Oracle Business Process Management

Matthew Schumpert
Oracle Platform Technology Solutions
The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remains at the sole discretion of Oracle.
Business Process Management (BPM)

Software and strategy for modeling, automating, managing and optimizing business processes across organizational divisions, systems and applications.

Diagram of BPM with Strategy, Goals, Policies, and Compliance arrows pointing downwards towards a process. Below the process are icons for Systems, People, and Information.
Product Strategy
Business Process Management

• Offer Complete & Integrated Business Process Management Platform
  • For System-centric, Human-centric, Document-centric, and Decision-centric Business Processes in a single runtime

• For Business Owners & Developers to Collaborate
  • To Define Processes across Systems & Lines of Business

• To improve Business Process Efficiency
  • By Monitoring; Analyzing; Simulating; & Optimizing Processes
Business Process Management

- Process modeling, simulation and documentation
- Process execution and management
- Business dashboards and historical & trend analysis tools
- Enterprise applications and databases
- Process development and systems integration
- Business User Interaction
- Process Participants

Business Owner

Business Analyst

Process Developer
# BPM Value Proposition

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Efficiency</th>
<th>Visibility</th>
<th>Agility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deliver more – better, faster and cheaper than your current alternative</td>
<td>Consistently knowing the current status and outcome of your processes</td>
<td>Ability to adapt quickly to changing business conditions</td>
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<tr>
<td></td>
<td>Utilization, capacity</td>
<td>Ease of access to data</td>
<td>Speed to create &amp; change processes</td>
</tr>
<tr>
<td></td>
<td>Throughput, speed</td>
<td>Freshness of data</td>
<td>Time to market</td>
</tr>
<tr>
<td></td>
<td>Quality, yield, exceptions</td>
<td>Accuracy of data</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Results</strong></td>
<td><strong>Managed, lower risk</strong></td>
<td><strong>New revenue growth</strong></td>
</tr>
<tr>
<td></td>
<td>Reduced Cost</td>
<td>Compliance</td>
<td><strong>Market share growth</strong></td>
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<tr>
<td></td>
<td>Improved productivity/ROI</td>
<td>Financial accountability</td>
<td><strong>Increased competitiveness</strong></td>
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<tr>
<td></td>
<td>Effective resource utilization</td>
<td>Lower capital reserves</td>
<td><strong>Thought leadership</strong></td>
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<tr>
<td></td>
<td>Better quality of service</td>
<td>Better visibility</td>
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Market Risk Management Process

- Automatically Receives over 300 feeds
- Management and validation of appropriate business rules for Risk Management occurs automatically as it flows throughout the process
- Underlying systems the process is interfacing with: •Oracle 11i •External systems
- Manually start process if desired
- View status reports and real-time status
- The status is communicated to the external systems through-out the entire process

A instance of the process is started at a set time each day

Inter-process communication

Automated escalation

Archive
BPM Customers
Oracle BPM Product Portfolio

Human and System Centric BPM with SOA

- Oracle BPM Suite

- Business user friendly
- Collaborative
- Agile
- BPMN & BPEL
- SOA architecture
- Apps integration, AIA
- High performance STP
- Round-trip with BPA

Methodology Driven Process Modeling and Analysis

- Oracle BPA Suite

- Process Experts
- Six Sigma, Lean
- Enterprise Modeling
- Documentation
# Oracle BPM Solution

## Components

<table>
<thead>
<tr>
<th>Oracle BPM Suite (option to WebLogic Suite)</th>
<th>Components</th>
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<tbody>
<tr>
<td>• BPM Studio (for Business Analysts and Developers)</td>
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<tr>
<td>• BPM Enterprise Server</td>
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<tr>
<td>• BPEL Process Manager</td>
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<td>• Business Activity Monitoring</td>
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<td>• Business Rules</td>
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<tr>
<td>• WebCenter (restricted to Process Portal)</td>
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<table>
<thead>
<tr>
<th>Oracle BPA Suite</th>
<th>Components</th>
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<tbody>
<tr>
<td>• Business Process Architect</td>
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<tr>
<td>• Business Process Publisher</td>
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<tr>
<td>• Business Process Repository</td>
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## Oracle BPM Solution Components

<table>
<thead>
<tr>
<th>Methodology Driven Process Modeling and Analysis</th>
<th>BPA</th>
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<tbody>
<tr>
<td>Process Experts</td>
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<td>Six Sigma, Lean</td>
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<td>Enterprise Modeling</td>
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<td>Documentation</td>
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<table>
<thead>
<tr>
<th>Human Centric Business Process Management</th>
<th>BPM</th>
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<tbody>
<tr>
<td>Business user friendly</td>
<td></td>
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<tr>
<td>Human centric</td>
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<tr>
<td>Collaborative</td>
<td></td>
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<tr>
<td>Frequent process changes</td>
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<thead>
<tr>
<th>System Centric Process Management and SOA</th>
<th>BPEL PM</th>
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<tbody>
<tr>
<td>SOA architecture</td>
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<td>Apps integration, AIA</td>
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<tr>
<td>BPEL</td>
<td></td>
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<tr>
<td>High performance STP</td>
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<tr>
<td>Round-tripping with BPA</td>
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Oracle BPA Suite
Business User friendly Process Modeling, Reporting and Analysis

