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Managing Workflow Notifications in Oracle Fusion Applications – An Example

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Executive Overview

This document illustrates an example of a system administrator managing SOA Human Workflow notifications generated by Oracle Fusion HCM Tasks. As part of the privileges granted by their enterprise role, the administrator is able, for example to view, reassign, suspend, or withdraw the requested action in the task.

What is a Human Workflow?

Human Workflow is the component of Oracle's SOA suite that allows people to interact with a process. For example, a manager might need to approve a purchase order or an expense report prior to the transaction (issuing a purchase order or reimbursement of expenses) being completed or perhaps to reassign a task they are unable to complete. In addition to allowing users of an application to interact with its processes, the capabilities of the Human Workflow include full task lifecycle management through the ability to reroute tasks, escalate them, and providing deadlines by which they must be completed, in addition to the presentation of tasks to the concerned user through the BPM Worklist application or other channels such as email.

Task and Rules

This example uses an Oracle Fusion HCM Transaction to illustrate how a transaction is routed and what actions an administrator can take on that transaction.

The Table below lists Oracle Fusion Core HCM transactions that are enabled for approvals.

Seeded Approvals (Include 2 Levels of Supervisor chain)	Seeded Auto-Approved
Transfer	Manage Salary (typically configured to require approval)
Promotion	Manage Compensation (typically configured to require approval)
Change Manager	Share Information (requires approval by worker)
Change Location	Change Marital Status
Change Working Hours	Create Employment Terms
Terminate Work Relationship	Manage Employment
Hire an Employee	Manage Grades
Add a Non-worker	Manage Grade Ladders
Add a Contingent Worker	Manage Grade Rates
Add a Pending Worker	Manage Jobs
Create Work Relationship	Manage Locations

Manage Work Schedule Assignment	Manage Organizations
Manage Absence Records (1 level)	Manage Person
Manage Document Record (1 level)	Manage Positions
Submit Performance Document(1 level)	
Add Goal (1 level)	

Table 1. HCM Transactions

Here is the Promotion Task and the rules associated with that task. A composite process handles the HCM Promotion Task. This is shown in Figure 1 below.

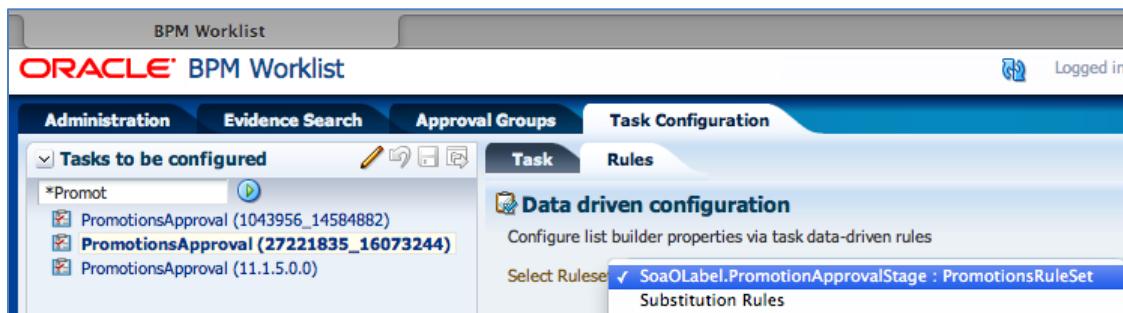






Figure1.Deployed Promotion Approvals Composite processes.

This composite process consists of several SOA components and includes the services and references shown in Figure 2.

Component Metrics		
Name	Component Type	Total Instances
 PromotionsApprovalRouter	Mediator	2
 PromotionsApprovalProcess	BPEL	2
 PromotionsApprovalRules	Decision Service	4
 PromotionsApproval	Human Workflow	2






