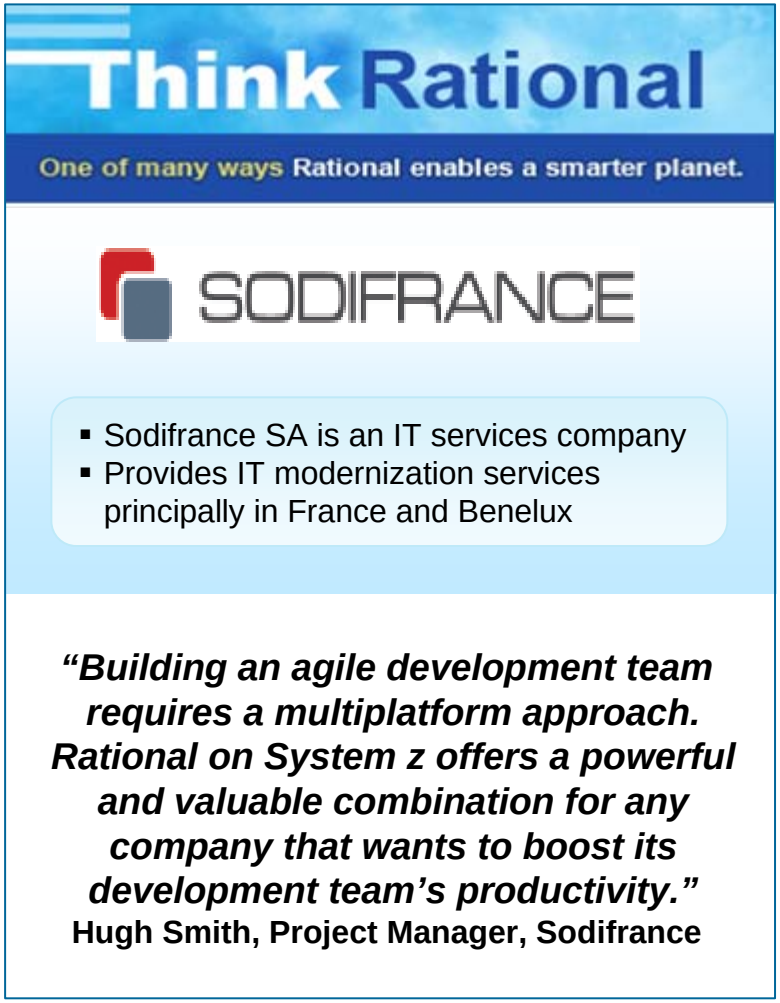
- For Sodifrance's many complex mainframe modernization projects, the company's staff often required disparate tools for each phase, including requirements, change management, agile development process management, builds which increased their development costs and time

Business value

- Decreases development time by 15-20%
- Improves development quality and minimizes errors and rework

Solution

- Sodifrance selected IBM Rational Team Concert for System z and Rational Developer for System z software on an IBM System z9 Enterprise Class server running IBM z/OS® 1.10 at IBM's Montpelier zTech center



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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

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Business Process Management

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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

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"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

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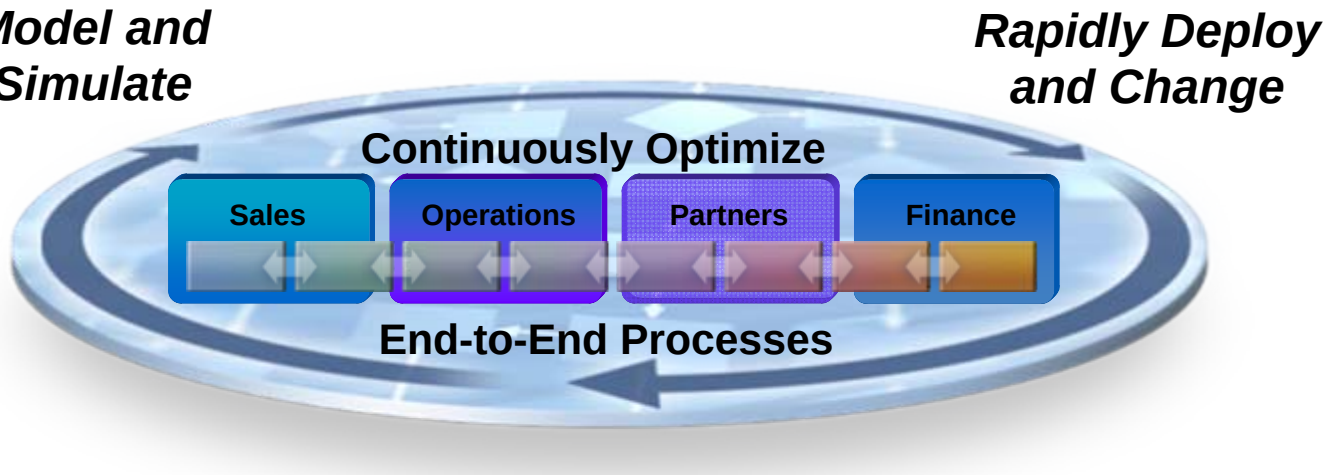
Process Automation

