The Oracle BPEL Process Manager

BPEL + Human Workflow

Feature Preview Webinar Series

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Agenda

• Workflow Requirements

• BPEL as Workflow Engine
  • Oracle Architecture
  • BPEL4People

• New 10.1.3 Workflow Capabilities

• Demo

• Q&A and Comments
Workflow Services in Oracle BPEL PM 10.1.3

March 14, 2006

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Composite Application requirements

There is a continuous need for enterprises to tie disparate applications and services into end-to-end process flows.

Goals
- Compress the total processing time (Real Time)
- Connectivity to systems, services and people
- Better visibility (Auditing, Reporting)
- Ability to easily change the process
- Incremental roll out
The Oracle BPEL Process Manager
Comprehensive business process platform for connecting systems, services, people and partners

Human Workflow Services in BPEL Process Manager

BPEL Human Workflow services enable you to interleave human interactions and connectivity to systems/services into a single end to end process flow
Human Workflow Requirements

- Task assignment to Users, roles, groups
- Task routing – various flow patterns and assignment rules
- Escalation and Delegation rules
- Notification to users/groups - Email, Voice, Pager, SMS …
- Customizable Worklist, Task forms, attachments
- Task History and Audit, Productivity Reports

Workflow Services – Exchange Patterns

- BPEL Process
  - "Assign Task"
  - "Task Complete"
  - "Get Approvals"
  - "List work items"
  - "Task Resolved"
  - "Escalate Task"
  - "Notify manager"
  - "Worklist (tasks, forms, attachments, reports)"
  - "Flow patterns", "Routing rules"
  - "Notify manager"
  - "Change routing"
  - "Complete"
Workflow Services with BPEL PM 10.1.2

- Introduced “Workflow Patterns”
- Various task flows implemented using BPEL activities
- Workflow services for
  - Task assignment, routing, escalation etc.
  - Identity Management – OID, LDAP etc.
  - Notification via various channels (email, voice, pager..)

- Comprehensive Worklist
- Cross platform support – workflow services run on multiple application servers (Oracle, JBoss, BEA Weblogic & IBM Websphere)

Workflow Services with BPEL PM 10.1.3

New .task metadata file introduced.

1. Task Configuration
   - Task title, payload, outcomes, form, priority, expiration etc.

2. Routing Slip
   - Task Flow - Simple approval, sequential, parallel flow, ad-hoc workflow, FYI task etc.
   - Assignment and routing policy
     - Assign task to User/Group/Role
     - Static or dynamic assignment
     - Rules based on task outcome or payload content, title etc.
   - Escalation, renewal, expiration criteria

3. Notification preferences
   - Notify assignee, creator, all participants etc of task status changes

4. Task Forms
   - Auto-generated JSP forms, custom JSF forms or XSL may be used to render task data in worklist
Workflow as a Service

(1) assign tasks to a user/role
(2) wait for task completion as part of an end to end process flow

10.1.3 BPEL PM – Human Workflow Services
Workflow Services – Task Flow

- Multiple patterns out-of-the-box
  - Simple Task Assignment
  - Sequential workflow
  - Parallel workflow (review/voting)
  - Adhoc workflow
  - FYI task
- Many variations - automatic escalation, renewal etc.
  - Tasks may be on renewed or escalated on expiration
  - Reminders may be sent when tasks are about to expire
- New in 10.1.3
  - New Design time UI in 10.1.3 to model these patterns
  - Completely parameterized tasks – no BPEL code generation
  - Can mix-and-match above patterns to create complex patterns
  - Pluggable Assignment Service

User Worklist

- Worklist Application
  - Customizable and extensible worklist
- Display tasks based on user profiles
  - View My tasks, group tasks, tasks created by me, reportee tasks
  - Search tasks based on priority, date, status, process etc.
- Task details
  - Standard task attributes – title, assignee, status, comments etc.
  - Task history – based on approval sequence and tracking fields
- Perform actions on task
  - Update task data, attachments, flex fields
  - Custom actions - approve, reject, defer etc – vary with type of task
  - System actions – delegate, escalate, withdraw, renew, reassign etc.
  - Adhoc routing
- Public API for all worklist operations – EJB, WSIF/Java, HTTP/SOAP
Worklist – New 10.1.3 features

- Work Queues
  - Standard work queues – high priority tasks, tasks due soon, new tasks etc.
  - Custom work queues - Users can define new work queues based on specific search criteria.
  - Proxy work queues – can grant access to other users to selected work queues. Other users can act on your behalf on those tasks.

- Rules Integration
  - User rules – can define custom delegation, auto-approval or vacation rules.
  - Group rules – can define auto-assignment rules for roles or groups - example round-robin, least-busy etc.

- Built-in reports
  - Productivity reports, Cycle time reports, Unattended tasks report

- Improved Flex field mapping
  - Can map specific payload attributes to flex fields for easy searching, custom views etc.

Identity Service

- Links up workflow service to user Directories
- Provides access to users or roles
  - User privileges, group memberships
  - User properties – contact info, organization hierarchy
  - Types of users – end user, process owner, admin etc.
- Out of the box plug-ins for OID, LDAP, JAZN/File
  - Can write Custom plug-in for other user/role repositories

New in 10.1.3

- Pluggable Authentication, Authorization and user/group lookup functions
- Multi-realm support
  - Can point to multiple directory services from same BPEL server
Modeling workflow in the BPEL designer

1. Model workflow pattern

2a. Automatically generates BPEL fragment

JDeveloper

Workflow Service

2b. Automatically configures Task and routing slip for Workflow Service

JDeveloper

Workflow Service

Demo ....

Worklist and JDev workflow UI
Demo Scenario – Help Desk Request Flow

1. User Task
2. Receive Request
3. Get Ticket Details
4. Notify Customer
5. User Task
6. Receive Response
7. Human Workflow
   - Assign tasks
8. Human Workflow
   - Set Outcome
9. Send Response
10. Notify Customer
11. End

Help Desk App

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