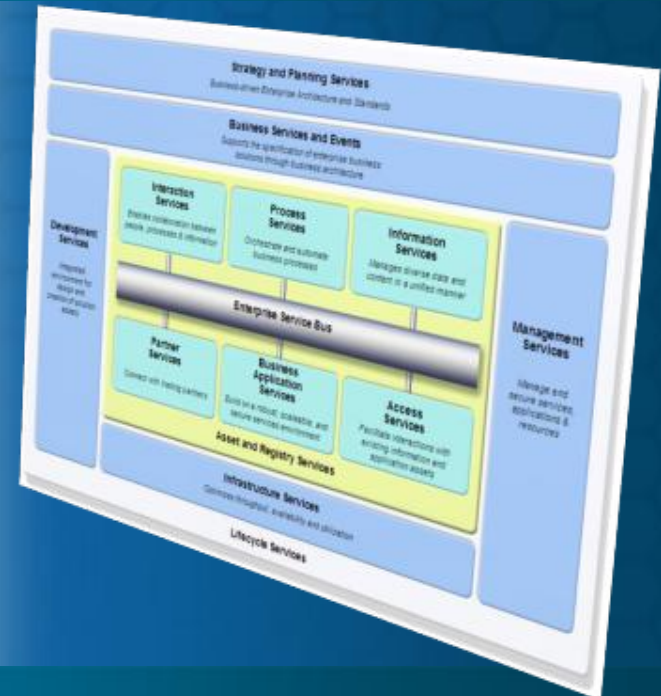




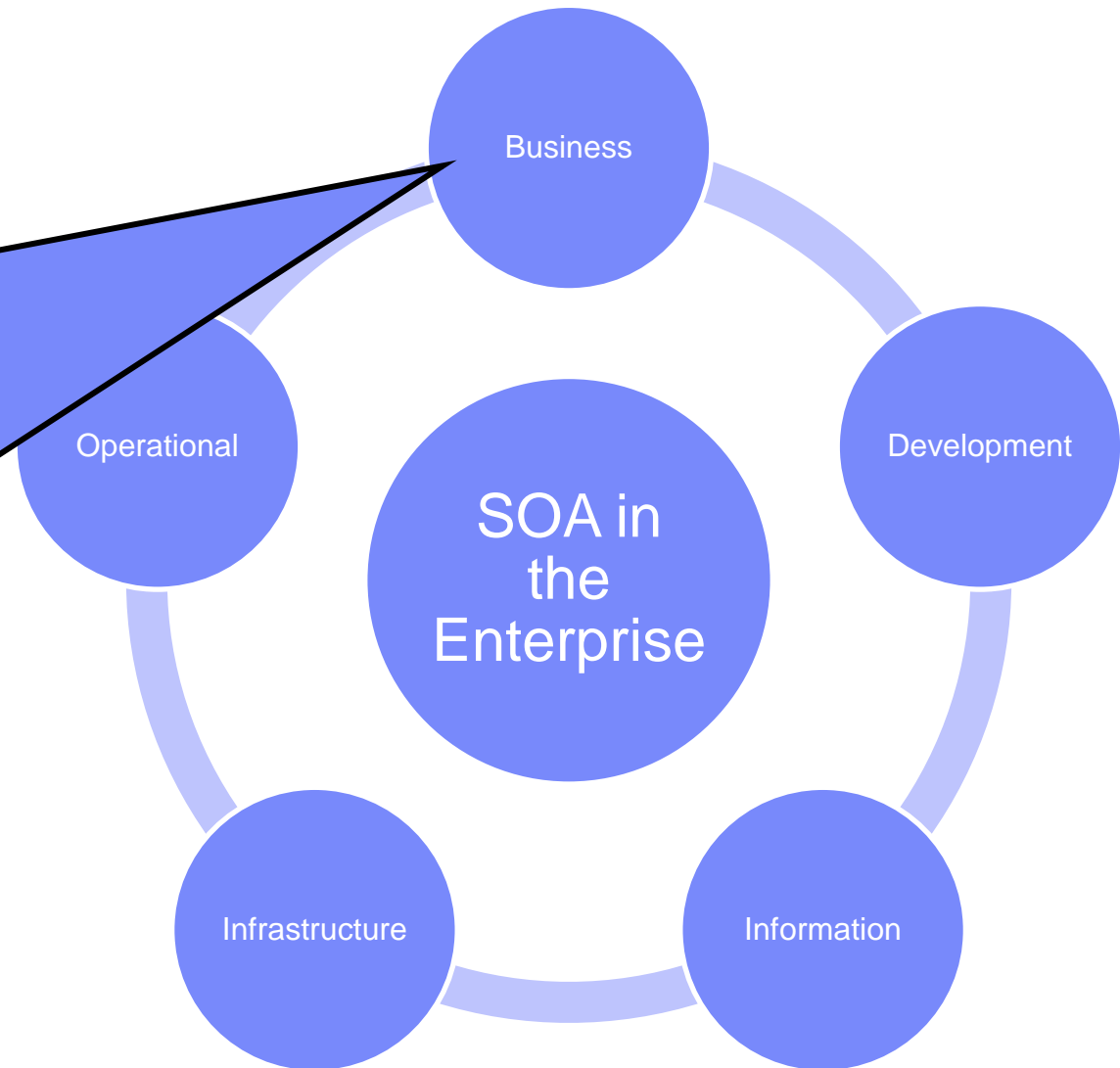
Keynote:
**Architecting SOA with a
Business Focus**

Dejan Mihajlovic
Senior Managing Consultant



Architecting SOA with a Business Focus

1. Business Architecture powered by SOA
2. SOA Governance
3. Building Business Process Solutions
4. Composite Business Services
5. Real World Examples
6. What is on the horizon?



Agenda

- Business Architecture powered by SOA
- SOA Governance
- Building Business Process Solutions
- Composite Business Services
- Real World Examples
- What is on the horizon?

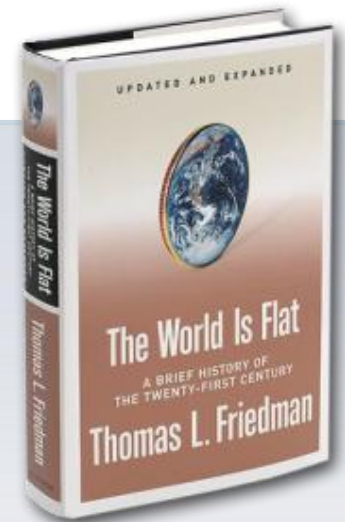


Innovation Impacts Business Models

Is Your Architecture Ready?

“ On a flat earth, the most important attribute is creative imagination – the ability to be the first to figure out how all **these enabling tools can be put together in new and exciting ways to create products, communities, opportunities, and profits.**”

Thomas Friedman, The World is Flat



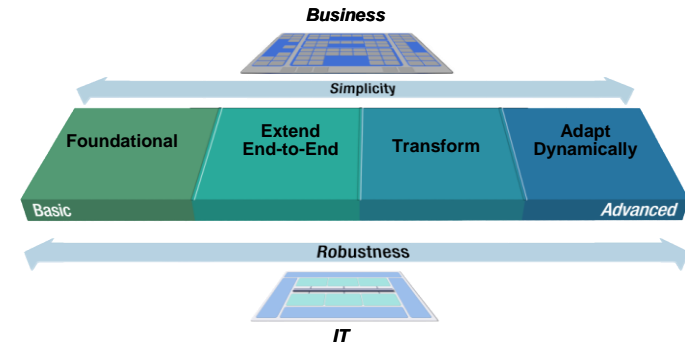
“ Service orientation does not begin with technology; **it begins with the mind-set of thinking about your business and the world around you** in terms of functional components.”