Enterprise and Process Modeling
- Aris House – Processes, Data, Organization, Systems, Products and Services
- Value Chain Diagram
- Objectives and Risks Model
- BPMN Modeling & Simulation

Reports and Analyses
- Critical Success Factor Analysis
- Process Evaluation

Business Process Publisher
- Shared Process repository
- Report generation
- Collaborate with LOB stakeholders

Framework and Methodology
Add-ons

Most comprehensive tools for process improvement and standardization
Business IT Collaboration

Closed loop optimization with bi-directional synchronization

Executable Model always in sync with IT model

IT empowered to propose changes to business flow.

Process Repository
BPM Studio
Rich business user support across process lifecycle

• Business Friendly Process Modeling
• Business & IT Collaboration in one tool
• Model process roles, org model, business calendar etc

• Simulation based on cost, resources etc
• Optimize process using data from process engine
• Design Forms and Dashboards

Business users rapidly model, execute, and change processes
Process Agility with Business Rules

Included rules engine as well as hot pluggable support for other rule engines
Business Activity Monitoring

BPM Dashboards

- Real time push based monitoring of critical business indicators
- Monitor events from various sources beyond BPM
- Pre-built dashboards for most common scenarios
- Business users friendly environment to model dashboards
- Analyze root cause and take corrective action
- Embed active dashboards in any application page using ADF Portlets

Rich dashboards created by business users and analysts
MS Office Integration & RSS
Process Interactions using Familiar Desktop Tools

Submit to Business Process

RSS Feed
Capture, Imaging & Process Management
Automating Manual Processes

SCANTNOWLEDGMENTS, CLAIMS, RECEIPTS
INDEX VIA OCR TO EXTRACT DATA

WORKFLOW DRIVEN BUSINESS
PROCESS AUTOMATION

ACCESS VIA BUSINESS APPLICATIONS
STORE IN CENTRALIZED REPOSITORY

Incorporate unstructured content in business processes and LOB applications
ALBPM Architecture Overview
ALBPM Suite

• ALBPM Designer (targeted for Business Analysts)
  • Business Process Modeling
  • Documentation
  • Simulation

• ALBPM Studio (targeted for Developers)
  • ALBPM Designer Capabilities Plus
  • Integrated Development Environment (IDE)
  • Implementation for the different Business Process Activities
  • Embedded Runtime Environment
    BPM Execution Engine, RDBMS (Cloudscape), Servlet container (Tomcat)

• ALBPM Enterprise (Run Time Engine)
  • Production Runtime Environment (Standalone and J2EE-based)
  • External RDBMS (Oracle, MS SQL Server, DB2, Sybase, Informix)
  • Any Servlet Container for the User Interface (JSP 1.2, Servlet 2.3 Compliant)
  • Web-based Administration Console
ALBPM Architecture – Logical View

Presentation

Business Process

Data

ALBPM Work Portal

ALBPM Admin Console

ALBPM Engine

Engine DB

ALBPM Directory DB
ALBPM Architecture

- ALBPM Enterprise provides two Runtime Execution Engines:
  - Standalone (runs on a JVM 1.4.2)
  - J2EE-based (runs in J2EE container)
Architecture – Standalone Simple Deployment Scenario

End Users (Web Browser) -> Web Box -> Servlet Container -> ALBPM Work Portal

Admin Users (Web Browser) -> Web Box

BPM Box -> BPM Server

- Business Process X
- Business Process Y

Servlet Container

ALBPM Admin Console

ALBPM Directory (DB/LDAP)

ALBPM Engine DB

Controls
Architecture – J2EE-based Engine

Box 1

J2EE Container (Node 1)

ALBPM Admin Console (WAR)

ALBPM Work Portal (WAR)

ALBPM Directory (DB/LDAP)

ALBPM Server (EAR)

Process X (EAR)
Process Y (EAR)
Process Z (EAR)

JDBC
JMS

Transaction Queue

Sync. Topic

Cache

ORACLE
AquaLogic BPM Suite
J2EE HA Architecture

AquaLogic HiPer Workspace for BPM
(any Servlet Engine)

AquaLogic BPM Server Standalone - J2EE Edition

Application Server Clustering

Active Repository

AquaLogic BPM Production Repository

AquaLogic BPM Process Database

Active DB

Passive DB

Horizontal Scaling

HA Database Posture
BPM Suite Roadmap
Primary Product Integration Milestones

Today
• Best-of-breed portfolio
• Single point of contact
• Best practices
• Customers leveraging today

