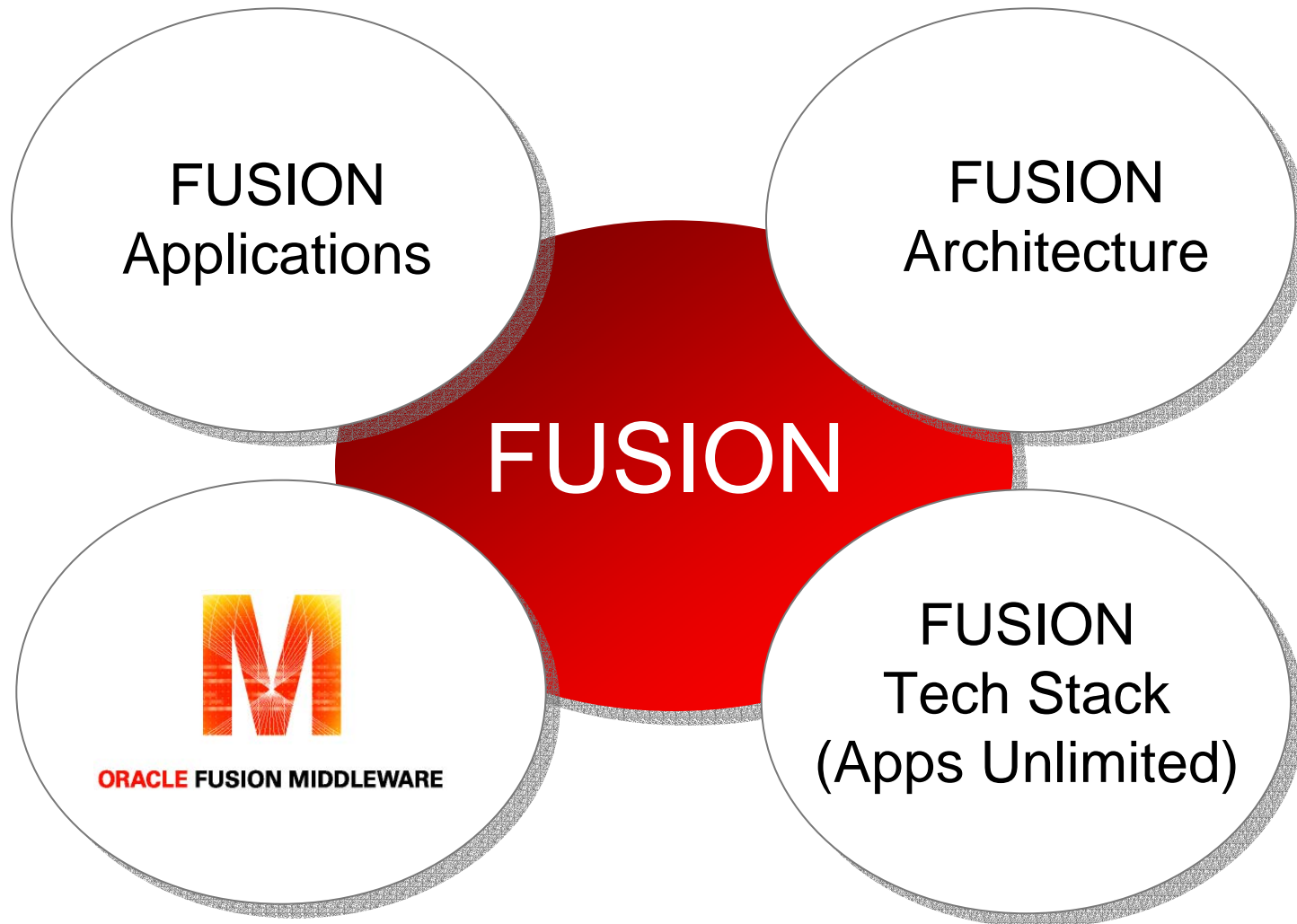


ORACLE[®]

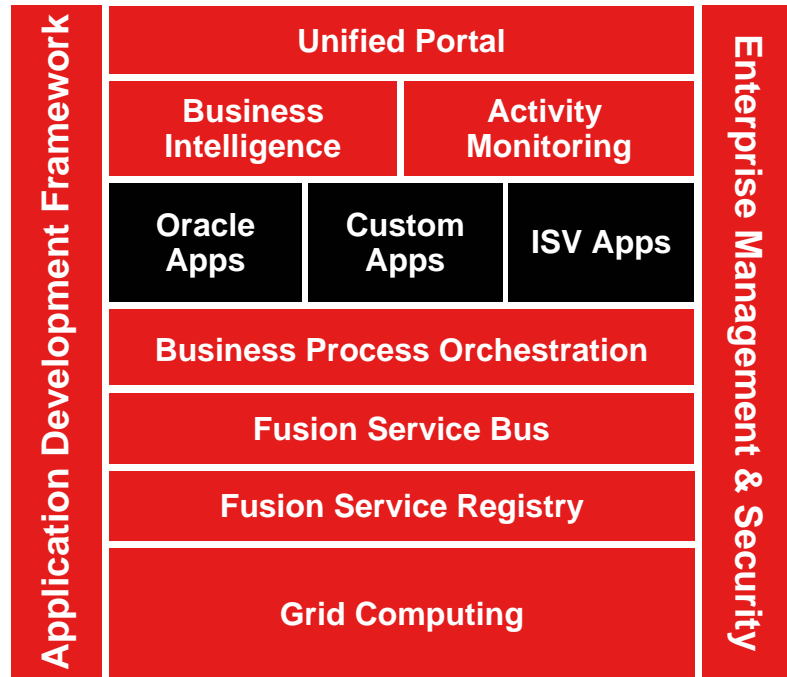
Service Oriented Architecture

Sean Donahue

What does FUSION mean exactly?



Oracle Fusion Architecture, Middleware



Development Tools
Unified SOA Development Tool & Framework

User Interaction
Web 2.0 Portal, Rich Internet Apps, Mobile, Search, Desktop, Presence, VoIP

Business Intelligence
Data Integration, Query & Analysis, OLAP, Dashboards, Reports, Alerts, Real-Time

Content Management
Web Content, Documents, Digital Assets, Imaging, Records, Information Rights

SOA & Process Management
ESB, BPEL PM, Workflow, BAM, Rules, B2B, MDM, Registry, SOA Governance

Application Server
Java EE, Web Services, Complex Event Processing, XTP, RFID & Sensors, SIP

Grid Infrastructure
Application Clusters, In-Memory Data Grid, Common Metadata Services



Enterprise Management
Provisioning, Diagnostics, Tuning, Configuration Management



Identity Management
Provisioning, Access Management, Federation, Audit, Directory