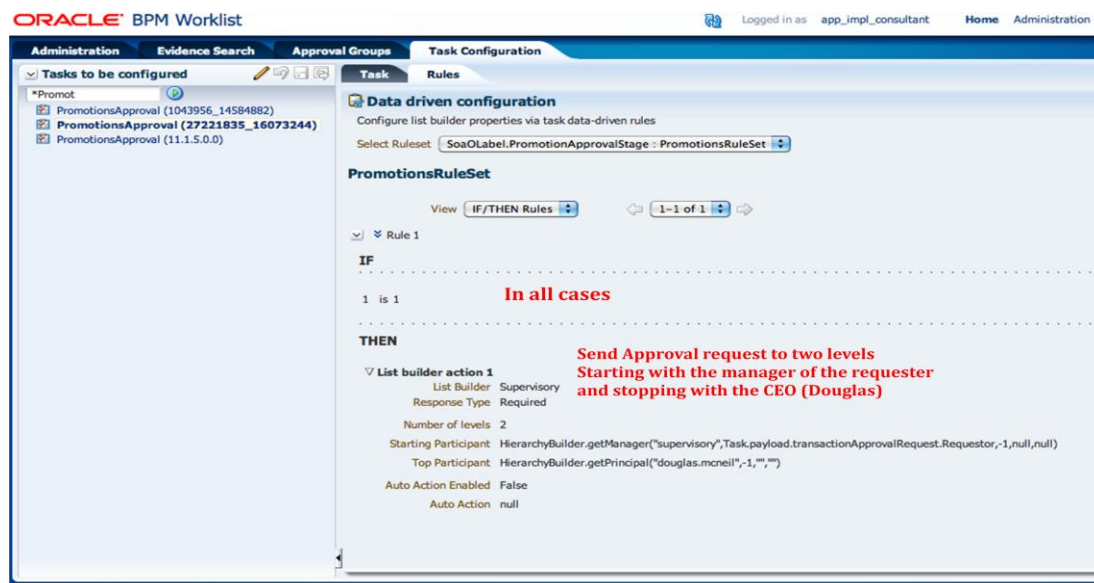
Services and References		
Name	Type	Usage
 promotionsapprovalprocess_client_ep	Web Service	Service
 TransactionApprovalService	Web Service	Reference
 NotifyErrors	Web Service	Reference
 ApprovalRulesService	Web Service	Reference
 NotifyServiceErrors	Web Service	Reference

Figure2. Components of the Promotion Approval Composite

For the promotion process and for all cases (the condition $1=1$ being always true) build the approval list based on the supervisory hierarchy and process the transaction two levels above the approver, starting with the approver's manager and ending with the user "douglas.mcneil" who also happens to be the CEO and the top node in the hierarchy.



The screenshot shows the Oracle BPM Worklist interface. The left pane displays 'Tasks to be configured' with a tree structure under 'Promot' containing 'PromotionsApproval (1043956_14584882)', 'PromotionsApproval (27221835_16073244)', and 'PromotionsApproval (11.1.5.0.0)'. The right pane shows the 'Task Configuration' for 'PromotionsApproval'. It includes a 'Data driven configuration' section with a 'Select Ruleset' dropdown set to 'SoaOLabel.PromotionApprovalStage : PromotionsRuleSet'. Below this, the 'PromotionsRuleSet' is configured with a 'View' of 'IF/THEN Rules' and a condition '1=1 of 1'. The rule is labeled 'Rule 1' and has an 'IF' condition '1 is 1' with the text 'In all cases'. The 'THEN' section contains a 'List builder action 1' with properties: 'List Builder' (Supervisory), 'Response Type' (Required), 'Number of levels' (2), 'Starting Participant' (HierarchyBuilder.getManager("supervisory", Task.payload.transactionApprovalRequest.Requestor, -1, null, null)), 'Top Participant' (HierarchyBuilder.getPrincipal("douglas.mcneil", -1, "", "")), 'Auto Action Enabled' (False), and 'Auto Action' (null). A red text annotation reads: 'Send Approval request to two levels Starting with the manager of the requester and stopping with the CEO (Douglas)'.

Figure3. BPM Task Configuration Rules

Administrator's Privileges

In Fusion Applications, the ability to access functions across products is controlled by functional privileges granted to a user through APM (Access Provisioning Manager). The application role that allows an administrator to view all human tasks is “**BPM Workflow System Admin Role**”. Several of the seeded roles in the reference implementation inherit this duty. The table below shows the hierarchy for the Human Capital Management Application Administrator.

