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General Manager
Industry Solutions & Business Integration

IBM Business Performance Management
An on demand opportunity

Today's Discussion

1 The promise/realities of an on demand business

2 Emerging opportunity—
Business Performance Management

3 Core capabilities necessary for BPM Solutions

4 The importance of IBM Business Partners
  -Open Domains for Business Partners

The Reality of Today's End-to-end Processes

Complex siloed processes, applications and infrastructure make it difficult for business leaders to respond to market opportunities, competitors' moves and regulatory changes:

- **They can't see what is currently happening**

- **They can't put what's happening into context**

- **They can't make changes quickly**

An Emerging Market Need — Business Performance Management

Business process view
allows business leaders to
understand in real time
the state of key business
processes

Business
Performance
Management

Business
process
view

IT
process
view

IT process view
allows visualization of IT
environment in business terms
and management of service
levels to business objectives

Business Performance Management
allows an organization to understand the
status of business processes across business
and IT, put that understanding in context
against goals and trends, and take action
quickly to improve execution

Business Performance Management: Our Definition

- **Anticipate/respond to customer needs, competitive threats, and regulatory pressures**

- **Enable companies to see business information and understand and adapt business processes and IT infrastructure**
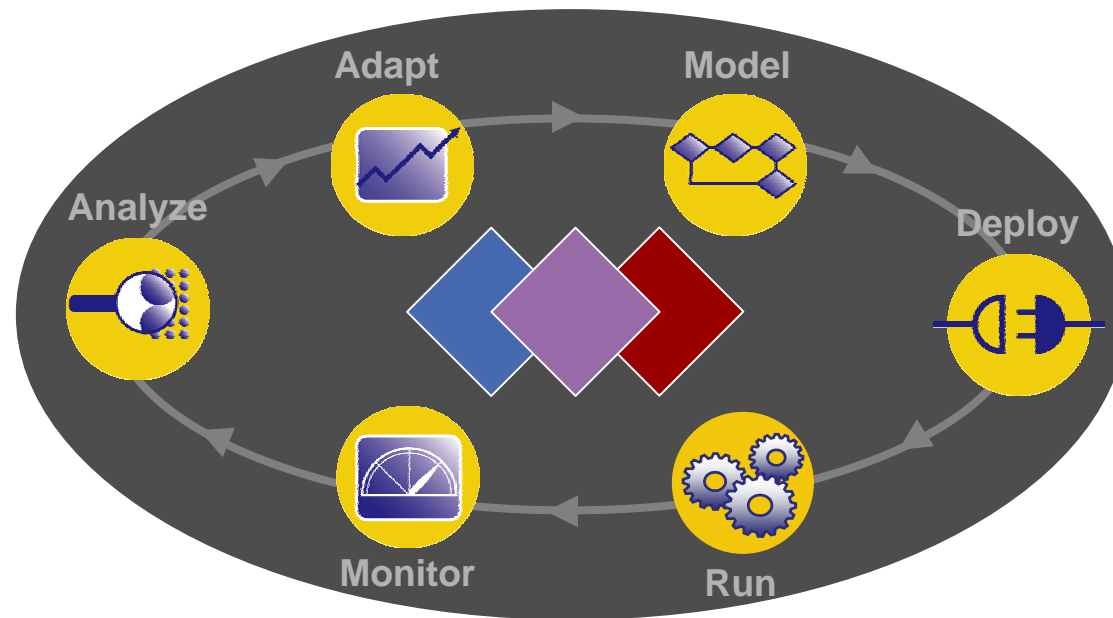
A set of capabilities to analyze and model processes; monitor business performance in real time; track current performance against goals/historical trends; align IT management with business priorities.

Customer Thoughts on Business Performance Management

> " *I would like the dashboard. I ask for a lot of ad hoc reports, I am constantly pestering IT for reports, and I am always changing [the specifications]. (SF)*

In silos, people have their own information. If everyone is looking at the same metrics, that helps the overall process. (Boston)

…being able to consistently track compliance changes, HIPAA regulations, tying them to IT and making sure all electronic interactions meet all guidelines. This is something we spend hundreds of millions of dollars on. (NY)
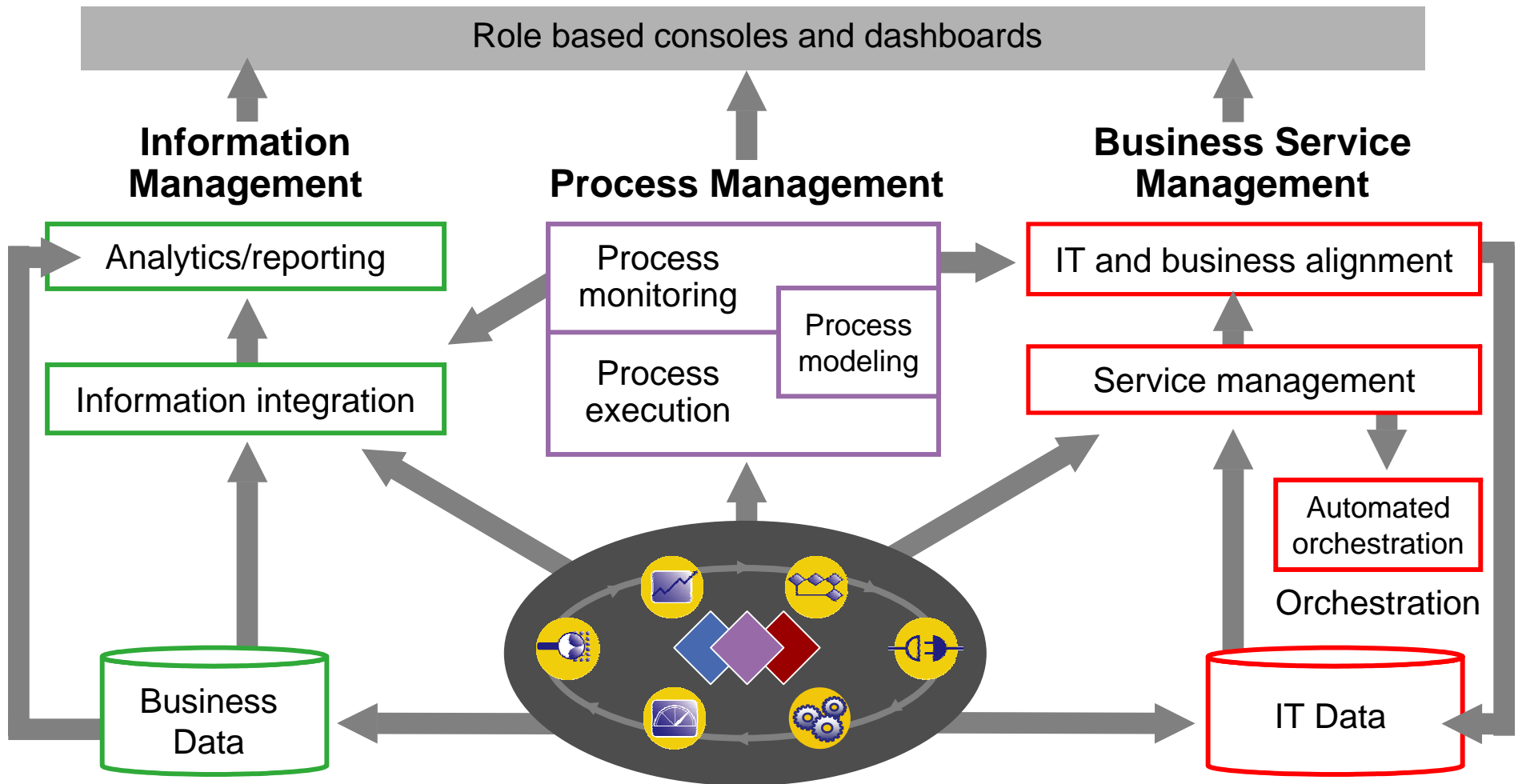
The more important aspect is real time. Everything is two weeks behind — information, output and red flags. We have too many departments with the silo mentality. We do not function interdependently; we function independently. (Boston) "
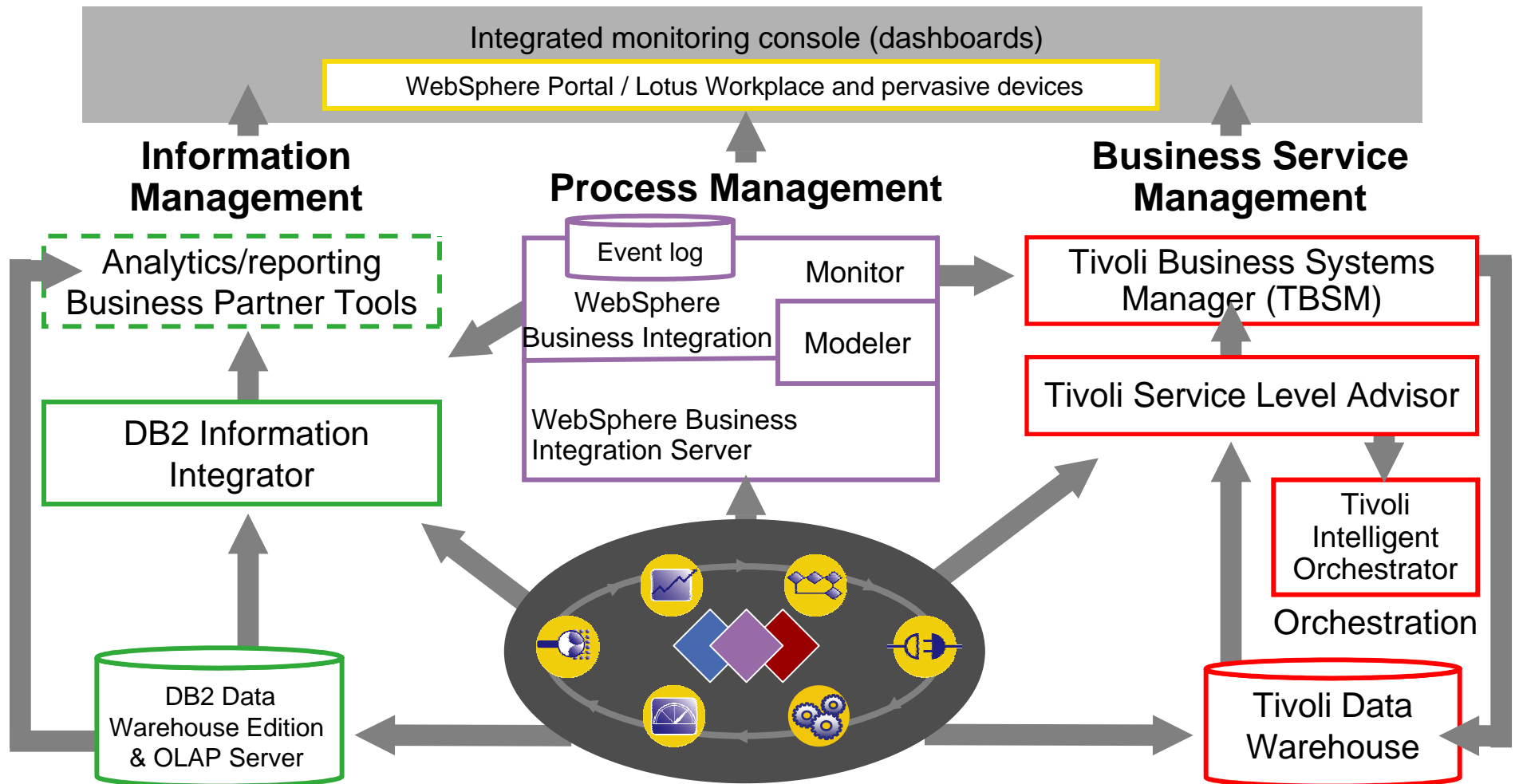
IBM Focus Group Research, 2003

