CASE MANAGEMENT APPLICATIONS
WITH BPM

Andrew Bonham
Enterprise Architect
Capital One

Michelle Kelo
Enterprise Architect
Capital One

Kris Verlaenen
BPM Suite Product Architect
Red Hat

May 4th, 2017
OVERVIEW

Building case management applications

● BPM and Case Management
● Case management v7 feature preview
● Building your own case management platform
● Case applications
● Demo
BPM and Case Management
jBPM is a good open source BPM platform

- Is truly open source
  - The Enterprise version (BPM Suite) has the same capabilities as the community version
- Has a rich set of capabilities
  - BPMN 2.0 notation, native rules engine (Drools), Business Activity Monitoring, dashboards, reporting, simulation
- Is a mature and proven product (12 years)
- Has a vibrant community
  - ~100 contributors in past year since mid March 2017 with ~2800 commits
- Is very extensible
  - Can add in any java code as a workitem handler or directly in a script task
BPM Products provide the most value when the business process is complex and/or requires a high degree of integration.

<table>
<thead>
<tr>
<th>Complexity of business process</th>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

- Workflows span multiple groups/divisions and have back and forth
- Desire to separate the workflow from the application/UI
- When out of the box adapters save development time
- Collaboration across IT and Business across all lifecycle phases

- Combination of System Orchestration & Human Workflow
- Rules Engine integration
- Dynamic and ad-hoc types of activities
- Process Analytics & Monitoring leveraged to analyze & optimize processes

- Multiple workflow steps that stay within a single division/group
- Workflow is embedded as part of the application
- Task assignment, can be either role or queue based
- Notifications
- State Management

- Multiple levels of workflows
- Exception paths
- Call backs
- Visual Auditing of path taken

Use a BPM Product when it is more efficient to manage workflow in models than code and/or when it would provide faster time to development of the business outcome.
CASE MANAGEMENT
As an extension of BPM

- More flexible
- More dynamic
- More core services
Our End-State Case Management strategy will provide LOB case autonomy via a lightweight, easily extendable BPMS framework.

<table>
<thead>
<tr>
<th>Current State</th>
<th>Target State</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Monolithic case platform</td>
<td>• Domain-owned case applications with a central registry</td>
</tr>
<tr>
<td>• High cost commercial based solution</td>
<td>• Open source (jBPM) based framework</td>
</tr>
<tr>
<td>• Centralized development &amp; deployment</td>
<td>• Federated development &amp; deployment with inner-sourcing model</td>
</tr>
<tr>
<td>• Inflexible case model &amp; core services</td>
<td>• Lightweight, extensible case model &amp; core services</td>
</tr>
<tr>
<td>• UI tightly bound to case engine</td>
<td>• UI agnostic case engine</td>
</tr>
<tr>
<td>• Batch analytics</td>
<td>• Real-time analytics &amp; events enabled via streaming platform</td>
</tr>
</tbody>
</table>
The Case Management framework will serve as tool set, providing an extendable set of Core Case Capabilities.

- **Plug in for Business rules as needed for the case domains**
- **Input and Output adaptors provide easy integration with streaming platform (kafka), API gateway and batch flows**
- **Base Case model shared across all domains**

### Framework Repository (Git)

- **Generic Core Case Services are shared across all domains and easily extendable**
- **Framework provides generic lightweight workflow, extensions made to meet specific business requirements**
- **Common Management tools across all domain**
- **Case Framework is Channel / UI toolset agnostic**

### Case Framework

- **Core services**
  - Create case
  - Search Case
  - Manage Parent/Child Case
  - Add Note
  - Route Case
  - Classify
  - Assign Case
  - Prioritize
  - Close Case
  - Manage queue
  - Send letter/message

### Business Rules

### Business Process Workflow/Tasks

### Management tools

- **Logging**
- **Audit**
- **Security**
- **Dashboarding**

Roughly 80% of the case framework will be shared with the remaining 20% as extended or unique capabilities per LOB domain.
What to expect?

Case management at different levels

- Core engine
- Authoring
- Runtime monitoring
- Custom applications
CASE MANAGEMENT v7 PREVIEW

What to expect?

Core engine
- Case file instance
- Per case session strategy
- Case comments
- Milestones
- Stages

- Ad-hoc fragments
- Dynamic tasks
- Case identifier (correlation key)
- Case life cycle (close, reopen, etc.)
CASE MANAGEMENT v7 PREVIEW

What to expect?

Authoring

#redhat #rhsummit
CASE MANAGEMENT v7 PREVIEW

What to expect?

Authoring

- Start
  - Contact Customer
  - Engineering Review
  - QE Review
  - Documentation Review

- Initialize
  - Report
  - Help Issue

- InProgress
  - Fix Issue
  - Test Issue
  - Document Issue

- Verification
  - Customer Fix
# CASE MANAGEMENT v7 PREVIEW

## What to expect?

![Runtime monitoring](image)

<table>
<thead>
<tr>
<th>Case Details</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Available</td>
</tr>
<tr>
<td>Order for IT hardware</td>
<td></td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>In progress</td>
</tr>
<tr>
<td>Open</td>
<td></td>
</tr>
<tr>
<td><strong>Owner</strong></td>
<td>Milestone 1: Order placed</td>
</tr>
<tr>
<td>John Doe</td>
<td></td>
</tr>
<tr>
<td><strong>Started</strong></td>
<td>Hardware spec ready</td>
</tr>
<tr>
<td>30/04/2017</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware spec ready</td>
<td></td>
</tr>
<tr>
<td>Milestone decision</td>
<td></td>
</tr>
<tr>
<td>Milestone 1: Order placed</td>
<td></td>
</tr>
<tr>
<td>Milestone 2: Order shipped</td>
<td></td>
</tr>
<tr>
<td>Milestone 3: Delivered to customer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roles</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>owner</td>
<td>John Doe</td>
</tr>
<tr>
<td>manager</td>
<td>Shelby X</td>
</tr>
</tbody>
</table>

---

# #redhat #rhsummit
Building Your Own Case Management Platform
The Case Framework architecture consists of loosely coupled component layers built on Red Hat’s BPM foundation.
Case Applications
CASE APPLICATIONS

- End User Application
- UI Building Blocks
- Processes, Cases, Rules, Tasks, Optimization
- End User Application
Demo
LEARN. NETWORK. EXPERIENCE OPEN SOURCE.