



## BPMS WATCH RATINGS Q2 2008

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### 1. Executive Summary

Over the past 12 months, we reviewed 11 leading BPM Suites using a common analytical framework, and published the results using a common outline as *The BPMS Report* series, available for free from BPMInstitute.org. Based on that research, we now offer a comparative scoring of these offerings. Each BPM Suite was rated for both human-centric and integration-centric processes, and the human-centric evaluation was further broken out into two subclasses, production workflow and case management. Thus, identifying the BPMS “leaders” depends on whether your goal is a single BPMS to handle all types of processes, or separate consideration of human-centric and integration-centric processes, or even specific focus on production workflow or case management. Also, our analysis concerns only the current BPMS offering. It ignores factors in other analysts’ ratings – potentially important in the buying decision – such as the vendor’s size, financial condition, international sales capability, and “completeness of vision.”

Based on our analysis, the leaders when considering a single BPMS for all types of processes are Lombardi and BEA. For integration-centric BPM, the leaders are Oracle, BEA, and SoftwareAG/webMethods. For human-centric BPM, equally weighting production workflow and case management processes, Lombardi is the overall leader, followed by a cluster including BEA, Appian, EMC, and Global 360. Specifically focusing on the production workflow segment of human-centric BPM, Lombardi is followed by BEA, Appian, and TIBCO. For collaborative/case management specifically, EMC and Global 360 lead the pack, followed by Appian, BEA, and Lombardi.

### 2. BPM Suites: State of the Market

BPM adoption is enjoying double-digit growth, and adopters are rapidly shifting from the modeling/analysis phase to implementation of automated BPM solutions. BPM Suites are unified platforms combining all of the design and runtime components of a BPM solution – modeling and analysis, automated orchestration, human tasks, application integration, business rules, BAM and process analytics. In specific process categories, features such as content management, collaboration, case management, and packaged solution content have moved from nice-to-have to important suite components as well.

Such integrated BPM platforms were first introduced about five years ago from the so-called BPM pureplays, small vendors such as Savvion, Lombardi, and Appian. They soon attracted competition from established workflow and EAI vendors like TIBCO, Global 360, Pegasystems, and BEA, at which point Gartner rechristened the segment BPM Suites and offered up a checklist of the category’s essential features. Now even larger infrastructure, middleware, and enterprise application vendors like IBM, SAP, and Oracle have entered the BPMS market, and there is talk of renaming the category “process platforms.” But for this report, we’ll stick with BPMS.

Today there are 30 or more vendors who can tick off the entire BPMS checklist, but to date each BPMS has largely remained within its own comfort zone of a specific class of processes, which at a high level breaks down as human-centric or integration-centric. The human-centric category

encompasses a spectrum of use cases, ranging from generic forms routing to production workflow to collaborative case management.

While, strictly speaking, human-centric means that the process emphasizes human tasks, BPM Suites optimized for this class of processes are also more likely to emphasize one of the central goals of BPM as a management discipline, which is empowering business to play a more direct implementation role. In human-centric BPM, process modeling – a business function – is not just used to develop requirements handed off to IT for implementation, but becomes a foundation for the implementation itself. In human-centric BPMSs, process modeling and executable design are increasingly provided as two “perspectives” of a common tool, sharing a single process metamodel, single data model, and single programming model shared by business and IT.

That gives these products a huge advantage over offerings based on separate tools for modeling and implementation, since they do not suffer from the notorious “round-tripping problem” – the inability to keep the model in sync with changes to the implementation once the developers take hold of it. The unification of modeling and executable design actually enables a new iterative implementation style in which business and IT collaborate, resulting in shorter deployment cycles and increased satisfaction of process owners.

Business-empowered implementation has had a far lower priority in integration-centric BPM, where implementation is more technical and suites retain their traditional developer orientation. The middleware vendors on the integration-centric side tend to view BPM as more of a marketing label for their SOA suite offering, rather than something separate from SOA, a consumer of the services that SOA is building.

However, it is clear that the energy in the BPMS market today is on the human-centric side and that business-empowered implementation is beginning to define what a BPMS is all about. The Business Process Modeling Notation (BPMN) standard from OMG has emerged as a key enabler of this new style, and is becoming a must-have for any BPMS. This is important because the large middleware companies tend to approach the BPM market with the idea that customers want a single BPMS to handle the full spectrum of processes in the enterprise, not separate ones for human-centric and integration-centric processes. Those vendors have the resources, and apparently the desire, to gradually move into the space now occupied by the smaller human-centric vendors, but for the most part their products are not as good, particularly in the area of business-empowered implementation. And they have been slower to move to BPMN than the human-centric pureplays, a move perhaps hampered by an early bet on BPEL – not the best runtime match for BPMN models.