Fusion Middleware Guiding Principles

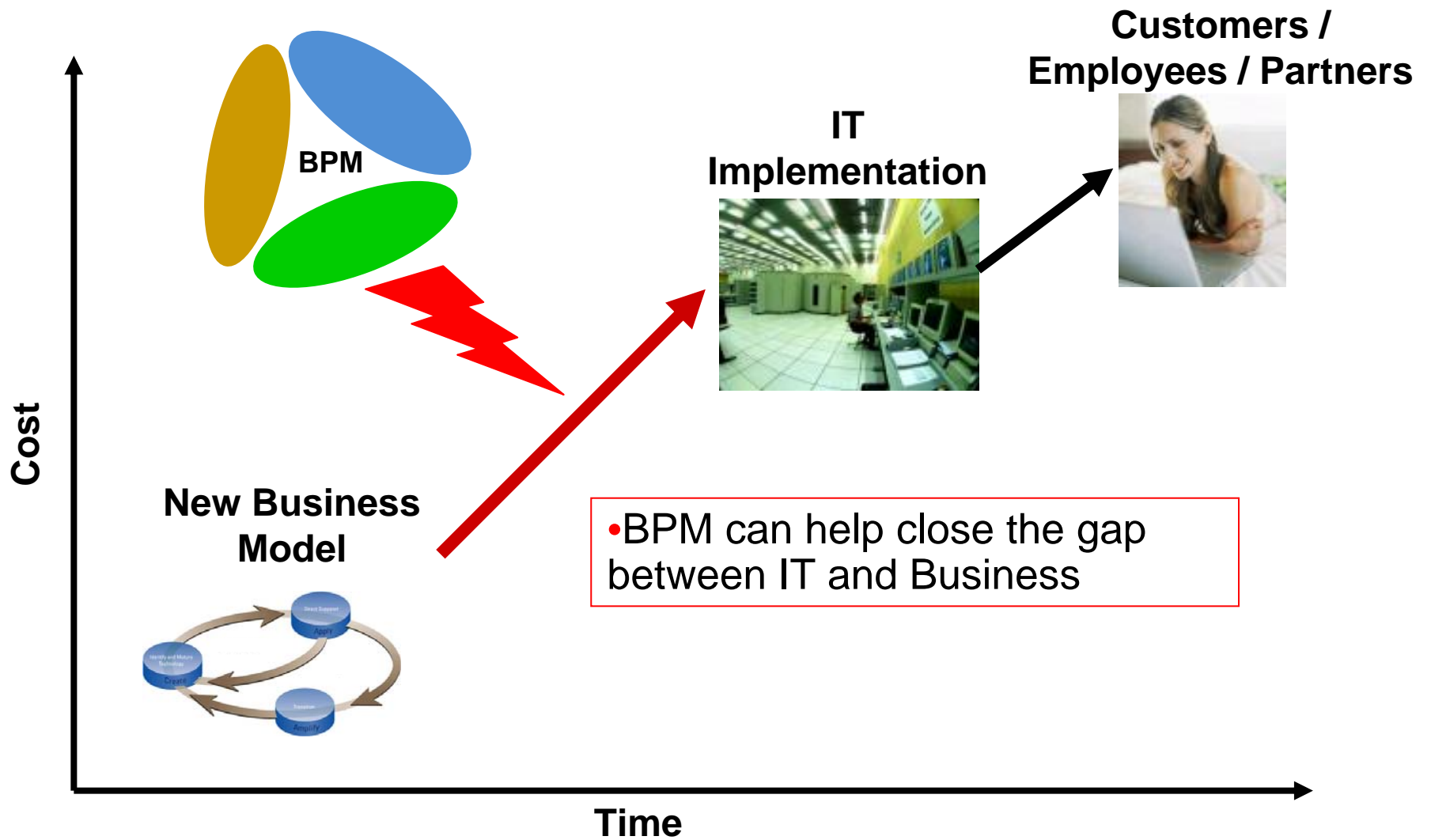
- ✓ **PROTECT** your Existing Investment
 - Ensure customer success for go lives and ongoing production
 - Extend performance, security, and compliance
 - Maintain current product capabilities and open platform support
- ✓ **EXTEND** the Value of your Applications
 - Enhance product to support new application products
 - Lower cost of ownership & continue to simplify platform
 - Add customer requested features
- ✓ **EVOLVE** you to the Next-Generation
 - Leverage standards and modernize Application technology
 - Build Fusion technology and concepts into Oracle's Applications
 - Simplify Application and Fusion upgrades



Acronyms...

- What is BPM?
 - Business Process Management
- What is SOA?
 - Service-Oriented Architecture
- What is BPMN?
 - ***Business Process Modeling Notation***
- What is BPEL?
 - ***Business Process Execution Language***
- What is BPA?
 - Business Process Analysis
- What is BAM?
 - Business Activity Monitoring

“Strategy to Execution” Gap



Many BPM initiatives lack Business/IT collaboration

Business - Strategic modeling

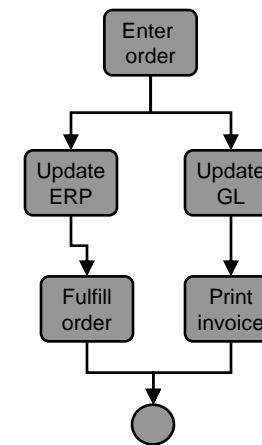


- No visibility into IT ?
- Disconnect between conceptual model and implemented process
- Not sure how to improve process and reduce costs ?

Requirements, powerpoint, visio model, Export files



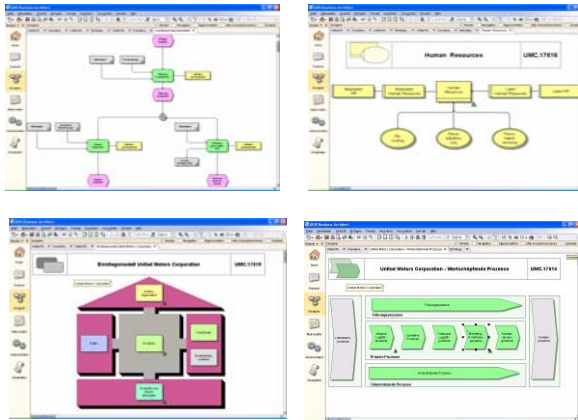
IT – Executable modeling



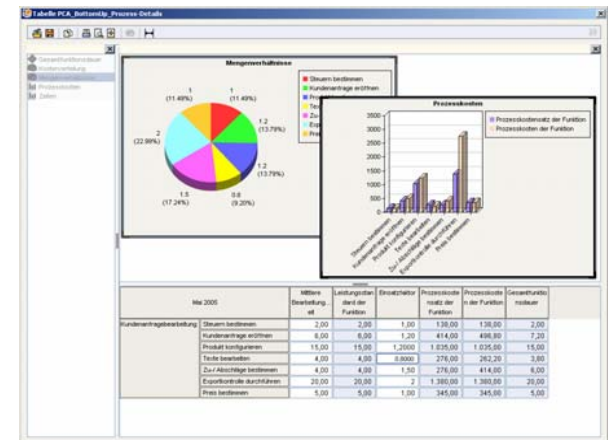
- Requirements not clear ?
- Business side is constantly asking for changes

