

# Architecture Roadmap: Business Process Modeling (BPM) Recommendation

Prepared by ACT Middleware Team

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Administrative  
Computing &  
Telecommunications

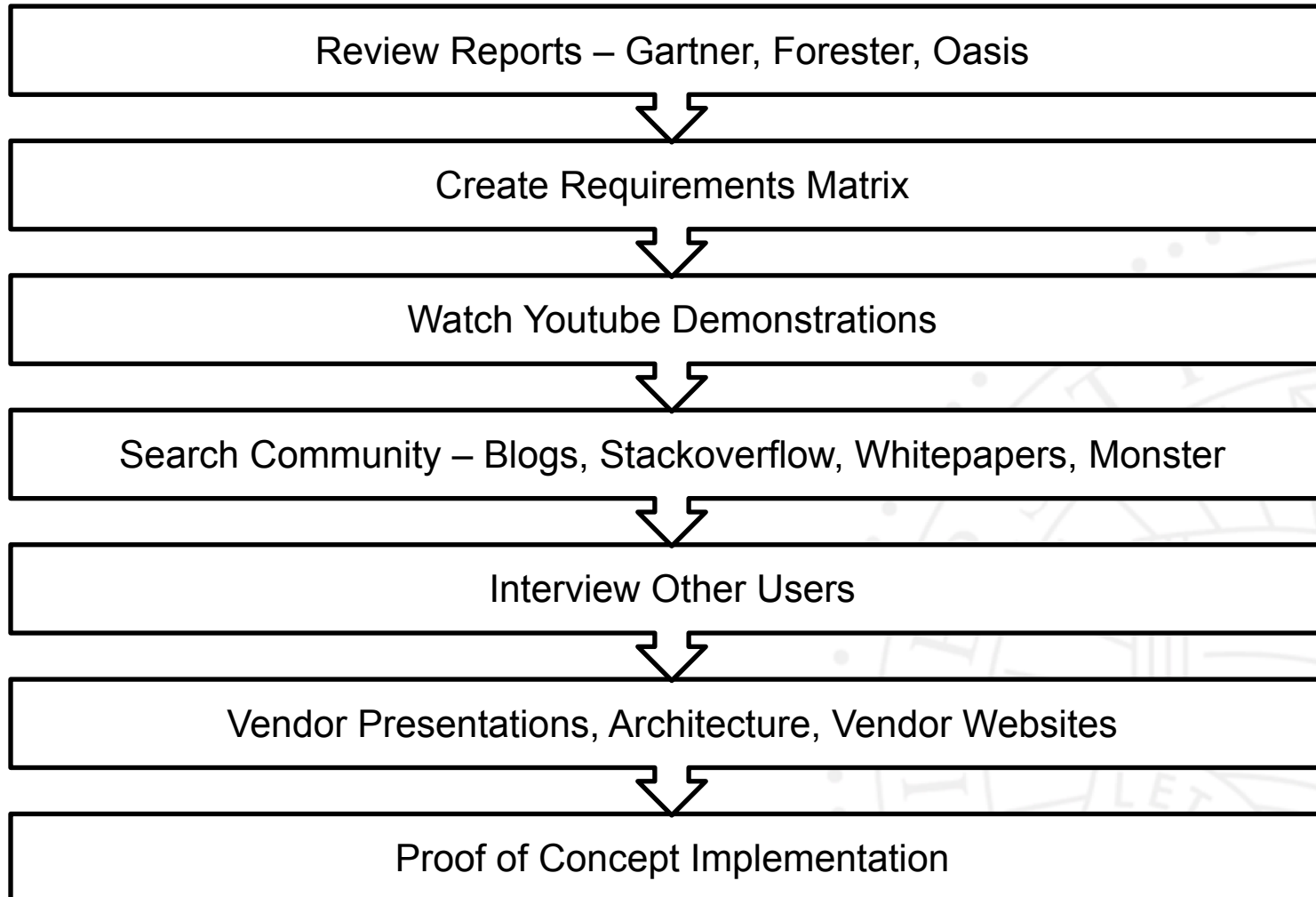
UC San Diego



# What is BPM?

- ▶ Business process modeling tools model the business processes graphically, implement and execute those models programmatically, and refine the models based on as-executed data.
- ▶ These tools streamlines the development process by allowing simulations for pre-execution “what-if” modeling as well as post-execution without touching the application code.