Some of the integration vendors have addressed gaps on the human-centric BPM side via acquisition – BEA with Fuego and TIBCO with Staffware come immediately to mind – and made those acquisitions the centerpiece of their overall BPM offering, leveraging the company’s SOA middleware as BPM’s integration component. Others, like IBM, SAP, and Oracle, active in the development of BPMN 2.0, have signaled that they are moving in this general direction as well.

Thus, in the future it will be even more difficult than it is today to classify BPM Suites as human-centric, integration-centric, document-centric, etc. BPM Suites will be increasingly offered as a single platform for all process types. For a while, however, their strengths may be far greater in one process type than in another. And that is the basic reason for the approach we have taken with this report.

### 3. Characteristics of the Process Types

Are you looking for a single BPMS that can handle all business processes in your organization? Or are you focused on a solution to a particular process or class of processes? While BPMS

vendors refuse to pigeonhole themselves to a subset of process types, it is undeniable that each BPMS is optimized for a specific process type and that each is stronger in some types than in others. Thus, before you create your BPMS short list, you really need to think about the characteristics of the processes you are trying to manage and improve.

### *3.1 Segmentation*

Enumerating and characterizing process types is an inherently imperfect exercise. Each analyst firm has its own segmentation. It is important to acknowledge up front that virtually every business process involves some human tasks, some application integration, and some need for content and collaboration. Thus the characteristics of a particular process type represent idealizations or archetypes, and your actual business processes may include characteristics of more than one.

Because real-world business processes are so diverse, it would take a very large set of process types to classify them properly, but as a practical matter, evaluating a BPMS's strengths for a particular type demands a small well-separated set. The distinction between human-centric and integration-centric processes meets that requirement. However, the human-centric segment is sufficiently diverse that a BPMS that is good for some processes lacks essential features needed for others. Thus we further segment the human-centric category into production workflow and case management for that purpose.

### *3.2 Human-Centric BPM*

In human-centric BPM, the objective revolves around improving the quality, efficiency, speed, or effectiveness of human work. Because its own day-to-day activities are affected, business today is demanding a greater voice in the process implementation. This favors BPMSs that allow business and IT to collaborate on the implementation design, in which the process model (usually defined by business) and the executable design (an IT function) use a common tool – typically featuring multiple “perspectives” tailored to different classes of users – sharing a single process metamodel, single data model, and single programming model. Such a collaborative modeling/design environment allows the process model to serve as an “abstract” view of the process continuously throughout the implementation lifecycle. This contrasts with an earlier style of process modeling in which the modeling tool was self-contained and independent of the implementation design environment, and in which the output of modeling was handed off from business to IT as “business requirements.”

Beyond business-empowered implementation, the other general characteristic of human-centric BPM is the richness of features for assigning and performing human tasks, which are generally assumed to be received and completed at the performer's desktop via a web or email interface. The nature of task assignment and performance varies widely across the spectrum of human-centric processes. Our classification defines two widely separated design points, which we call production workflow and case management.

#### *3.2.1 Production Workflow*

Production workflow signifies processes in which the flow of activities is well-defined and based on rules. Many instances of the process are created and completed each day, and optimizing the cycle time (time to finish), throughput (instances completed per day), and efficiency (cost per instance) are typically important BPM goals. Pools of workers with the same process role pull work from shared queues, but in production workflow the BPMS also needs to be able to direct instances to individual performers or groups within the role based on specific knowledge, skills, or area of responsibility.

Process Type	Human-Centric		Integration-Centric
	Production Workflow	Case Management	
Characteristics	Objective: Maximize labor productivity High instance volume  Teams draw work from shared queues. Performance measured by worker productivity.	Objective: Resolve cases collaboratively without predetermined flow Low instance volume Case folder provides shared access to case data, documents, tasks. Focus on quality and effectiveness not speed, cost	Objective: Business integration High instance volume Most steps automated; human tasks for approvals and exception resolution. Real-time performance management
Examples	Customer service Paper health claims Accounts payable Order management	Disability claims Underwriting New product launch Student loans	Online sales EDI health claims Trade settlement Telco provisioning
Requirements	Business-empowered implementation (BPMN)  Dynamic task assignment and reassignment Forms and screenflows in rich task UI	Ad hoc task creation and assignment  Collaborative document creation, editing, review Threaded discussions, wikis, knowledge management.	Message-based (async) integration.  Leverage SOA infrastructure and middleware Event-triggered process behavior.