Business Performance Management: Core Capabilities

Role based consoles and dashboards

Information Management

- Analytics/reporting
- Information integration
- Business Data

Process Management

- Process monitoring
- Process execution
- Process modeling

Business Service Management

- IT and business alignment
- Service management
- Automated orchestration

Orchestration

- IT Data

IBM Provides the core capabilities today

Integrated monitoring console (dashboards)

WebSphere Portal / Lotus Workplace and pervasive devices

Information Management

Process Management

Business Service Management

Analytics/reporting Business Partner Tools

Event log

Monitor

WebSphere Business Integration

Modeler

Tivoli Business Systems Manager (TBSM)

DB2 Information Integrator

WebSphere Business Integration Server

Tivoli Service Level Advisor

Tivoli Intelligent Orchestrator

Orchestration

DB2 Data Warehouse Edition & OLAP Server

Tivoli Data Warehouse

Principal Financial Group

Vision

A leading global financial institution needed to focus on business impact management to understand how IT events affect business-critical processes, improve availability of customer-facing services, and decrease problem resolution time

Solution

- IBM Tivoli Business Systems Manager
- IBM Tivoli Monitoring
- IBM Tivoli NetView
- IBM Tivoli Enterprise Console
- IBM DB2
- IBM WebSphere Application Server
- IBM WebSphere Business Integration Modeler

Business Performance Management Improvement

- Improves communication between IT and the business units
- Helps IT administrators understand how their components map to critical business processes
- Helps staff identify potential IT projects that have meaningful impact on business operations by analyzing event history from a business
- Provides real time visibility into business process to identify potential critical weak points that may regularly cause business pains

"IBM Tivoli Business Systems Manager helps us integrate a combination of Tivoli and other tools to better understand how various IT events affect the availability of critical business processes."

—Dave Boggess. Senior IT Systems Analyst & ESM Architect. The Principal Financial Group, Inc

Michigan State and the on demand Supply Chain

MICHIGAN STATE UNIVERSITY

Vision

At the Center for On Demand Supply Chain Research, we will be able to advance the field of Supply Chain Management (SCM) in ways that have never been possible before by leveraging leading-edge IBM business process integration technology and expertise."

—Professor Roger Calantone, Eli Broad College of Business, Michigan State University

Solution

- IBM WebSphere Business Integration Modeler
- IBM WebSphere Business Integration Monitor
- IBM WebSphere Commerce Business Edition
- IBM Lotus Workplace Server

Business Performance Management Improvements

- Leading edge SCM solution that exemplifies the flexible approach.
- Enables students and faculty to simulate, study and test key supply chain relationships.
- Leverage process integration and grid computing to build a supply chain that can sense and respond to changing demands
- Build the world's first on demand supply chain—one that can sense and rapidly respond to changing customer demands and market conditions.

IBM

Ministry of Railways (China)
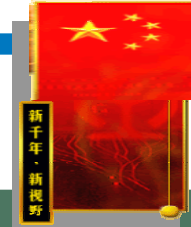
Vision

- Ministry of Railways manages the Chinese the national railroad system and is responsible for defining and implementing railway transportation plans
- Want to provide an organization–wide intelligence platform to drive decision making that will increase freight and passenger rail travel

Challenge

- Data needed for effective decision-making is spread across multiple databases
- Begin solution rollout with limited skill and resource

Solution

- Give business managers access to summarized historical data in a DB2 based warehouse with federated access to real-time DB2 and Oracle freight transportation operational data and passenger data in Sybase and SQL Server.
- Able to be more proactive and increase responsiveness

Business Performance Management Value

- Improve the quality of railway transportation management
- Respond more quickly to market demand by improving freight forecasting
- Optimize carrying resource assignment

"With its real time federation capability DB2 Information Integrator significantly enhances the power of the data warehouse supporting our intelligent transportation management systems and other enterprise applications. The XML and unstructured data support of this product will help us fulfill the reporting requirements to the states administrative bureaus."