# BPM Evaluation Approach



## High-Level Goals

- › Provide an alternative Business Process Modeling (BPM) solution to our proprietary workflow engine, jLink
- › Standards-based solution that “plugs into” existing middleware stack
- › Strategy for transitioning apps that use existing proprietary workflow engine
- › Integrate into long-term enterprise middleware plan

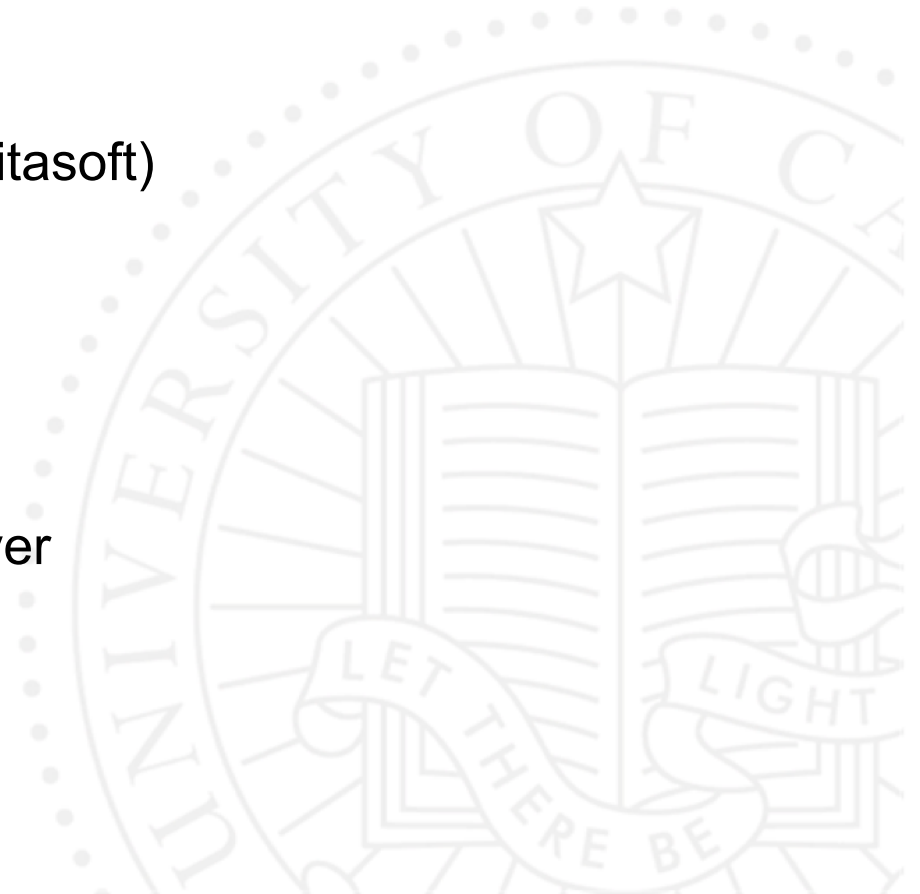
# General Requirements

- › Business Process Modeling suite
- › Not dependent on costly technologies, i.e. specific app server, DBMS
- › Expandable feature set, ability to adopt new features over time
- › Support current use cases and needs
- › Total cost of ownership
- › Developer centric
- › Usability, ease of use
- › Maintainability
- › Portal, designer and forms builder
- › BPMN2 compliant
- › XPD L support
- › WSDL support to expose and consume web services
- › Multi-tenancy

# BPM Options

These products met our general requirements:

1. Red Hat JBoss BPM Suite 6.0.2
2. JBoss jBPM
3. Bonita BPM 6.3
4. Talend BPM (powered by Bonitasoft)
5. Activiti 5.16.3
6. Imixs Workflow
7. Stardust
8. Camuda
9. WSO2 Business Process Server
10. ActiveVOS Informatica
11. Intalio BPMS



# 1st Round Products Reviewed

(\$=Fee, OS=Open Source, OS<sup>n</sup>=Most Common)

(Scale from 1 to 3 - higher scores preferred)

