

ORACLE®

FUSION MIDDLEWARE
BUSINESS PROCESS
MANAGEMENT

An Oracle Solution Brief

July 2013

Managing Unpredictability using BPM for Adaptive Case Management

Disclaimer

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.

Introduction	4
Managing Unpredictability	5
Adaptive Case Management.....	5
Use Case #1: Investigative cases: Claims Management.....	5
Use Case #2: Service Requests: Loan Origination.....	6
Use Case #3: Long Running Services: Managed Health Care.....	7
Applying Oracle BPM Suite for Adaptive Case Management	8
Conclusion.....	10

Introduction

Businesses seldom follow a script. Managing change and unpredictability is an integral part of doing business. Organizations, which have mastered this flexibility in their business processes see more value and remain more competitive. They are able to provide better customer experience and wider range of products and services to their customers. Not all business processes require high flexibility, but many do. For example employee on-boarding processes can be broken into a set of standard activities which are known ahead of time for what steps an employee must take to join a company. This is commonly referred to as a *structured* business process where everything about the process can be defined in advance. Whereas in *unstructured* business processes, we may not be able to predetermine sequence of activities; such processes need tools to manage flexibility and unpredictability. An example of an unstructured business process is an insurance claim which may require different business stakeholders to weigh in and make different decisions at different steps of the process depending on each outcome.

Business process management suites traditionally have been extremely well suited to cater to structured processes but fall short when the process needs flexible handling. For managing unpredictability in processes, we need capabilities of adaptive case management.

Adaptive Case Management generally refers to long running processes that require coordination of knowledge, content, correspondence and human resources to complete certain work. It requires adherence to corporate and regulatory policies/rules to achieve decisions about rights, entitlements or settlements. In such processes path of execution cannot completely be predetermined.

Managing Unpredictability

To manage business processes that have unpredictable workflows which cannot be explicitly modeled at design time we need flexibility to determine the course of the process at runtime. This requires BPM solutions to meet the following requirements:

Flexibility in case flows: This means that the knowledge worker managing the case can add work or process fragments or even link cases at the time of execution to provide the necessary flexibility for case management.

Flexibility in user interfaces: Since each case could be different, the user interfaces that case worker interact with also need to be flexible. The contextual and dynamic user interfaces adjust with the scope and provide case worker with the right UI elements that are required for that particular case.

Flexibility in work assignments: As the work in adaptive case management is flexible, so is the work assignment. Case workers may need to add stakeholders to the case during the case processing and adjust the work assignments as the case progresses.

Flexibility in enforcing business policies: Cases are typically long running processes and some may even run for months. There may be a possibility that during the case processing the policies or the regulation change. Business people can make those changes to the business rules and be sure that all currently active cases are following the current set of policies.

With such flexibility at your disposal, you can adapt to changing business conditions much more effectively. Being flexible and adaptive let you provide more contextual and personalized customer experience as the experience is not dictated by rigid applications or processes. You can easily navigate through the unforeseen condition that requires unique handling in the process.

Adaptive Case Management (ACM) offer such flexibility and ability to adapt to changing business conditions.

Adaptive Case Management

A case is generally a long lived, collaborative process. Processing of a case requires coordination of knowledge, content, correspondence and human tasks. Case as in most of the processes requires adherence to organizations rules and policies and regulatory requirements. These policies may be about entitlements, escalations, service level agreements or settlements. It is called adaptive because the path of process execution cannot be fully predefined and may have to adapt to the specific requirements of every case. Human judgment is required, at various milestones in the process, to determine the next step in the case processing. External events and case types may alter the processing during the time of execution. Let's review the use cases of adaptive case management.

Use Case #1: Investigative cases: Claims Management

Many adaptive case management use cases are of investigative nature. This means, first of all, the case is not one-and-done, it is long running. Secondly as in investigation it needs collection of evidence and processing of evidence for making informed decisions. Depending on the type of evidence the next step in the process is determined.

Take, for example, a car insurance claim. Car accidents can be of different types, and involving drivers with different driving history. The car accident can be a minor fender-bender, or a serious accident with bodily harm. It can be a case of accident with the loss of life, or even hit and run. For each of these cases or even in case of the same type of incident, the sequence of actions taken to resolve the case may differ depending on the nature of that particular incident.