“100-day release- 10g”
CY ‘08
• Interoperability between BPM and BPEL PM
• Certified on WLS 10.3
• Features such as enhanced BPMN support, enhanced Office integration

11g
CY ’09
• Platform consolidation
• BPM Studio – unified modeling and simulation environment
• Native BPMN 2.0 support
• Process Portal - Collaborative workspace application built on Web Center
• Process Dashboards – Out of box process BAM dashboards

Intended for information purposes and may not be incorporated into a contract
What’s New in Oracle BPM 10g R3
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Agenda

• Oracle BPM Product Overview
• Oracle BPM 10gR3 Release Themes
• Oracle BPM 10gR3 Features
• Summary
Oracle BPM Components

- Oracle BPM Studio
- Oracle BPM User Interaction
  - WorkSpace, web-based UI
  - Extensions for portals
  - Add-ons for Microsoft Office
- Oracle BPM Dashboards
- Oracle BPM Rules
- Oracle BPM Server
- Oracle BPM Process Administrator
Agenda

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Release Themes

- Productivity & Ease of Use
- Enhanced Architecture & SOA Interoperability

- End User
- Business Analyst
- IT/Ops & Developers
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  • User Productivity & Ease of Use
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Redesigned WorkSpace

- Simplified UI for business users
- New out of the box layout based on usability study
- Layouts: work with different panels or pages showing different widgets controlled by a role security
- New Process Dashboard Chart panel
- Chart Panel: include dashboard widgets in WorkSpace at runtime with the ability to send events to another panel to synchronize changes
- List of work items can be exported in PDF and CSV files
Microsoft Integration

• Microsoft Office files submit into a BPM Process by clicking on a submit button in the Office Ribbon
• Outlook integration provides process instance information through RSS Feeds. Provides link back to WorkSpace
• MS SharePoint integration with RSS
Improved Modeling and BPA Interoperability

- Studio BPMN Modeling
  - Improved BPMN 1.1 compliant rendering
  - Horizontal layouts
  - Timer activity for timed triggers

- Improved BPA Interoperability
  - Import XPDL 1.0 processes from BPA Suite as a jumpstart for a process implementation in Oracle BPM Studio
  - Improved XPDL 2.0 conformance and compliance when exporting Oracle BPM processes
  - New import process auto layout increases readability
WYSIWYG Editor & Design Collaboration

- WYSIWYG drag and drop editor for BPM presentation modeling in Studio
- Improved Design Time Collaboration
  - Process Templates and Role Library simplifies best practice sharing
  - Project Catalog Sharing - Common Catalog (through project inheritance)
Business Rules

- Improved auditing information located in the WorkSpace instance audit trail
- Improved rules editor and versioning for all business rules in Process Administrator
- Improved documentation for business rules
- New “between” operator to enables complex rules
Agenda

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Improved Management and Directory Integration

- Federated Oracle BPM End-User Application
  - Enables WorkSpace to connect to a federated Directory Service deployment
  - Consolidates the end user experience into a single WorkSpace installation
  - Necessary when many projects are deployed

- Configurable Hybrid LDAP Provider
  - More flexible Hybrid FDI Plug-ins
  - Use of this framework to consume WebCenter Interaction’s portal organization (ALUI Directory 6.5), Novell eDirectory and IBM Tivoli

- Mail queue size easily configured
Simplified Configuration and Improved Security

• Improved domain configuration wizard
  • Simplified configuration of an Oracle BPM Enterprise Standalone or WebLogic Server Single Node configuration

• Security Improvements
  • Improved container based authentication for WebLogic Server
  • Improved adherence to secure J2EE deployments securing all Oracle BPM resources exposed through JNDI
  • Customizable token based server side authentication to improve reliability of created sessions in Oracle BPM Enterprise Standalone
  • Support for authentication with JMS Messaging
Improved Debugging and Logs

- Expanded Process Level Debugger
  - Studio runtime debug mode enables breakpoints defined in the IDE to be enforced by the engine
  - Combining runtime with debugging in a single IDE perspective enables instances to flow up to a specific activity and debug from that point forward
  - Enables consistency between debugging and runtime
  - Old activity level debugging will continue to co-exist

- Detailed Component Log Tracing
  - Improved engine tracing can be enabled by different modules dynamically.
  - Facilitates engine traceability to troubleshoot execution problems
Improved Performance and APIs

• Performance Improvements
  • Ability to configure processes to minimize number of RDBMS transactions by the engine
  • A property of each process most helpful for automated processes

• API Improvements
  • Added attachment support to PAPI-WS enabling ability to kickoff a process and attach a Word document
  • Improved PAPI-WS exception handling
  • Asynchronous PAPI-WS invocation for loosely coupled systems
User Activity Stream Generation

