Business Process Management for z/OS® enabled by SOA

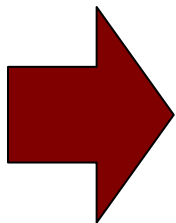IBM Software Group

The Business Landscape is Changing
Forcing Companies of All Sizes to Respond to a 'Flat World'

Innovation that matters to CEOs:

– Extend the ability to collaborate inside & outside

– Innovate business models & processes

– Leverage information for business optimization

– Integrate globally

– Agile business processes

87% expect fundamental change in next 2 years
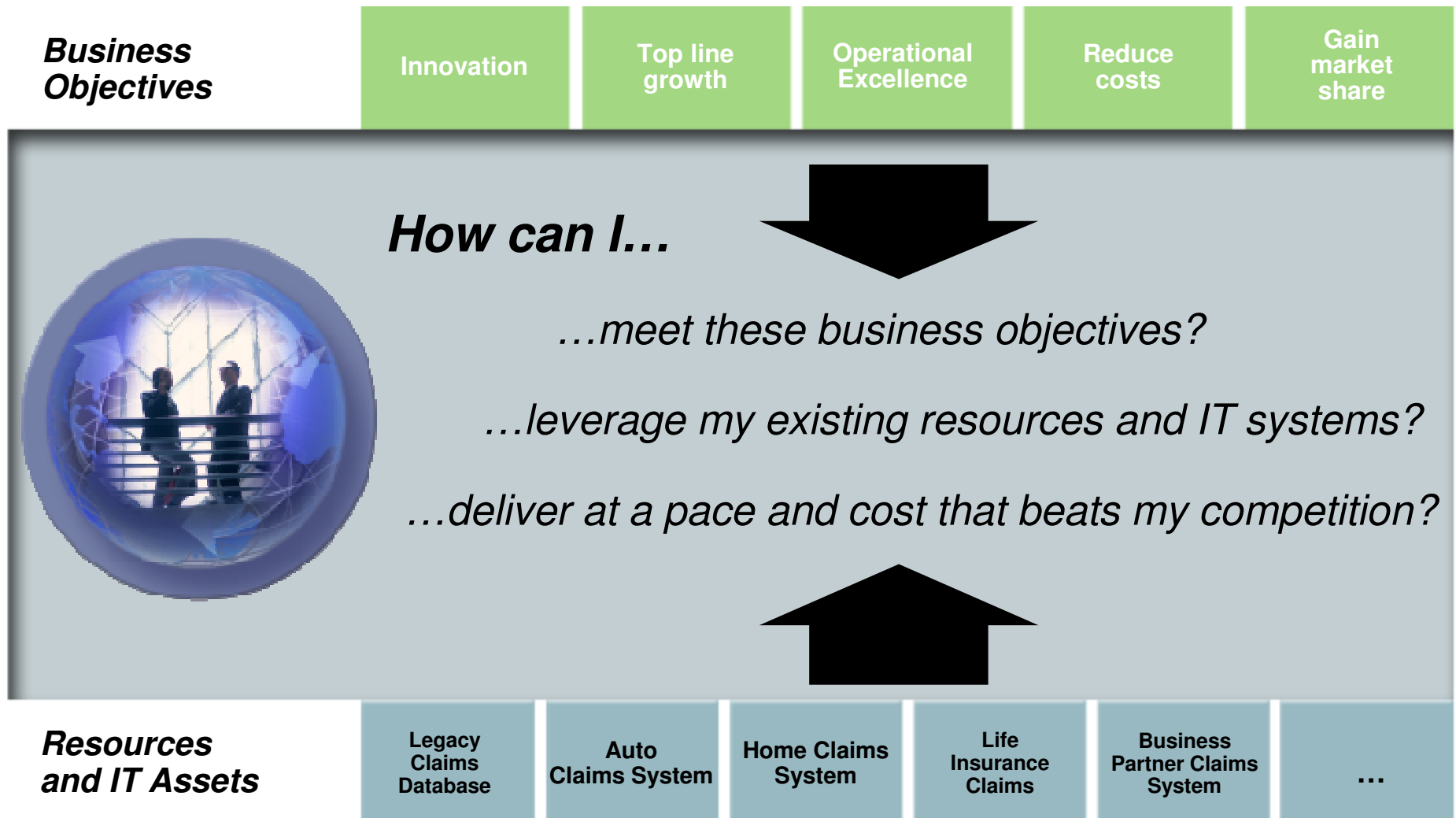**78% believe innovation requires business and technology**

Business Leaders know what's needed from their Business Processes to achieve their Objectives

- Support **innovative business models** and new **differentiated products and services**

- **Change rapidly** and continuously **optimize operational capabilities**

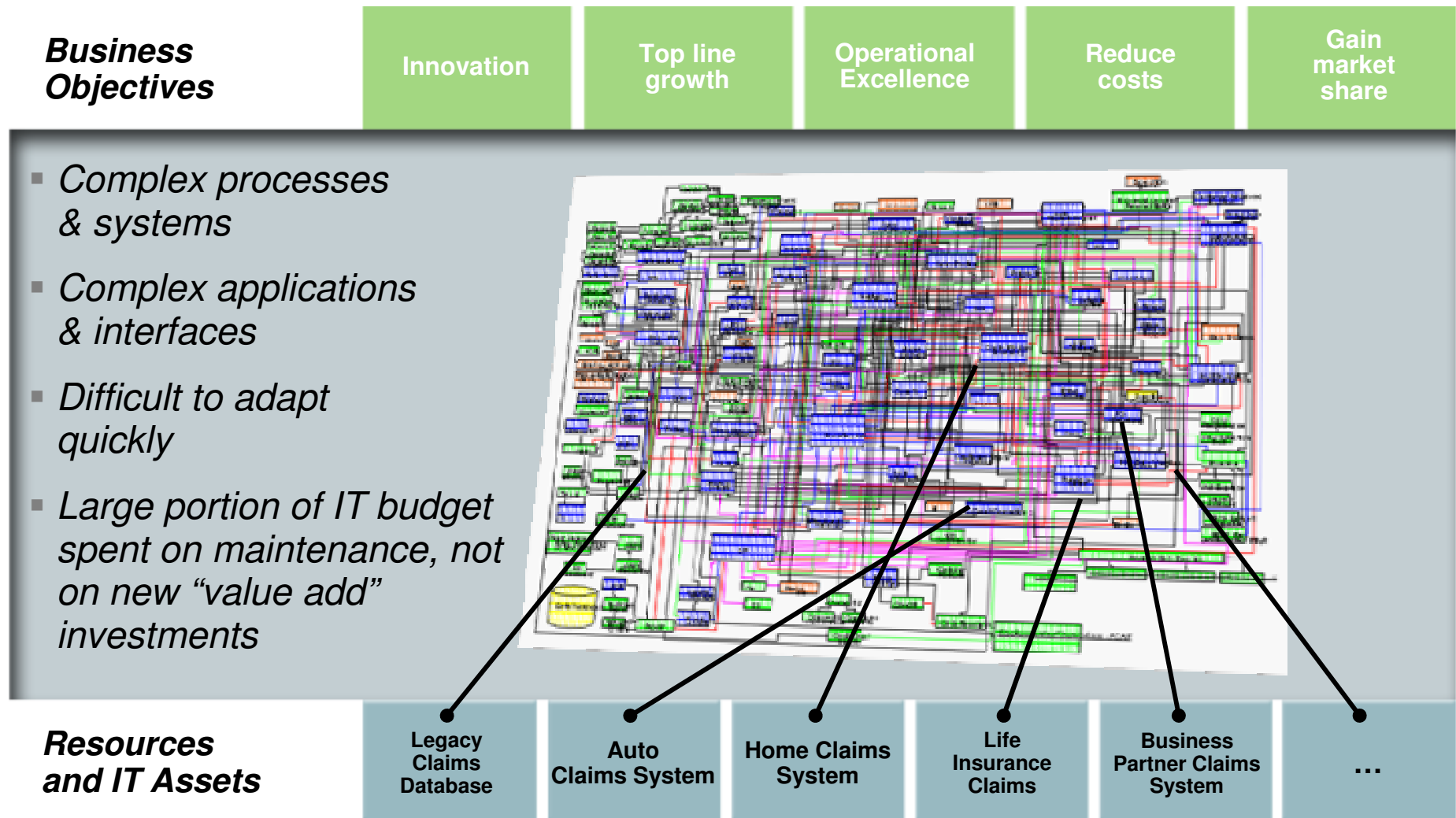- Provide a **real-time operational view** with the ability to **intervene fast**