Steve Mills, SVP and Group Executive, IBM Software Group
The Future of Business June 2007



The Road towards Strategic Change

- Have a vision
 - In enough detail
 - Sometimes you just **know** what needs to be changed
- Understand the existing portfolio of solutions and how the vision impacts it
 - In enough detail and scope for what you are trying to do right now
 - Remember to not mess up ongoing business and IT operations
- Define scope and organization of a change project
 - Just enough to implement the change
 - Understand how this project relates to everything else that goes on
- Different levels of maturity lead to different ways of doing these three things
 - Yet they are always present in one form or another, explicitly or implicitly
 - The key question is how to get to the **science** of executing strategic change!?



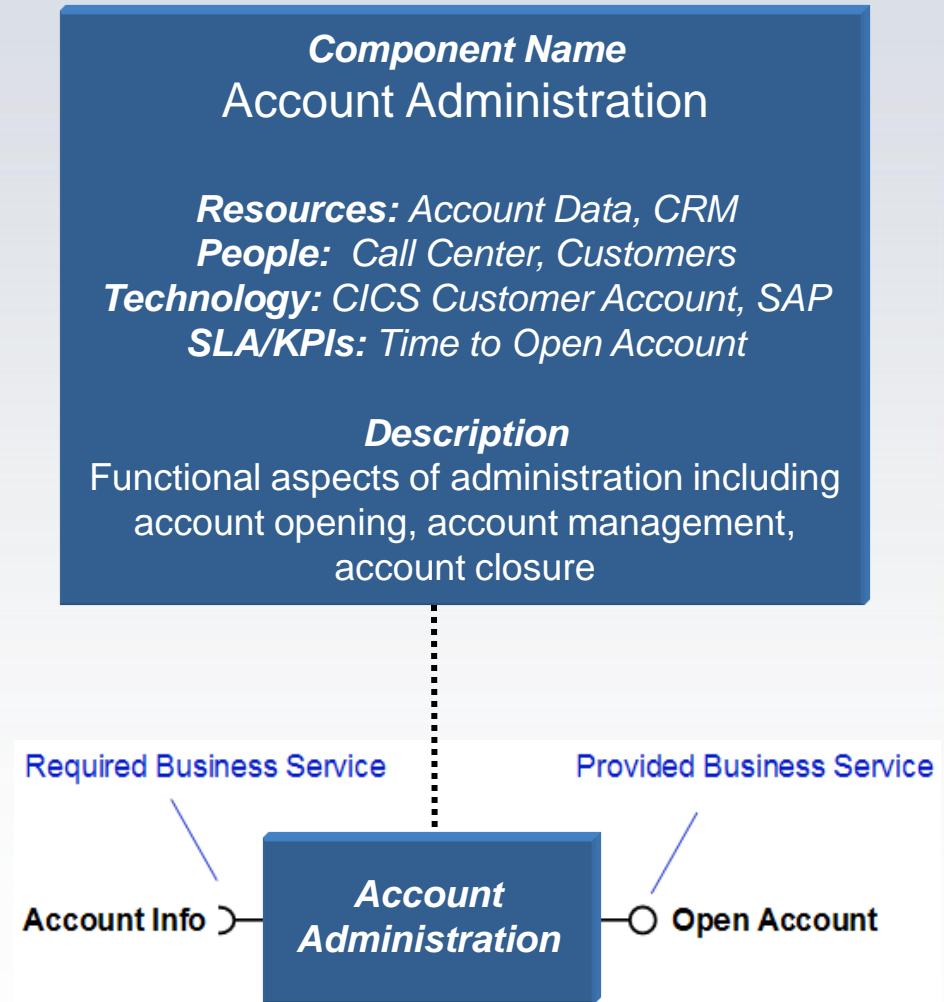
Business Component Analysis

- The enterprise is mapped out as a set of categorized business components
- Heat map highlights components for analysis based on criteria such as gaps and efficiency
- Enables approaches to understanding how the business can be improved

	Business Administration	New Business Development	Relationship Management	Servicing & Sales	Product Fulfillment	Financial Control and Accounting
Directing	Business Planning	Sector Planning	Account Planning	Sales Planning	Fulfillment Planning	Portfolio Planning
Controlling	Business Unit Tracking	Sector Management	Relationship Management	Sales Management	Fulfillment Monitoring	Compliance
	Staff Appraisals	Product Management	Credit Assessment			Reconciliation
Executing	Account Administration	Product Directory	Credit Administration	Sales	Product Fulfillment	Customer Accounts
	Product Administration	Marketing Campaigns		Customer Service	Document Management	
	Purchasing			Collections		
	Branch/Store Operations			General Ledger		

Business Components Define The Key Business Functions

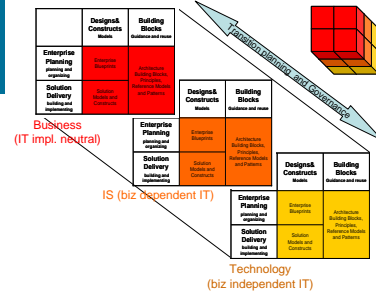
- A **business component** is “a grouping of the people, technology, & resources delivering specific business value”
- Components have well-defined interfaces, allowing them to interact smoothly with each other and to be 'snapped' in and out at will, like building blocks”
- The Interfaces of the Business Components Enable Identification of Candidate Business Services



Agenda

- Business Architecture powered by SOA
- **SOA Governance**
- Building Business Process Solutions
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Governance and coordination at many levels

IBM Reference Models	Client Reference Models	Enterprise Planning Models			
		Portfolio of Solution Models			
		Project Models	Project Models	Project Models	Project Models

Speed of evolution & # of models

- Reference Models may be used at any purpose level and for two different purposes:
 - As a framework and a catalogue structure, constraining the enterprise (most likely at the planning level)
 - As accelerator assets, content “instances” seeding a solution (most likely at the solution level)
- Enterprise Planning Models are for the purpose of analyzing and planning changes to the Solution Portfolio
- The Portfolio of Solution models is a consolidated set of models for the entire Solution Portfolio
- Project Models are temporary Solution Models that at the end of the project get consolidated into the Portfolio of Solution Models