Oracle BPA Suite – Powered by ARIS

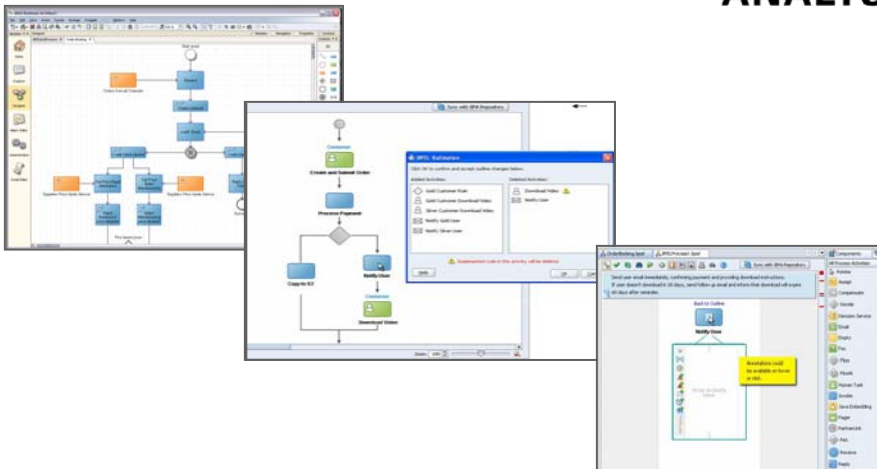
Business Process Architect



Business Process Simulator

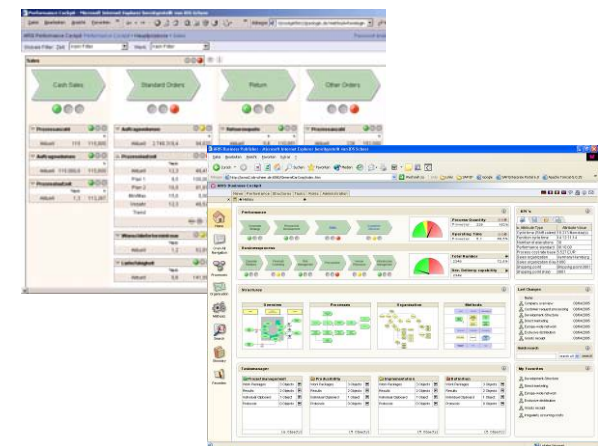


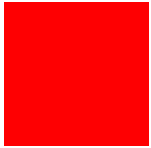
Oracle SOA Extensions



ORACLE[®] BUSINESS PROCESS ANALYSIS SUITE

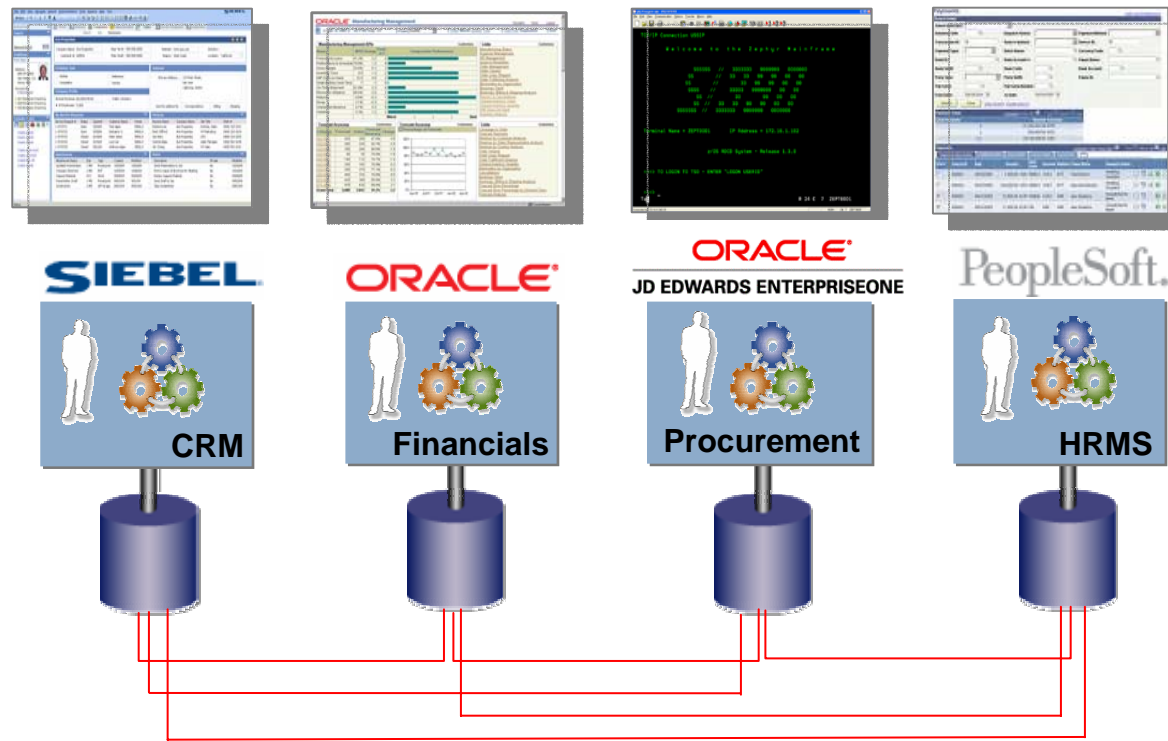
Business Process Publisher



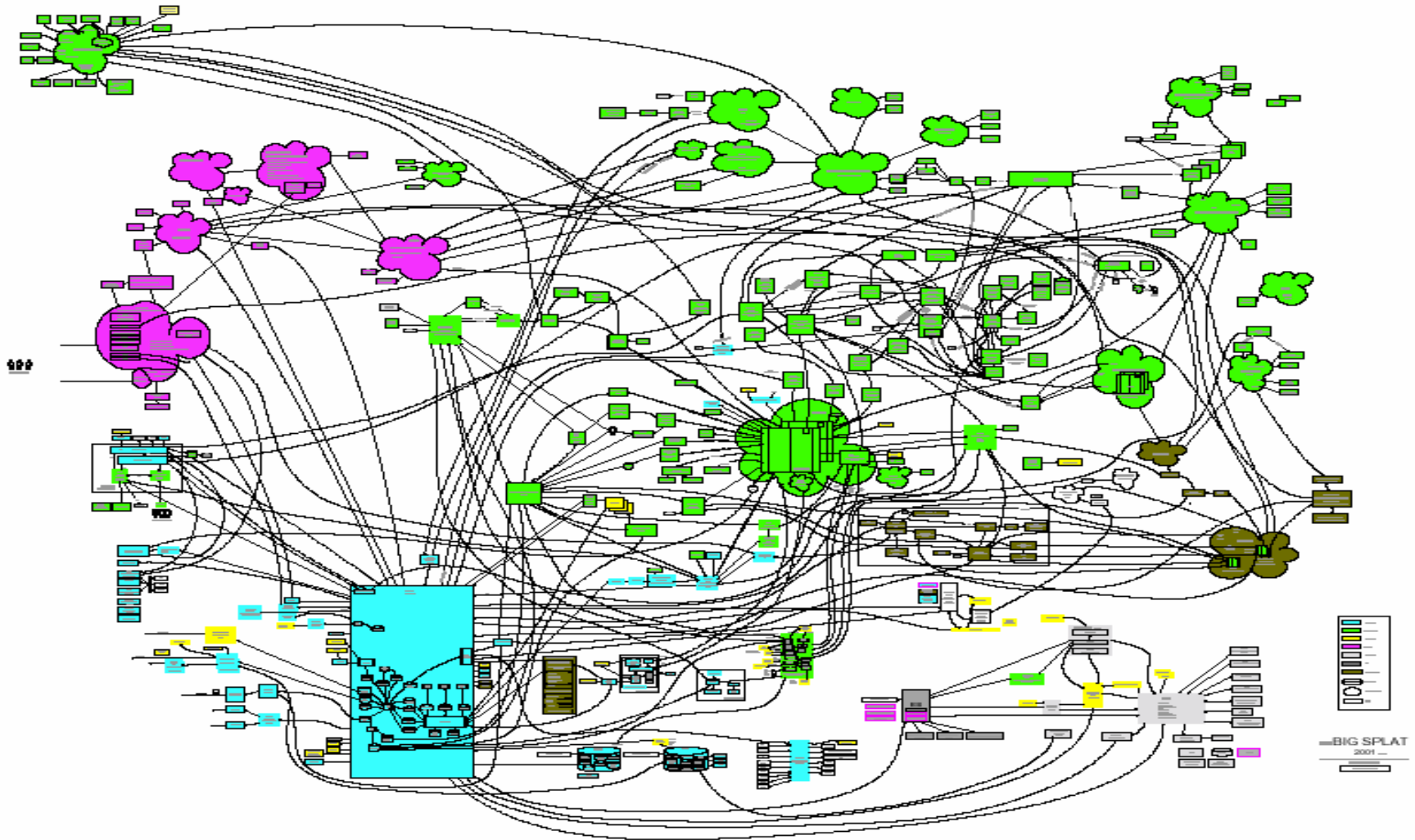


Growth & Change

Typical Scenario



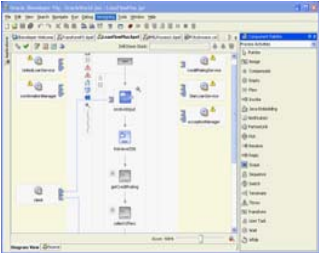
The Architectural Challenge





Service Orchestration

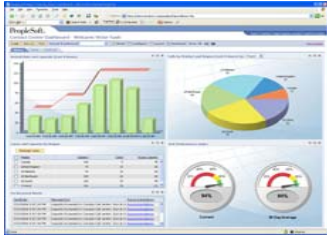