Sources: IBM Global CEO Survey, 2008. CMP Technologies, April 2007. IBM GBS Global CFO Study 2008.
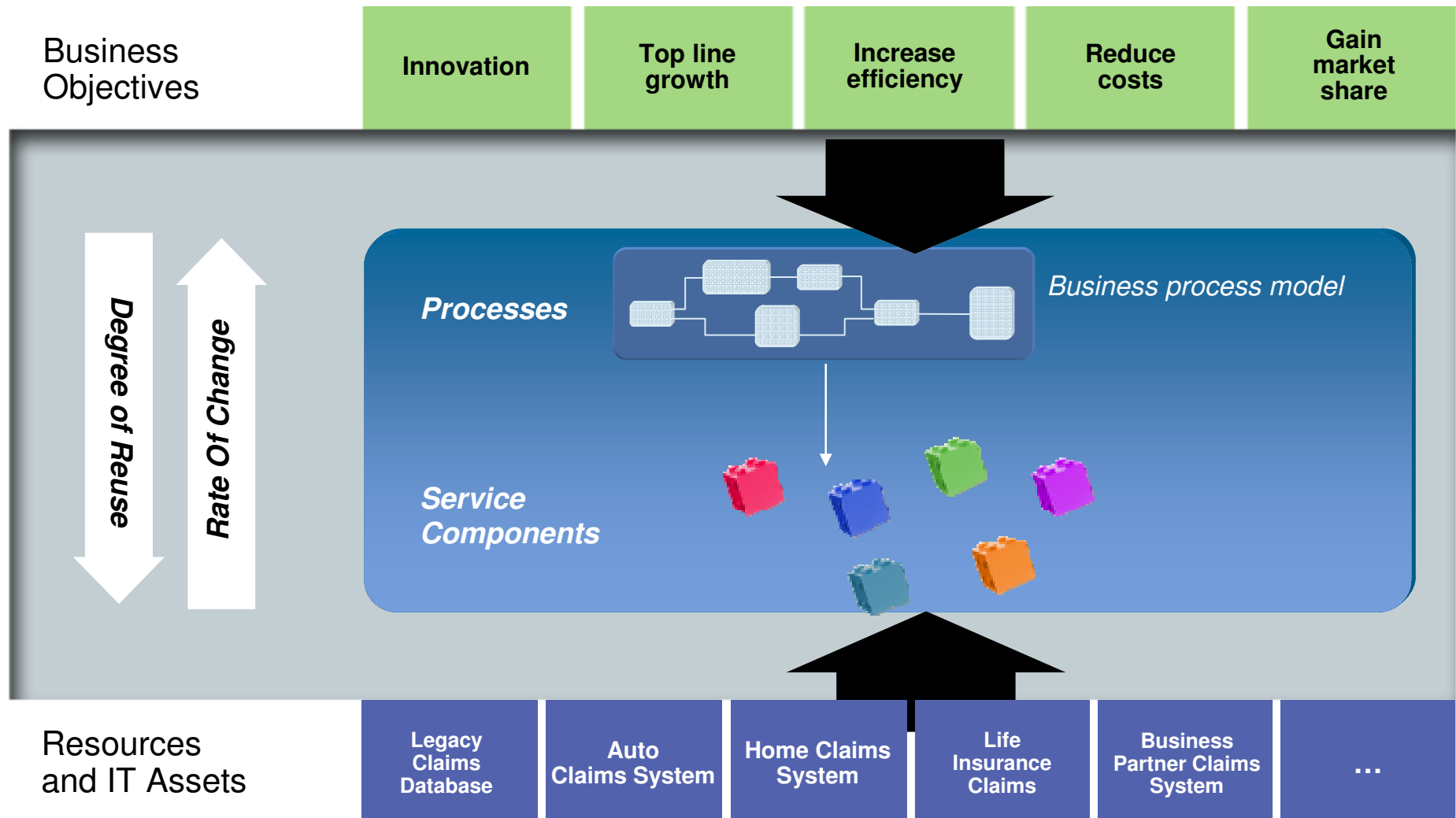
Customer Business Objectives

Business Objectives	Innovation	Top line growth	Operational Excellence	Reduce costs	Gain market share

How can I…

…meet these business objectives?

…leverage my existing resources and IT systems?

…deliver at a pace and cost that beats my competition?