Depending on the claim type, certain documentation is required and collected. It can be photos from the incident, maps of incident, medical reports, police reports etc. All such documents are added to case and are routed with case for processing.

The case worker may collaborate with peers to resolve the claim, or case worker may add new stakeholders to work on the claim. A claim reviewer may need to verify policy holder's eligibility including deductibles, and allowed types of reimbursements or restorations. Depending on the claim types, the claims officer needs to make decisions and determine the next steps in processing the case. Adaptive case management provides them with such flexibility while ensuring the visibility and audit tracking of each case.

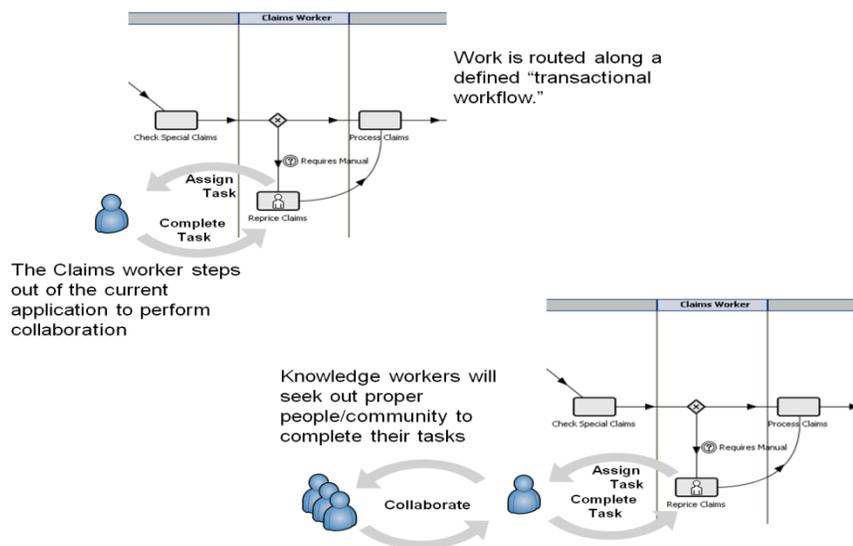


Figure 1. Investigative claims need collaboration and flexibility

We can see such use cases across many other industries. Banks and credit unions face similar issues during the investigation of fraudulent transactions. Credit card fraud may include a series of steps from the time a customer disputes a credit card charge, all the way to reversal of charges and issuing a new credit card. The processing varies depending on the type of card, customer, location, transaction type etc. Adaptive case management is a right model to managing such cases.

Use Case #2: Service Requests: Loan Origination

Another use case for adaptive case management is a service request. Some service requests are quite straight forward and can be done using straight through processing - this can include stopping a utility service or requesting a replacement credit card. Some may need some more involvement and longer processing times. Examples include loan origination, and benefits administration.

Such cases are triggered by customer request via web, phone or email. Then depending on customer type or request type the processing is determined.

Take, for example, loan origination. It is extremely easy for customers to move from one bank to another in response to highly attractive offers. So if the customer is dissatisfied, he or she might quickly defect. Banks must accommodate customer demands by enforcing fast and accurate loan origination processes while maintaining enough flexibility to react to market changes. How quickly can the bank respond when the central bank changes its rates? How easily can it address new audit rules and generate compliance reports? How efficiently can the bank's underwriters and risk analysts adjust policies and calculate necessary reserves? All this impacts the customer satisfaction as well as bank's bottom line.

Many of above situations impact the loan application cycle. While common transactions in that cycle are automated, the smallest variant can stall an application in the queue until a banker or loan officer can address the issue. For example, what happens if the applicant has a change of status midstream, perhaps losing a job or filing for bankruptcy? These dynamics put many banks into a quandary: on one hand, increasing the use of electronic communication and enforcing online transactions simplifies the process. However, once these electronic wheels are in motion, loan officers may need to intervene to address unique issues.

Adaptive case management provides capabilities to manage all such situations while processing a loan. With ACM, loan officers can determine the right documentation required to make a decision on the loan, attach it to the loan and also gain the necessary flexibility to create custom tasks for any unique situation. Loan officer can also change the tasks as the parameters that determine the loan eligibility or customer's situation change.