—Mr. Sun Yuan-Yun, Chief Engineer, Ministry of Railways, People's Republic of China
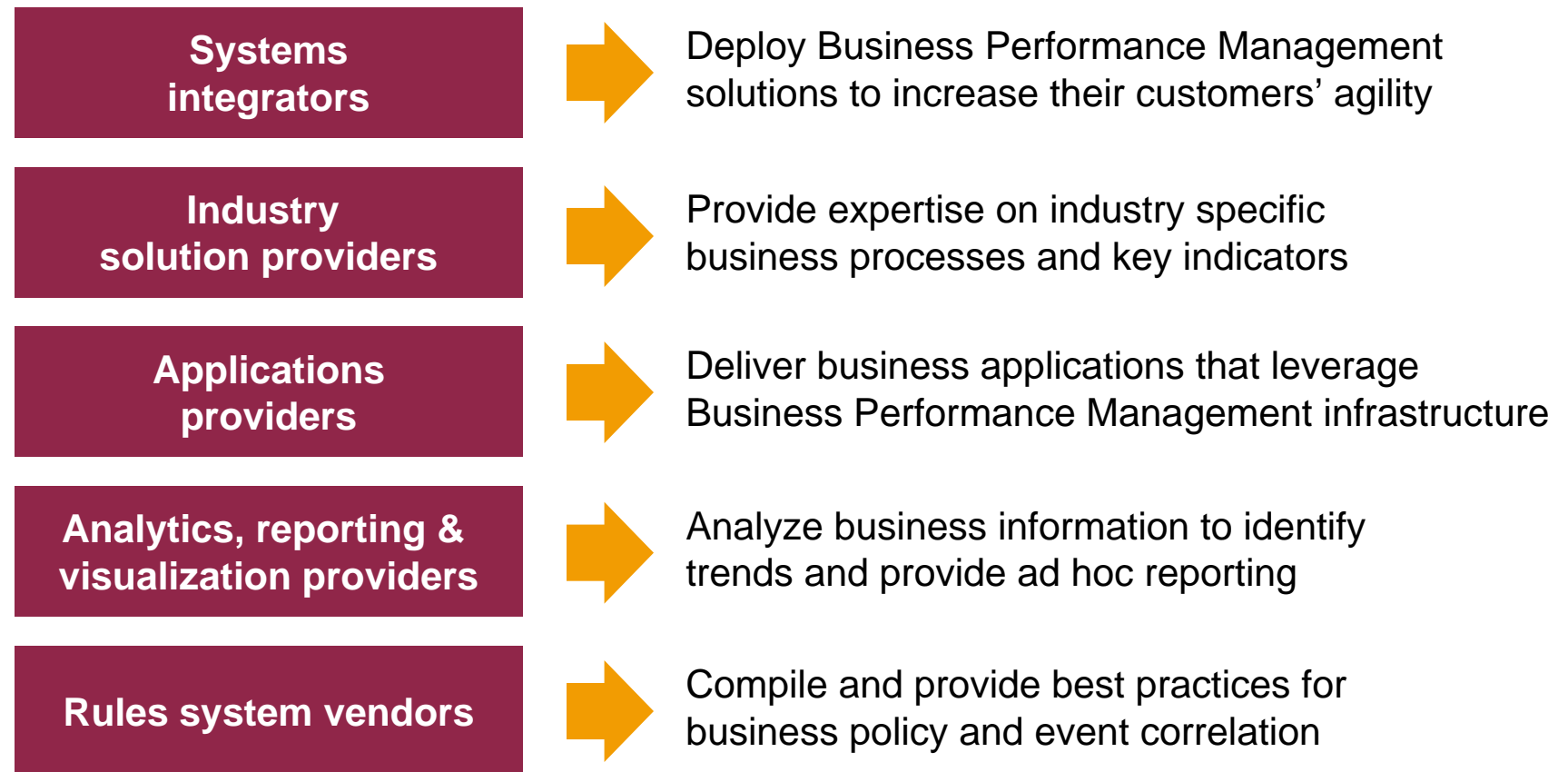
Industry's Richest Business Performance Management Core …

	Business Intelligence	Business Integration	Business Service Management	Intelligent Orchestration
IBM	✓	✓	✓	✓
Oracle	✓			
Teradata	✓			
webMethods		✓		
TIBCO		✓		
BEA		✓		
HP			✓	
BMC			✓	
Managed Objects			✓	

Ecosystem Surrounding Business Performance Management

Systems integrators	Deploy Business Performance Management solutions to increase their customers' agility
Industry solution providers	Provide expertise on industry specific business processes and key indicators
Applications providers	Deliver business applications that leverage Business Performance Management infrastructure
Analytics, reporting & visualization providers	Analyze business information to identify trends and provide ad hoc reporting
Rules system vendors	Compile and provide best practices for business policy and event correlation

… but IBM Business Partner Expertise is Key to Delivering Robust Solutions

Industry Solutions
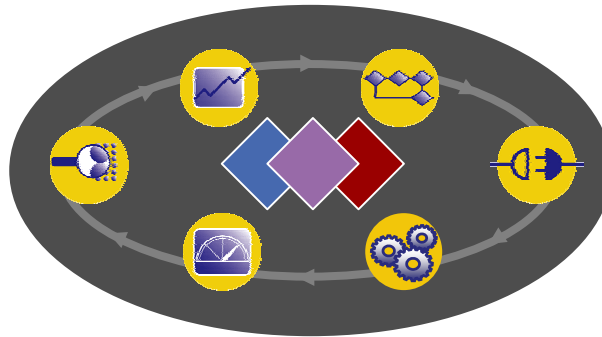
✔ Six Sigma

✔ ISO

✔ Wireless number portability

✔ ACORD

✔ HIPAA

✔ Basel 2

Cross-industry Capabilities

✔ Optimizing   ✔ Risk Analysis   ✔ Prioritizing   ✔ Simulate

✔ Forecasting   ✔ Planning   ✔ Reporting   ✔ Predicting   ✔ Rules

IBM

Getting Specific: A Solution for Insurance
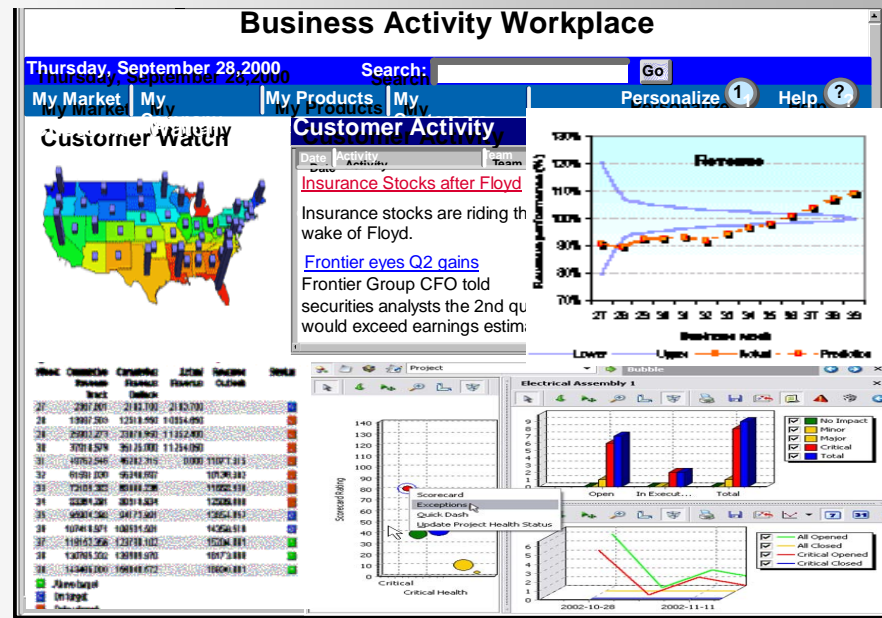
Insurance executive's issues

