Magic Quadrant for Business Process Management Suites, 2007

Former business process management pure-play vendors continue to lead the business process management suites market, but the "classic" use case for BPMS is becoming less clear as application infrastructure technologies converge into model-driven, integrated-composition environments.

WHAT YOU NEED TO KNOW

This Magic Quadrant summarizes the state of the market for business process management suites (BPMSs). A BPMS supports the model-driven manipulation of business processes throughout the process life cycle. Vendors that have evolved from business process management (BPM) pure-play tool providers continue to lead the BPMS market, although many larger middleware and software infrastructure vendors are strengthening their BPMS products.

A BPMS is an integrated collection of critical software technologies that enables the control and management of business processes. As compared with other model-oriented development tools, such as integrated service environments (ISEs) and integrated development environments (IDEs), a BPMS emphasizes business user involvement in the entire process improvement life cycle, from design through implementation, deployment, monitoring and ongoing optimization. Rather than reducing reliance on people through automation, a BPMS emphasizes the value of coordinating people and information, in addition to systems, as central resources. This emphasis also distinguishes a BPMS from other emerging model-driven application infrastructure.

Vendors that have come to the BPMS market from a BPM pure-play background have a long history of model-driven process execution, which Gartner thinks is the best way to enable business users and IT professionals to collaboratively manage and rapidly change their operational processes in response to a volatile business environment. During the next five to 10 years, BPM and service-oriented architecture (SOA) initiatives will usher in a world where business users and IT will use declarative, model-driven approaches for managing work, resulting in applications that will require little or no coding. But much remains to be done to fully realize this vision. Through 2012, market churn will continue as vendors vie for long-term leadership and pursue different process-centric strategies. Many will diverge from this "classic" BPMS market and will move toward providing integrated composition environments to support users' desires for a business process platform (BPP).

Gartner

BPMSs use explicit process models to coordinate the interactions among people, systems and content as equally important aspects of work (see Note 1). This model-driven approach loosely couples the physical resources used at execution time from the design of the process, enabling greater flexibility. At runtime, the BPMS functions as a "superworkflow manager," coordinating the end-to-end processes, including all resources involved, human and machine, regardless of whether software resources are created in the BPMS's design environment. (Workflow technologies often are incorrectly assumed to be synonymous with a BPMS. However, workflow is only one of many runtime capabilities required for a BPMS – per our definition below.) Thus, a BPMS represents a holistic technological approach to managing processes, from design through implementation, to monitoring and ongoing optimization.
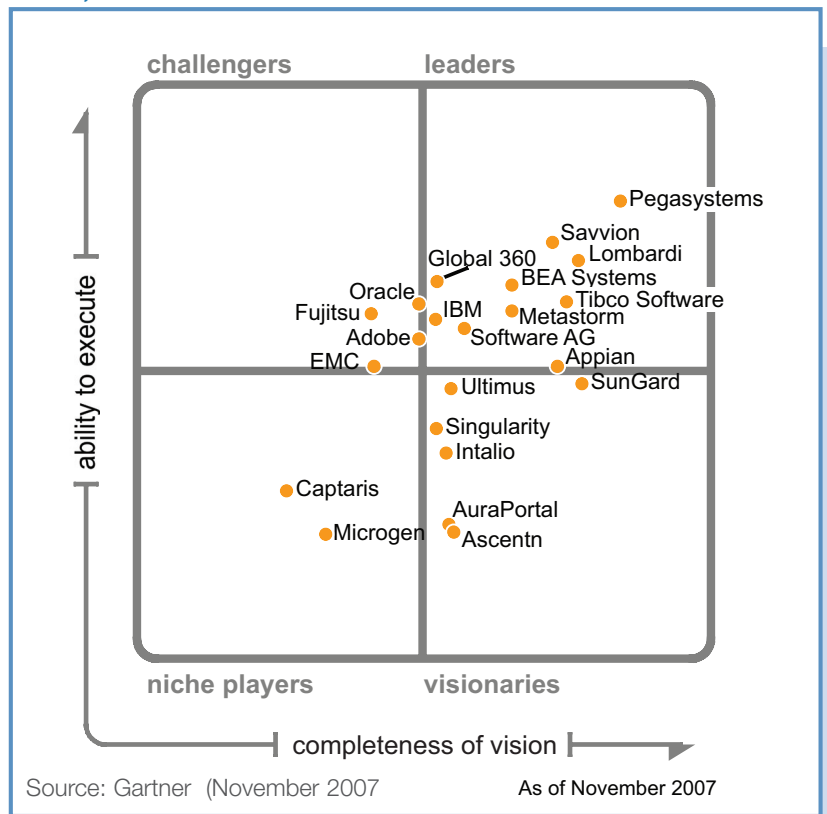
A BPMS is most appropriate for processes that have balanced requirements for the coordination of people, systems and information, and where management of the interactions and interdependencies among all three aspects of work is critical to work outcomes. The explicit process management approach of a BPMS (the "classic" use scenario) is most valuable for processes that need to change frequently, extend during hours and days, cross multiple physical boundaries (such as organizational boundaries, boundaries among facilities, system boundaries, information boundaries), thus requiring a high degree of coordination of human activities, information, business transactions and business rules. The appropriate processes often exhibit the following characteristics:

- They are external-facing. This makes them highly susceptible to disruption from external forces, such as weather patterns, currency fluctuations, consumer preferences, commoditization pressures, trading-partner actions, competitive pricing, regulatory changes, geopolitical events and skill availability.
- Some critical aspects of the workflow are not yet well-understood. The BPMS approach helps uncover more-successful workflows by making their execution visible and audited. Execution data history is used as input into the next iteration of the design.
- The process depends on human collaboration to have an impact on outcomes (such as new-product designs, problem diagnosis and case management-style problem domains.)

A BPMS enables its users to see and directly manipulate the resources being coordinated. The explicit model of the BPMS, used at design time and runtime, makes it far easier for operational managers to change process execution by altering the routing of work among people, and by altering exposed rules and parameterized values that drive execution flow. Explicit process models are far easier to change for process designers and developers than traditional applications, which use implicit approaches based on programming code (see Note 1).

This use case is most pronounced in service-based enterprises, such as retail and investment banking, insurance, telecommunications, transportation, utilities, higher education and the media, as well as government. These types of enterprises are more susceptible than others to external forces of change. We also are starting to see increased interest in BPM in consumer goods

Figure 1. Market Analysis for Business Process Management Suites, 2007

Source: Gartner (November 2007   As of November 2007

and pharmaceuticals. Organizations should consider investing in BPMSs to increase enterprise agility and encourage greater business user involvement in the process improvement life cycle (see Figure 1).

Market Overview

Gartner first defined BPM products as a general market concept in 2000. BPMSs, defined by Gartner in 2005, represent the second generation of pure-play BPM products. In 2007, we expanded that definition. By 2007, most pure-play products had expanded into a full BPMS products.

By the end of 2006, the BPMS market reached nearly $1.7 billion in total software revenue and began to exhibit the characteristics of an early mainstream market; that is; it features proven technology, stable vendors, vendor consolidation and rapid user adoption. The BPMS market is the second-fastest-growing middleware market segment; Gartner estimates that the BPMS market will have a compound annual growth rate of more than 24% from 2006 to 2011.

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Market Definition/Description

The current BPMS market reflects 10 areas of functionality desired by buyers (see BPMS areas of functionality). Our 2006 Magic Quadrant required vendors to have functionality in seven of these areas only; thus, we raised the functionality bar in 2007, reflecting the maturing of the BPMS market. Because a BPMS represents a paradigm shift from traditional, coded approaches to automating business processes, buyers expect BPMS providers to offer not only the design and runtime environment but also the business process content to accelerate their learning and implementation. The packaged content provided by these vendors varies and may include sample process models, rule sets, pre-built user interfaces and even composite process frameworks that can deliver from 70% to 80% of the total solution. Although process templates largely have been free of charge during the past few years, richer packaged content (especially frameworks) now is offered on a fee basis. The availability of frameworks and solutions is considered in our evaluation as part of the overall product score.

A BPMS must support all the following process management capabilities:
- Modeling and analysis of business processes, including all aspects of workflow to be managed, to identify the best possible design. This includes tasks, roles, decisions, approvals, reviews, escalations, collaborations, flows, rules, policies, forms and other business information objects, events, goals, objectives and scenarios.
- "Round trip" behavior between the model and its physical implementation, so that changes made to the model are reflected easily in execution and changes to the physical resources are fed easily back into the model.
- Coordination of multiple interaction patterns among users participating in the process and systems required to complete end-to-end process and information content, some of which may be remote to the BPMS. Interaction patterns include human-to-human (H2H), system-to-system (S2S), human-to-system (H2S), human-to-information-content and content interdependencies.
- Providing participants with access to various forms of business content (structured and unstructured information) for manipulation and management within the process context.
- User manipulation and management of business rules.
- User and group collaboration in the process context (in real time and offline).
- Monitoring, reporting, analysis and notification of work activities and business events, using data about completed work transactions and in-flight business transaction data (in real time and offline, potentially for predictive analysis).
- Process simulation and optimization using real-time, historical and estimated data values.
- Management of all process components (see the above list) through their life cycles (that is, access control, versioning, descriptive metadata and so on).