Resources and IT Assets	Legacy Claims Database	Auto Claims System	Home Claims System	Life Insurance Claims	Business Partner Claims System	…

The Challenge

Business Objectives	Innovation	Top line growth	Operational Excellence	Reduce costs	Gain market share

- *Complex processes & systems*

- *Complex applications & interfaces*

- *Difficult to adapt quickly*

- *Large portion of IT budget spent on maintenance, not on new "value add" investments*

Resources and IT Assets	Legacy Claims Database	Auto Claims System	Home Claims System	Life Insurance Claims	Business Partner Claims System	…

IBM

Service Oriented Architecture addresses your challenges
And using System z as the hub of your SOA transformation provides unique value

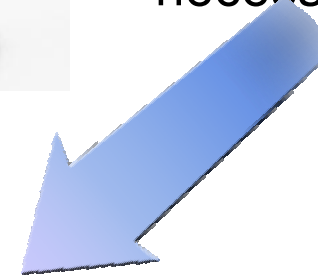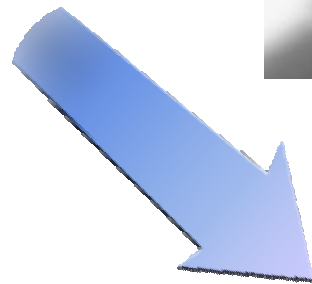**Business Objectives**

Innovation	Top line growth	Increase efficiency	Reduce costs	Gain market share

Degree of Reuse

Rate Of Change

Processes

Business process model

Service Components

Resources and IT Assets

Legacy Claims Database	Auto Claims System	Home Claims System	Life Insurance Claims	Business Partner Claims System	...

These challenges inhibit LOB and IT from quickly driving innovation, managing risk and enabling change

Business people know which business priorities need to change, but cannot effect the IT changes quickly

IT people often don't know which business priorities are changing and which accompanying IT changes are necessary

BPM bridges the gap between business and IT
IBM is Best Positioned to Deliver BPM

When System z is the SOA Hub

- ## Integration
  - Designed to handle complex transactions and roll back
  - Monitor end-to-end transactions in complex configurations
  - Allocate resources according to business goals
  - Provide single point of control across the enterprise
  - Help customers meet security and regulatory requirements
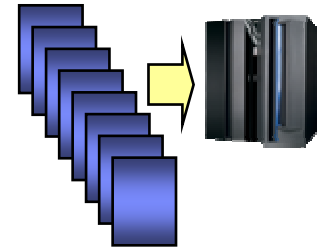
- ## Business criticality
  - Business services may be reused by an increasing number of critical applications

- ## Growth
  - Designed to quickly add new services and capacity with practically no disruption to apps or users

- ## Performance
  - ESB performance improvements may be achieved when co-locating with z/OS® data

System z capital waiting to be re-invested. But How?

- **$5T of core System z applications with estimated replacement costs of $20T [3]**

- **70% [1] of corporate data is stored on the mainframes**

- **CICS handles more than 30 billion transactions/day [3] valued at over $1 trillion/week [3]**

- **System z has been estimated to contain $3 Trillion [2] (USD) in core assets**

- **DB2 has delivered 100% availability of customer information for 10 consecutive years, including migrations [5]**

- **Mainframe can handle sustained peak workload utilization of 100% without service level degradation**

- **Mainframe can handle 9,000 transactions per second operating on more than more than 380 million accounts [4]**

- **Scalable & high performing connectivity with WebSphere MQ for z/OS processing over 213M messages per day on z/OS in the banking industry alone**

- **Over 15 Million GBs of Production data managed by IMS with over 50 Billion Trans/day and over 200 Million Users/day**
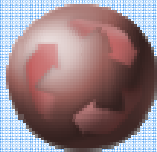
SOA Entry Points
Reuse, Connectivity, Process

New!

Application Infrastructure Portfolio

- Reuse and extend existing applications

- Build, run, integrate and manage dynamic, On Demand Business™ applications

New!
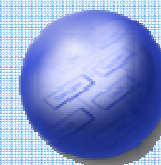
IBM Connectivity Portfolio

- WESB: Better reuse of existing applications

- DataPower: Improved capabilities to prioritize services

- Message Broker: Include more of your business information and assets

- NEW! MQ V7

New!

Business Process Management

- Simplifies integration of business processes by leveraging existing IT assets as reusable services

- Provides simplified tools to describe, create and manage business processes

Basic   Advanced

Reuse: Service enabling existing applications
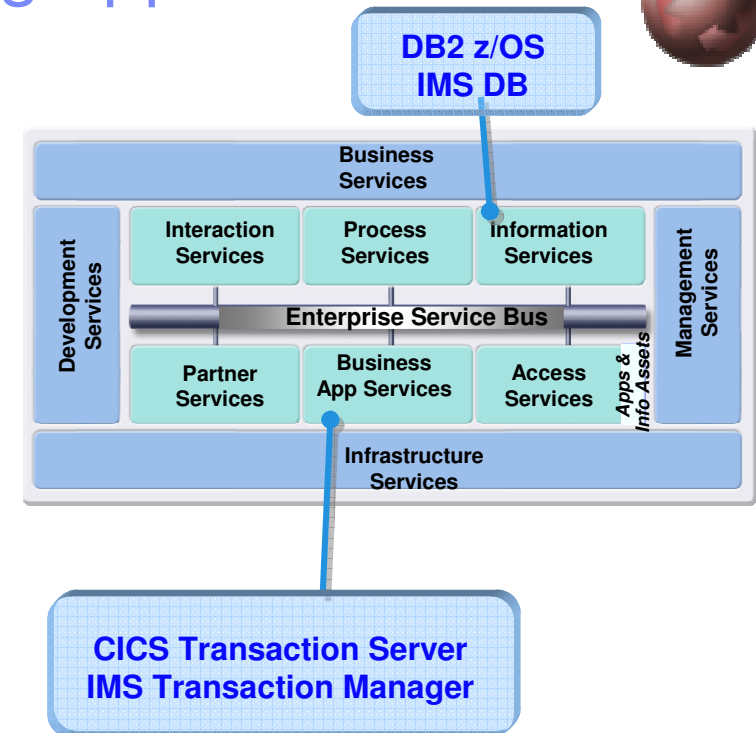
**DB2 z/OS
IMS DB**

CICS Transaction Server V3.2

Enhanced!

- Create components from existing applications which are more flexible & configurable for use in new applications
- Extend existing applications beyond their original designs to support integrated business processes via standard APIs and protocols
- Management of large runtime configurations via modern user interfaces

Business Services

Development Services	Interaction Services	Process Services	Information Services	Management Services
	Enterprise Service Bus			
	Partner Services	Business App Services	Access Services	Apps & Info Assets

Infrastructure Services

**CICS Transaction Server
IMS Transaction Manager**

IMS 10

New!

- Reuses your existing and new IT investment for SOA
- Provides business flexibility, eases new application development and management capability
- Lower operating costs through z/OS and zAAP engine exploitation
- New security capabilities for greater control and business flexibility
- Improved auditing and accountability

DB2 9 optimized for SOA

Enhanced!

- Business insight and flexibility with pureXML
- WebSphere integration for trusted applications and web serving
- Security & SOA governance capabilities

BPM empowers business to innovate and deliver rapid and transformative change while reusing assets

BPM solves common business challenges . . .