Improves operating efficiency and reduce costs



Streamline business activities

Lower Costs

IBM WebSphere Process Server for z/OS

Complement and extend existing applications

Reduce cycle time

IBM WebSphere Business Monitor

Leverages reusable process components

Easier to Manage

IBM WebSphere Business Modeler

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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

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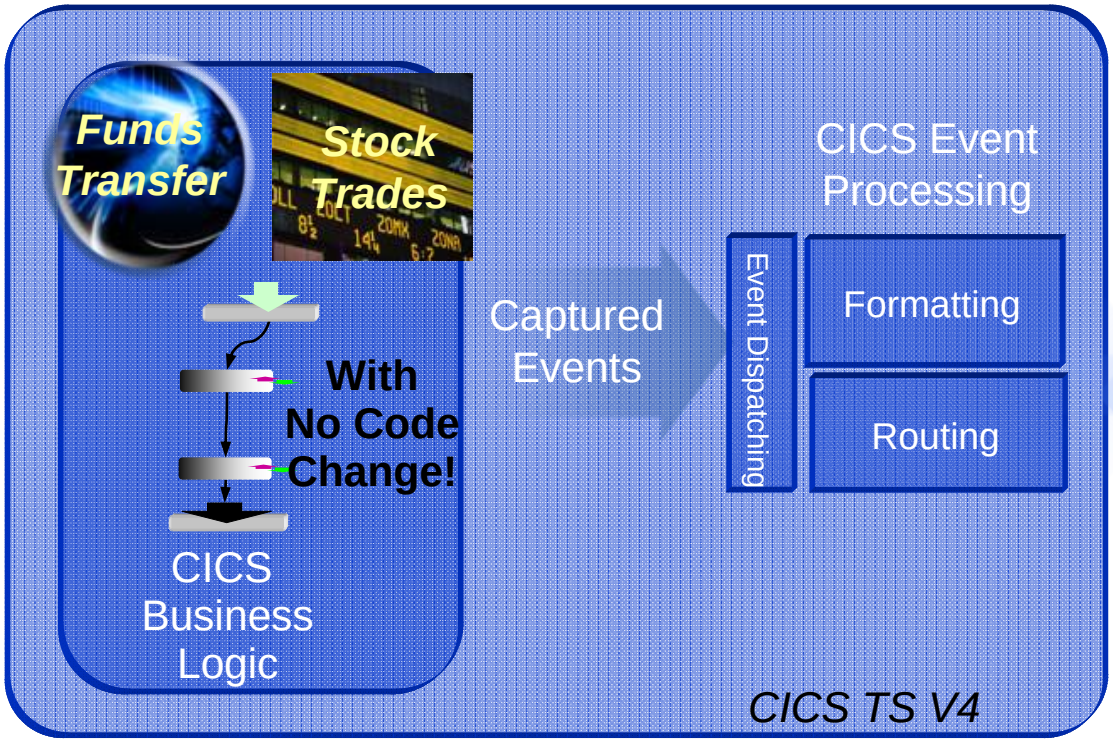
Capture mainframe events for smarter business outcomes