A BPMS supports these capabilities by pre-integrating various technologies to deliver a unified product experience. This platform architecture enables users to interact easily and fluidly through the process improvement life cycle – from analysis to design, execution, monitoring and revisions – with greater collaboration between business and IT roles. Functionality in the BPMS increasingly overlaps functionality found in ISEs and IDEs in the areas of service manipulation, the Business Services Registry/Repository and leveraging a service and data bus.

Nevertheless, at this point in its market evolution, a BPMS is distinguished from the ISE and IDE by its emphasis on business user involvement throughout the process improvement life cycle, and its emphasis on coordination of human interactions and content dependencies within the process, not on software service orchestration alone.

Market Dynamics

Although large middleware and software infrastructure vendors have greatly expanded their market presence, BPMS vendors that have evolved from a BPM pure-play heritage continue to lead the market in capabilities and vision. Although this Magic Quadrant reflects the evolution of BPM pure-play tools to second-generation BPMSs, the market also reflects larger trends, such as the impact of open-source software on commercial products, the paradigm shift from development to composition and the rising importance of the end-user's experience of a process. This evolution will continue through 2012; the use case for BPMS will become less distinct as application infrastructure technologies continue to converge into model-driven, integrated composition environments to support users' emerging BPPs.

Thus, large, public software infrastructure technology providers are represented here that have entered this market only recently, such as Oracle and Software AG, whose vision is more aligned with a future-state BPP model than it is for a BPMS. Likewise, vendors such as SAP and Microsoft are not represented here because they have not yet delivered a complete BPMS. However, these vendors clearly are building their application infrastructures for a future state BPP model.

This analysis does not reflect all vendors whose products we consider a BPMS; however, the greatest customer spending is concentrated among the 22 providers we included. (We discuss additional providers considered for this research in the "Other Vendors Considered for this Analysis" section). Some providers did not qualify for inclusion in this market analysis even though they have strong products that users should consider when their process management requirements are not as expansive as those covered by our BPMS functionality list, or when their requirements are matched uniquely to these vendors' solutions.

Gartner expects that the BPMS will reach $5.1 billion in total software revenue by 2011. Some BPMS vendors already are exhibiting signs of attempting to move into future, process-focused software markets, such as BPP, integrated-composition environments and BPMS-powered software as a service (SaaS).

Although spending on BPMSs has grown rapidly, only 20% to 30% of deployments address enterprisewide, cross-functional processes. Many more narrowly scoped process improvement initiatives are underutilizing the full power of a BPMS. The market is entering early mainstream status, and we expect that installations will deepen and broaden during the next two years as enterprises begin to enter Stage 3 of the Gartner BPM maturity model.

Inclusion and Exclusion Criteria

The market definition in this Magic Quadrant drives our criteria for the 22 vendors we analyzed. This research is a market analysis, not just a product analysis. The vendors we included offer products that fulfill all 10 areas of functionality (described below) as general-purpose, software infrastructure technology that is appropriate for any process domain needing this higher level of coordination across people, systems and information.

The 10 functional areas are:
1. Process execution and state management engine: This orchestrates the sequence of multiple process interaction patterns and maintains the state of process instances, activities and steps among humans and systems based on the metadata and process flow that were modeled. Supporting H2H, H2S and S2S interactions, case management and compensating transactions.

2. Model-driven design/development environment: This is a drag-and-drop modeling environment that includes process wizards, templates and "what you see is what you get" development tools to model and architect all process artifacts, including process design, human interaction, rule interaction, user interface, system interaction and electronic forms. Features such as search, version management, repository partitioning, publish and subscribe services, and check-in/check-out.

3. Document and content management: This is document and records management technology that is capable of storing, archiving, indexing, picking and tracking all types of content (for example, structured and unstructured data) inside and outside the context of a process flow. Features include folder management, document and image indexing, management of structured and unstructured data, and document archiving, as well as document security management.