#1 Source of Change – Process example

Parallel flows apply to other model types

Model

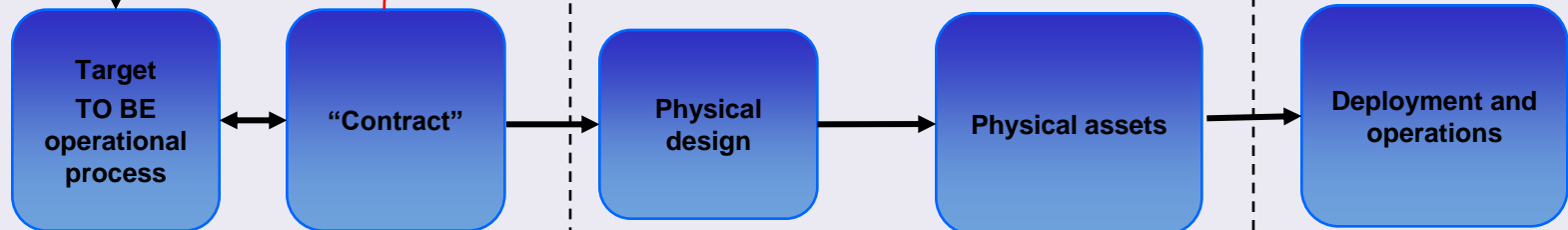
Assemble

Deploy & Manage

Planned improvement (Enterprise Planning)



Multiple projects (Solution Delivery)



#2 Source of Change – Process example

Parallel flows apply to other model types

Model

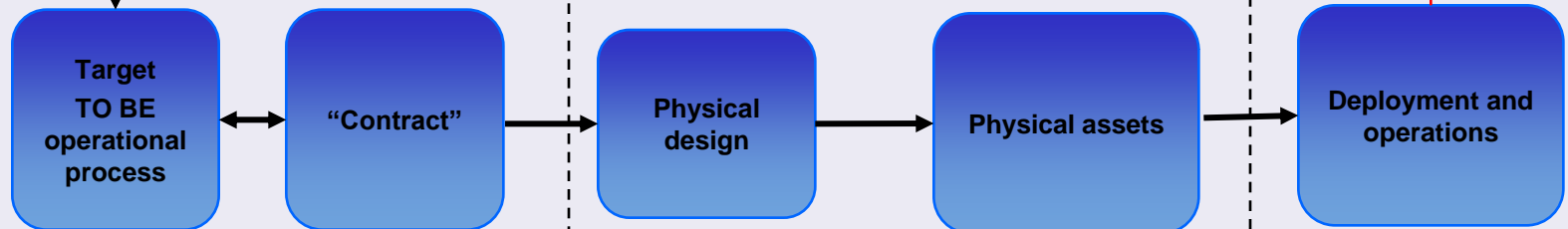
Assemble

Deploy & Manage

Process portfolio management and optimization (Solution Delivery)



Multiple projects (Solution Delivery)



Continuous improvement – Process example

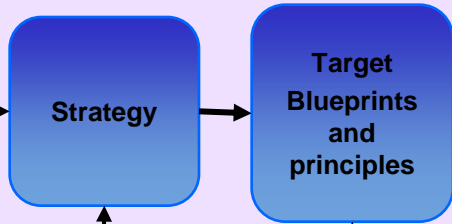
Deploy & Manage

Parallel flows apply to other model types

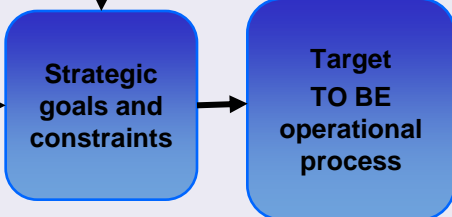
Model

Assemble

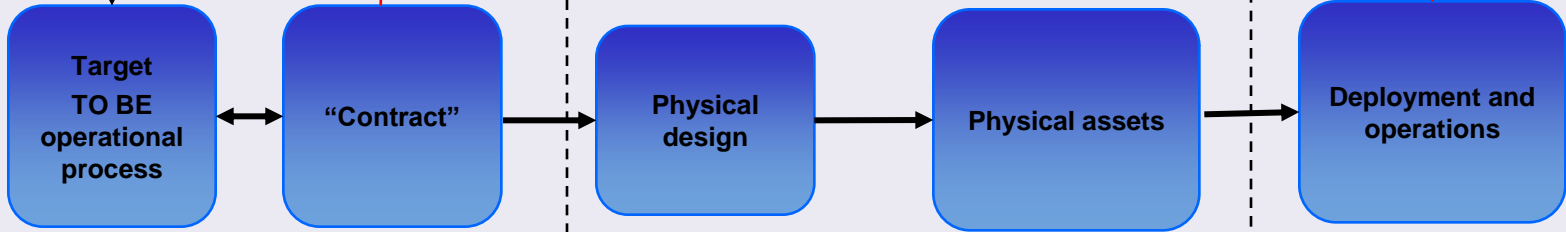
Planned improvement (Enterprise Planning)



Process portfolio management and optimization (Solution Delivery)