Level	Display Name	Role Name	Description	Inherited by
1	Human Capital Management Application Administrator	HRC_HUMAN_CAPITAL_MANAGEMENT_APPLICATION_ADMINISTRATOR_JOB	Configures the Oracle Fusion Global Human Resources application and has access to all duty roles necessary to implement the Compensation, Workforce Deployment, and Workforce Development offerings.	
2	BPM Workflow System Admin Role	BPMWorkflowAdmin	This role grants a user the privilege to perform administrative actions in the workflow functionality via the worklist UI. A user in this role will be able to view all tasks in the system, recover errored (incorrectly assigned) tasks, create approval groups and edit task configuration / rules DT@RT UI (both AMX functionality). This is a business administrator type role. This role is granted to SOAAdmin.	1

Table 2. Seeded Roles that provide access to all Tasks in the Worklist application

Kyle Bailey

This user is provisioned "Application Implementation Consultant" Job Role and "Employee" Abstract Role.

General External Role Assignments Application Role Assignments

Kyle Bailey inherits permissions from the following roles.

Actions View Open Role Find Policies Find Global Policies

Display Name	Description
Application Implementation Consultant	Manages enterprise
Human Capital Management Application Administrator	Configures the Oracle
Customer Relationship Management Application Administrator	Individual responsit
Project Application Administrator	Collaborates with p
Supply Chain Application Administrator	Individual responsit
Financial Application Administrator	Manages financial a
Incentive Compensation Application Administrator	Set up incentive cor
Application Administrator	Provides enterprise
Application Developer	Provides enterprise
Procurement Application Administrator	Responsible for ted
Functional Setups User	Uses the functional
Business Process Human Taskflow Administrator	This role grants a u
Employee	Identifies the perso

General External Role Hierarchy Application Role Mapping

Mapping For: Human Capital Management Application Administrator

Each application in the table below can be expanded to see the corresponding Application Role. Select an Application Role below and click the Open button to launch a view data.

Actions View Map Remove Roles Open Role File

Display Name	Description
hcm	
fscm	
crm	
obi	
soa-infra	
BPM Workflow System Admin Role	BPM
SOA operator Role	SOA

Figure 4. Role hierarchy assigned to the administrator for the example in this document

HCM Transaction

As part of a performance evaluation cycle, a manager determines that an employee is a candidate for a promotion. The manager initiates the request from the manager Resources

Dashboard. The necessary adjustments are made to the employee's Job, and compensation details and the transaction is submitted.

The transaction used here is submitted for employee Jamie Gregg, by her manager Stella Marcus. Based on the approval rules we had defined earlier, this promotion request will be routed to the next two levels in the hierarchy in sequence to Donald Alexander and Douglas McNeil. Figures 5a, 5b, 5c show the three levels in the supervisory hierarchy

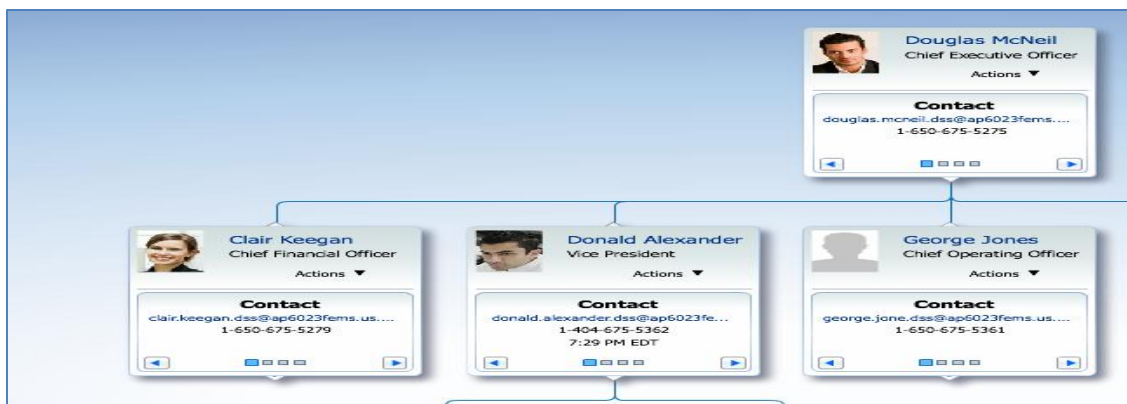


Figure5a. Supervisory Hierarchy: Donald Alexander reports to Douglas McNeil



Figure5b. Supervisory Hierarchy: Stella Marcus reports to Donald Alexander



Figure5c. Supervisory Hierarchy: Jamie Gregg reports to Stella Marcus

The manager selects the Promote action from the employee's card in the Org chart.