4. User and group collaboration: These are design time and runtime human teamwork tools. The design time collaboration tools provide development tools for business users and IT to help close the communication gap between the two groups. Runtime tools provide work collaboration facilities so that work teams can drive work to completion faster and can detect, suggest and change system behavior for optimal system performance. This area includes shared work queues, project portals/rooms, role-based development, instant messaging/blogs and community bulletin boards.

5. Process component registry/repository: This stores all process definitions, components, models, rules and other process data that can be browsed by humans and called by systems. It supports search, version management, repository partitioning, publish and subscribe services, and check-in/check-out of all software components created and orchestrated at runtime.

6. System management and administration: These tools set up and maintain system and human access, as well as provide monitoring tools to govern the health of running systems. They include role management, security management, system management monitoring, LDAP integration and Active Directory deployment tools.

7. Business rule management: The ability to abstract and execute business policies and decisions/rules from the underlying application and to enable more-flexible process change. This includes event-based rules, inference-based rules, rule test and debugging, rule simulation/what-if analysis and rule templates.

8. In-line and offline simulation and optimization: These are process simulation and optimization tools that use real-time, historical and estimated data values to detect and suggest process optimization opportunities. Simulation tools should have tight integration with the development environment to enable round-trip engineering. This functional area supports predictive analysis (financial and risk), concurrent process and rule simulation, a simulation repository, optimization algorithms and round-trip engineering.

9. Business event management, business activity monitoring (BAM) and business intelligence (BI) management: Business monitoring and reporting tools are used for governing and alerting business managers on current and changing business operation behaviors. Features include event listeners, alarms, triggers of online analytical processing/BI reporting, key performance indicator dashboards, graphical process monitoring and process discovery tools.

10. System connectivity: These tools enable system architects to publish and subscribe system services, choreograph service interaction and set up bidirectional connections to various, back-end business applications via prepackaged system connectors, such as Enterprise JavaBeans or SOAP, technical adapters,

service support, enterprise service bus, data transformation tools and application adapters.

The evaluated vendors do not come to this market as horizontal process domain experts (for example, specializing in new-employee onboarding or call center cross-selling) or as industry specialists. They supply all functionality as one supported platform, even if some functionality is provided by partners. Even when partner technology is included in the suite, the vendor provides one point of contact for the buyer. Beyond product functionality, many vendor characteristics have been evaluated (see the "Evaluation Criteria" section) and are reflected by the vendor's position on the Magic Quadrant graphic. In addition, we purposefully have included globally representative vendors that will be of high interest to our user clients. A vendor's dot position on the graphic represents our assessment of that vendor's ability to meet the needs of this market today and in the future.

Primary inclusion criteria are:
- The vendor's product fulfills all 10 functionality areas.
- The vendor delivers these capabilities to the market as general-purpose, software infrastructure technology appropriate for any process. In other words, the vendor does not come to the market as a horizontal process expert or an industry specialist, and most of its revenue comes from the BPMS, not from its own pre-built solutions.
- The BPMS vendor provides all functionality as one supported platform. Some functionality may be supplied by intimate partners, but the evaluated vendor must provide only one customer support contact point.
- This market evaluation is global in perspective. Therefore, products from the included vendors are available in multiple continents and geographies.

Beyond these basic inclusion criteria, we applied the following filters:
- The product is of clear interest to our clients, or Gartner analysts feel that the product is noteworthy for our user clients.
- The product regularly competes with other vendors' products in this analysis.
- The vendor provided customer lists and references that use each of their products' capabilities.
- The products evaluated must have been available generally to users worldwide by 30 September 2007.
- The vendor provided at least three references using the full suite of the version we evaluated. The references demonstrated industry and geographic diversity.
- The vendor must be able to provide, on request, a list of at least 30 customers that demonstrates industry and geographic diversity.

In meeting these criteria, we feel that the 22 vendors in this analysis represent the leading contenders for long-term, global-market success. We continue to stand behind our 2006 prediction that by year-end 2008, the leading 25 BPMS providers will be evident. Nevertheless, other vendors that specialize in industry-specific processes or geographies may be of high interest to our user clients.

Other Vendors Considered for This Analysis

Although there are many interesting and specialized BPM-relevant vendors, below is a list of notable vendors that we considered or evaluated but did not include in our final BPMS Magic Quadrant analysis and scoring. Many of these vendors will interest particular segments of our user clients, as noted below.