Design



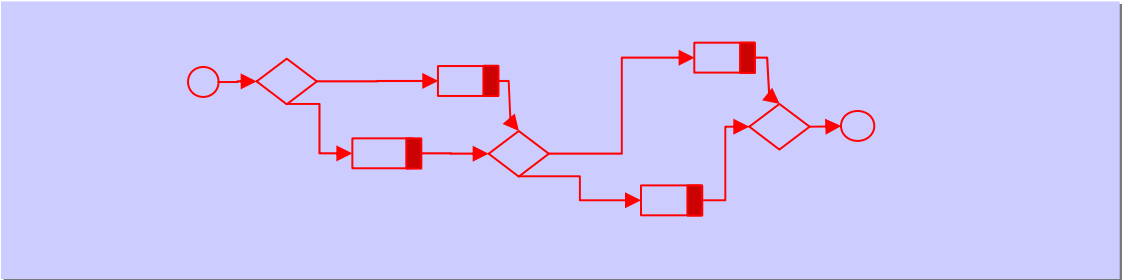
Monitor



Optimize



Execute & Optimize Business Processes



Cross-Application Business Process Automation

SIEBEL



CRM



ORACLE



Financials



ORACLE
JD EDWARDS ENTERPRISEONE



Procurement



PeopleSoft

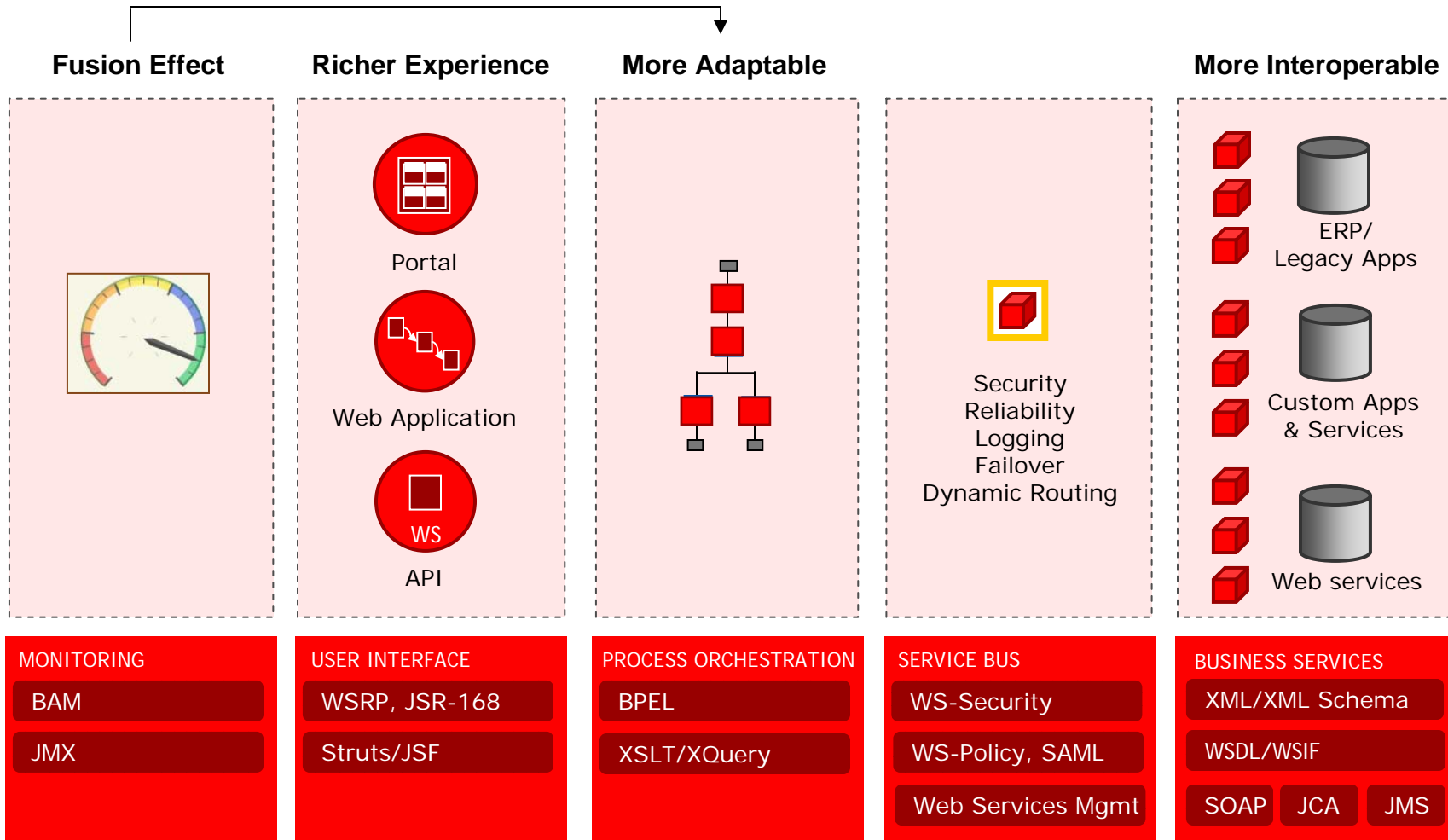


HRMS



Application Services

Key SOA Standards



Business Activity Monitoring

Real-time Process Feedback & Optimization

Monitor a Process

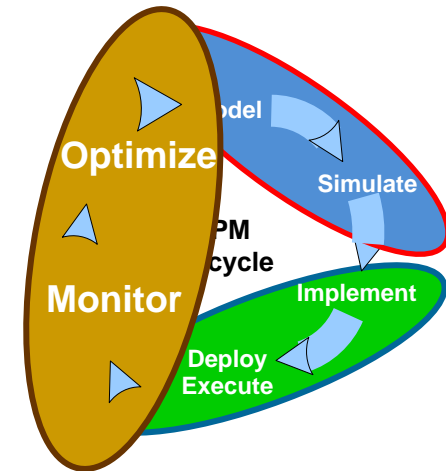
- Track each process step
- Identify failures