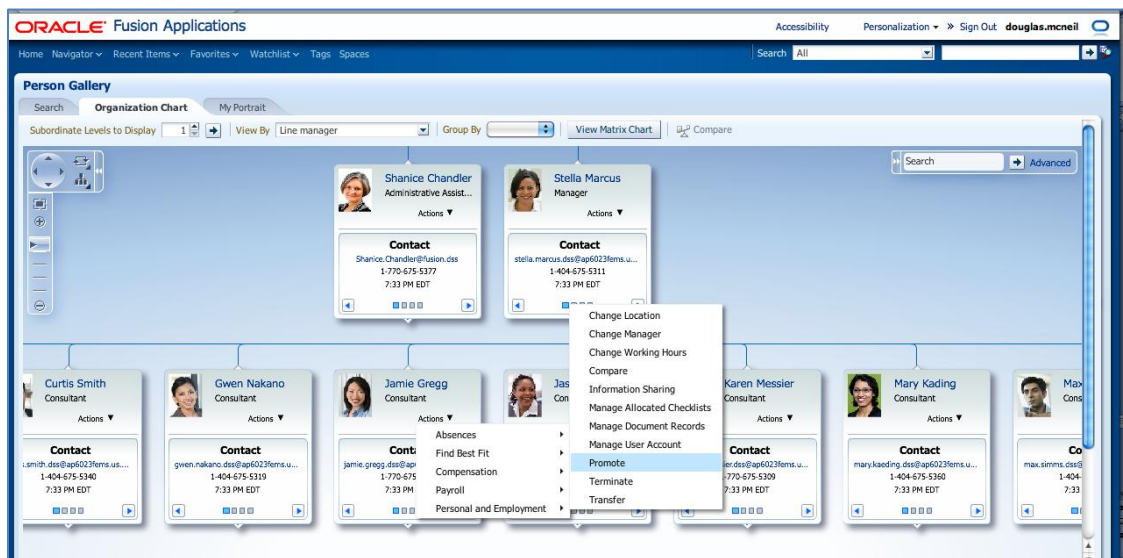


Figure6. The manager selects Promote from the org chart.


The manager completes the promotion request and reviews the details prior to submission.

Promote Jamie Gregg: Review [?](#)

Employment Details Compensation Details Roles **Review**

Printable Page Back Next Save Submit Cancel

Hide Person Information

 Name Jamie Gregg Person Number 100000018080618
 Assignment Number E100000018080618 Job Consultant
 Position Department US Consulting
 Location Atlanta Manager Stella Marcus

Job Details

Attribute	Current Value	Proposed Value
Grade	PROF6	PROF7

Work Measure Details

Location Details

Manager Details

Compensation Details

	Current Value	Proposed Value
Start Date	12/31/09	3/20/13
Salary Amount	7,650.15 USD Monthly	7,722.83 USD Monthly
Salary Basis	Monthly	Monthly
Adjustment Amount	258.70 USD	72.68 USD
Adjustment Percentage	3.5	2.05

Figure7a. The manager reviews the request prior to submission

In the final step of the transaction, the manager builds the approval list.

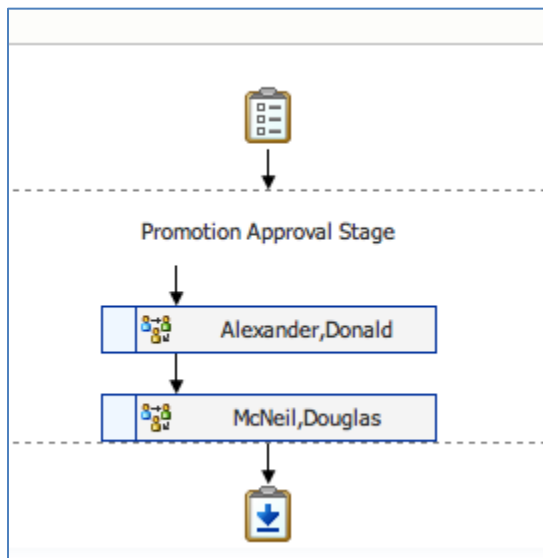


Figure7b. The Approval list built in the last step of the transaction prior to submission.

The initiated transaction generates an instance of the composite process discussed earlier (see Figure 8 below) , and becomes available to the participants and administrator. The instance also retains the status and history of the transactions during its lifecycle and after completion.