- High percent of premium income goes in claims; major fluctuations

- Complaints about speed of processing, accuracy, response

- Can't see the end-to-end process, how the best clients are treated

- Can't compare and accurately predict claims ratio vs. last period

- Many systems and processes involved

- Feels a lack of control
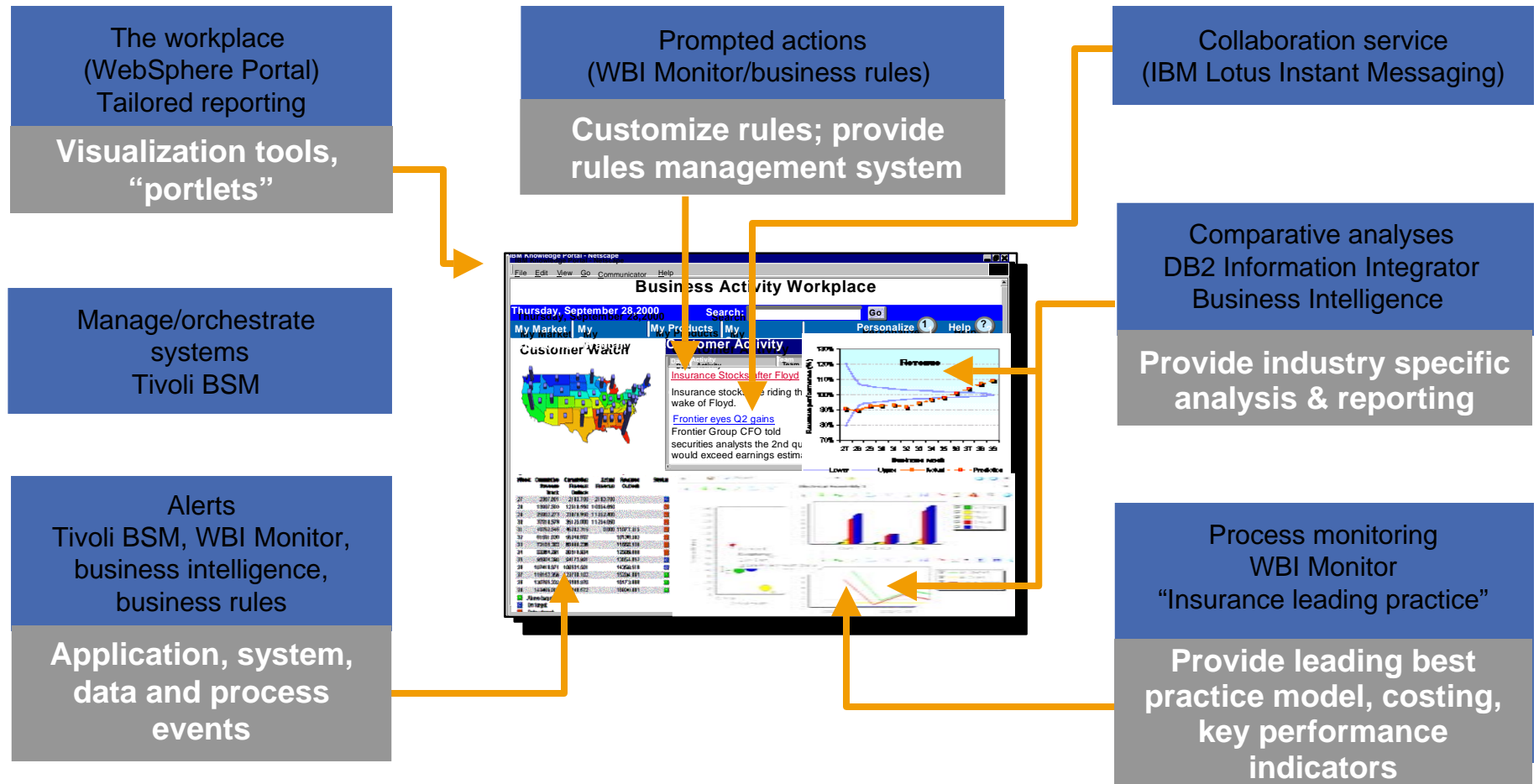
Getting Specific: A Solution for Insurance

Insurance executive's solution

- "Workplace" provides overall visibility to processes

- Ability to "drill down," understand, collaborate, act

- Common, shared view of operations across company

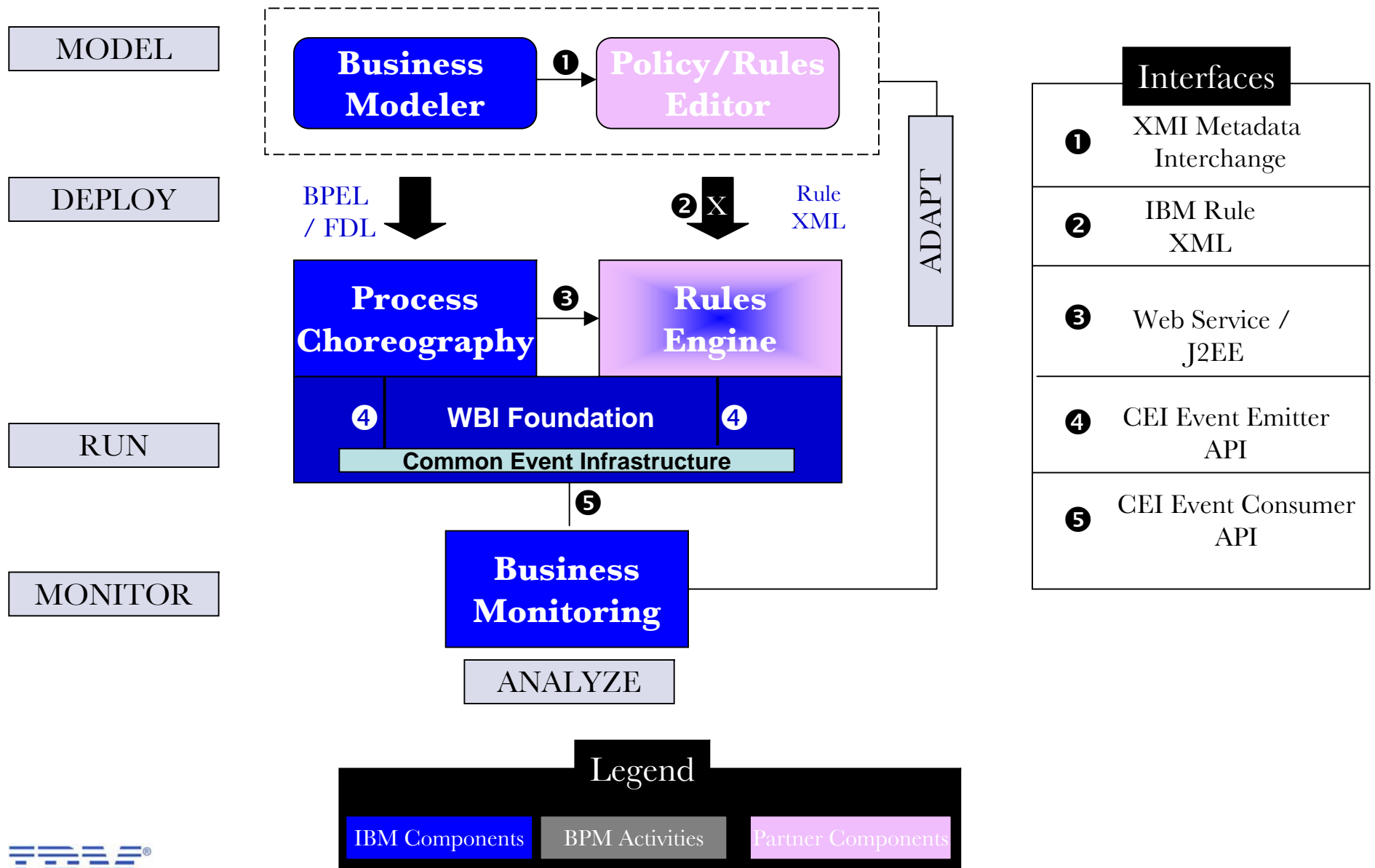- Specific comparisons with any previous period