Empowers Business Users

Detects Business Situations and Takes Action
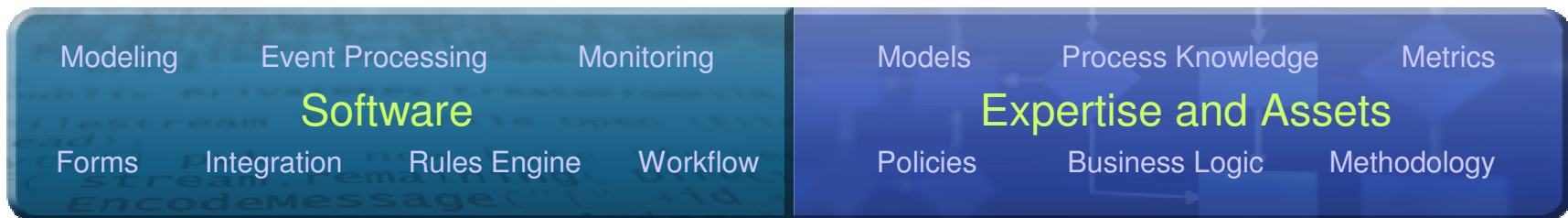
Provides Clear Visibility into Business Processes

Streamlines Complex Integration Across Multiple Processes

Enables Process Change

Simulates / Predicts Outcomes

BPM includes…

Software			Expertise and Assets		
Modeling	Event Processing	Monitoring	Models	Process Knowledge	Metrics
Forms	Integration	Rules Engine	Workflow	Policies	Business Logic	Methodology

BPM from IBM enables and governs processes involving content, transactions and collaboration
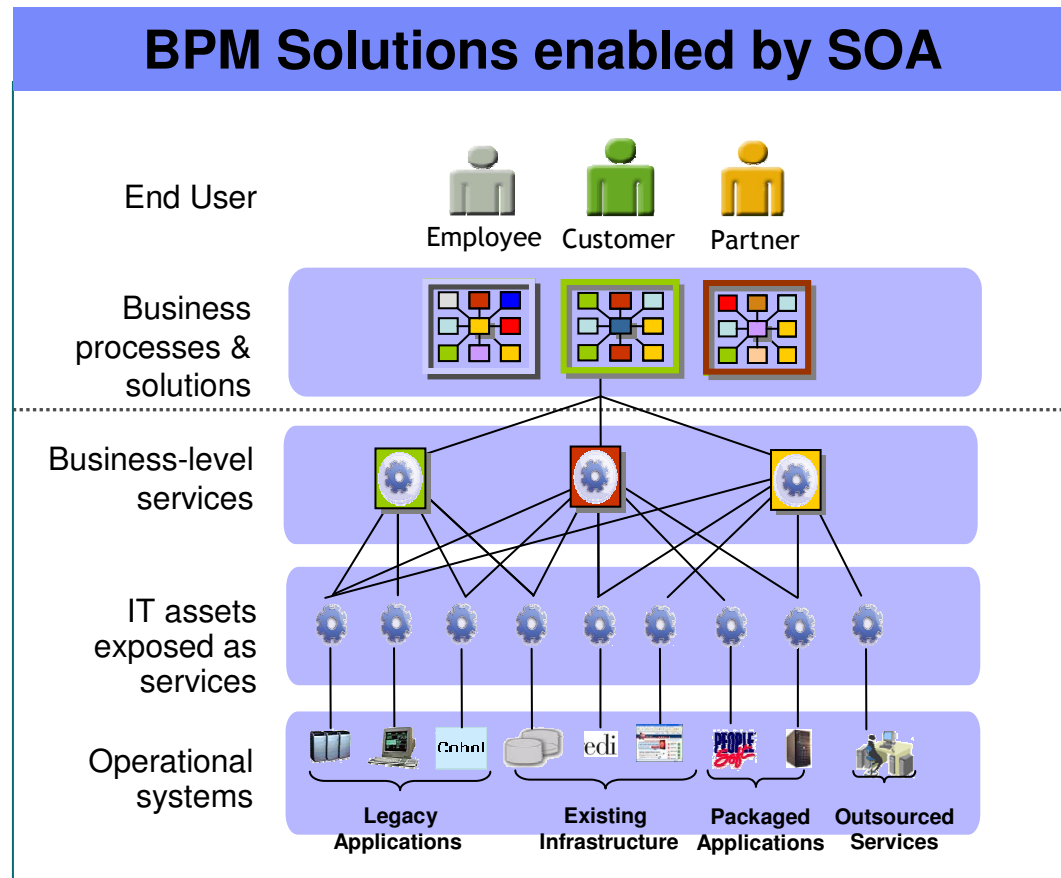
BPM enabled by SOA
Flexible Infrastructure, Composite Business Solutions

Three Levels of Maturity and Value
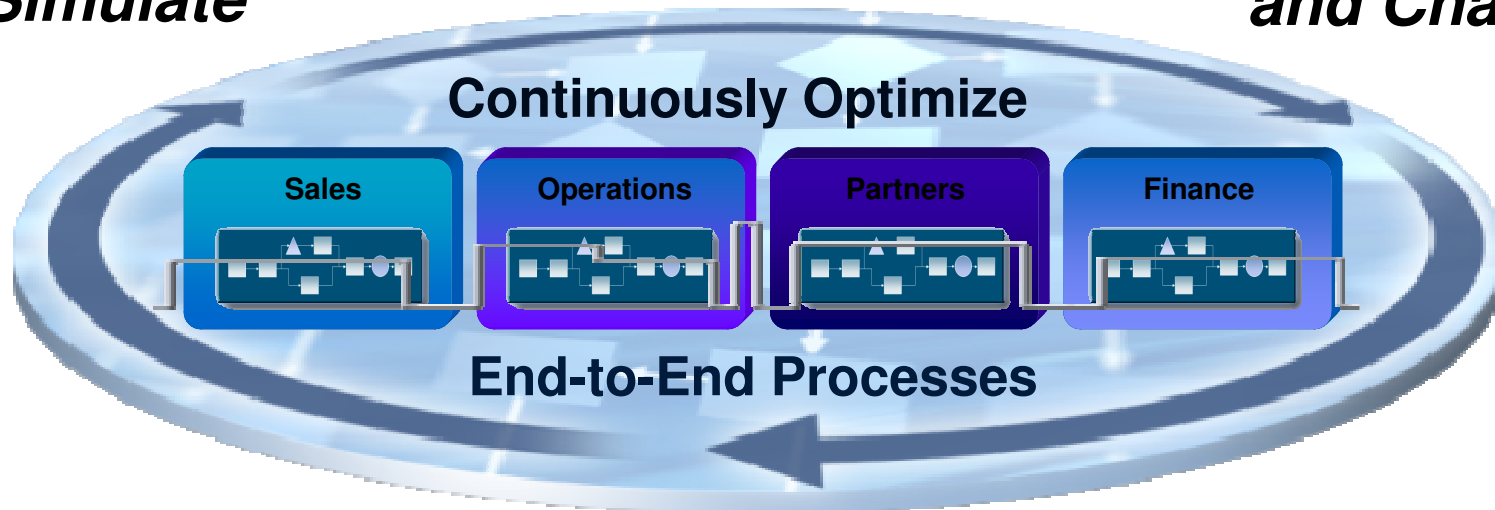- ✓**Design**
- ✓**Automate**
- ✓**Optimize**