Process Aggregation

- Averages, KPIs, SLAs
- Identify bottlenecks

Complex Event Processing

- Correlate events
- Identify threats & opportunities



Summary

Accepted

18545

Rejected

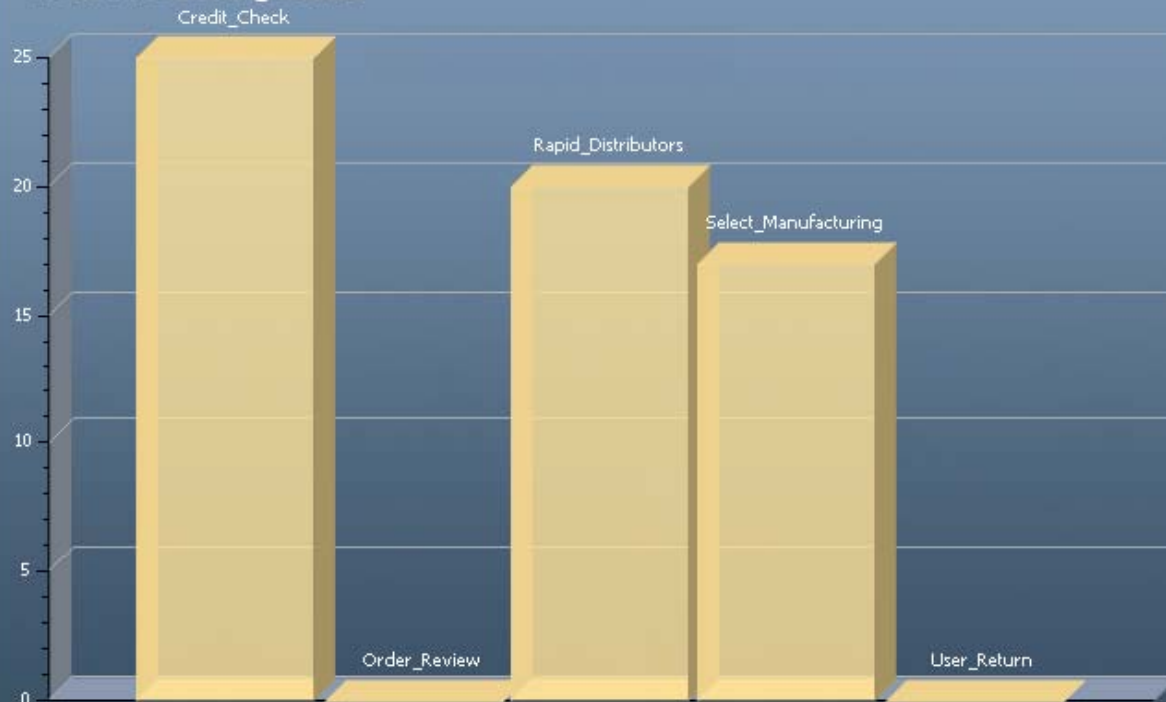
9285

Credit Failure

1466

BPELProcess RulesEngine

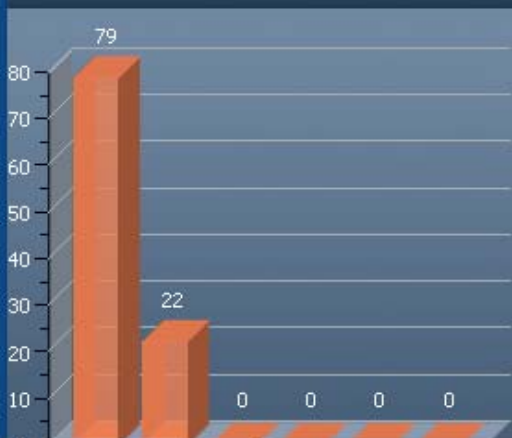
Order Processing States



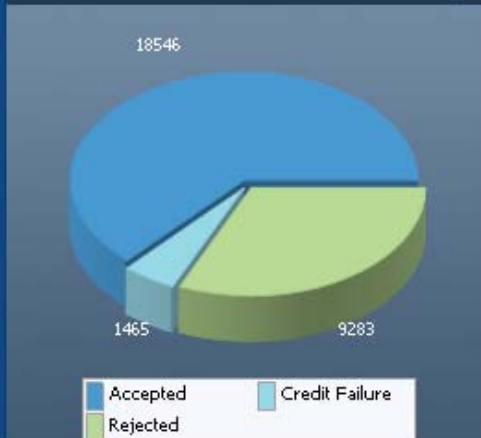
Incoming Orders

Status	Order Price
Accepted	1,032.26
Accepted	1,815.48
Rejected	3,280.14
Accepted	930.78
Credit Failure	525.75
Rejected	3,336.08
Accepted	1,486.52
Accepted	1,006.97
Rejected	2,363.60
Accepted	4,538.97
Accepted	1,114.70
Rejected	1,526.94
Accepted	1,960.47
Rejected	1,034.34
Accepted	562.03
Rejected	2,196.64
Accepted	3,259.42

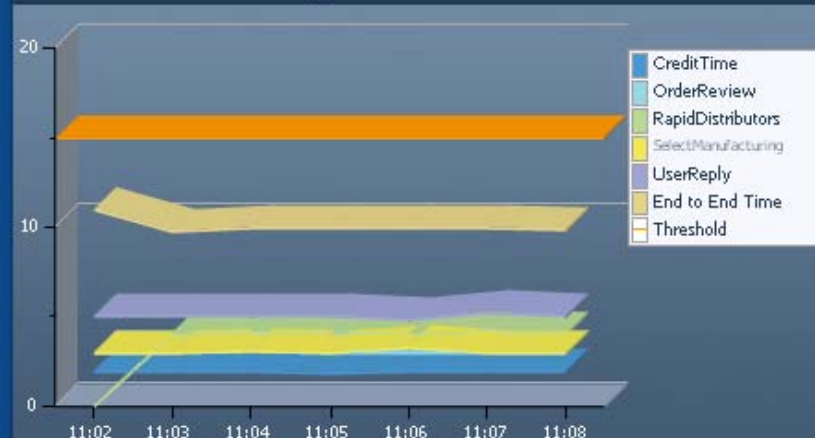
Alerts



Order Status



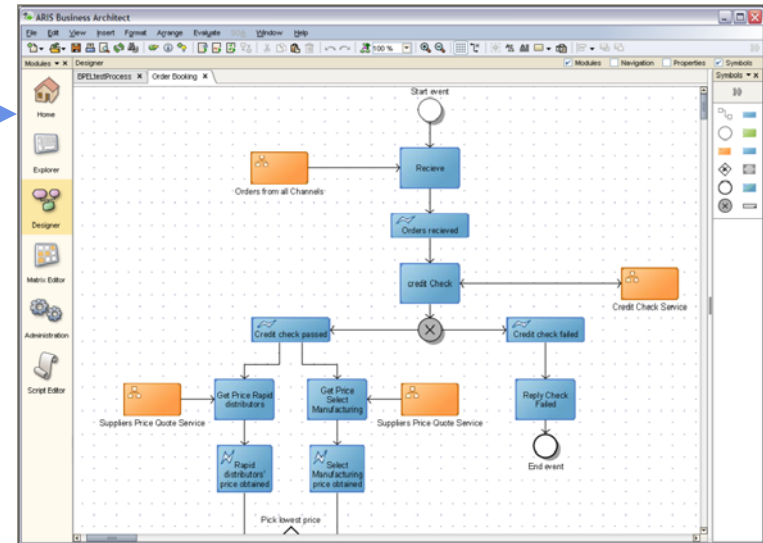
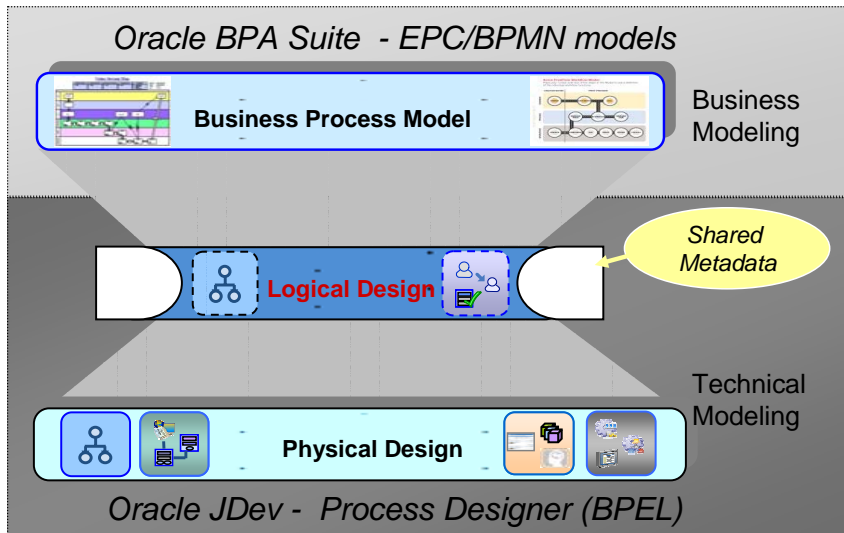
SLA: AVG Processing Time



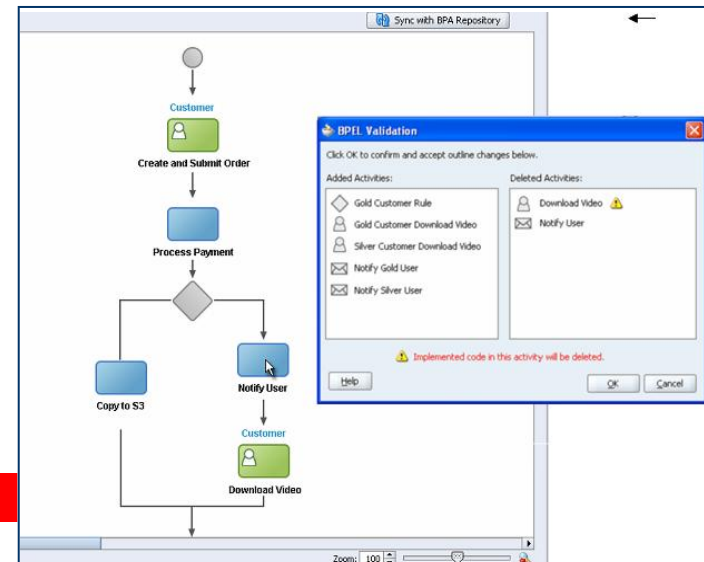
Reconnecting...