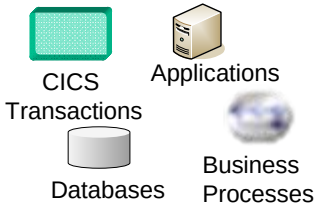
CICS Event Sources



Detect fraud and take action

WebSphere Business Monitor

WebSphere Business Events



Other Event Consumers

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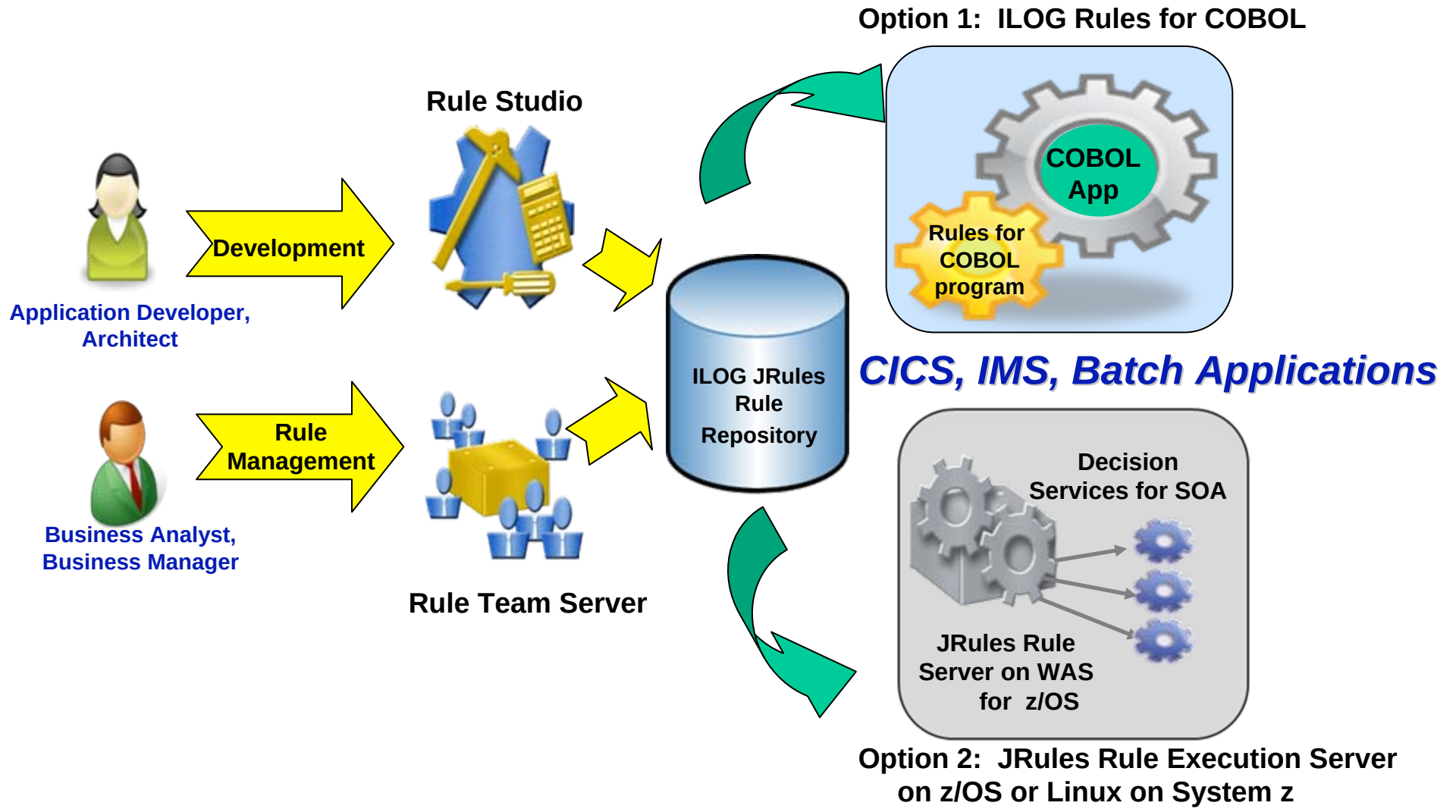
ILOG Business Rule Management Solutions on System z