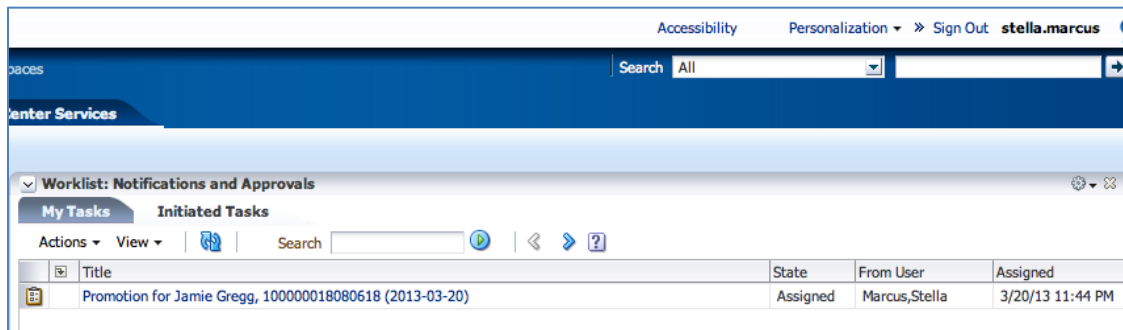


Figure 8. TheTask instance in the Worklist of the manager

After submission, the manager reviews the initiated task and amends it by adding attachments or comments as seen in Figure 9 below.

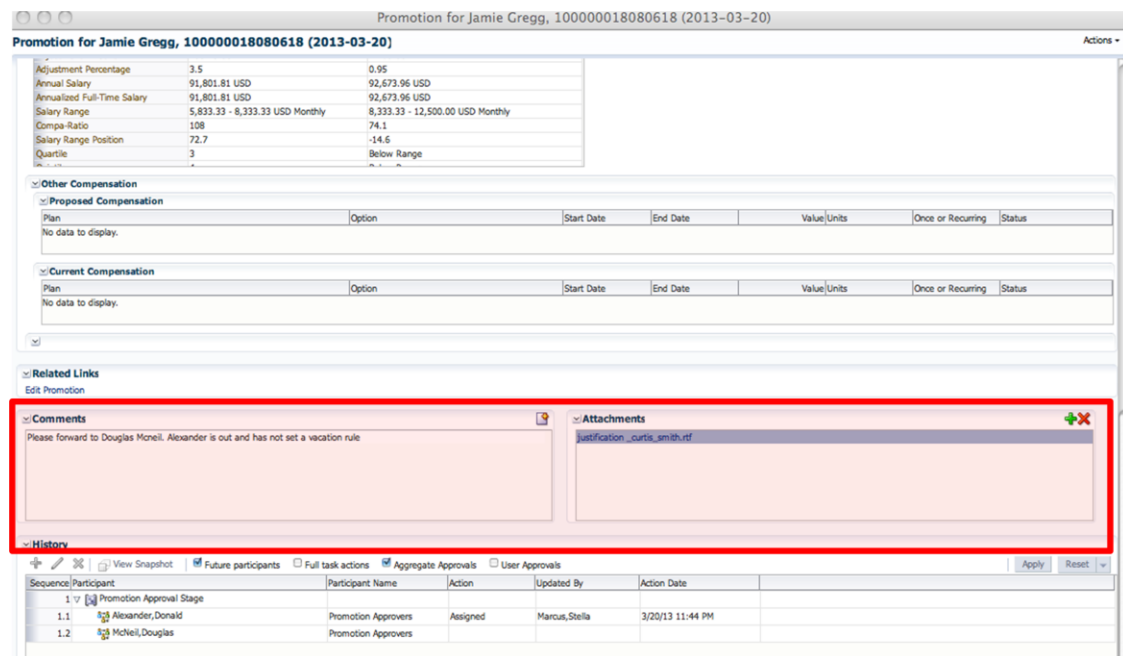


Figure 9. Comments and Attachments added to the request

Notification

Based on the rules applicable to the promotion transaction we discussed earlier, the process sends a request for approval to the manager of the requestor. However, let us assume that Donald Alexander, the manager of Stella Marcus and the the first of the two approvers, is not available to take an action on the request. Stella makes a request via the comments field to have the administrator to skip the current stage and forward the request to the next approver.