	Vendor/Product	Cost	Usability	Function	Subjective	Score
\$	<a href="#">Red Hat JBoss BPM Suite 6.0.2.GA</a> (Subscription required for PROD / free for DEV)	2	3	3	3	11
\$	<a href="#">Bonita BPM 6.3 Efficiency Edition</a> (Subscription <a href="#">Comparison Chart</a> )	2	3	3	3	11
\$	<a href="#">Talend Platform for Enterprise Integration</a> (Powered by Bonitasoft)	1 (unknown?)	3	3	2	9
OS <sup>2</sup>	<a href="#">Bonita BPM 6.3</a> (tools centric)(Jasper Reports) (Powered by Bonitasoft Community Edition) Justin Kloosder – (415)799-8510	3	3	3	3	12
OS	<a href="#">Talend – Bonita Open Solution</a> (tools centric) (Powered by Bonitasoft Community Edition)	3	3	3	3	12
OS <sup>3</sup>	<a href="#">jBPM 6.3.7</a> (developer centric) (Community Edition)	3	2	2	2 (bugs in deploy)	9
OS <sup>1</sup>	<a href="#">Activiti 5.16.3</a> (developer centric)(jBPM team) (Activiti.org tested vs the <a href="#">Alfresco Activiti</a> )(Spring)	3	2	3	2	10
OS <sup>1</sup>	<a href="#">Imixs Workflow</a> (Version 3.1.9)(One developer, infrequent commits)	3	3	1 (add ejb?)	1 (one dev)	8
OS	<a href="#">Stardust - Comprehensive BPM</a> (Eclipse 2.0.1 release)	3	1 (eclipse issues)	3	1 (tomcat 7 and 2.5)	8
OS	<a href="#">Camunda Best BPM Platform for Java</a>	3	1 (eclipse issues)	2	2	8
Bpel	<a href="#">WSO2 Business Process Server</a> (Apache ODE based BPEL Engine)	Bpel	Bpel	Bpel	Bpel	
Bpel	<a href="#">ActiveVOS - Informatica</a> (BPEL – <a href="#">BPEL4People</a> )(BPMN2 on BPEL)(oasis)	Bpel	Bpel	Bpel	Bpel	
Bpel	<a href="#">Intalio BPMS</a> (Apache ODE based BPEL engine)	Bpel	Bpel	Bpel	Bpel	
Categories Best Supported		26	24	26	22	



## 2<sup>nd</sup> Round BPM Assessment

- ▶ Considered 3 additional factors:
  - ▶ Only consider open or community options with upgrade subscription model
  - ▶ Easy integration into current middleware stack
- ▶ Resulting list of products on short list:
  - ▶ JBPM
  - ▶ Bonita
  - ▶ Activiti
  - ▶ Intalio