Process Models – continuous refinement

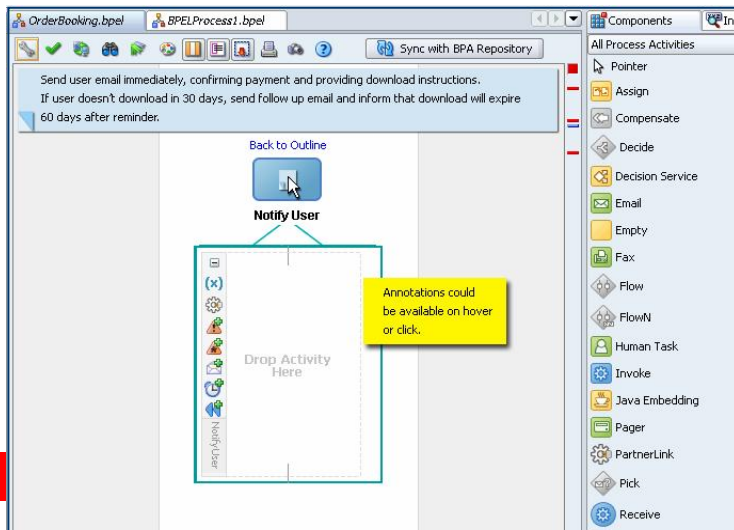
1. Business Process model



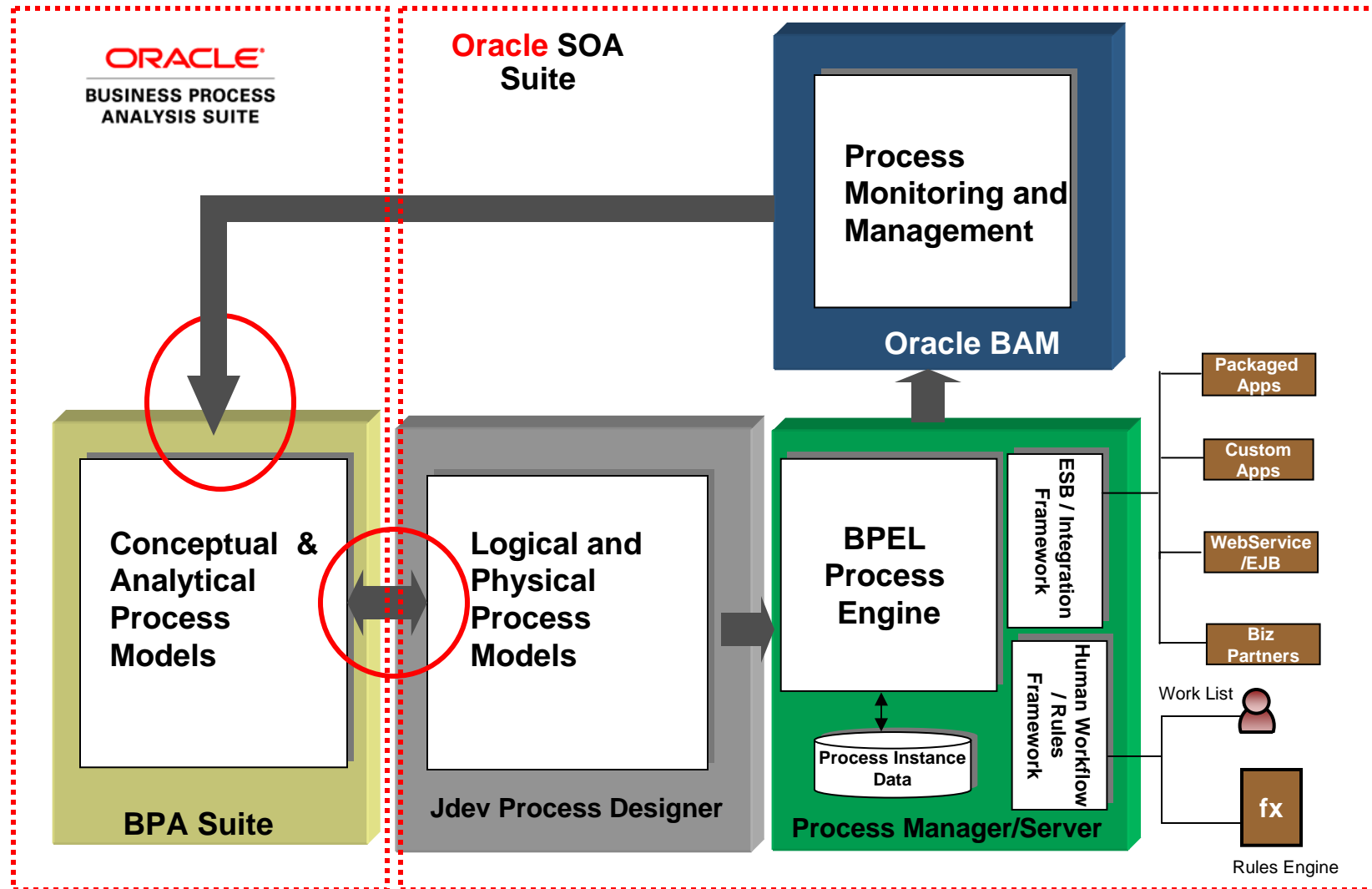
2. Process Blueprint (Logical Design)