Efficient solution building

Reuse of existing assets

Flexibility in change

BPM Solutions enabled by SOA

End User — Employee, Customer, Partner

Business processes & solutions

Business-level services

IT assets exposed as services

Operational systems — Legacy Applications, Existing Infrastructure, Packaged Applications, Outsourced Services

BPM from IBM Empowers You To Embrace Change and Continuously Optimize Your Business

Model and Simulate

Rapidly Deploy and Change

Continuously Optimize

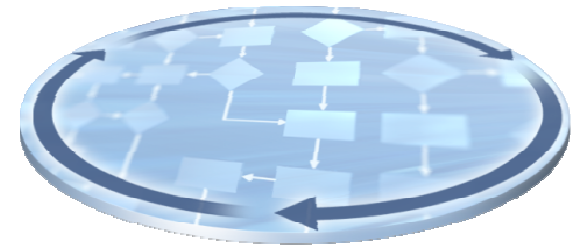| Sales | Operations | Partners | Finance |

End-to-End Processes

Monitor, Predict and Act

New!

What can BPM do for my Organization?

WebSphere BPM helps to unlock IT's Value across the Organization

- Accelerate time-to-market for new solutions, and rapidly change and reconfigure existing IT assets without redeployment

- Increase the value of your organizational assets and reduce their operating costs

- Drive collaboration and stakeholder commitment around process optimization goals across both business and IT

- Reliably meet SLA, audit, and regulatory objectives with Process Integrity

- Leverage open products that accommodate disparate systems across departmental boundaries
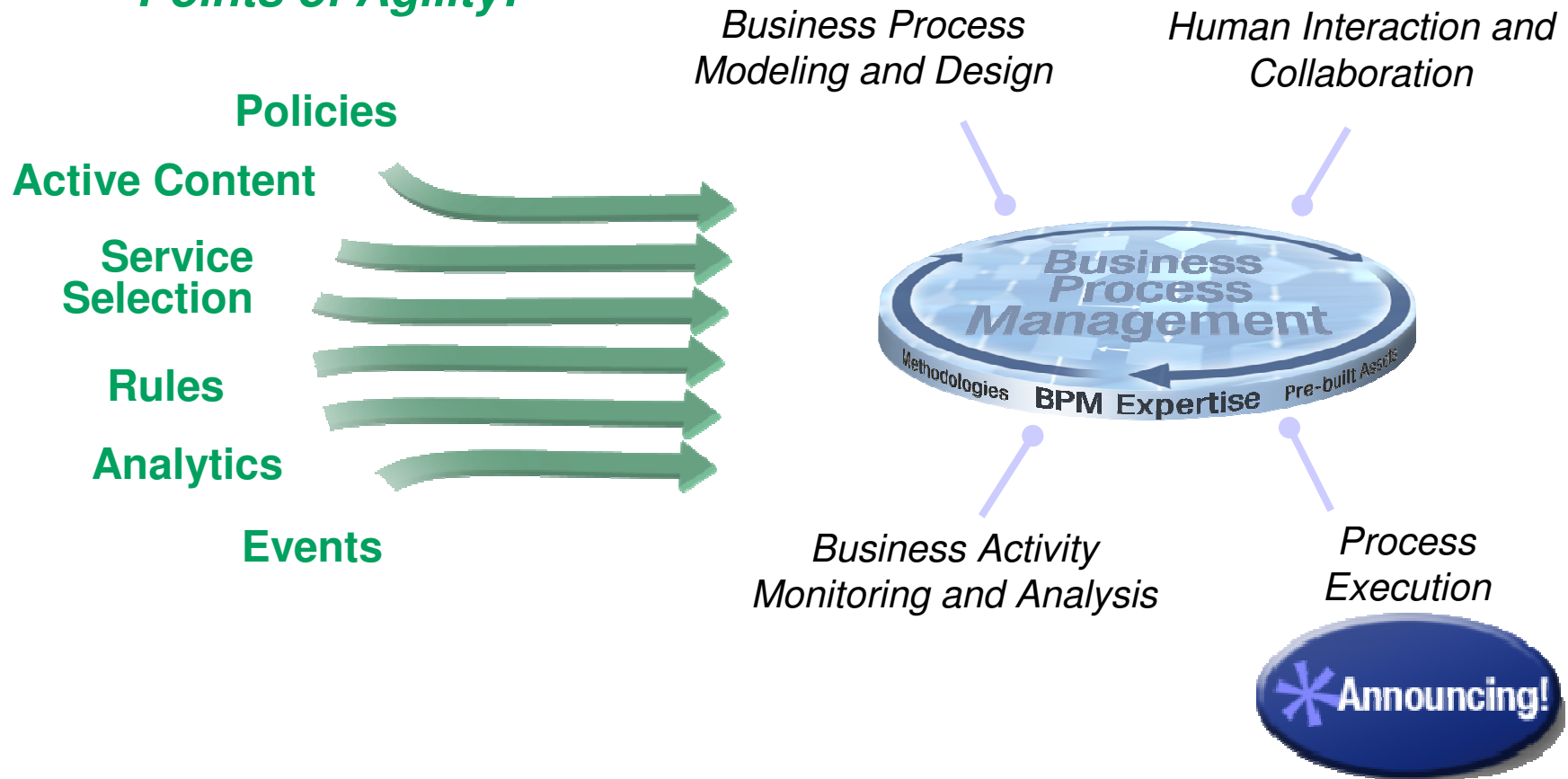
Interaction Integrity