Administrator Action

The administrator, Kyle Bailey, searches for transactions assigned to Donald Alexander

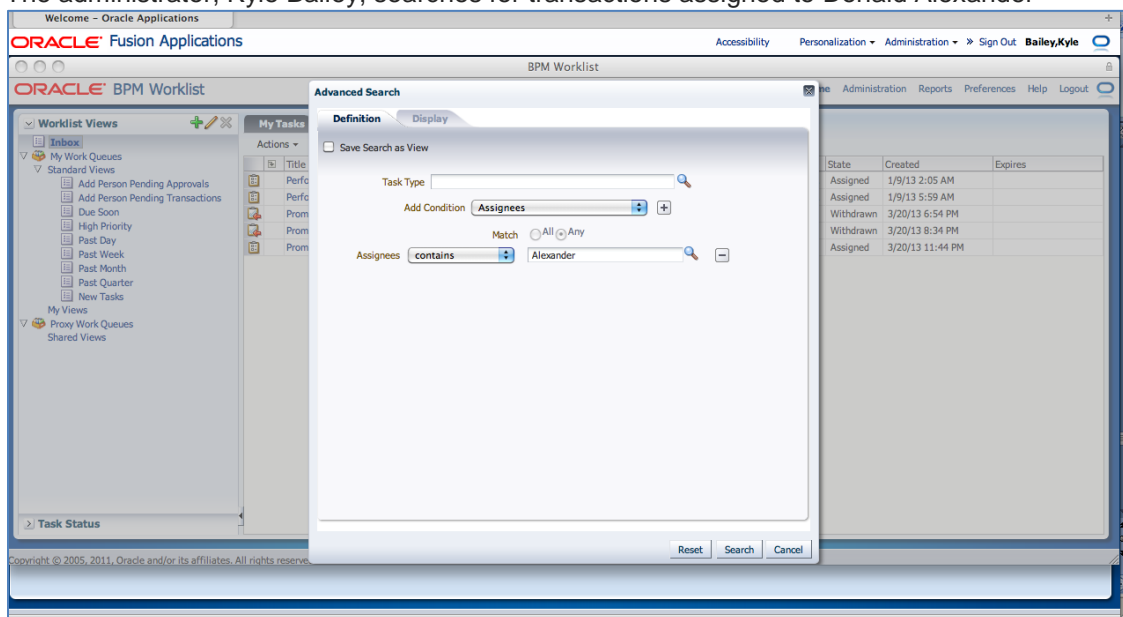


Figure 10. Administrator queries tasks assigned to Donald Alexander

The administrator then performs one of the following actions:

- Reassign
- Escalate
- Suspend

- Withdraw
- Skip current assignment

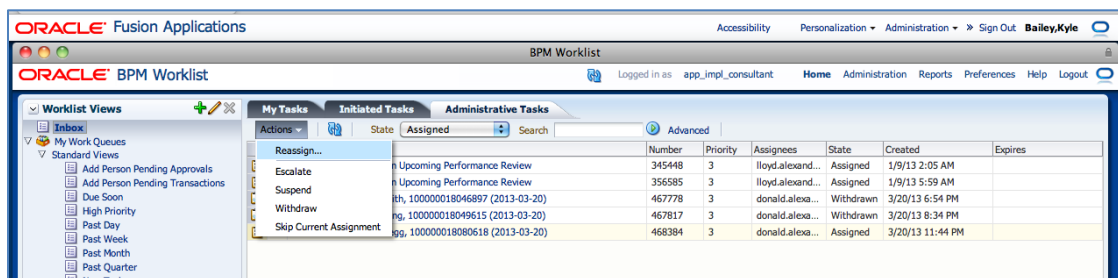


Figure 11. Actions an administrator can take on an assigned task

After reassignment of the task by the administrator to the next approver, Douglas McNeil can now see the task in his worklist.