Working Together to Deliver an Insurance Solution

**The workplace
(WebSphere Portal)
Tailored reporting**

**Visualization tools,
"portlets"**

**Prompted actions
(WBI Monitor/business rules)**

**Customize rules; provide
rules management system**

**Collaboration service
(IBM Lotus Instant Messaging)**

**Manage/orchestrate
systems
Tivoli BSM**

**Comparative analyses
DB2 Information Integrator
Business Intelligence**

**Provide industry specific
analysis & reporting**

**Alerts
Tivoli BSM, WBI Monitor,
business intelligence,
business rules**

**Application, system,
data and process
events**

**Process monitoring
WBI Monitor
"Insurance leading practice"**

**Provide leading best
practice model, costing,
key performance
indicators**

IBM

Partners

BPM Business Rules Domain Demonstration

MODEL

Business Modeler ❶➔ Policy/Rules Editor

DEPLOY

BPEL / FDL

❷ X — Rule XML

ADAPT

Process Choreography ❸➔ Rules Engine

RUN

❹ WBI Foundation ❹

Common Event Infrastructure

❺

Business Monitoring

MONITOR

ANALYZE

Interfaces

❶	XMI Metadata Interchange
❷	IBM Rule XML
❸	Web Service / J2EE
❹	CEI Event Emitter API
❺	CEI Event Consumer API

Legend

IBM Components   BPM Activities   Partner Components

Demonstrating Business Performance Management

Insurance

- Scenario: Insurance company seeking to improve the claims process to increase responsiveness and reduce costs
- Available at ibm.com/software/bpm today
- Partner: Corticon

Retail

- Scenario: Retailer optimizing its fulfillment process to eliminate stockouts
- Check it out at booth #108
- Will be posted to ibm.com/software/bpm by March 31
- Partner: Alphablox

Manufacturing

- Scenario: Manufacturer seeking to improve credit approval processes to address customer satisfaction problem
- Check it out at booth #108
- Will be posted to ibm.com/software/bpm by March 31
- Partner: Cognos

PartnerWorld Industry Network

Optimizes *ISV's PartnerWorld Experience for*
Vertical Industry Success

Networking

Business
Insight

**Industry
Solutions**

Marketing
& Sales

Enablement
Blueprints
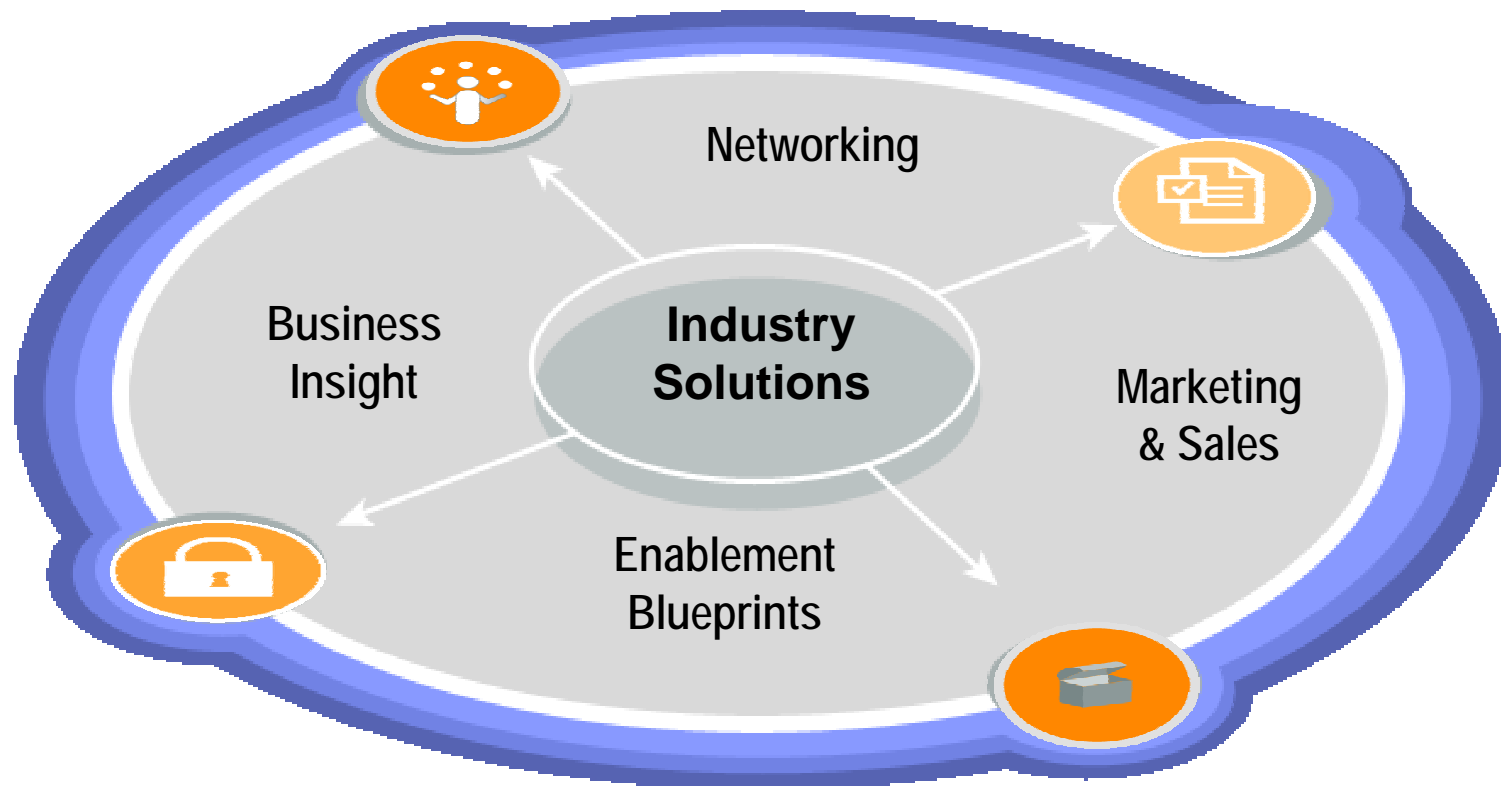
ibm.com/isv

Initially Retail, Banking, Financial Markets, Life Sciences, Healthcare, Telco

To Enrich the Ecosystem, IBM Announces the Business Performance Management Framework Domains

- The Business Performance Management Domains are an assembly of tools, content, and runtime components from IBM and Partners.

- Business Performance Management is an open framework that takes advantage of service oriented architecture & web services technologies making solutions easier, faster and more flexible to deploy.

- The framework domains specify the functional components for BPM, their interfaces, and interactions.

Net: The Business Performance Management Framework…

…is the team's "play book" to leverage core competencies to deliver value to customers
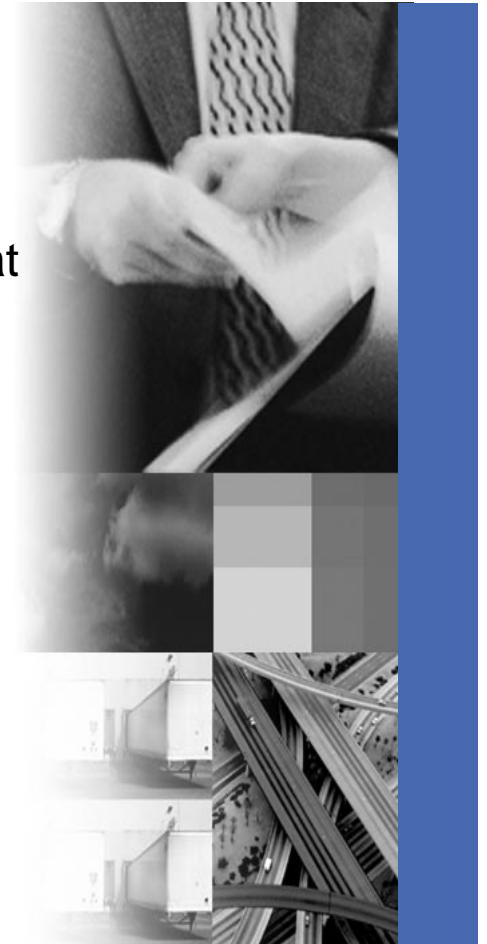
Recipe for Success

The Information Domain

Specifies the technical interfaces that partners can exploit to analyze and report real-time business event and performance information.

The Business Rules Domain

Outlines the technical interfaces partners can exploit to integrate business rules for dynamic process control and adaptive performance management.