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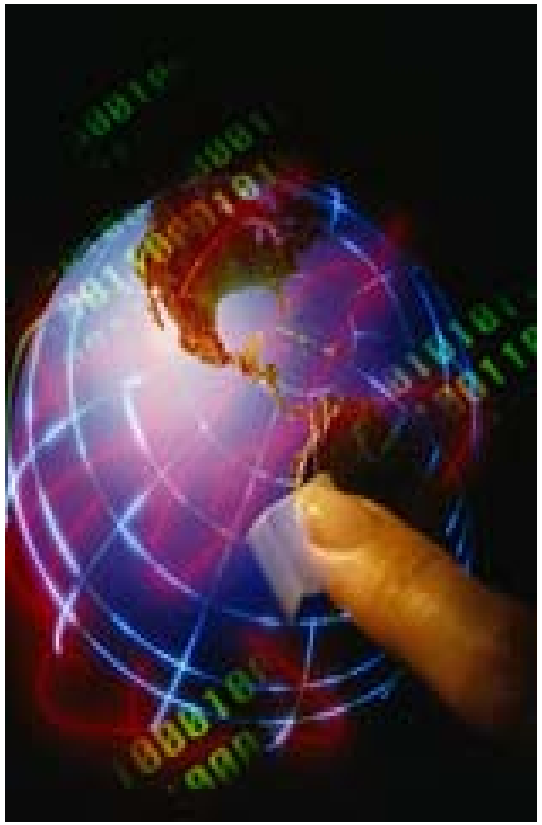
Benefits of a Dynamic Business Network on System z

- 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



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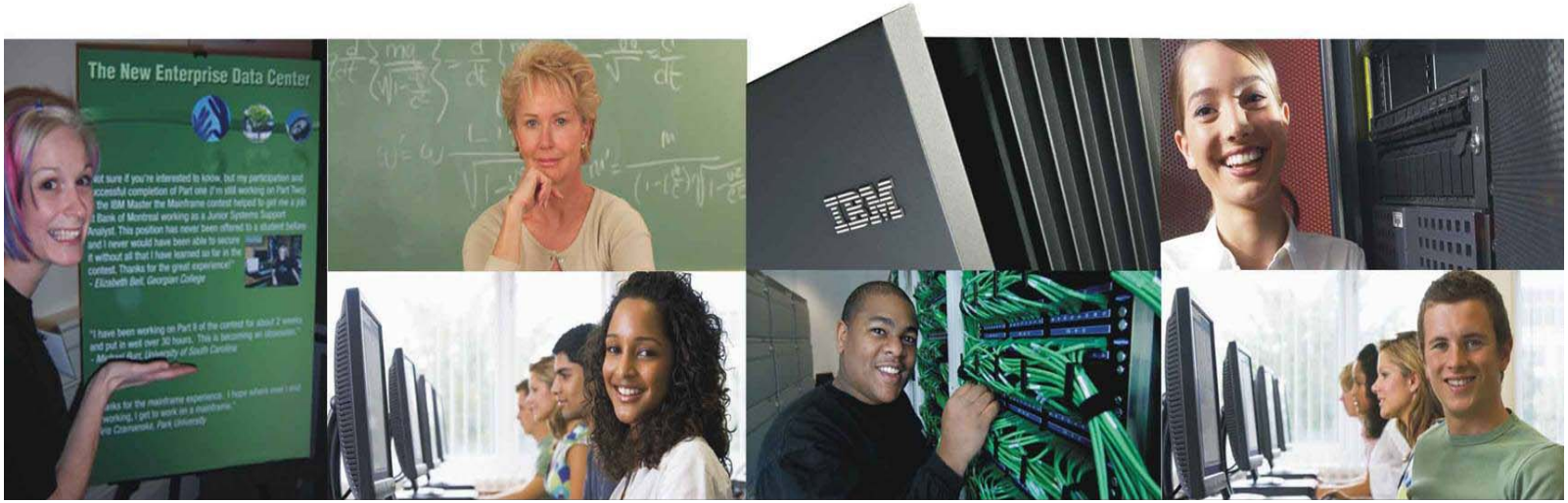
Enterprise training programs

Maintaining the necessary skills within the IT workforce

Hire skilled employees from universities in the IBM Academic Initiative, and leverage IBM on-line resources to train existing staff



Delivering

New talent with enterprise skills, convenient training for existing employees, and a growing community of skilled business partners, customers, students and IBM employees

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Events not to miss

IBM Software

Impact2010

The Premier Conference for Business and IT Leaders

Discover. Interact. Optimize.

MAY 2–7 Las Vegas, NV

Register now at: www.ibm.com/software/websphere/events/impact/

The premier software and product delivery event.

June 6-10 Orlando, Florida

Innovate2010

The Rational Software Conference

Let's build a smarter planet.

Register now at: http://www-01.ibm.com/software/rational/innovate/

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Be ready for tomorrow: Let's Build a Smarter Planet on System z

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