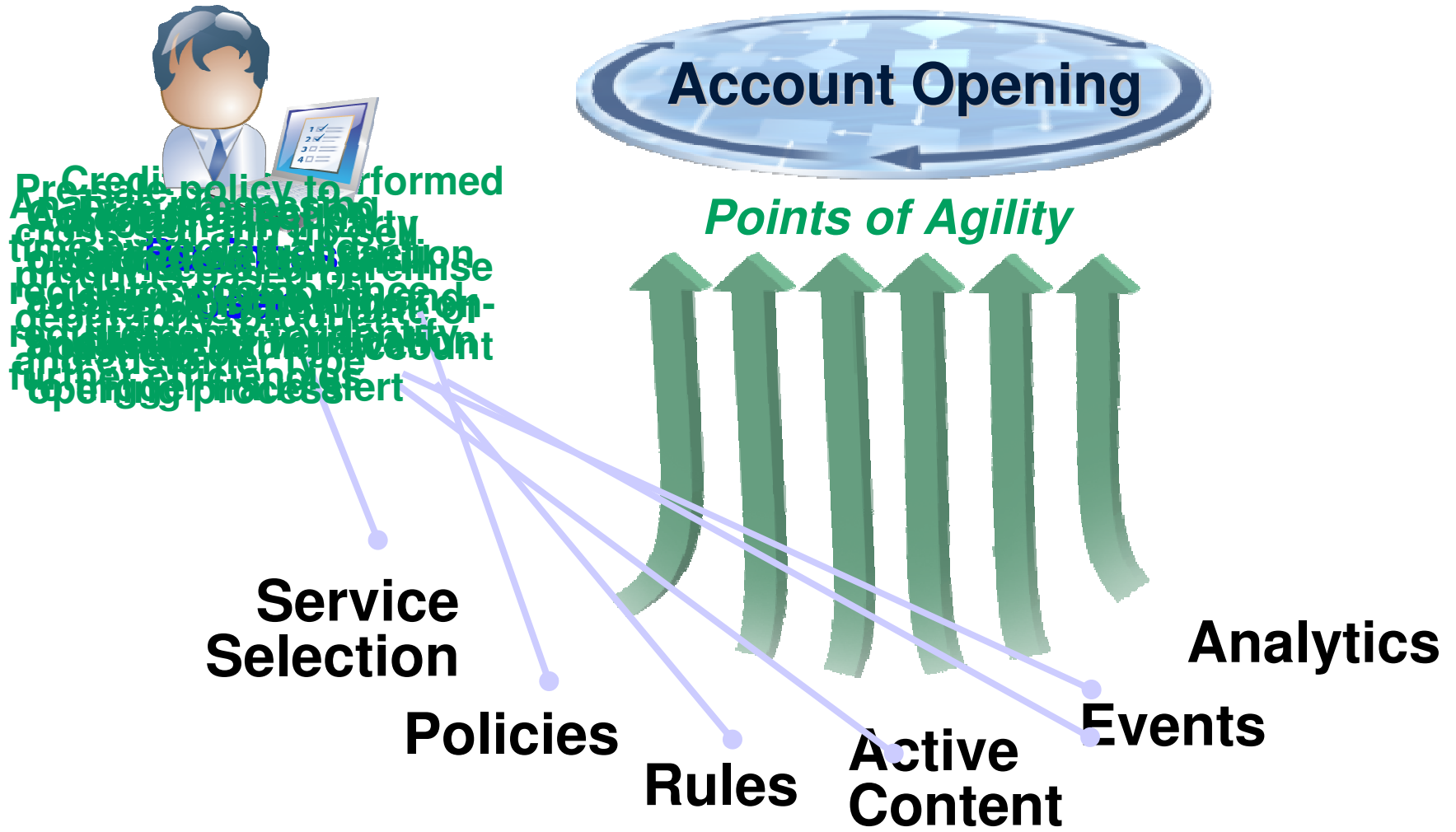Transaction Integrity

Information Integrity

Process Integrity

Announcing! IBM's BPM Suite

IBM's BPM Suite Provides a Comprehensive Set of Role-Based Capabilities for Continuous Process Optimization
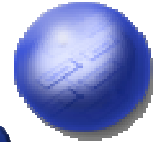
Points of Agility:

Policies

Active Content

Service Selection

Rules

Analytics

Events

Business Process Modeling and Design

Human Interaction and Collaboration

Business Process Management

Methodologies   BPM Expertise   Pre-built Assets

Business Activity Monitoring and Analysis

Process Execution

Announcing!

Scenario: Bank Account Opening Dynamic Process

Account Opening

Points of Agility

Service Selection

Policies

Rules

Active Content
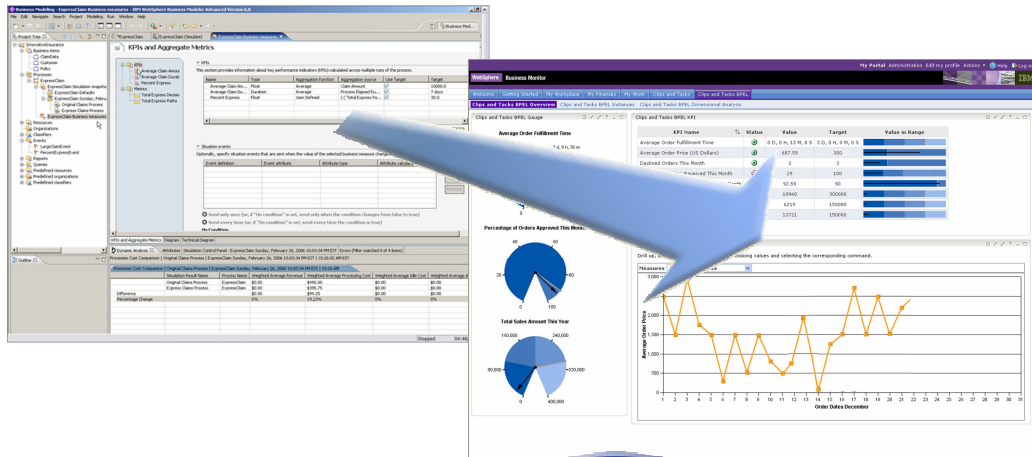
Events

Analytics

Business Process Management
A discipline enhanced by flexible architecture - SOA

Enhanced!

WebSphere Integration Developer V6.1
- Eclipse-based tool for building SOA-based BPM and integration solutions
- Enables rapid assembly of business solutions by wiring reusable service components
- Enables integration developers to assemble complex business solutions
- Enables construction of process and integration solutions using drag-and-drop technology

Enhanced!

Enhanced!

WebSphere Business Modeler V6.1
- Visualize, understand, and document your business processes
- Document processes to better understand your business
- Discover potential areas for process improvement and latent value in processes
- Ability to change the business process to respond to changes in market

Enhanced!

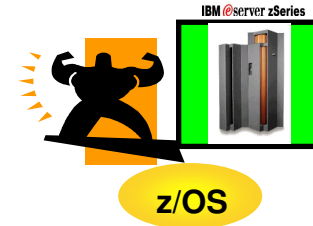### WebSphere Process Server for z/OS V6.1
- Accelerate time to value, and simplify the integration of applications in a SOA
- Improve connectivity for application reuse with new Adapter Nodes for WebSphere Message Broker V6.1
- WebSphere Adapters now available for WebSphere Application Server zOS 6.1

WebSphere Business Monitor V6.1
- Offers comprehensive business activity monitoring of your business performance
- End-to-end visibility of business performance through customizable dashboards
- Early detection and alerts to emerging business situations
- Advanced analytics for decision making based on historical and trending data
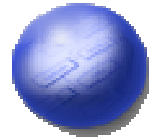
Why deploy WPS on z/OS?
versus any other platform

z/OS

- **Reuse CICS and IMS services**

- **Streamline existing processes**
  - Extend and enrich CICS, IMS, DB2, SAP, WAS z/OS
  - Optimized Transaction Coordination for composite applications on z/OS