Use Case #3: Long Running Services: Managed Health Care

Some processes are long running with no particular end state. Such types of processes are quite common in while managing social services and health care. Many health care organizations provide long term managed health program for conditions that need continuous assessment by the care provider. It can be managing diabetes or chronic back pain. In such situations, care provider sets up a care plan and, depending on results of ongoing evaluations, may need to modify the plan.

Adaptive case management can be used quite effectively in such situations. Take chronic back pain as an example. The primary care provider, the knowledge worker in this case, creates a treatment plan for a patient. The plan may include diagnostics, medication, physiotherapy, weight loss program and nutritional evaluations. After a certain period, the condition of the patient is reevaluated and plan adjusted. Care provider may want to add x-ray results to the process, may want to add new sports medicine specialists to the case and may need to attach documents, pictures and x-rays to the case. Adaptive case management provides capabilities to handle such kind of flexible process.

ACM has all the capabilities that lets the care provider manage and monitor the patients well being and adapt the care plan as per the patients progress. This plan may continue for few months, years or for the life of the patient, but this provides the essential tracking and visibility to care provider and to the patient so that best possible and tailored service can be offered.

Applying Oracle BPM Suite for Adaptive Case Management

Oracle BPM suite has built-in Adaptive Case Management capabilities to manage unstructured processes. In Oracle BPM suite “Case” is a pre-built, first class entity and can be used to associate all case related artifacts like documents, data, history, and discussions with it. You can create and manage all case related work activities within BPM workspace.

Often Adaptive Case Management scenarios require document routing and content management, so those capabilities are also well integrated into Oracle BPM. While working on the case you may check-out documents from a document management system or attach various documents and create the document workflow. Oracle BPM Suite has integration with WebCenter Content that allows managing all file types like Word, Excel, Acrobat and even supports digital asset management including pictures, photos, audio and video content.

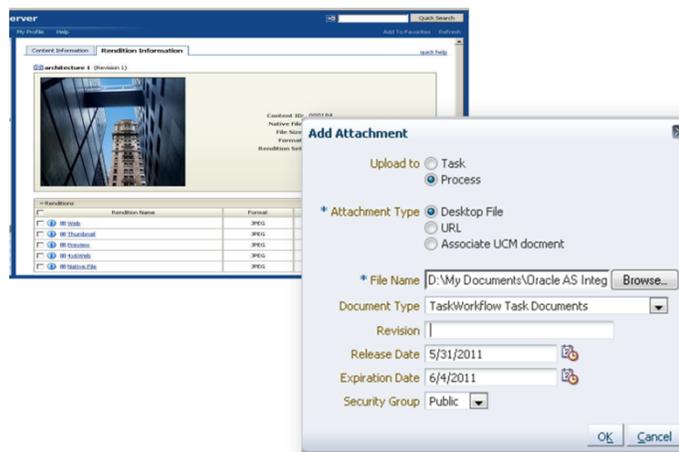


Figure 2. Oracle BPM Suite supports robust content management

To work with a case, knowledge worker has accesses to the case workspace that includes all case related objects including documents, data, case history, etc. Knowledge worker may work on a case activity, may add documents to it, collaborate with other workers or SMEs to gain more input. Depending on the context and situation, knowledge worker may create more tasks or add others users to the case. There may also be certain rules and policies associated with the case that determine necessary actions based on certain conditions, or to enforce constraints within which the knowledge worker needs to work. Analytics capabilities in Oracle BPM Suite provide business manager an insight into case processing and can also recommend actions to the knowledge worker.