The Common Event Infrastructure

Specifies a commonly applicable event infrastructure for business and IT event management.

The Workplace Domain

Delivers collaborative workplaces for human users with specific roles to manage business & IT operations based on visualized real-time performance metrics and alerts.

The Process Domain

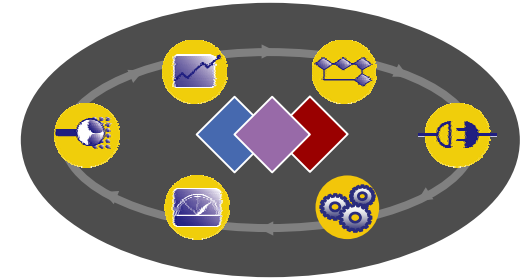Delivers tools to model, integrate, and manage business operations.

The Business Systems Domain

Delivers tools to align IT with business operations to assess impact and optimize value
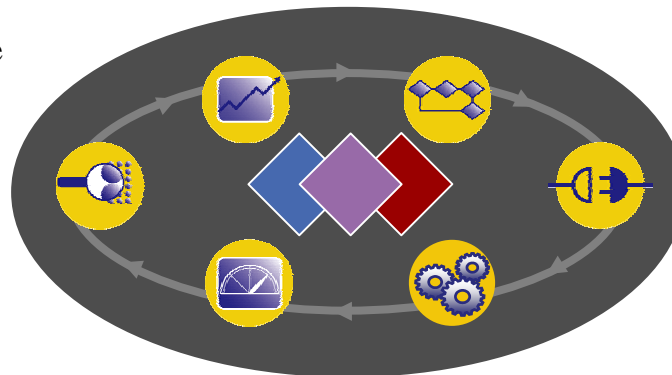
The Process Domain

Delivers tools to model, integrate, and manage business operations

Enables partners to use integrated modeling tools to:
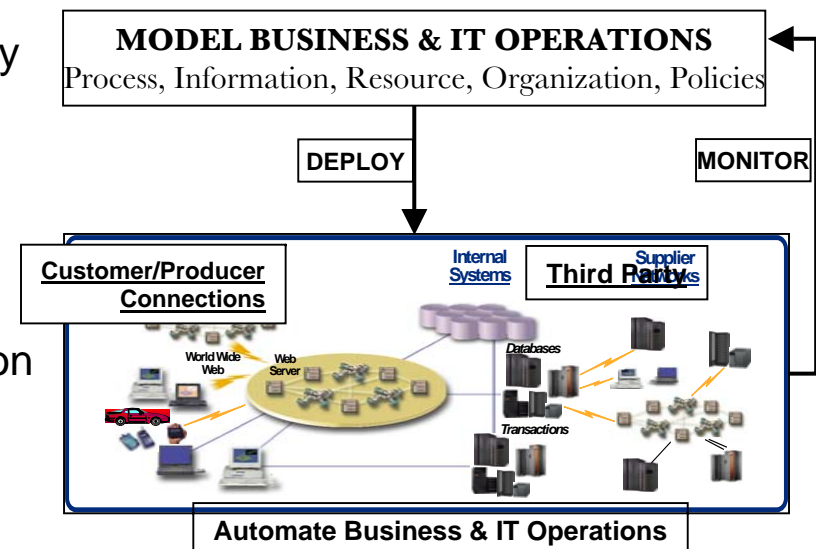- <u>Design</u> business process quickly and graphically
- <u>Simulate</u> processes to project business benefits
- <u>Integrate</u> people, processes, and applications efficiently
- <u>Deploy</u> automated applications with minimal coding

- **Available Today**
  - WebSphere Business Integration Modeler
  - WebSphere Business Integration Modeler Entry
 - Redbooks and technical documentation

- **Commitment to Open Standards**
  - UML based metamodel
  - Eclipse tools base
  - User interface with UML/BPMN-derived Notation
  - Export to BPEL, WSDL, XSD
  - Save in XMI format

MODEL BUSINESS & IT OPERATIONS
Process, Information, Resource, Organization, Policies

DEPLOY **MONITOR**

Customer/Producer Connections Internal Systems **Third Party** Supplier Networks

World Wide Web Web Server Databases Transactions

Automate Business & IT Operations

The Common Event Infrastructure

Specifies a commonly applicable event infrastructure for business and IT event management.
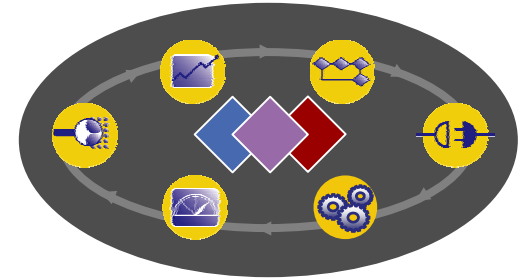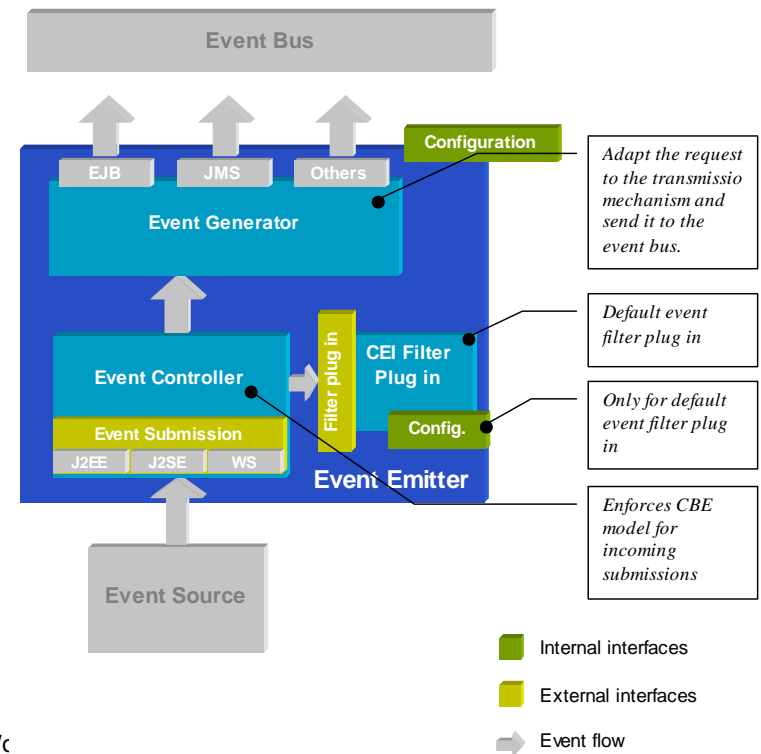
Enable partners to leverage a unified event management format and infrastructure for the creation, transmission, and distribution of a wide range of business, system, and network events.

- **Coming Soon, next 90 days**
    - Whitepaper
    - Software Development Kit and "cookbook" explaining entire process

- **Commitment to Open Standards**
    - Common Base Event is proposed as a standard format for business and IT events to the Organization for the Advancement of Structured Information Standards (OASIS) web services distributed management technical committee.
    - Many companies, including CISCO, have agreed to use this format
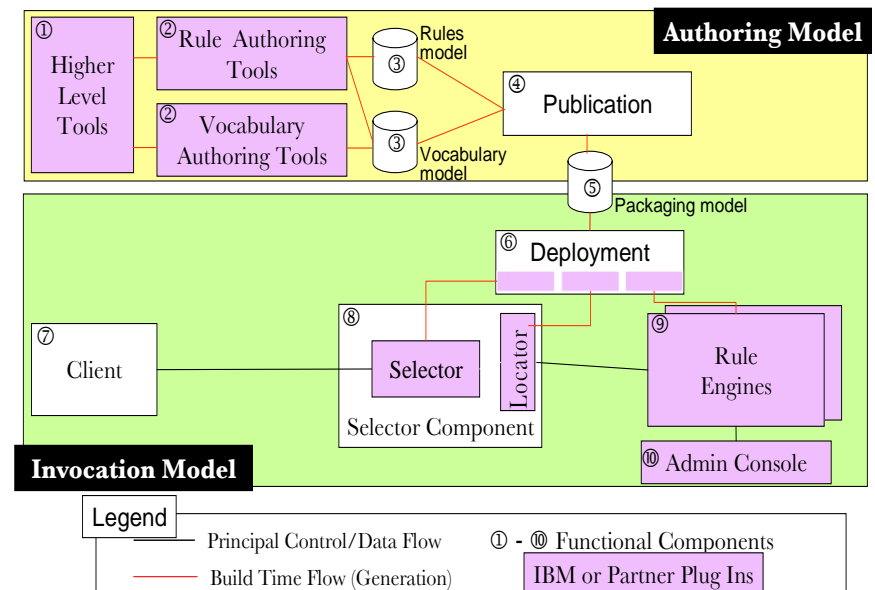
Diagram

Event Bus

Event Generator
EJB | JMS | Others
Configuration

Adapt the request to the transmissio mechanism and send it to the event bus.