**Figure 1. Process type characteristics and requirements**

In the runtime environment, production workflow requires the BPMS to present worklists effectively – sorted by priority, with relevant business data exposed in worklist columns, and indication of late or overdue tasks. Production workflow should support delegation or reassignment by the assigned performer. The task environment itself must be organized for high productivity, including data entry and display, viewing and uploading of document attachments, and interactions with backend systems. Human tasks are rarely reducible to a simple web form, but require screenflows in which a button on a web page invokes some automated interaction with a backend system and populates data on another web page. A BPMS good for production workflow needs tools both to create individual web pages (forms) and the screenflows that interconnect them. Finally, production workflow requires performance management tools that track timeliness and cost of processes and activities, including performance of individual workgroups and users.

### 3.2.2 Case Management

Case management represents a very different style of human-centric BPM, in which the work is not routed to queues of task performers based on rules defined in advance, but in which users collaborate at runtime in a more ad hoc fashion. A case folder serves as a virtual container for all the data, documents, collaboration objects – threaded discussions, wikis, etc., and tasks related to the case, and is accessible to all participants working on the case. Tasks and processes may be added to the case at runtime in ad hoc fashion, something that many BPMS architectures cannot do easily. Thus the key elements of case management processes are content, team collaboration, and ad hoc task creation and assignment. In the evaluation these three elements were given roughly equal weight, so the case management rating can be considered a proxy for suitability in content-centric and collaborative BPM in addition to the strict confines of case management.

### 3.3 Integration-Centric

In integration-centric BPM, the objective is improved business integration, coordinating the actions and data of disparate backend systems that run the core business – ERP, supply chain,

CRM, billing, etc. Human tasks generally represent approvals and exception resolution, but are not the principal focus of the process. Unlike its predecessor EAI, integration-centric BPM manages processes as end-to-end entities rather than as isolated event-triggered actions. While human-centric BPM emphasizes synchronous calls direct to system or service endpoints, integration-centric BPM by definition relies on loosely coupled asynchronous connectivity, leveraging SOA middleware.

Because of more technical nature of the implementation design and the lower importance of human tasks, process modeling and business-empowered implementation are less important in integration-centric BPM. Integration-centric processes also must be able to respond to external events and propagate exceptions for end-to-end control.

Performance management is just as important here as in human-centric, but the metrics and alerts tend to focus more on detecting and fixing errors in real time than measuring human task performance.

## 4. Research Methodology

### 4.1 *BPMS Report Series*

The ratings in this report are based on the research summarized in The BPMS Report series, available from [www.bpminstitute.org/bpmsreport.html](http://www.bpminstitute.org/bpmsreport.html). Each report in the series covers a single BPMS in 30-40 pages, following a common outline. The source of information about each offering was a combination of product documentation, vendor briefings, and correspondence on specific issues with product experts at the vendor. Much of this information was subject to non-disclosure agreements with the vendors, and participating vendors had the right to request removal of any confidential information in the final report. None did so. With rare exceptions, I did not install and build processes with the BPM Suites, and I did not contact reference customers.

The reports on which the ratings are based were created over a 9-month interval between July 2007 and March 2008. All of the leading BPMS vendors were invited to participate, and a small number requested to be included. A few invited participants declined, while others indicated interest in participation but were unable to be fit into the project schedule; they will be added in another round later this year. The evaluations thus represent a snapshot in time, and vendors may have enhanced the capabilities of their offerings since the original reports were written. The offerings included in the BPMS Watch Ratings report, and the date of the product reports on which they are based, include:

- Appian Enterprise 5.6 [evaluated July 2007]
- BEA AquaLogic BPM 6.0 [evaluated July 2007]
- Cordys BPMS [evaluated July 2007]
- EMC Documentum Process Suite 6.0 [evaluated January 2008]
- FlowCentric 3.5 [evaluated July 2007]
- Global 360 Process360, Insight360, and Case360 [evaluated July 2007]
- Lombardi Teamworks 6.0 [evaluated October 2007]
- Oracle BPM Solution 10.1.3 [evaluated March 2008]
- Singularity Process Platform 3.5 [evaluated March 2008]
- SoftwareAG/webMethods Fabric 7.1 [evaluated July 2007]
- TIBCO iProcess 10.6 and Business Studio 2.0 [evaluated July 2007]

The reports are objective descriptions of each BPMS. They are not product evaluations, but should be considered the source material for the evaluation presented in this report. Each report follows the same outline, as follows:

1. Vendor and product overview
2. Environment and architecture
3. Process structure and data
4. Process modeling and design
5. Human workflow
6. User experience and task management
7. Integration framework
8. Business rules
9. Content, collaboration, and case management
10. Events and exceptions
11. Performance management
12. Solutions and services

#### 4.2 *Process Type Weightings*

The outline of the BPMS Reports provides the framework for the evaluations in this report. Each BPMS is scored from 0 to 5 in 11 categories, which are weighted differently based on the process type. While the scoring in each category is independent of process type, the aggregate rating and vendor ranking depends on the process type. The categories and weightings by type are shown below.