- New BPM Studio component enables events to be sent from a process to the WebCenter Interaction activity stream service
- Business Process Events as specified are then aggregated with other activity actions to notify a community of recent events
Expanded Component Support

• Eclipse 3.3
  • Upgrade from Eclipse 3.2.2 to Eclipse 3.3.1
  • Improved stability and performance when Oracle BPM plug-ins are deployed to this version of Eclipse
  • Out of the box SCM Plug-ins for CVS and Subversion

• Support for Sybase
  • Added Sybase ASE 15.0 for the Engine, Directory Service, BAM, DataMart and Archiving Databases.
Improved SOA

- Certification with ALSB 3.0
- Process Publishing - One-click registration of processes to service bus
- Process subscription - One-click browsing and invoking from service bus
- Support for WS-Security using Username Token
- BPM custom transport for service bus enables RMI calls for better performance when co-deployed
- Interoperability with BPEL PM via Web services
Improved WebCenter Suite Integration

- Updated Oracle BPM Support: ALUI 6.5 and ALI Collaboration 4.5
- Improved user management via new ALUI directory services
- Simplified WorkSpace deployment in WebLogic Portal through WebLogic Server library module technologies
- WorkSpace portlet enhancements for usability
Oracle BPM 10gR3 Integrations
BPM Studio

DEMONSTRATION
Roadmap
Unified Runtime Platform

Standardize on a single enterprise grade BPM platform
Business and IT Collaboration
Bi-directional synchronization of shared Process Models

BPMN
Objectives
Shared repository for process and other business user models

Blue Print
Operational Metrics (for simulation)

Process Repository

Continuous optimization through closed loop BPM

BPA Suite
BPM Studio / BPEL PM
BPM Server
Fusion Middleware Control
Unified end to end technical monitoring

Comprehensive, Top-Down Management
End-to-End Instance Tracking
BPM Composer

Web based Process Customization and Creation from Template

Design and deploy ✓ Create new processes from a template

Pre-defined tasks
- Service calls
- Human interaction
- Business rules
- Pre-defined activities

Process model
- BPMN notation for business users

Tailor-to-fit Business Processes
Activity Guides
Simplify multi-step human interaction processes

- Business view of process milestones as it relates to the user interacting with the process
- Guided multi-session interactions with application. Activity Guide can be completed by one or more users
- Enable business users to compose activity guides using predefined activities

Innovative end user navigation through processes
## Business Rules – Decision Table

### Conditions

<table>
<thead>
<tr>
<th></th>
<th>R1</th>
<th>R2</th>
<th>R3</th>
<th>R4</th>
<th>R5</th>
<th>R6</th>
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<tbody>
<tr>
<td>C1</td>
<td>CurrentDate.date</td>
<td>During Sale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>before Sale, After Sale</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>C2</td>
<td>CustomerOrder.vipStatus</td>
<td>PLATINUM, SILVER</td>
<td>PLUTONIUM, SILV...</td>
<td>PLATINUM, SILVER</td>
<td>PLATINUM, GOL...</td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>CustomerOrder.totalAmount</td>
<td>Low Value, Medium...</td>
<td>&gt;=700</td>
<td></td>
<td>Low Value, Medium</td>
<td>High Medium, &gt;=...</td>
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### Conflict Resolution

<table>
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<tr>
<th>Override</th>
<th>R3</th>
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### Actions

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<tbody>
<tr>
<td>A1</td>
<td>modify Approval(</td>
<td>discount: double</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>status: StatusType</td>
<td>surcharge: double</td>
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<tr>
<td></td>
<td>15</td>
<td></td>
<td>StatusType.APP...</td>
<td></td>
<td>StatusType.APP...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
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</tbody>
</table>

Business friendly rules metaphor with conflict and overlap checking
Rich Task Forms

- Automatic Form Generation
- ADF Task flow for rich screen flows
- Framework for activity guides
MS Office Integration
Process Interactions using Familiar Desktop Tools

Drag and drop form design within Office driven by data controls
Key BPM Differentiators

• Integrated Business Process Management Runtime
  – For System, Human, Document, and Analytic Process Styles

• Business & Information Technology Collaboration
  – Using Shared Metadata Model for Round-trip Process Evolution

• Guided Human Activities with “Activity Guides”
  – To Simplify Multi-Step & Multi-Part Human Interaction Processes

• Comprehensive Range of Business Process Analytics
  – Process Analytics; Scenario Modeling; Simulation & Optimization

• Availability of Process Testing & Process Integrity Tools
  – Facilities to test the Integrity of Distributed Business Processes

• Declarative Process Design & Customization
  – Metadata & Rules-driven Customization of Processes & Data while providing for Safe Upgrade of base Process Definitions