Event Controller

CEI Filter Plug in
Filter plug in

Default event filter plug in

Event Submission
J2EE | J2SE | WS
Config.

Event Emitter

Only for default event filter plug in

Enforces CBE model for incoming submissions

Event Source

- ■ Internal interfaces
- ■ External interfaces
- ⇨ Event flow

The Business Rules Domain

Outlines the technical interfaces partners can exploit to integrate business rules for dynamic process control and adaptive performance management.
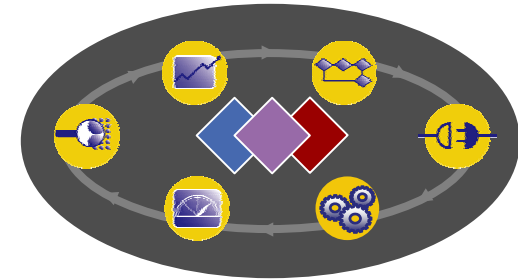
Enable partners to plug-in rules engines, contribute rule authoring tools, specify business rules for specific business process management domains, as well as provide decision logic.

- **Accommodate rules that are used in:**
  - business processes
  - adaptive actions in response to business situations

- **Coming Soon, next 90 days**
  - Whitepaper
  - Software Development Kit

- **Commitment to Open Standards**
  - The rule authoring will use a UML based representation and the rule invocation will use J2EE/Web Services standards.
 - Submitted Rules XML standard proposal

Authoring Model
- ① Higher Level Tools
- ② Rule Authoring Tools
- ③ Rules model
- ② Vocabulary Authoring Tools
- ③ Vocabulary model
- ④ Publication
- ⑤ Packaging model

Invocation Model
- ⑥ Deployment
- ⑦ Client
- ⑧ Selector — Selector Component
- Locator
- ⑨ Rule Engines
- ⑩ Admin Console

Legend
- Principal Control/Data Flow
- Build Time Flow (Generation)
- ① - ⑩ Functional Components
- IBM or Partner Plug Ins

The Information Domain

Specifies the technical interfaces that partners can exploit to analyze and report real-time business events and performance information
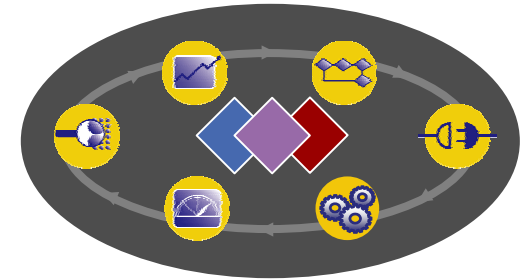

Enable partners to provide user customizable real-time analytics and reporting of business performance as well as unified data integration and business intelligence to assess performance and prioritize actions.

- **Web Services Access to information management services to support quick assembly of BPM solutions.**

- **Coming Soon, next 30 days**
  - Whitepaper
  - Demo

- **Commitment to Open Standards**
  - Web Services standard
  - Open language standards such as JDBC, ODBC, and other industry standards
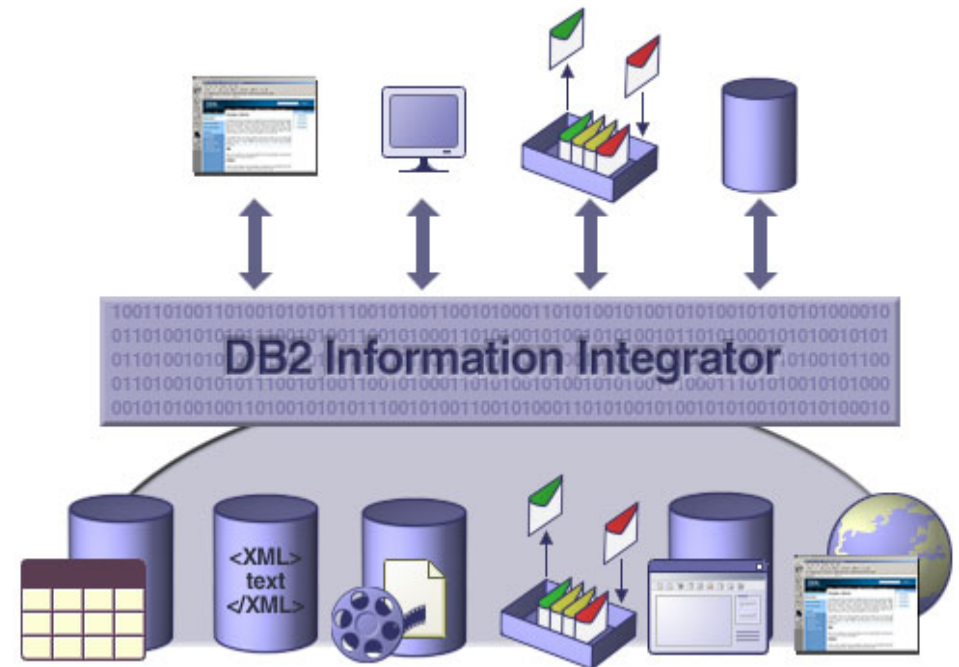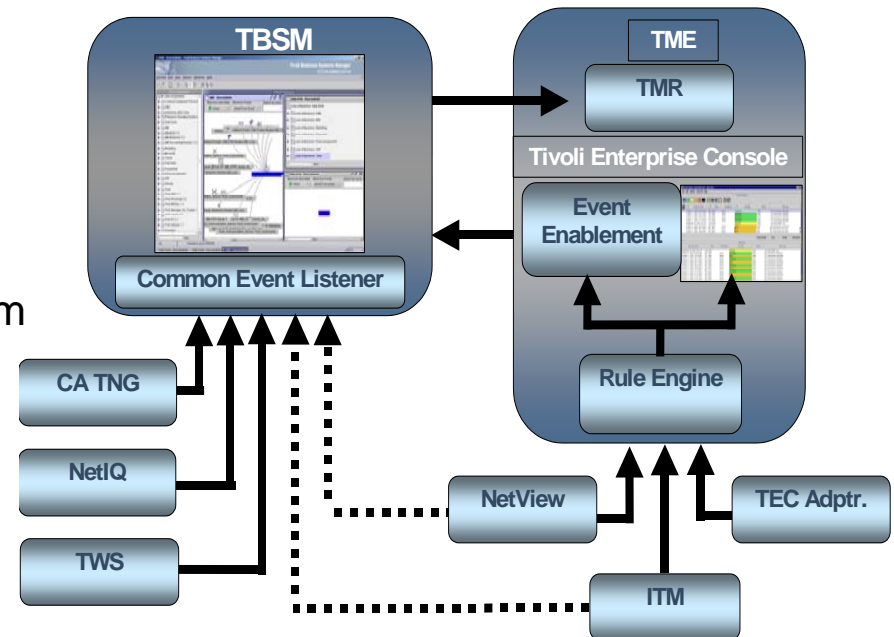

DB2 Information Integrator

The Business Systems Domain

Delivers tools to align IT with business operations to assess impact and optimize value
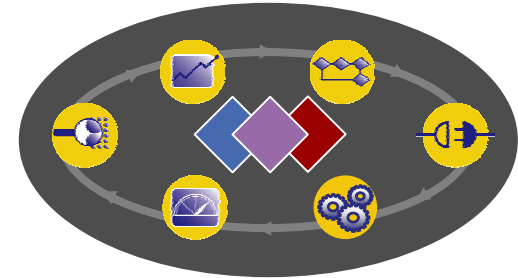
Enables partners to consolidate and dynamically manage resources critical to business operations

- **Available Today**
  - Tivoli Enterprise Console and Tivoli Business Systems Management
  - Tools and Documents in the IBM PartnerWorld "Ready for Tivoli" Program
  - Whitepaper

- **Commitment to open event and system management standards**

TBSM

TME

TMR

Tivoli Enterprise Console

Event Enablement

Common Event Listener

Rule Engine

CA TNG

NetIQ

TWS

NetView

TEC Adptr.

