

A comparative study of the major leaders in workflow and business process management – overview

By Letitia Jane Hughes and Andrew Smith

Business process management is an automation of business processes, in whole or in part, where documents or information passes from one participant to another for action, according to criteria. A business process is a logically related set of workflows, work steps and tasks. There are a number of products available to carry out these tasks so one degree has constructed a broad overview of the major competitors in the field (based on a study by W&GS 2004 edition) to aid businesses in workflow choices and hence enhance consultancy effort on behalf of an organization.

Businesses can use the following overview to focus consultancy efforts onto the workflow product possibilities and comparisons:

Product evaluation overview

FileNET: P8 BPM Suite

- **High throughput and scalability for workflow applications**
- **All web-based from process definition to administration**
- **Ad-hoc define-and-run workflow applications for end users and developers**
- **Integration with content management repository offering (P8 – content manager)**

FileNET P8 BPM suite is the J2EE evolution of the first workflow ever developed: Workflo from FileNET. However, this latest offering has found its roots deep in older products, Visual WorkFlo and more recently eProcess. While a new offering under the P8 banner, the difference between P8 BPM and eProcess is negligible from a practical and user sense.

P8 BPM leverages the scalability of the P8 platforms' distributed architecture, integration options through CrossWorlds, and a Java/COM API for tailored development work and integration. FileNET prove again that for development tools, tailoring and bespoke configuration, FileNET can not be beaten.

P8 has a production capable process model, with an ad-hoc capable process definition tool, all running and accessible through your web browser. Work steps (step processors) can be found in HTML or Java Applet formats. FileNET also claim XML (COM/SOAP) tailored step processors. It also boasts tuned applications integration, simulation modeling, event driven interactions and architecture and document management, web content management integration.

Cost per seat in US \$: An expensive \$1,200

Fujitsu; I-Flow 6.0

- **Applications where dynamic changes are important**
- **Adding workflow features as components of existing applications**
- **Adding workflow capability to Java environments**
- **End user definition of processes**

i-Flow from Fujitsu offers a clean and simple to use user interface and a process definition that can be completed and changed at run time. This could prove to be a management / administration nightmare, but the application handles itself well. Conditions and expression can be expressed as business rules through the ILOGs jRule engine.

Written completely in Java it uses adapter classes (these can be sub-classed) for accessing facilities like the file system and directories. It also exposes a comprehensive Java API. However, this does prove a problem if your organization is looking to utilize Microsoft.NET technologies and servers.

In addition, like FileNET the use of Java applets can cause problems over a truly distributed user base with the added complication of Firewalls and web security.

If you wish to embed a workflow engine into a Java based application, then i-Flow is an important product to consider. Adapters for application integration do include Taviz EAI support, listeners for SOAP and Files transfer.

Cost per seat in US \$: A competitive mark around the \$500 range

Akazi: Flow/Mind 4.1.7

- **Easy analysis and design of web-based processes**
- **Integration of BPM features into an application context**
- **Developments based on Java**
- **Internet based operation and deployment**

Again an engine written in Java with Java APIs and orientation. FlowMind supports all phases of process management: process modeling, IT integration, deployment, use, administration and continuous optimization.

FlowPoint, the business process modeling interface, combines multiple windows, tree-based presentation, graph layout, forms entry and drag and drop with a minimal number of process concepts for easy modeling.

Cost per seat in US\$: Modules start at \$250 to \$575

COSA solutions: COSA Workflow V4.1

- **Complex or very complex procedures with many parallel paths**
- **Powerful time control mechanisms using calendars**
- **Complex organization with many units, groups, projects and roles**

A distributed engine handles case migration. COSA offers an HTML worklist handler and Lotus Notes integration. Activities can be scripted or programmed taking advantage of a comprehensive API.

Cost per seat US\$: Just under \$600

IBM: WebSphere MQ Workflow 3.4

- **Robust, complex production workflow with applications integration**
- **Managing large number of different procedures and activities with reusability**
- **Procedure independence relative to organization changes**

WebSphere MQ Workflow is entirely built on top of WebSphere MQ application and messaging infrastructure, including communications between servers and clients.

Activities can be defined or implemented with the assistance of ActiveX objects and Java APIs. It has strong business process analysis features, simulation and development tools.

However, if you don't wish to use WebSphere within your organization, this product is very limiting and ties you into an IBM solution, not just for your workflow and business process management requirements.

Cost per seat in US \$: Approximately \$700

SAP: SAP Webflow 4.7

- **Process automation involving SAP applications**
- **Production or administrative applications**
- **Re-use of SAP components**
- **Web-based deployment**

A workflow tool aimed primarily at SAP applications. Built upon the SAP layers, and perfectly integrated into the SAP application development architecture (from which it cannot be separated).

It provides a worklist handler which is web-based and the necessary tools to produce HTML forms as interfaces for interactive activities.

Though open to non SAP applications through its SAP exchange infrastructure, it really is best tied into your SAP applications.