## 2<sup>nd</sup> Round Filtering

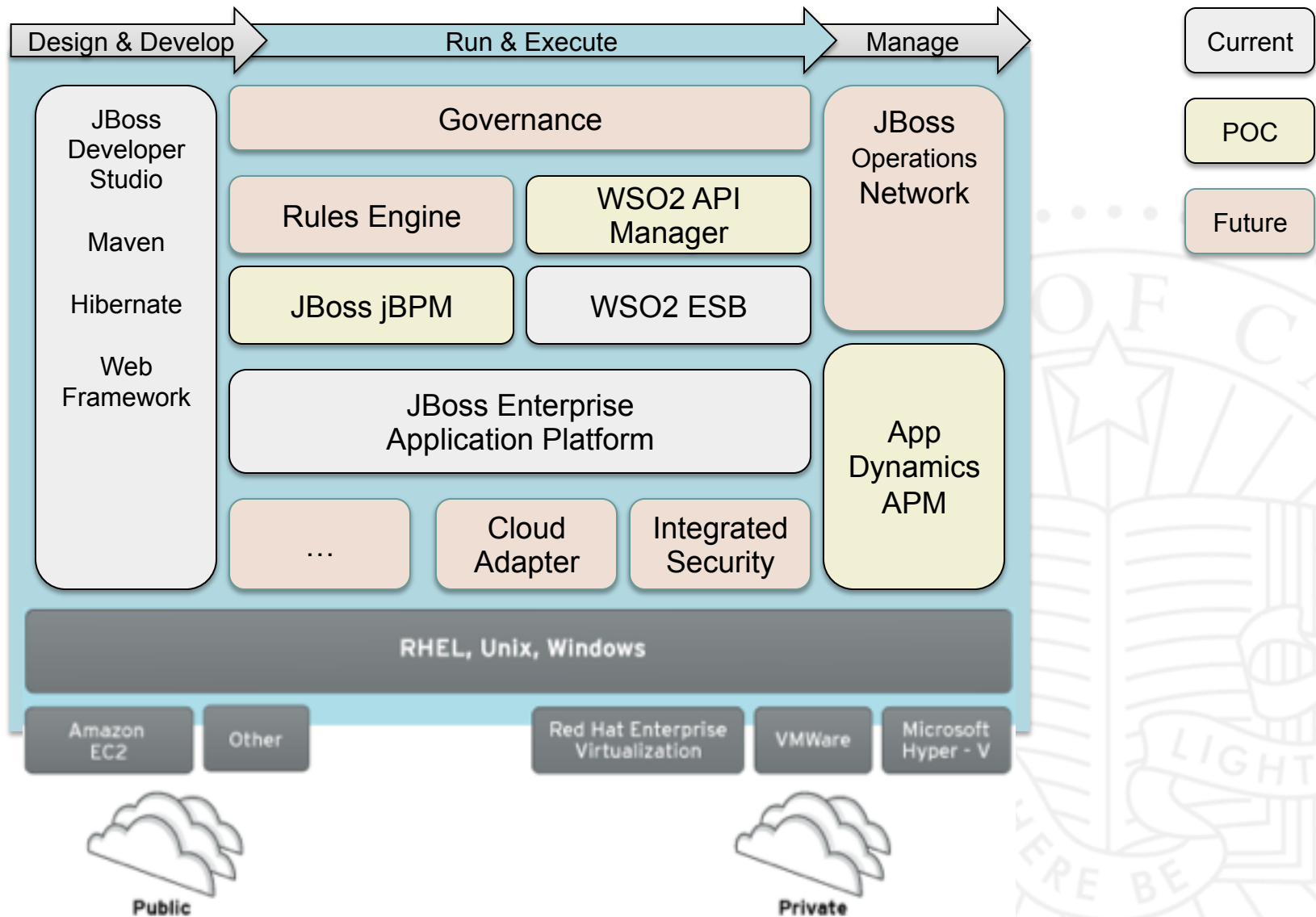
- ▶ Consider additional criteria:
  - ▶ BPMN2 Modeler/Designer
  - ▶ Documentation, Community Forums
  - ▶ Business Rules
  - ▶ Analytics
  - ▶ Company Size
  - ▶ Hosted Solution



# Final Assessment Results

- ▶ Based on additional criteria the following came out on top:
  - ▶ Bonita
  - ▶ JBPM
- ▶ Because of easier integration into current JBoss environment as well as usability, **jBPM** was selected for the Proof of Concept.

# ACT Middleware Services



# BPM POC Use Case Criteria

- ▶ Working features of this POC:
  - ▶ Will be operated from a standard UCSD web app template with built-in SSO and authorization. This is necessary to provide users and roles that can be transformed to Actors and Swimlanes in jBPM.
  - ▶ Will consume and demonstrate use of a UCSD web service, i.e. existing Directory web service.
  - ▶ Will be based on an existing jBPM sample (which is relevant to a university business activity).

## BPM POC Use Case Criteria (cont.)

- ▶ Working features of this POC (cont.):
  - ▶ Will use in-memory H2 database for POC.
  - ▶ Will exercise jBPM API and drive logic from Spring MVC Web Services.
  - ▶ Will be targeting JBoss (not Tomcat to begin). Effort will be made to keep dependencies to JBoss to a minimum.
  - ▶ Will use the jBPM Portal to review status of running workflows.

# JBPM POC Findings

- › To be updated once POC is complete



# References

BPM Evaluation Document (includes details and references)

[Link to document \(TeamForge\)](#)

Gartner BPM Evaluation 2014

[Link to document \(TeamForge\)](#)

Activiti in Action – jBPM vs. Activiti vs. Bonitasoft

[Link to document \(TeamForge\)](#)

Business Process Management for Dummies from IBM

[Link to document \(TeamForge\)](#)

BPM - Look Beyond the Zero Code Myth

[Link to document \(TeamForge\)](#)

The Ultimate Guide to BPMN2 from Bonitasoft

[Link to document \(TeamForge\)](#)

Cool Vendors in Business Process Management 2014

[Link to document \(TeamForge\)](#)