ITM

The Workplace Domain

Delivers collaborative workplaces for human users with specific roles to manage business & IT operations based on visualized real-time performance metrics and alerts
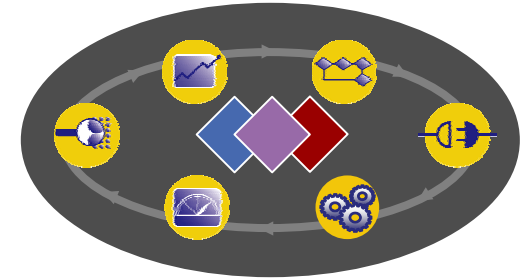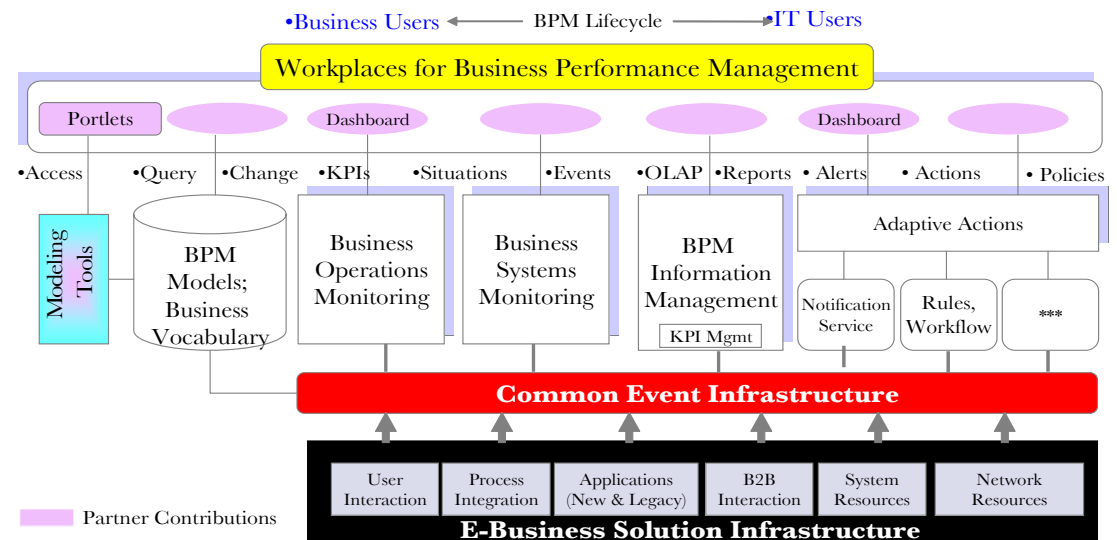
Enable partners to provide user-customizable actionable insights and virtual team collaboration to take real time actions using role-based, context-sensitive Workplaces.

- **Available Today**
  - Lotus Workplace supports human interaction and collaboration capabilities that can be extended using WebSphere Portal to access enterprise process, applications and systems.
  - Whitepaper

- **Commitment to Open Standards**
  - Workplace Domain is based on J2EE, Web Services and Content Management Standards

•Business Users ⟵ BPM Lifecycle ⟶ IT Users

Workplaces for Business Performance Management

| Portlets | | Dashboard | | | | Dashboard | |

•Access •Query •Change •KPIs •Situations •Events •OLAP •Reports • Alerts • Actions • Policies

Modeling Tools

BPM Models; Business Vocabulary

Business Operations Monitoring

Business Systems Monitoring

BPM Information Management
KPI Mgmt

Adaptive Actions

Notification Service | Rules, Workflow | ***

Common Event Infrastructure

| User Interaction | Process Integration | Applications (New & Legacy) | B2B Interaction | System Resources | Network Resources |

E-Business Solution Infrastructure

Partner Contributions
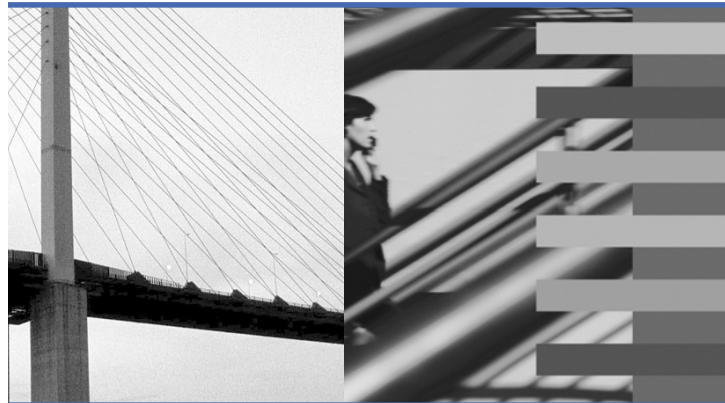
Business Performance Management Thought Leaders

….and the list keeps growing

Business Performance Management Initiative Description

IBM is rolling out a partner initiative intended to provide partners with resources to help develop solutions that can work together:

– Educational and technical support resources to partners

– Partners may opt to enable their products to the IBM Business Performance management architecture

– As the partnership grows, partners can contribute to the standards efforts and engage with a specialized team to accelerate customer deployments of joint solutions

Goal

Build a large community of Business Performance Management partners who together with IBM will drive growth for the emerging market opportunity.

IBM®

How You Can Participate

1   **Become a Pioneer in Business Performance Management**
- – Join the partner Business Performance Management community
- – Enable your solutions for the on demand Business Performance Management roadmap
- – Access educational tools and materials to learn about Business Performance Management from IBM
- – Enjoy joint marketing benefits from the Business Performance Management community and Partner Industry Networks programs

2   **Educate Customers about Business Performance Management**
- – Demonstrate market leadership in the Business Performance Management space by adopting the IBM strategy
- – Build your solutions on the market leading BPM solutions from all IBM software brands (Data Management, Lotus, Rational, Tivoli, WebSphere)
  - • Enablement programming coming in 2004

3   **Visit ibm.com/software/bpm**

As the Partnership Grows…

- **Work with IBM to drive the development of the Business Performance Management market**
  - Join IBM in cooperatively developing the concepts behind Business Performance Management (including standards) and clearly articulate the customer value Business Performance Management delivers in areas of mutual interest
  - Collaborate on input for open standards initiatives

- **Together with IBM, drive awareness and interest in Business Performance Management market**
  - Work with IBM to determine a joint Go To Market strategy for BPM
  - Utilize a specialized IBM Business Performance Management team to 'jump start' our mutual customers on joint BPM solutions

What's in it for You?

The IBM portfolio will provide strong currency in the Business Performance Management marketplace as IBM and Partners develop solution offerings

IBM funded market awareness

You, IBM and your customer announcing validated Business Performance Management solutions

Global visibility

List your Business Performance Management solution in the IBM catalog

Global exposure

Benefit from IBM marketing activities that highlight joint customers in on demand reference accounts

Drive increased revenue via IBM exposure

Additional visibility with Analyst, Press and Customers via participation with IBM

Summary and Where to Go

IBM Partner Framework for Business Performance Management speed the delivery of solutions and lower risk of implementation.

IBM and IBM partners provide the overall solution to Busines Performance Management. Jointly, we ensure managers:

– Can see what is currently happening

– Can put what's happening into context

– Can take actions to make changes quickly

Details on the partner initiative and the reference Domains are available at:

www.ibm.com/software/bpm