Cost per seat US \$: Bundled with SAP applications

Staffware: Staffware process suite 2.0

- **Production workflow with excellent administrative capabilities**
- **Comprehensive coverage**
- **Low development cost in prototyping mode, and for usual administration procedures**

Staffware process suite offers a good balance between production and administrative workflow requirements while delivering very high production and path through throughput.

Process suite supports distributed configurations and delivers activities in Lotus Notes and Microsoft Exchange environments.

While offering its own scripting language, many implementations will consist of steps and applications that have been developed in such languages as Visual Basic, Java and Microsoft.NET technologies, taking advantage of staffwares object orientated toolkit.

Cost per seat US \$: An expensive \$1,100

Tibico: In-Concert

- **Choice product for dynamic changes in a production application**
- **Extensive event mechanism to handle exceptions**
- **Business templates and integration software for telecom operators, hi-tech manufacturing**
- **Well architected engine with clean Object Oriented API**

In-Concert integrates object-oriented technology, document management, and a process model enabling users to quickly build and tailor workflow. Users can modify process instances on-the-fly as exceptions and changes might require. Though a good tool, this could prove troublesome in a real-world implementation.

The workflow can be deployed through client/server, Java and HTML-based clients. With a good object-oriented API developed in C, C++, OLE and Java, development can occur in the latest technologies, including JSP and ASP.NET.

Cost per seat US \$: A massive \$1,300 approximately

W4: W4 3.0

- **Internet native product**
- **Supports complex procedures with reusability of procedures and activities**
- **Wide scope of applications from production to administration**
- **Good flexibility for collaborative applications**

Designed for use on the Internet from the beginning, W4 provides an excellent level of functionality with productions workflow throughput. HTML forms (as well as JSP, ASP and ASP.NET) are automatically generated and can be re-drawn graphically using an HTML editor.

W4 offers simple mechanisms enabling flexible procedures with easy exception handling. It also boasts a comprehensive API provided in Java, C, C++, COM, C#, VB.NET and XML messages.

A downside is that integration is supported through Message queue (Oracle and WebSphere MQ) and application adapters including SAP adapter and an EntireX adapter. An XML Web Services layer would serve as a better integration and distributed application development service, however, this could be next on the cards for W4.

Cost per seat in US \$: Approximately \$200

Conclusion

When looking at the market leaders in this field it is important to evaluate each product against the requirements they are to fulfill. Evaluate the technologies used and see if that product fits in with your I.T roadmap, chosen technologies and your current infrastructure.

Administration and application integration must be weighted heavily when looking at workflow engines, especially when presented to work across the enterprise rather than an individual problem / requirement. While many of these products offer “out-of-the-box” solutions it’s imperative to evaluate these in the real world. By this, can these “out-of-the-box” processors / steps etc actually be used effectively by end users? When looking at data validation alone, the answer to this question for many implementations is a resounding no. So always assess what development work / extended configuration will be required to deliver the solution that works for you. When taking this into account it has a great effect on the actual implementation cost or professional services costing.

Workflow and BPM is a great way to pull applications together, deliver your processes to staff in a structured way to ensure speed and quality of work. Because of this, if you are seriously looking at workflow and BPM and what it can do for you, you must address how your other line of business applications will tie into the workflow product. Many offer adapter tools and expensive generic integration options, but do these again meet all of your requirements. Remember that most implementations are not unique to your business, but the way you use them or work them can be. Can the product offer you the flexibility that you require? This is when a comprehensive API is a must and it must allow you to integrate with other line of business applications and for them to integrate with the chosen workflow product. In this area not one vendor offers XML Web Services. This is probably due to each product being evolved rather than developed with the new technologies available. FileNET are to provide an XML Web Services layer, as to will no doubt the other main vendors.

When looking at the implementation of the product, review what other underlying components will be required. IBM requires WebSphere, Tibco In-Concert requires TIBCO IntegrationManger orchestration engine and TIBCO RendezVous messaging for efficient application integration. FileNET BPM requires FileNET P8 Content Manager, which in turn requires an application server. Be aware that the implementation of the system is not always as straight forward as led to believe, get technical consultants to evaluate the implementation and architecture of these products before committing to any one. Because of this, for smaller implementations it can sometimes be highly productive to look at smaller vendors, such as MetaStorm and their e-Works product. The implementation and architecture is very simple, and though limiting in regards to the API and delivery, it meets many requirements of a workflow engine.

To summarize, it’s imperative to get the right information on each product, evaluate it against not only your requirement, but your infrastructure, chosen technologies, the

workflow engines underlying requirements / dependencies, the cost per seat, training, administration training, support costs, support training for end users and the cost of administration. Evaluate the size of the implementation and possible future requirements / uses, is this a departmental solution or an engine that may spread across your entire enterprise.

One degree consultants and technical architects have extensive knowledge on workflow products and implementations from the market leaders and others, in order to ensure that they can give the most well-informed consulting service possible enabling organizations to make well educated decisions that best fit their requirements, budget and infrastructure.

For more information on workflow and business process management contact one degree consulting; info@consulting-onedegree.com

This report is based on an extensive product evaluation synthesis by W&GS.