	Production Workflow	Case Management	Integration- Centric
Architecture and standards	4	2	8
Process modeling	20	3	3
Executable design	7	3	7
Human task design	25	10	3
User experience	15	15	3
Integration	5	3	50
Business rules	5	3	5
Content, team collaboration, and case management	6	50	2
Performance management	5	5	8
Events and exceptions	5	3	8
Packaged solutions	3	3	3
	100	100	100

**Figure 2. Capability weightings by process type.**

In the future, we will provide the analysis in a format that allows users to adjust the weightings using their own criteria.

## 5. BPMS Watch Ratings

Users have been conditioned to product ratings expressed in a two-dimensional chart, and the BPMS Watch ratings follow that pattern. Figure 3 plots the rating for integration-centric processes on the horizontal axis, and human-centric processes – calculated as the average rating for production workflow and case management – on the vertical axis. If you are trying to find a single BPMS across all types of processes in your company, this is a good chart to use. The upper right corner represents overall goodness. The central diagonal represents a balance between human-centric and integration-centric strengths. Below that diagonal, in the blue area, are products stronger in integration-centric BPM. Above that diagonal, in the gold area, are products stronger in human-centric BPM.

Lombardi rated highest for human-centric BPM, in which production workflow and case management are given equal weight, followed by Appian, BEA, EMC, and Global 360.

Oracle rated highest for integration-centric BPM, followed by BEA, SoftwareAG/webMethods, Lombardi, Cordys, and TIBCO.

Because case management is such an immature segment of human-centric BPM, giving it equal weight in the human-centric rating may not be appropriate in all cases. Thus Figure 4 plots just the production workflow rating on the vertical axis, with integration-centric BPM on the horizontal axis. Lombardi leads the production workflow category, followed by BEA, Appian, and TIBCO.

Figure 5 ignores integration-centric BPM altogether and plots production workflow vs case management, illustrating differences within the human-centric segment. EMC and Global 360 lead the case management pack, followed by Appian, BEA, and Lombardi, with Singularity and FlowCentric also at 3.50 or above.

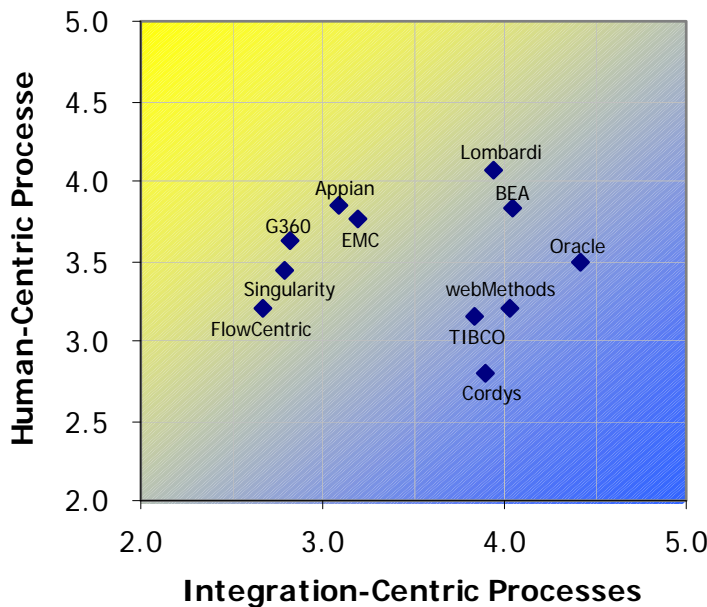


Figure 3. BPMS ratings, integration-centric vs human-centric BPM. Source: BPMS Watch