- **Proximity: Single platform, less complex infrastructure**
  - Leverage co-location with z/OS subsystems and business data
    - Put Process Control next to the assets reused.
    - Mixed workload on a single platform (hardware box and operating system)
    - Cross-memory connections, less overhead, maximum efficiency
  - Standard platform for core business processes, applications, and data

- **z/OS Class of Service for mission-critical solutions**
  - Exceptional Availability and Security
  - High-end throughput and (almost linear) scalability
  - Centralized Operation: Fewer IT staff
  - Built-in cluster: Simpler install & config
  - **Green** Enterprise Computing: Energy and floor space savings (fewer machines)

Business Process Management
A discipline enhanced by flexible architecture - SOA

WebSphere Business Services Fabric and WebSphere Business Events extend the BPM portfolio

WebSphere Business Service Fabric V6.1

- End-to-end SOA platform for composite business services
- Provides modelling, assembly, deployment, management, and governance of business services
- Includes optional industry content packs with industry reference
- Includes WebSphere Process Server and WebSphere Integration Developer
- Provides access to 2,000+ business partner SOA assets through IBM SOA Business Catalog

WebSphere Business Events

- Allows business users detect, evaluate and react to business events in real time
- Accepts events from many sources
- Sends actions to WebSphere Business Monitor
    - Interested users can receive information immediately
- Sense meaningful patterns
    - Allows users to define filters and conditions
    - Manages event flows and long running correlations
- Plug & Play to extend your existing SOA and BPM infrastructures

New in 2008 for z/OS

Extending BPM with **Policies**

Business-Level Policies…

For "Open Account" transactions across all product lines, accessed via Portal by Agents…
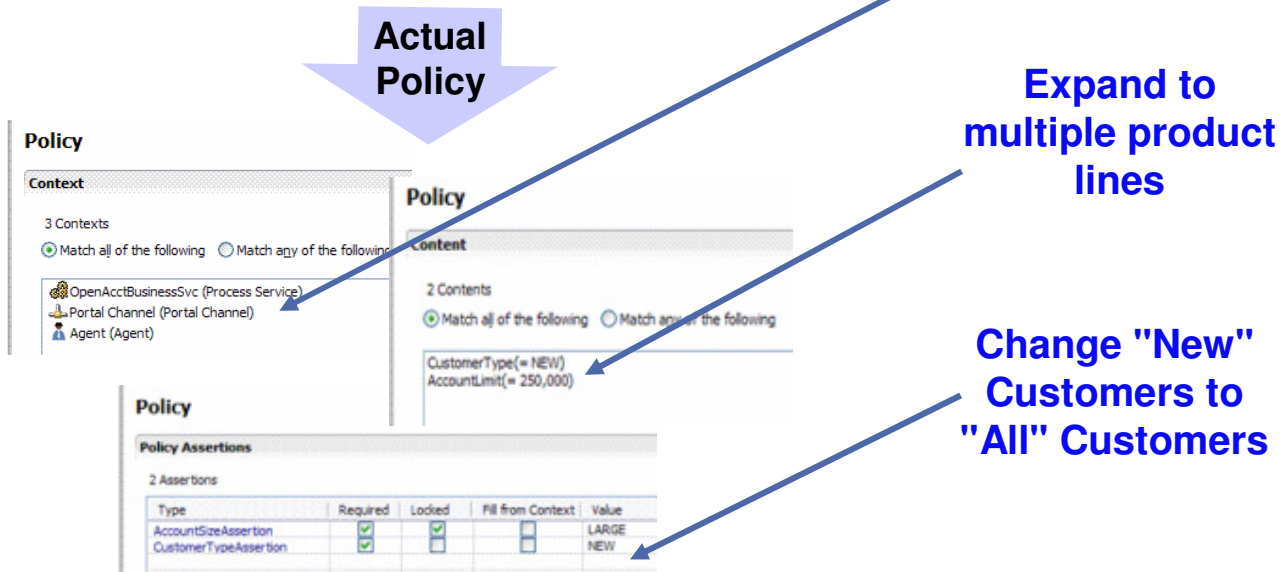
where customer is NEW, account is LARGE, and transaction is under $250,000…

select Straight-Through- Processing service.

Actual Policy

Add a new "Call Center" channel

Expand to multiple product lines

Change "New" Customers to "All" Customers

…made Easy for Business

- *View*
- *Change*
- *Simulate*

"Hot Deploy" and done

Policy

Context

3 Contexts
◉ Match all of the following   ○ Match any of the following

OpenAcctBusinessSvc (Process Service)
Portal Channel (Portal Channel)
Agent (Agent)

Policy

Content

2 Contents
◉ Match all of the following   ○ Match any of the following

CustomerType(= NEW)
AccountLimit(= 250,000)

Policy

Policy Assertions

2 Assertions

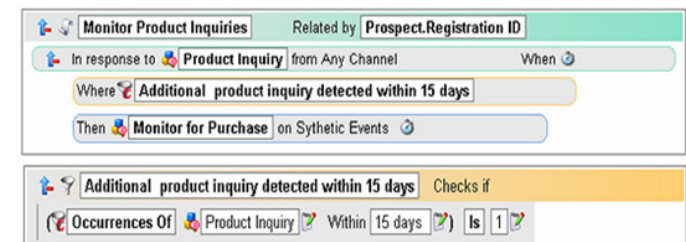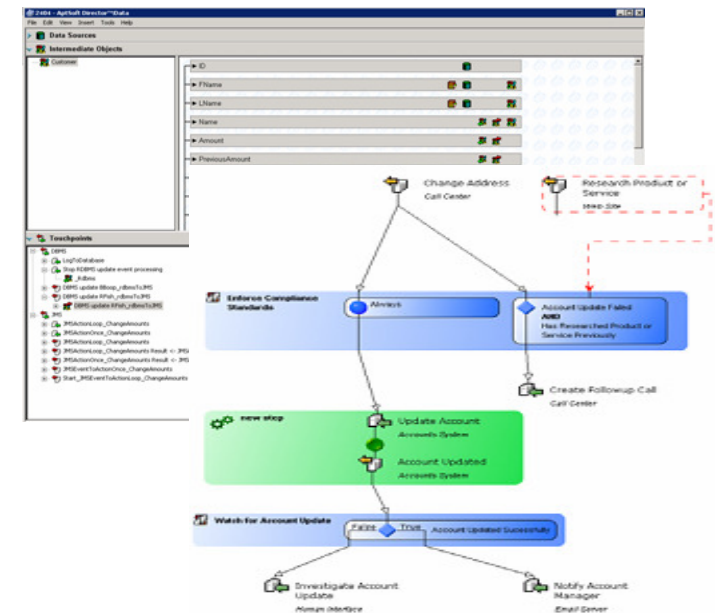| Type	Required	Locked	Fill from Context	Value
AccountSizeAssertion	☑	☑		LARGE
CustomerTypeAssertion	☑	☐	☐	NEW

Enhanced!