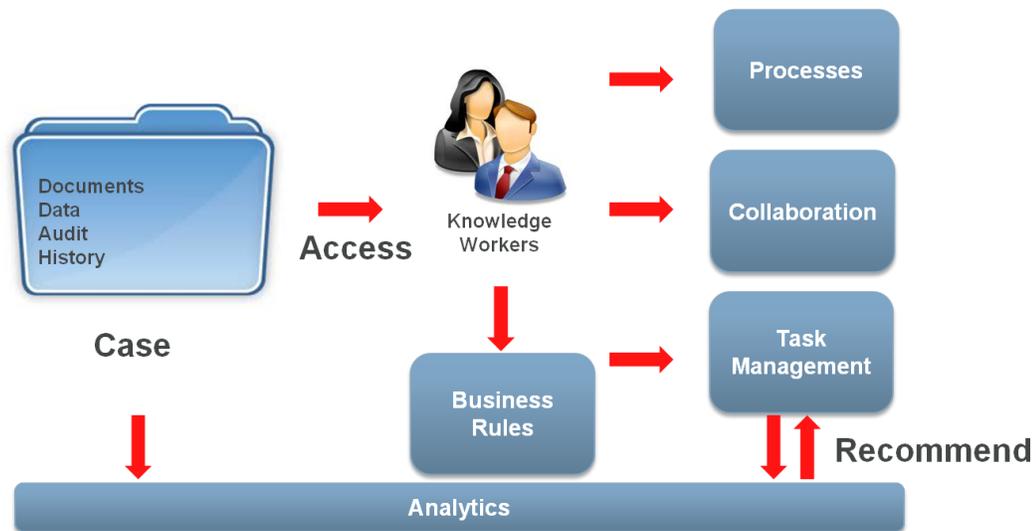


Figure 3. Adaptive Case Management in Oracle BPM Suite.

Once the knowledge workers pick a case instance to work on, they open a case overview screen (Figure 4) that includes all the information about the case and provides a detailed overview of status of the case. Case overview provides visibility into which case milestones (1) are in progress or are completed. Case worker can see all the case stakeholders (2) that may include employees, customers, and partners. They can add additional stakeholders if needed. They can review the thread of case activities (3) that have been completed or in progress and can also review the discussion threads from the collaboration activities (4). Another prominent feature is activity ratings (5). Unlike structured and repeatable processes, in ACM the importance and priority of activities can change from case to case and here you can do that.

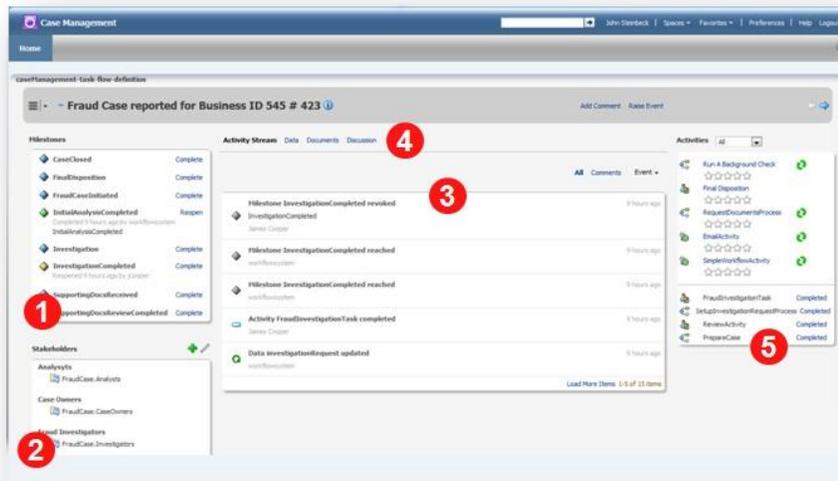


Figure 4. Case Overview in Oracle BPM Suite.

Conclusion

Today's organizations need information systems that can adapt to market changes, and deliver an improved customer experience. Customer demands are evolving and they demand more personalized service, more products and service types. To serve their customers, organizations need flexible tools for creating, deploying, and managing business processes. Oracle BPM Suite helps organizations to transform the fundamental processes surrounding investigative or service request case management providing a flexible way to define and execute the adaptive processes.

Oracle BPM Suite includes built-in Adaptive Case Management and offers:

- Management of Case Activities, Events, Stakeholders and Permissions
- User driven task decomposition
- Run-time addition of work and case stakeholders
- Integrated Content Management



Managing Unpredictability using
BPM for Adaptive Case
Management

Author: Ajay Khanna
July 2013

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200

oracle.com



Oracle is committed to developing practices and products that help protect the environment

Copyright © 2013, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group. 1112

Hardware and Software, Engineered to Work Together