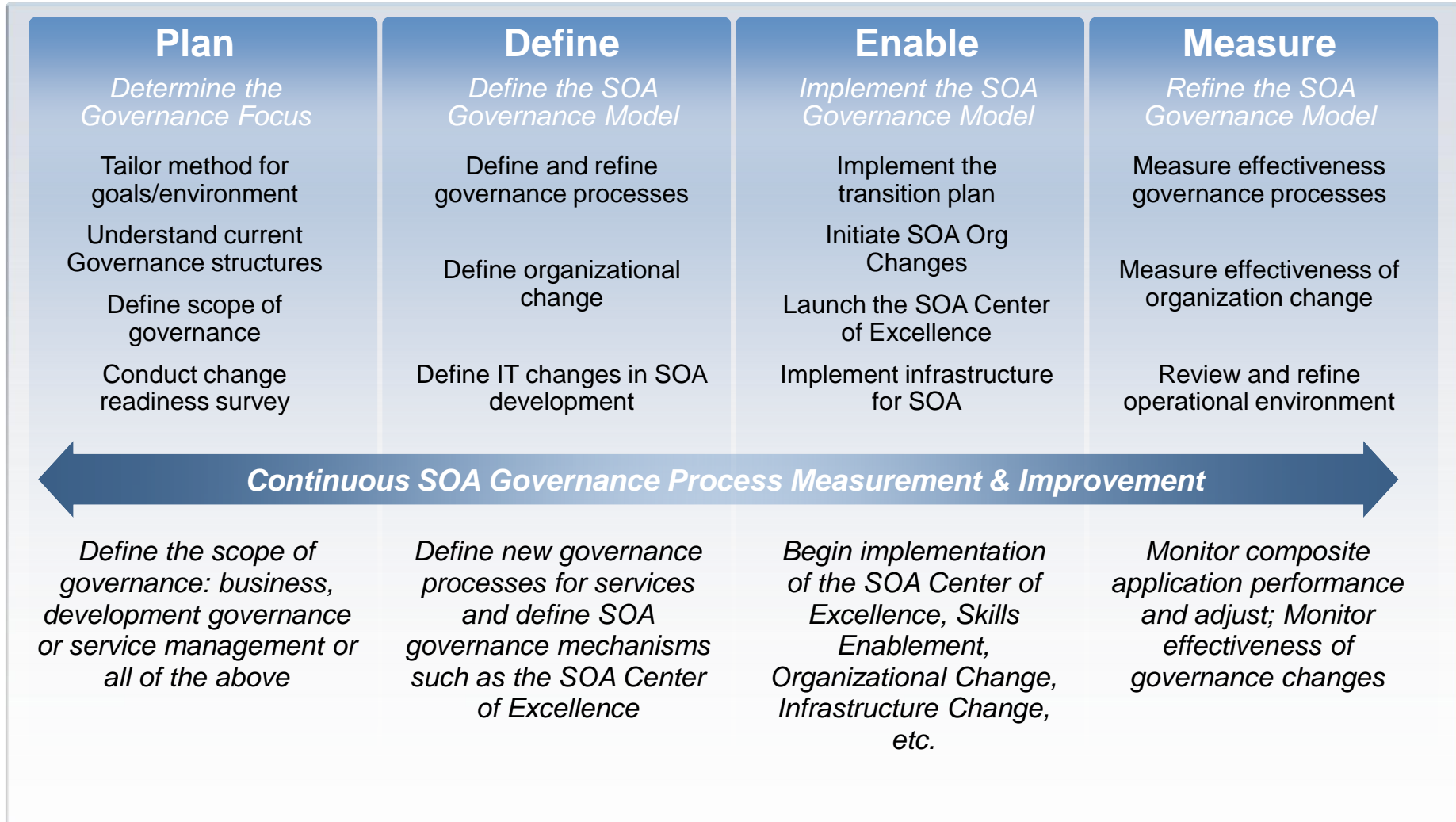


Multiple projects (Solution Delivery)



SOA Governance & Management Method (SGMM)

IBM's Comprehensive Approach to SOA Governance



Smart SOA Governance

Optimizing the Enterprise Portfolio



Assess & establish initial SOA environment

Focus:

- Create inventory of current services and biz processes
- Establish Center of Excellence (CoE)
- Initial Registry/Repository

Support key business opportunities

Focus:

- Expand governance processes & policies
- Enhance Culture & Org Change
- Enable SLM tools

Enhance cross organizational adoption

Focus:

- Enhance & automate Business/IT governance
- Expand infrastructure management & metrics

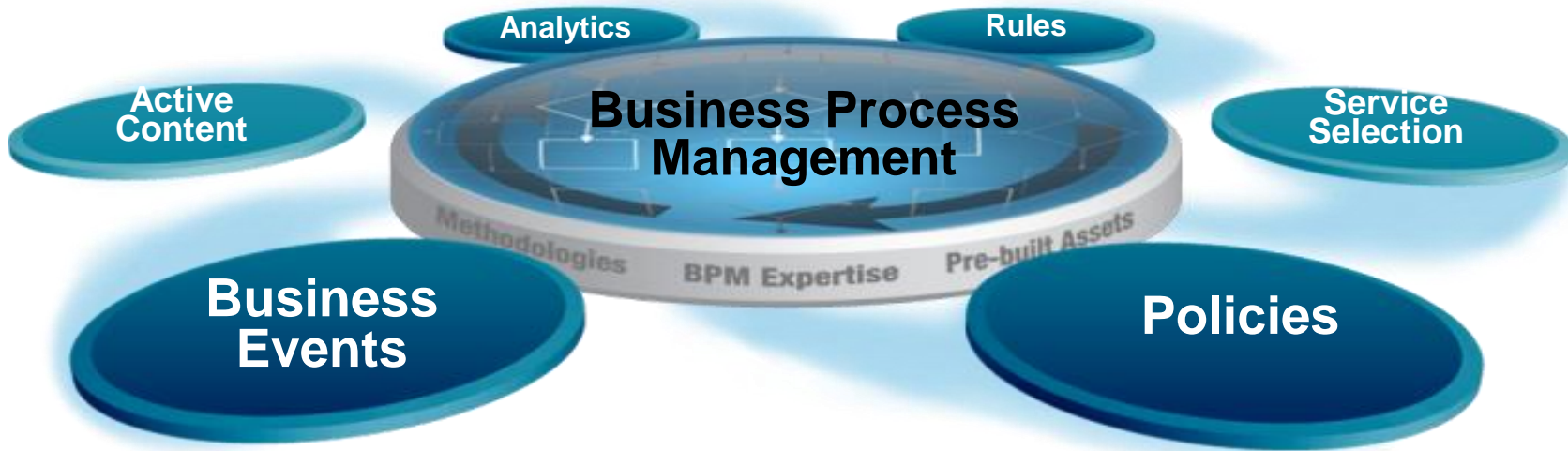
End-to-end Quality Management

Agenda

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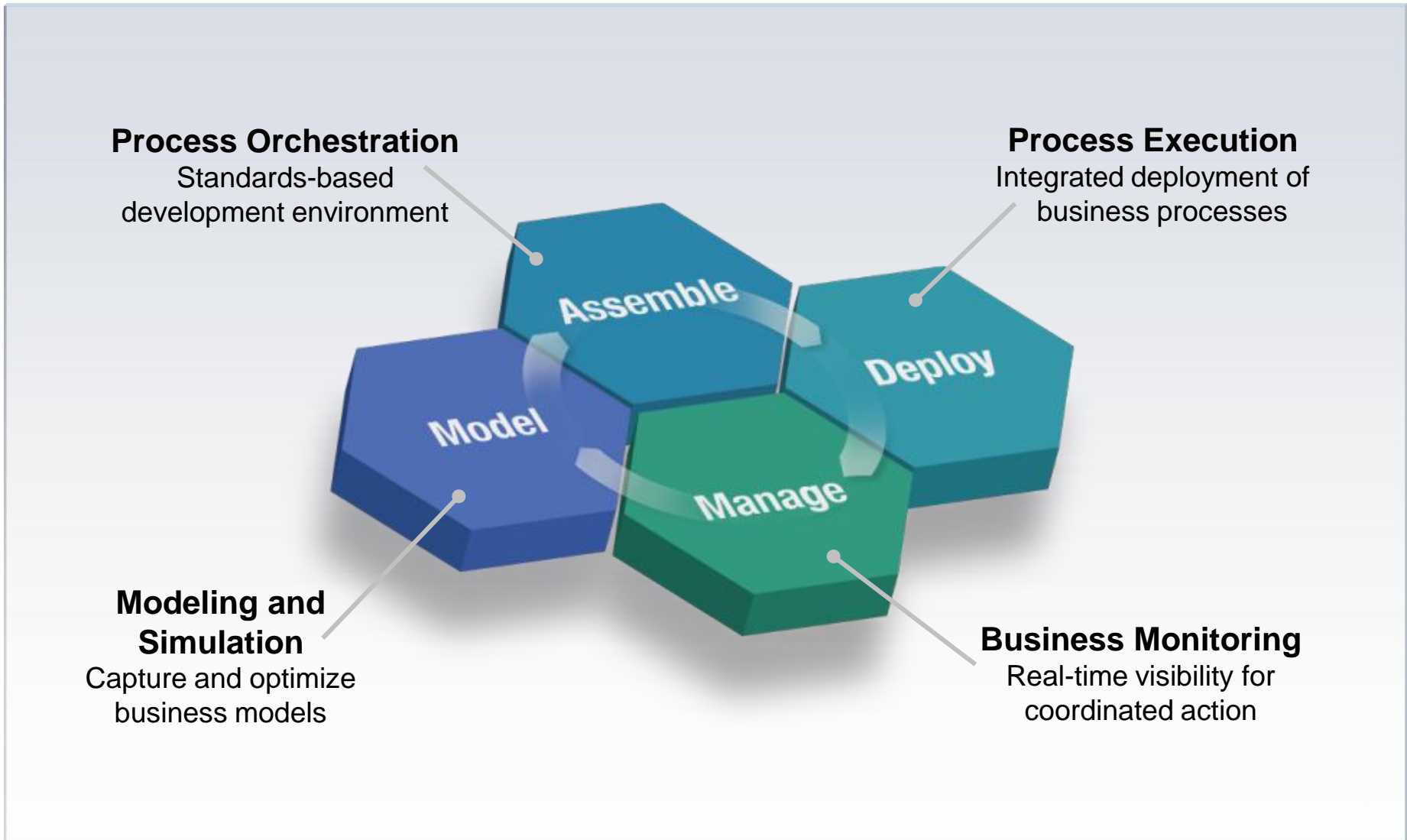
BPM Enabled by SOA Supports Continuous Alignment of Business Processes