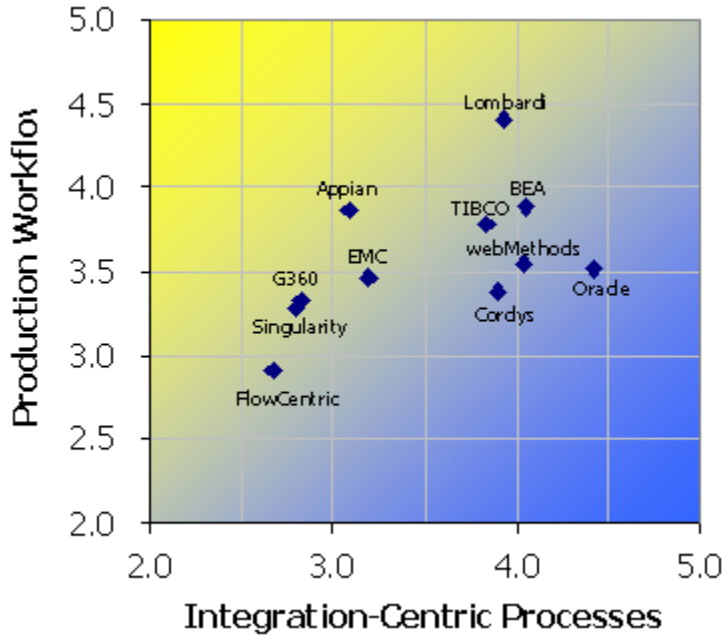


Figure 4. BPMS ratings, integration-centric vs production workflow BPM. Source: BPMS Watch

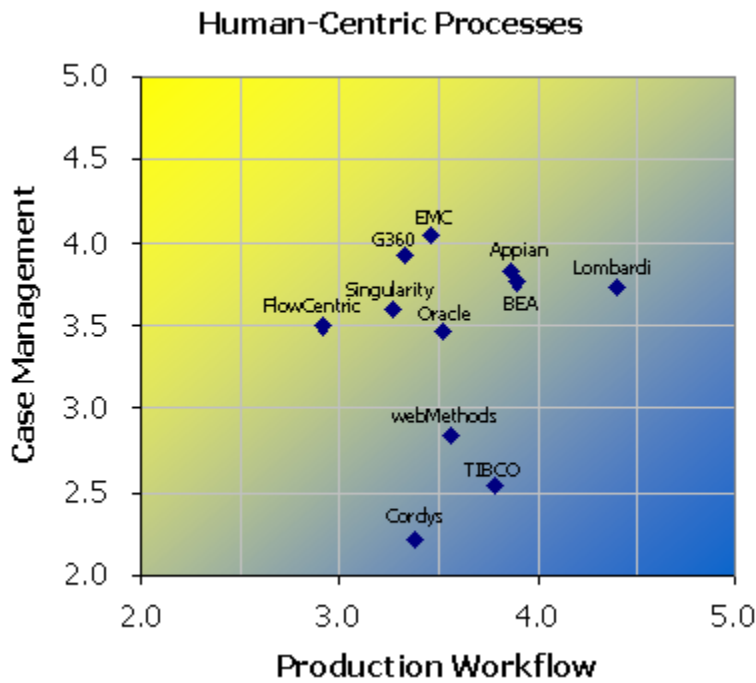


Figure 5. BPMS Ratings, production workflow vs case management BPM. Source: BPMS Watch

## 6. BPMS Snapshots

### 6.1 Appian Enterprise 5.6

- Strengths: Performance management; portal/user experience; process design
- Biggest need: Integration framework

### *6.2 BEA AquaLogic BPM 6.0*

- Strengths: Architecture; collaboration portal; event and exception handling
- Biggest need: Rules; content management

### *6.3 Cordys BPMS*

- Strengths: Architecture; event and exception handling; integration
- Biggest need: Rules; content and collaboration

### *6.4 EMC Documentum Process Suite 6.0*

- Strengths: Content and collaboration; user experience/task management
- Biggest need: Modeling and process design

### *6.5 FlowCentric 3.5*

- Strengths: Content and collaboration; rules
- Biggest need: Events and exceptions; integration

### *6.6 Global 360 Process360, Insight360, and Case360*

- Strengths: Collaboration/case management; performance management
- Biggest need: Events and exceptions; integration

### *6.7 Lombardi Teamworks 6.0*

- Strengths: Modeling; architecture and standards; events and exceptions; human task design
- Biggest need: Rules; content/case management

### *6.8 Oracle BPM Solution 10.1.3*

- Strengths: Events and exceptions; architecture and standards; integration
- Biggest need: Human task; content/collaboration

### *6.9 Singularity Process Platform 3.5*

- Strengths: Case management; modeling
- Biggest need: Integration; task user interface

### *6.10 SoftwareAG/webMethods Fabric 7.1*

- Strengths: Performance management; rules; integration
- Biggest need: Case management; process design

### *6.11 TIBCO iProcess 10.6 and Business Studio 2.0*

- Strengths: Modeling; rules; events and exceptions

- Biggest need: Content/case management

For more information regarding the BPMS Watch ratings and more detailed product evaluations, contact Bruce Silver ([bruce@brsilver.com](mailto:bruce@brsilver.com)).