WebSphere Business Services Fabric

Extending BPM with Business Event Processing
Sense when to act, know what to do

New!

- Allows business users detect, evaluate and react to business events in real time

- Designed for process analysts
  - Understands business language and vernacular
  - Enables straightforward expression of business logic
  - Codeless, Graphical Authoring tools

- Accepts events from many sources
  - "Derived" events
  - Plug & Play to extend your existing SOA and BPM infrastructures

- Sense meaningful patterns
  - Simple and complex rules patterns
  - Define filters and conditions
  - Event flows and long running correlations

- Initiate the appropriate response
  - Take action when those patterns form
  - Drive existing services (WPS business process, ESB, etc.)
  - Automated Tasks (Update DB, write to file, etc.)
  - Notifications (Email, pager, etc.)

***Real-Time* Pattern Detection**
***Real-Time* Decision Triggers**

Ensure Process Integrity with BPM Enabled by SOA

Interaction Integrity

Transaction Integrity

Information Integrity

Process Integrity

- Deliver seamless long-running processes that span disparate systems in an SOA

- Enables loosely coupled "open" systems to deliver the consistency, scalability, and reliability of tightly coupled systems

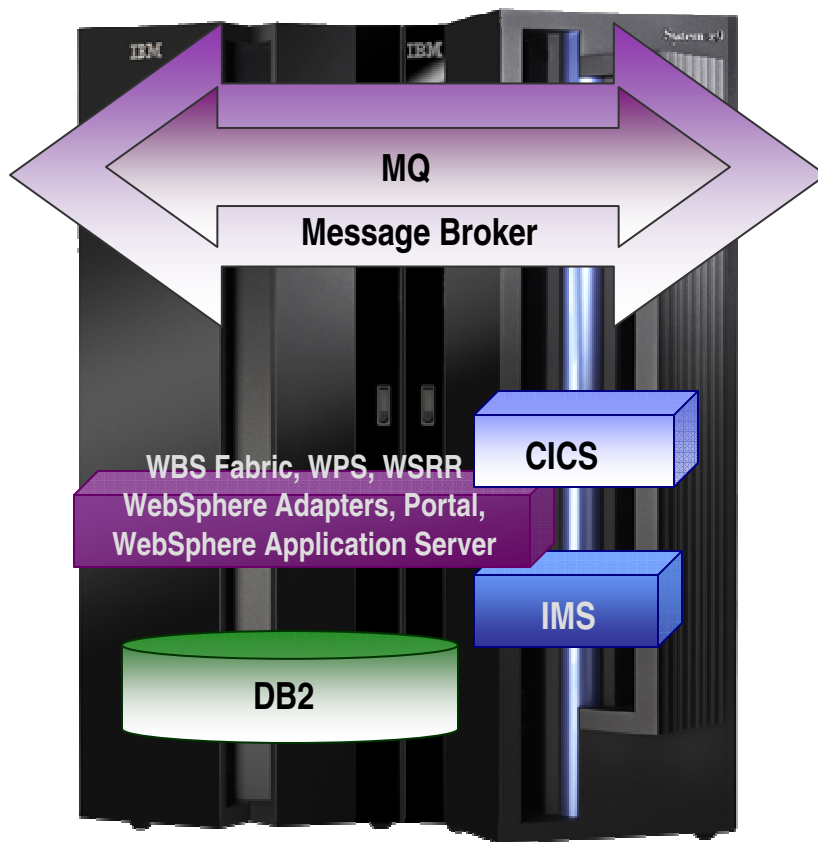- Meet SLA, audit, and regulatory objectives with confidence

System z – For BPM When The Stakes Are Highest
Enterprise data access in an integrated environment

System z is an integration platform with system level awareness across the SW stack, enabling you to work smarter

MQ

Message Broker

WBS Fabric, WPS, WSRR
WebSphere Adapters, Portal,
WebSphere Application Server

CICS

IMS

DB2

Benefits include:

- **Easier Management**
  - ✓ Fewer components to administer
  - ✓ Vertical dynamic scalability

- **Stringent Security**
  - ✓ Reduced interception opportunity
  - ✓ Integration of RACF via SAF

- **Highly Available Infrastructure**
  - ✓ Parallel Sysplex enabled

- **Higher Performance**
  - ✓ No network time
  - ✓ No product specific network protocol construction / deconstruction

Deploying on System z provides differentiated value
Enabling intelligent IT that works for your business

The New IBM System z10 Enterprise Class

The power of
many . . .

. . . the simplicity
of ONE

Server Leadership: 40+ years in the making!

Mainframe utilization rates often exceed 80%, and are designed to handle sustained peak workload utilization of 100% without service level degradation.

- Processors, CPU speed, memory, network I/O

  - Growth of traditional workloads

  - Consolidation of hundreds of applications

  - Granularity of WebSphere deployments

  - Access to corporate data

  - Messaging speeds to support SOA

- Price / performance improvement of specialty engines

- Just in Time capacity and management

  - Adapt faster to workload variations such as dynamic SOA

  - Respond automatically to demand from CICS, IMS, DB2, WebSphere, …

  - Deploy new WebSphere workloads in minutes

Customers turn to IBM for an unmatched breadth of BPM Software and deep BPM and Industry Expertise

#1 in BPMS market share*
Over 2850 BPMS customers in over 30 countries and growing…

Depth of BPM Expertise

- World-class BPM methodologies, process templates, industry best practices, and benchmarks
- BPM Competency Centers
- BPM value assessments and workshops
- 1000+ BPM consultant specialists
- 1,770+ systems integrator and reseller partners
- 4000+ ISV partners
- 10,750+ GBS/GTS practitioners
- 20+ BPM training and education courses

Breadth of BPM Software

- Collaborative business process modeling and simulation
- Best-in-class integration tools, technologies, and adaptors
- Comprehensive asset repositories for BPM-related reuse
- Dynamic, policy-based process customization using composite business application
- High performance, scalable process orchestration and execution engine
- Real-time activity monitoring and response
- Pre-built industry solution accelerators and industry models

"The IBM [BPM] software that we now use has encouraged better business practices throughout our organization, making our company as well as our customers more profitable."

ACI GLOBAL

Why IBM?

Trusted, experienced guidance based on 6550 customers*

# of Customers using our SOA offerings

IBM

धन्यवाद
Hindi

多謝
Traditional Chinese

Grazie
Italian

ขอบคุณ
Thai

Gracias
Spanish

多谢
Simplified Chinese

Спасибо
Russian

Thank You

Obrigado
Brazilian Portuguese

شكرا
Arabic

Danke
German

Merci
French

நன்றி
Tamil

ありがとうございました
Japanese

감사합니다