IBM's BPM Suite is unique in enabling all *Six Agility Enablers*

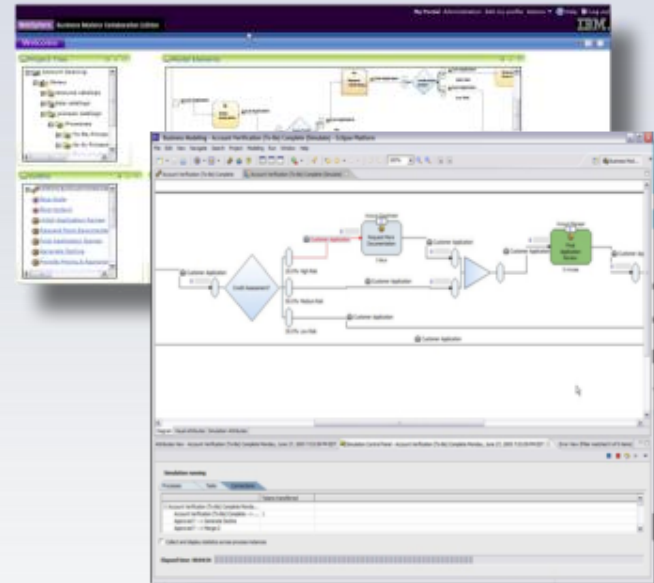
Evaluate enterprise needs vs. best ways of fulfillment

Business Process Management Within The SOA Lifecycle



Developing Business Process Models

- Enable business users to graphically model processes
- Support documentation and training for the organization and external parties
- Support simulation and analysis to substantiate process design decisions
- Generate code artifacts to support IT implementation of processes

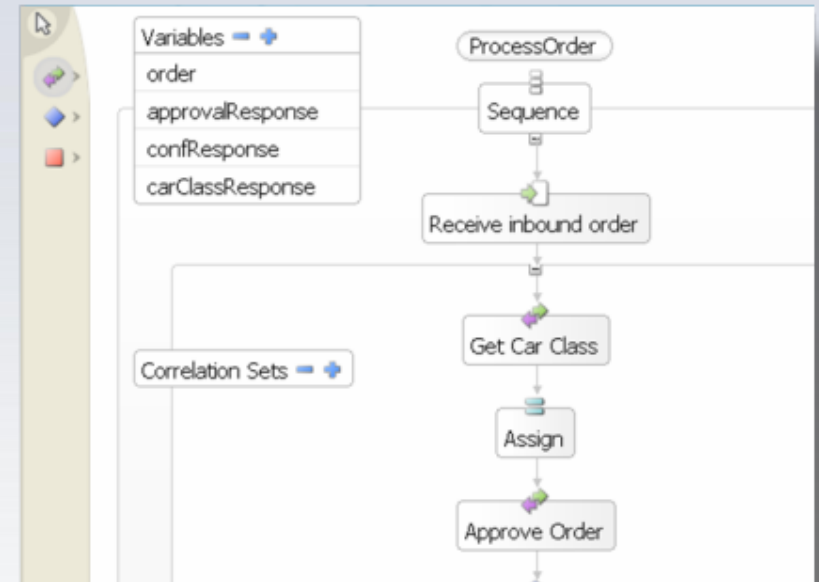


Architectural Benefit:

- Support top-down approach to service and process design
- Coordination of process development across business stakeholders as well as interaction with IT organization to articulate process design
- Creation of artifacts to support process development and implementation

Building Process Solutions

- Business Process Choreography orchestrates services as *deployable* processes
- Integrate information and user interaction into process development and deployment
- Mediations to transform/route service requests and responses
- Enable inter and intra-enterprise (B2B) service integration



Architectural Benefit:

- Simplified, standards-based business process development
- Support for industry process and data models
- Invoke mediations for routing/transforming requests between services

Monitoring Business Process Solutions

- Assemble dashboards on process behavior for different views/user perspectives
- Generate business event triggers and notifications via email, pager, SMS messages based on process events
- Generate preprogrammed responses based on process behavior
- Analyze process metrics over time to identify process trends



Architectural Benefit:

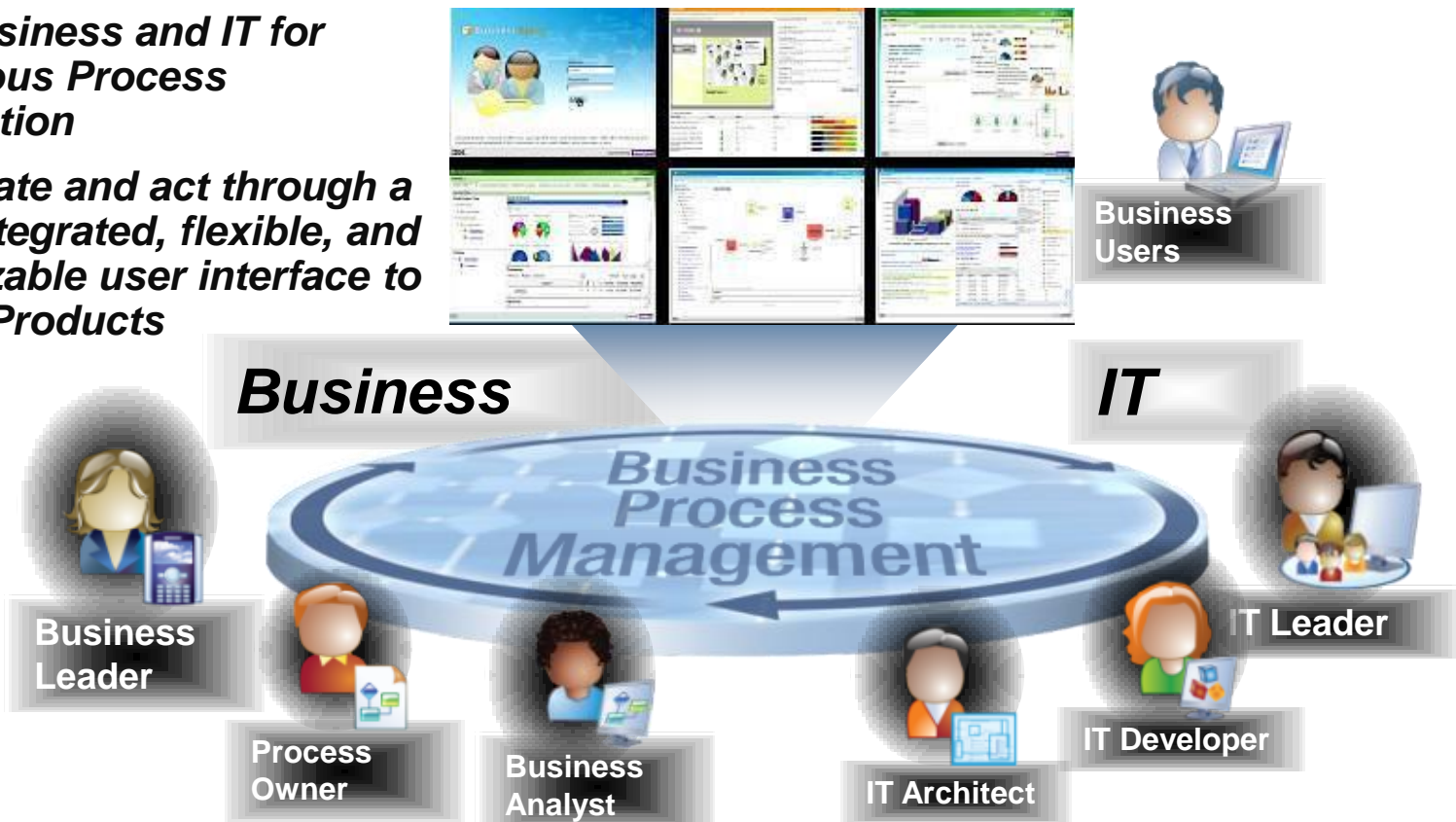
- Monitoring links to KPIs and Metrics defined by business analysts
- Integrates processes as part of an event-driven infrastructure
- Analyze trends in the business to enable ongoing optimization of solutions