3. Complete Executable Process

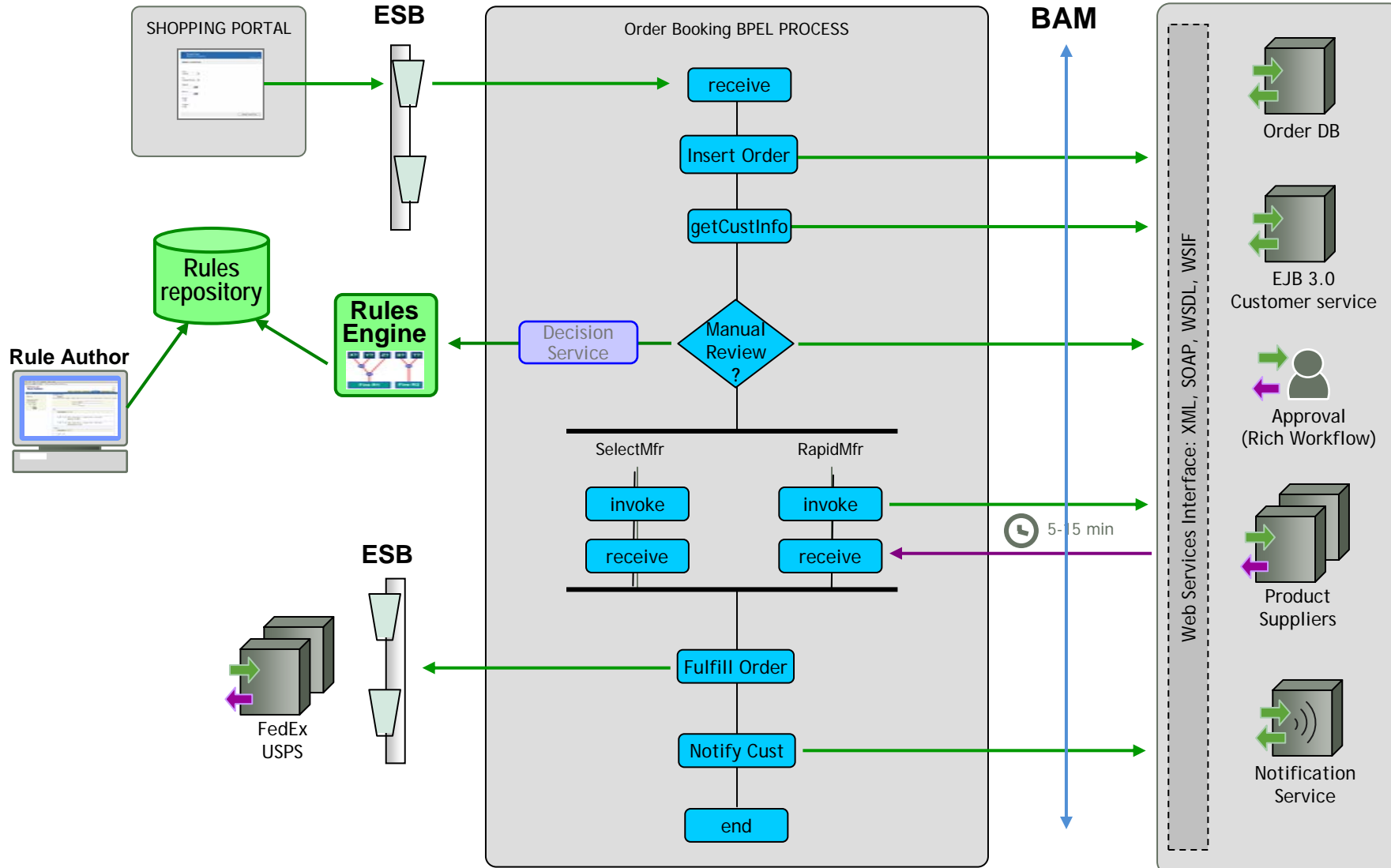
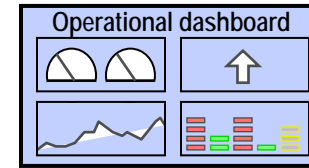


Integration Philosophy for Closed Loop BPM



Order Booking SOA Demo

Focus on ESB, Rules, Workflow, BPEL



HR On-Boarding Process

The screenshot shows the Oracle HR On-Boarding Process flowchart in a web browser. The browser title is "New Hire Map - Windows Internet Explorer". The address bar shows the URL: "C:\user\WLM Demo\wlm_html_demo\pages\1_selfservice\map_text_fnsh.html". The browser's search bar contains "Google". The Oracle logo is visible in the top left corner. The navigation menu includes "Human Resources", "Policies", "New Employee", "Schedules", "Jobs", "Relocation", and "Directory". The "New Employee" menu is expanded, showing "new hire map" and "new hire tasks". The date "July 23, 2005" is displayed in the top right corner. The main content area features a "Welcome" message from Doug Scott, SVP Human Resources. The flowchart starts with "Start Here" and proceeds through several steps: "Validate Information" (with sub-tasks "Validate Name" and "Validate Address"), "Complete Compliance" (with sub-task "I9 Compliance Form"), "Change Workspace" (with sub-task "Submit Request"), "View Accounts" (with sub-tasks "Existing Accounts", "Request New Accounts", and "Delegate Account Access"), "Order Assets" (with sub-tasks "Order Computer" and "View Order Status"), "View Compensation" (with sub-tasks "Sign up for 401K", "Complete W4", and "View 1st Paycheck"), and "First 90 Days" (with sub-tasks "Attend Training" and "Complete Objectives"). The flowchart ends with "END". At the bottom, there are two tables: "Task Icon Legend" and "OnBoarding Progress: 14 Activities".

Welcome

Much of our success depends on the abilities of people like you, intelligent professionals with a desire of being on the leading edge of creating solutions affecting the way the world works. Having diverse perspectives, talents, and teams helps us to continue to address today's complex business challenges and to remain competitive in the global marketplace.

As a new employee of Oracle you can make a difference and will have the ability to collaborate with some of the brightest minds from the countries worldwide. Again welcome!

Doug Scott
SVP Human Resources

Task Icon Legend

●	available		
✓	completed		
○	not available		

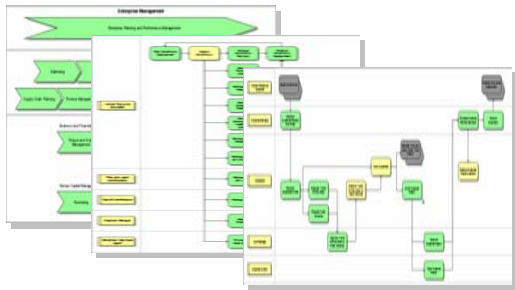
OnBoarding Progress: 14 Activities

available	2
completed	9
not available	2

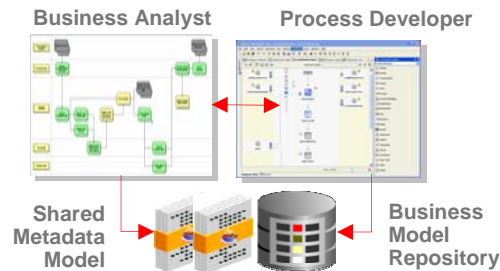
SOA & Business Process Management

Service Architecture For Simple Integration

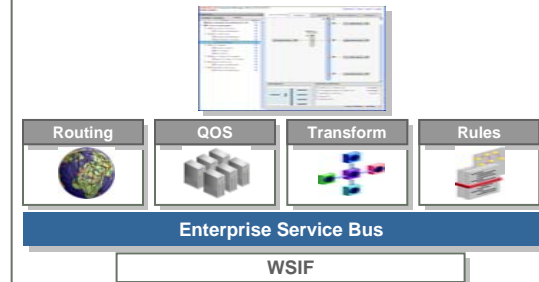
Business Process Analysis Suite Model & Analyze



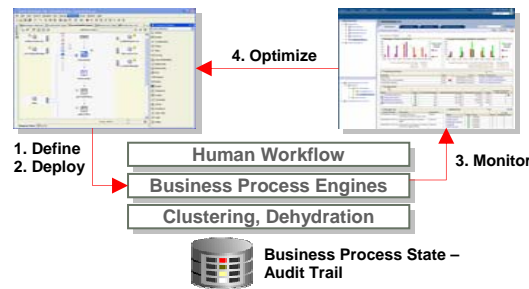
Business Process Designer Generate & Capture



Enterprise Service Bus (ESB) Connect & Route



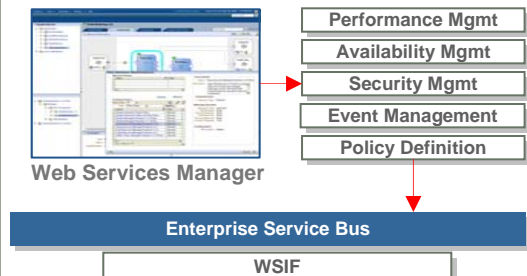
Business Process Manager (BPEL) Orchestrate & Transform



Business Activity Monitoring (BAM) Visualize & Optimize



Web Services Manager Manage & Govern



BPEL Adoption within Oracle

APPLICATIONS

Peoplesoft

CRM 9 release uses BPEL PM and BAM internally (see next slide)

