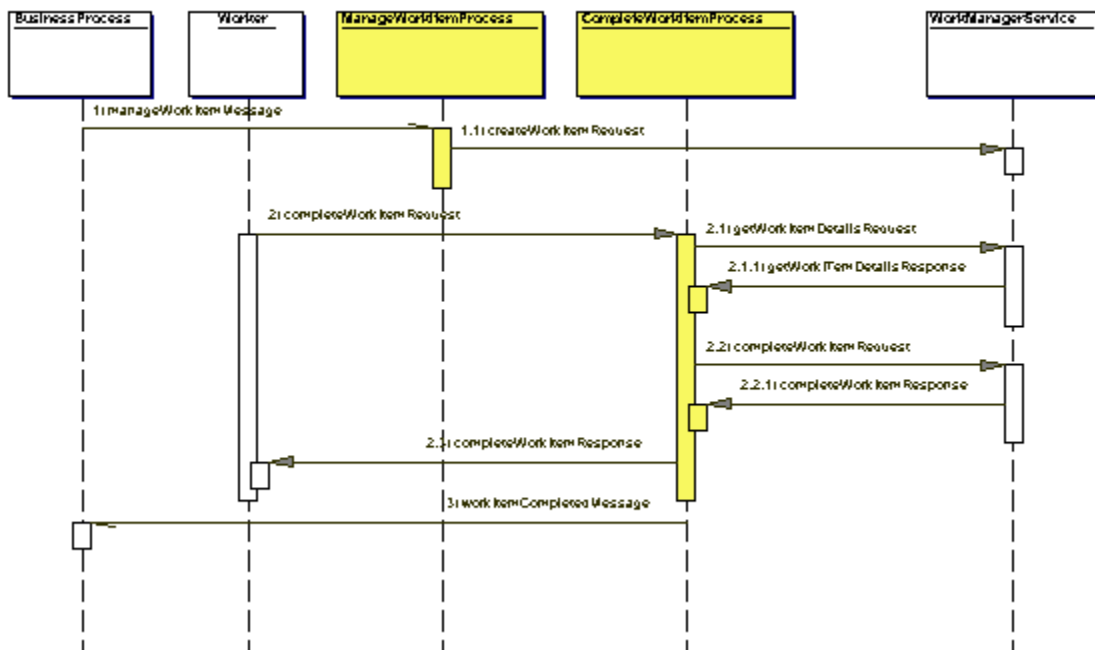O'REILLY®
Developer
Weblogs
weblogs.oreilly.com

Integrating my Work Manager with a Business Process Engine

Jim Alateras

May. 16, 2005 05:33 AM

Recently, I have been looking at integrating the Work Manager Service with process engines such as ActiveBPEL, Oracle Process Manager and Intalio|n3. The Work Manager Service is responsible for managing manual (i.e human-centric) activities, which could be part of a larger long running business process. At the manual activity level the process engine would delegate all the responsibility for managing the activity to the Work Manager Service. Once the activity has been completed (successfully or unsuccessfully) control will be passed back to the relevant business process through a callback mechanism. The business process will decide how to proceed based on the result.

The interaction diagram, above, illustrates how this may be accomplished. It involves five actors, the BusinessPrcoess, the Worker, the WorkManagerService and two new integration processes ManageWorkItemProcess and CompleteWorkItemProcess.

- The BusinessProcess is a long running process, which has some manual activities (i.e. approve purchase, review code etc). It sends a request to the ManageWorkItemProcess to manage a particular manual activity.
- The ManageWorkItemProcess interacts with the WorkManagerService and creates a work item. It also stores correlation information into the work item so that a subsequent request to the CompleteWorkItemProcess can locate and signal the originating business process.
- The Worker is responsible for completing the work item, which it will probably accomplish through some web application. The completion of the work item triggers the CompleteWorkItemProcess.
- The CompleteWorkItemProcess retrieves the work item using the WorkManagerService. It then marks the work item as complete again through the Work Manager Service. Finally, it extracts the correlation information from the work item and makes a call to the originating BusinessProcess informing it that the work item has been completed.

This is the simplest use case and does not show any exception or error handling. I am currently using the Oracle Process Manager to develop the ManageWorkItemProcess and the CompleteWorkItemProcess processes but still need to figure out how to support the correlation requirements (i.e. have the CompleteWorkItemProcess send a message to the correct Business Process instance). I also suspect that this will be different across process engine vendor, which will impact the reusability of the ManageWorkItemProcess and CompleteWorkItemProcess processes.

Jim Alateras is an independent consultant specializing in open source and emerging technologies.

Comment on this weblog

Showing messages 1 through 1 of 1.

- Correlation and engine independence
  2005-05-18 08:06:18 jmenard

  Correlation is a BPEL spec thing, and is completely independent of engine implementation. You specify the message properties and property aliases in the WSDL---that's a BPEL extension to the WSDL spec. Then you use those in your BPEL to create correlation sets. A correlation set is a chunk of data that gets passed around as part of your normal Web service messages. The contents of the correlation set are used by the engine to determine which process instance is the target of the message. The way that works is internally engine-specific, but you as a user of the

engine don't care. Your use of the correlation data will be the same no matter which engine you use.

Come play with ActiveBPEL! Join the forums and ask questions! -- jimm@activebpel.org

---

Jim Alateras is an independent consultant specializing in open source and emerging technologies. He has degree in Electrical/Electronic Engineering and has been working in the software development space for more than 18 years holding many different positions including Programmer, Team Leader, Senior Technical Architect, Consultant, Engineering Manager and CTO. He has worked on the product development side and large scale application development for both larger organizations and start-up companies. Jim has participants in several open source projects, presented at open source conferences and has written several articles and contributed to books. Currently, he is working, developing products and best practices, in the Web Services, Semantic Web and Business Process Management space.