Business Space - Access the Breadth of Capability Through a Single User Interface

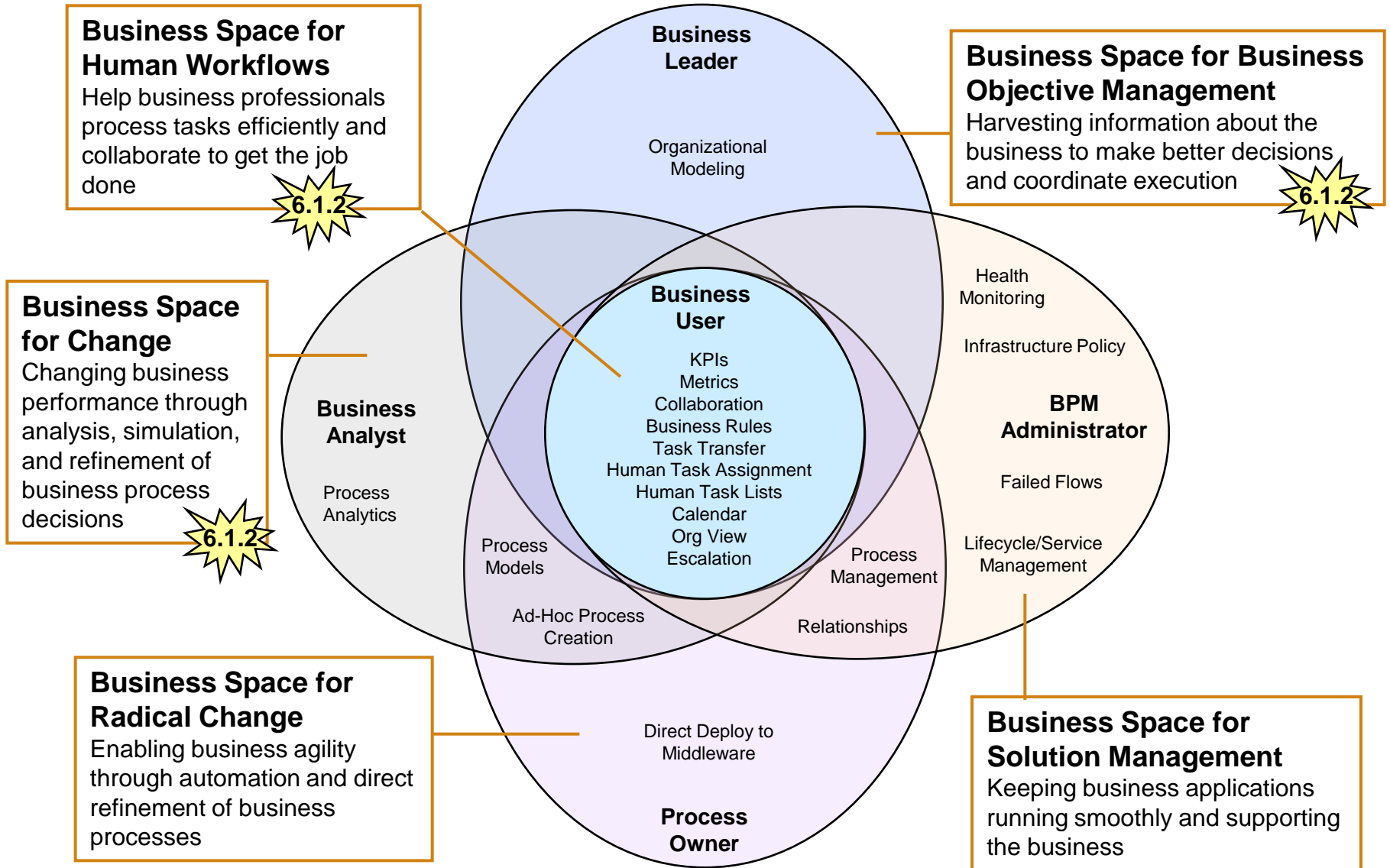
- One web entry point for user login, regardless of what BPM products are deployed and how they've been deployed
- Assemble integrated interfaces across the full breadth of BPM capability

Align Business and IT for Continuous Process Optimization

Collaborate and act through a single integrated, flexible, and customizable user interface to all BPM Products



Driving BPM Portfolio Integration Around Five Scenarios



WebSphere Business Monitor with RSS Feeds

The screenshot displays the IBM WebSphere Business Monitor interface with several key components:

- Green Initiatives:** A top navigation bar with tabs for Green KPIs, Green Policies, and My Tasks.
- Site map:** An aerial view of a facility with buildings highlighted in yellow and red, labeled as Location 4 and Location 6.
- Daily Energy & Water Consumption KPIs by Site Location:** Six donut charts arranged in a 3x2 grid, showing consumption for Location 1, 4, and 6. The top row shows Electricity Consumption (kWh/day) and Water Consumption (gal/day) for Location 1. The middle row shows the same for Location 4. The bottom row shows the same for Location 6.
- California Energy News:** A list of news items on the right side of the dashboard, including headlines like "Prolonged heat wave straining California power grid" and "Heat wave increases CA fire threat".
- Alerts:** A section on the left showing a list of alerts with columns for Subject, Date, and Alert Source.
- Energy Analysis:** A 3D bar chart at the bottom center showing consumption data over time for different locations.
- Weather for today:** A map of the United States with a color-coded temperature overlay, showing a heat wave across the western and central regions.