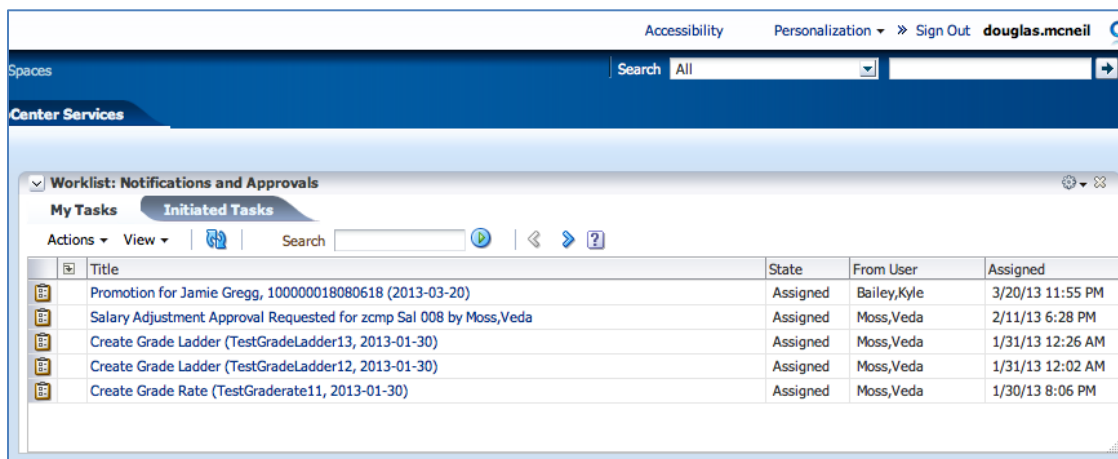


Figure 12. Worklist of the user to whom the task was reassigned

All changes made to a task instance remain with the task and can be viewed by all users who have access to that task, namely the participants in the transaction (the approvers) and the administrator. A completed task with a full history of task actions and the participants who made them, is shown in Figure 13 below.

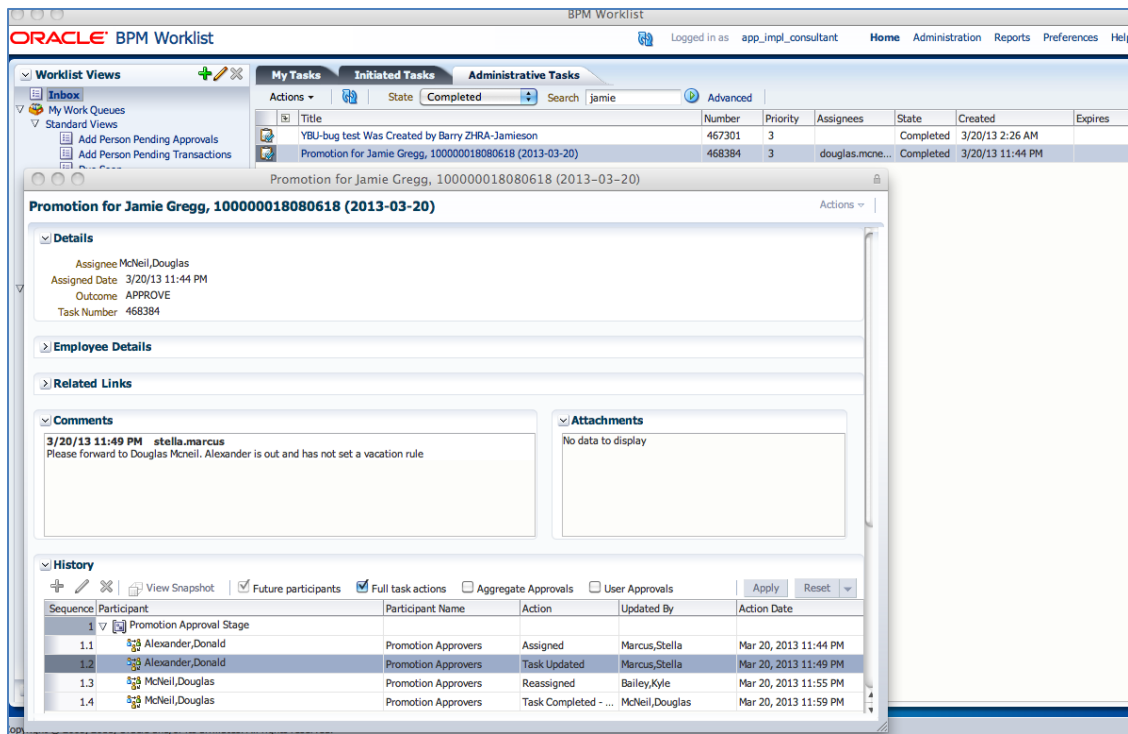


Figure 13.Completed Task

References

Oracle® Fusion Middleware Developer's Guide for Oracle SOA Suite11g Release 1 (11.1.1)

Part Number E10224-05 -- Chapter 27

http://docs.oracle.com/cd/E14571_01/integration.1111/e10224/bp_introhfw.htm

Oracle SOA Suite

Componentshttp://docs.oracle.com/cd/E14571_01/integration.1111/e10223/12_human_workflow.htm



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