8.48 Peopletools certified with BPEL PM 10gR2 to orchestrate services. 8.51 now being certified with 10gR3.

iFlex

BPA Suite to model financial services processes and BPEL PM to execute them

Application Integration Architecture (AIA)

Predefined integration processes between apps implemented with Oracle ESB and BPEL PM

Retek

BPEL for synchronizing Retek sales data with Oracle Financials

Oracle JMS and ESB to replace SeeBeyond

Siebel

Distributed Order Orchestration

JD Edwards

Oracle BPEL and ESB to replace Web Methods

Fusion Applications

BPEL PM and SOA Suite 11g as the foundation for the next generation of Applications

MIDDLEWARE

Oracle Content Services

BPEL PM for document workflows

BPEL PM for invoice processing solutions

WebCenter

BPEL Worklist portlet

Identity Management

BPEL PM for identity provisioning workflows

Business Intelligence

Analytics over BPEL “Dehydration Store”

Initiate BPEL processes from BI dashboards

Enterprise Manager

SOA Management pack – BPEL PM mgmt

OPERATIONS

Internal Global IT

BPEL PM for Oracle Alerts workflows

OnDemand

Oracle SOA Suite for Integration as a Service

Re-Thinking Application Infrastructure

Software Framework Pressures

- Service Oriented Architecture
- Web 2.0
- Event Driven Architecture
- Extreme Transaction Volumes

Hardware Capacity Impact

- Compute Power: SMP/Multicore
- Memory Arrives: “In Memory Option”
- Network Speed: Gbe/10G/IB
- Storage: Flexibility

Enterprise Manageability Requirements

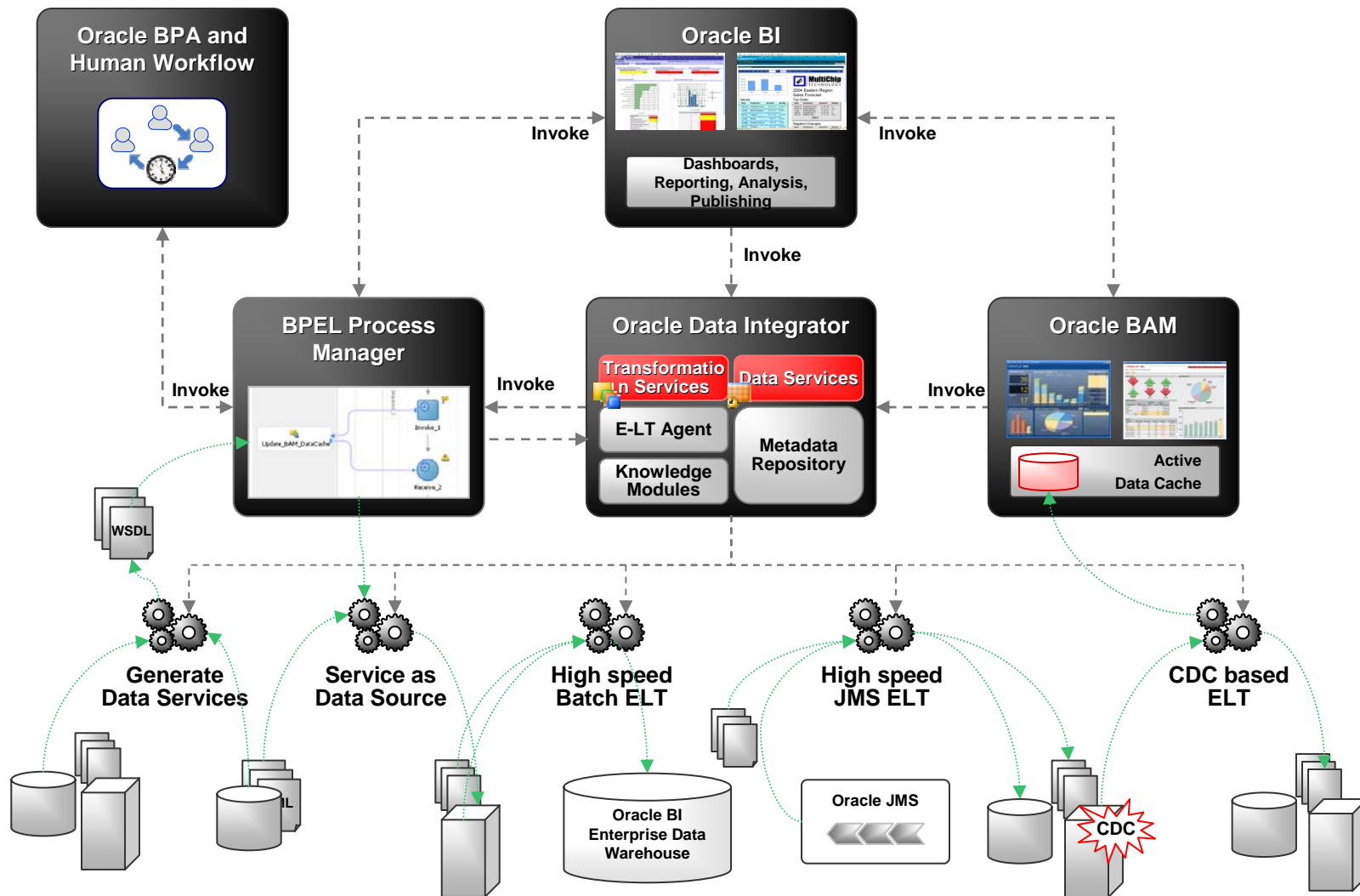
- Grid Automation
- Service Level Management
- Application Performance Mgmt
- Provisioning

Enterprise Infrastructure Requirements

- Scalability – Capacity on Demand
- Performance – Zero Latency
- Reliability – Transactional Integrity
- Availability – Continuous

SOA + BI + ODI Integrated Environment

Examples of Event-Driven BI



Application Grid Persistence Services

Via Flexible and Standards-Based Persistence Platform

Web 2.0



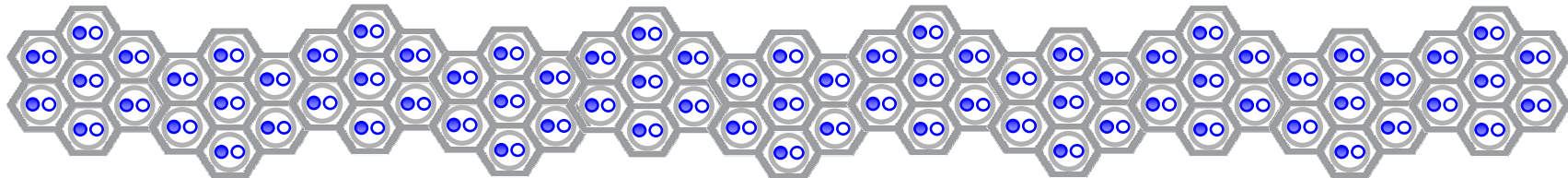
Frameworks



Java EE 5.0



SOA

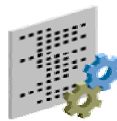


Data Grid Services

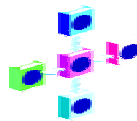
ORM
(JPA)



OXM
(JAXB)



EIS



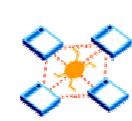
SDO



XML
Relational



Database
Web Services



JDBC

JCA

Persistence Services

ORACLE



General Business Requirements

- **Close the Business to IT Gap:** How can I quickly respond to, and implement, processes from business analysts? How can I improve brand recall and become synonymous with the industry?
- **Infrastructure Optimization:** How can I utilize IT systems to help optimize costs? What advantages can I derive by integrating business processes? How can I enable employee productivity throughout the employee lifecycle?
- **Adhere to Government Regulations:** How can I comply with various regulatory requirements while reducing associated costs?



Q&A