Customers can build Flash applications to provide richer visual cues to business users

KPIs update in near real-time

Alerts when thresholds are exceed

RSS Feeds provide news updates and maps to help in process decisions

View individual process instances

Manage Process Performance and Work

The screenshot displays the 'Better Enterprise' web application interface. On the left, a 'My Tasks' list includes items like 'Approve Energy Recovery Plan' and 'Communications Sent Out'. Below this is a 'KPIs' section with four progress bars for '1st Shift Workload', '2nd Shift Workload', '3rd Shift Workload', and '4th Shift Workload'. At the bottom left is a 'Human Workflow Diagram' showing a process flow with green icons. On the right, a 'Task Information' window is open for 'Approve Energy Recovery Plan', showing details for 'Energy Plan Change Request Approval'. This window includes fields for 'Request Originator' (Name: Michael Smith, Department: California Manufacturing), 'Manufacturing Change Details' (locations: California, British Columbia, Nevada, Wyoming, Massachusetts, Alberta, Colorado, Nebraska, North Carolina, Utah, Oklahoma, Kansas, Arizona, Texas, New Mexico, Missouri), and an 'Indicate Approval' section with a checkbox 'I approve this change'.

View and manage your own task list

View KPI's alongside human workflow info

Human workflow diagram

Fill out form to execute Change Request

Gain Visibility into Process Performance & Staff Productivity

Combine Process Automation with BAM

The screenshot displays the IBM BusinessSpace JKLending application interface. It features several panels: 'My Tasks' with a list of tasks like 'Request Property Appraisal' and 'Perform Due Diligence'; 'Human Tasks' with a table of task details including 'Creation Time', 'Owner', 'Claim Time', 'Lifetime', and 'Work Duration'; 'Business Rules' with a rule for 'Choose loan category'; 'Loan instances' with a table of loan details; and a 'Human Workflow Diagram' showing process steps like 'Request Property Appraisal' and 'Perform Due Diligence'. Callouts highlight key features: 'View and manage your own task list', 'Track staff productivity', 'Update business rules in response to changing conditions', and 'Monitor processes at the aggregate or instance level'.

Loan Number	Application Loan Amount	Loan Officer	Lending Process	Process State
0104	140,000	Robert Gump	1.0	Loan Setup
0103	130,000	Robert Gump	1.0	Loan Setup
0105	150,000	Joan Smith	1.0	Loan Setup
0106	160,000	Joan Smith	1.0	Loan Setup
0107	170,000	Joan Smith	1.0	Loan Setup
3106	175,000	Joan Smith	1.0	Loan Setup
4107	174,000	Gerald Mander	1.0	Loan Setup
0166	200,000	Joan Smith	1.0	Loan Setup
0157	202,000	Joan Smith	1.0	Loan Setup
0307	220,000	Robert Gump	1.0	Loan Setup
0207	222,000	Gerald Mander	1.0	Loan Setup
0203	230,000	Gerald Mander	1.0	Loan Setup
0208	260,000	Joan Smith	1.0	Loan Setup
0307	370,000	Robert Gump	1.0	Loan Setup

Creation Time	Owner	Claim Time	Lifetime	Work Duration
June 24, 2008 11:07:16 AM	JoanSmith	June 24, 2008 11:10:34 AM	6 d, 12 h, 17 m, 11 s	6 d, 12 h, 12 m, 11 s
June 24, 2008 11:11:32 AM	JoanSmith	June 24, 2008 6 d, 12 h, 12 m, 11 s		
June 24, 2008 12:42:04 PM	Unassigned			
June 25, 2008 4:29:13 PM	Unassigned			
June 25, 2008 4:29:23 PM	Unassigned			

Agenda

- Business Architecture powered by SOA
- SOA Governance
- Building Business Process Solutions
- **Composite Business Services**
- Real World Examples
- What is on the horizon?



Composite Business Services

Business Services Provide the “Building Blocks”

Composite Business Services definition:

A collection of integrated and related business services that provide a specific business solution and support business processes built on SOA

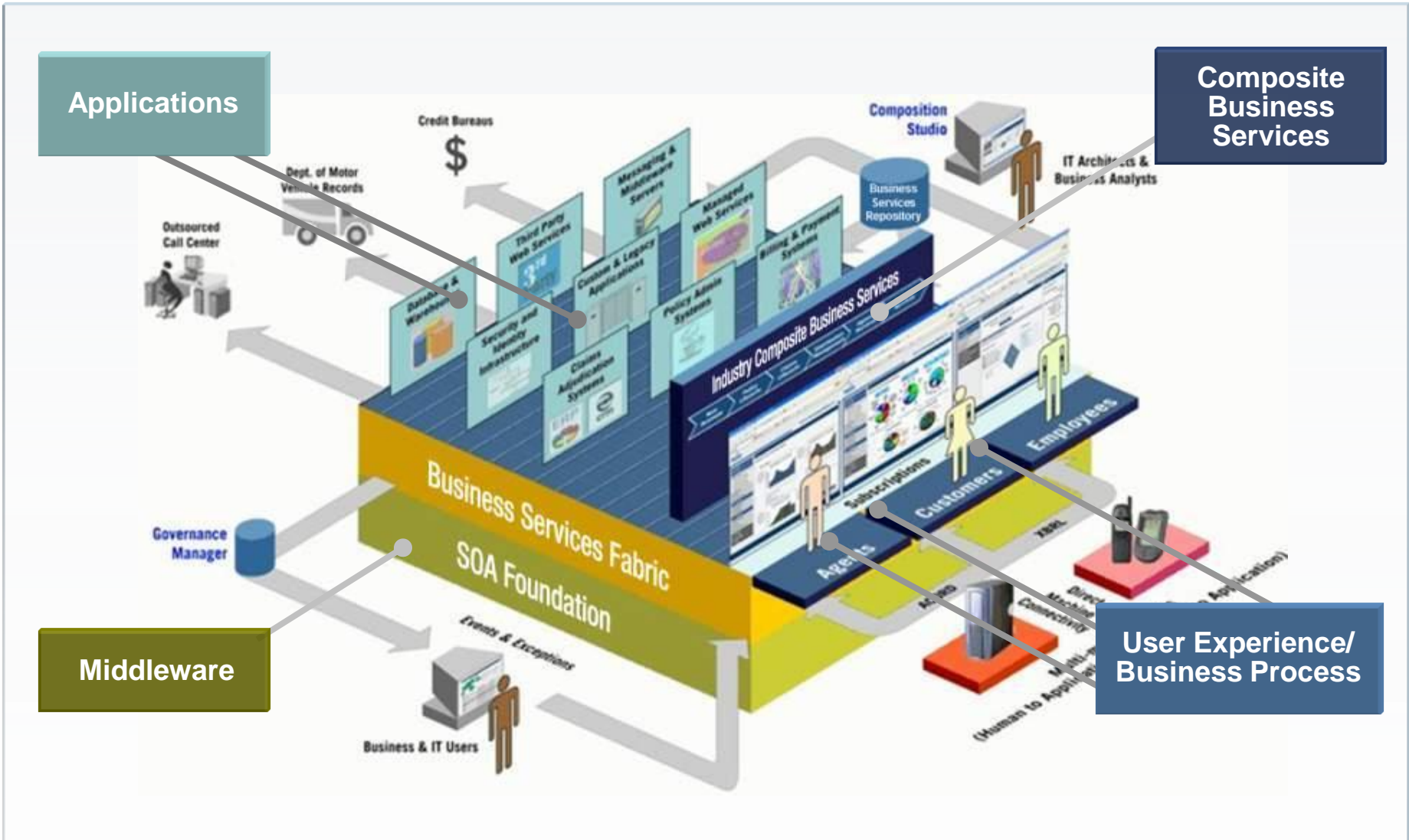
Business Services definition:

A business function whose execution can be adapted at runtime based on business policy and user context

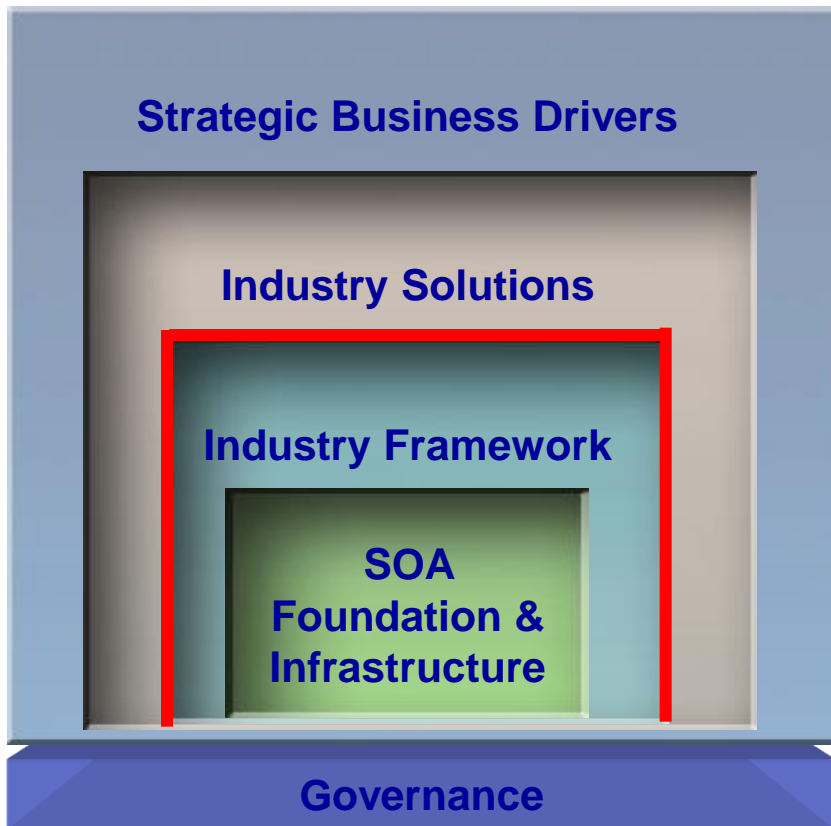
- Designed at business level to represent a discrete business function (e.g. check credit, open account)
- Can provide flexible, adaptable behavior based on business policy and user context
- Provisioned through multiple communication channels



Composite Business Services



Industry Frameworks & Solutions Focus: Driving Differentiation by Linking Business with IT



An Industry Solution

Offering that solves a business problem through a combination of:

- Industry and subject matter expertise
- Defined content, applications, tools and methodologies
- Global delivery model

An Industry Framework

A software platform based on business specific usage pattern, and includes:

- Industry-specific extensions / business & technology standards
- Based on service-oriented architecture

Delivering value based on industry solutions

- Business commitments to be met at market speed – or better
- Project costs in bite-sized bits
- Technology that best supports strategy



Retail



Telecom



Financial
Markets



Insurance



Manufacturing



Healthcare



Government



Oil & Gas

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Enabling Smarter Satellite Television Delivery

1 million connections in first year

8 million connections by 2012



**Unmatched
scaling and
accelerated
deployment to
compete**



SOA Helped Jump Start a High Growth Business Model



Satellite Signals



- Multi-channel integration for customer service
- Flexible support for rapid physical asset rollout
- Immediate service access on installation
- Enabled for future rich media content

Customer Service



IBM WebSphere Application Server
IBM WebSphere Message Broker
IBM WebSphere Process Server
IBM Services

Flexible SOA-based IT Foundation

Allowing Smarter Food Tracking

New revenue streams in new markets

New service enables client cost avoidance



SOA Helped Dynamically Connect Moving Parts



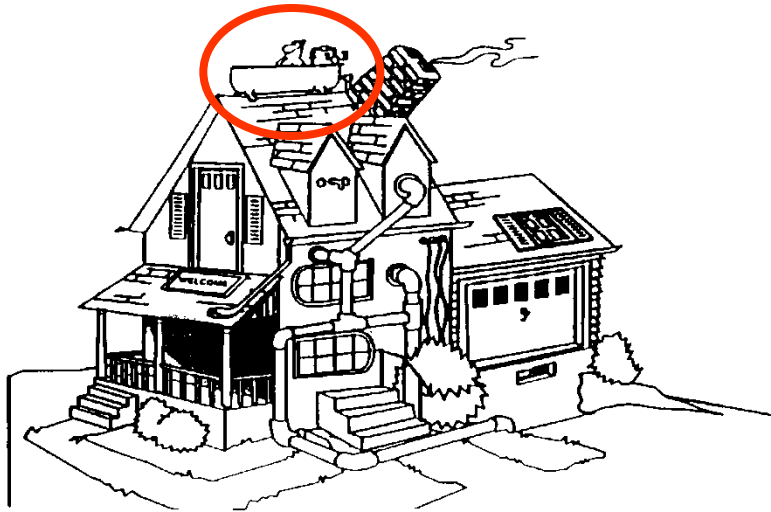
- Comprehensive tracking of perishable food
- Standardize information for government compliance

Agenda

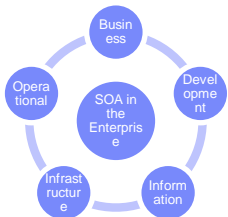
- Business Architecture powered by SOA
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Without the power of architecture, even with the best of intentions, we are more likely to descend into chaos...



... and even if an individual house is well architected, if each house is different (e.g. different electricity voltage, water pressure) then the city will not work...



... plus, if the purpose of the building is not clear...



धन्यवाद

Hindi

多謝

Traditional Chinese

Teşekkür ederim

Turkish

Спасибо

Russian

Gracias

Spanish

شكراً

Arabic

Thank You

English

Obrigado

Portuguese

Grazie

Italian

Danke

German

Merci

French

Multumesc

Romanian

多谢

Simplified Chinese

감사합니다

Korean

ありがとうございました

Japanese

IBM SOA Architect Summit

A globe is centered in the image, showing the continents of Europe and Africa. The globe is rendered with a grid of small, dark green hexagons. The background is a solid, medium blue color.

SOA on your terms and our expertise