- **Autonomy Cardiff** combines intelligent content capabilities within its BPMS product to provide unique functionality, such as in-process content search, paper-based data streams, mobile-device input and automatic expert recommendations. Users should consider this vendor for the support of highly collaborative and case-centric business processes with demanding information on ramping needs.

- **Axway's** Synchrony ProcessManager technically meets our definition for a complete BPMS, although this vendor has chosen to leverage its strengths as a business-to-business (B2B) gateway and is marketed as a multienterprise, B2B choreography environment, not as a general-purpose, business-user-oriented tool appropriate for coordinating any process. Axway also emphasizes industry solutions around its platform. It does have customers heavily using ProcessManager in production for flow control and B2B collaborative processes.

- **Banctec's** eFIRST Process has evolved from a long history in document-centric workflow, leveraging technologies from its 1995 acquisition of Recognition, the parent company of Plexus. Accordingly, case management is a central feature of its data organization and management functionality. At this point, Banctec is committed to entering the BPMS market. However, at the time of our analysis, the product did not quite meet our inclusion criteria, largely because of the timing of our analysis and because of Banctec's entrance into this market.

- **BizAgi** is a small, U.K.-based, BPM pure-play provider that did not quite meet our criteria as a BPMS, chiefly because its functionality is weak in user and group collaboration, simulation and optimization, and registry/repository.

- **Bluespring Software** is an emerging .NET-based BPM pure-play vendor. At the time of this research, Bluespring did not quite meet our functionality criteria for a BPMS, particularly in simulation/optimization and form design.

- **Cordys** is expanding into the BPMS sector from its initial focus on application platform middleware. Its new C3 release of the Cordys BPMS adds significant improvements in BPM modeling and execution, platform and integration support, security and governance, as well as case management. This vendor is not included because of the timing of our data collection process and its release.

- **Graham Technology** has a strong BPMS and was included in our 2006 analysis. However, during the past year, Graham decided to emphasize its business domain expertise in call center operations and a few other areas.

The company now approaches buyers with its strong composite process frameworks to resolve business needs, rather than as a general-purpose technology and tool provider. Consequently, it now competes more with CRM application vendors rather than with BPMS vendors.

- **HandySoft** is another vendor whose product is closer to a pure-play product than to a BPMS. During the past year, the company has approached this market more as an industry specialist, focusing on the government sector in particular. At the time of this writing, HandySoft had brought in a new management team and was revisiting its strategy.

- **K2** (SourceCode Technology Holdings), historically a .NET-based workflow provider, released its next-generation BPMS, K2 blackpearl, in August 2007. Because of the timing of its release, the K2 blackpearl platform was not available for inclusion in this Magic Quadrant.

- **Newgen Software Technologies** comes to the BPMS market from a heritage in the computer output to laser disc market (including integrated document imaging, and archival and retrieval software imaging, content management and workflow). The company is based in India and has an installed base of more than 700 customers in 33 countries. More than 100 of these implementations are large, mission-critical solutions deployed at the world's leading banking, financial services, insurance, business process outsourcing (BPO) and Fortune Global 500 companies. Newgen differentiates itself from competitors based on its knowledge of industry best practices in a rapid-delivery model designed to provide an exact-fit solution that can integrate fully with the specific needs of its customers.

- **SAP** is evolving its NetWeaver infrastructure to include BPM-enabling technologies (most recently with its acquisition of the Yasu Technologies rule engine). Today, NetWeaver is not a BPMS, lacking a number of required capabilities, especially strong H2H capabilities and simulation/optimization. SAP acknowledges that these areas need improvement and is addressing them. It has been publicly previewing a new BPMS-like environment based on Business Process Modeling Notation (BPMN), to be integrated with the recently released NetWeaver Composition Environment. In addition, IDS Scheer's Aris business process analysis (BPA) tool is SAP's answer to business-level process modeling, analysis and simulation. (Aris officially is called "SAP Enterprise Modeling Applications by IDS Scheer.") Although SAP recognizes that business processes increasingly should be adaptable by business users "on their individual level of influence and capabilities," it also recognizes that this will require substantial changes to the business applications that enable these processes. Changes to SAP's applications to support business user influence on adaptable processes are being addressed in upcoming releases based on SAP's Enterprise Service-Oriented Architecture.

- **W4** has a strong human workflow product and recently partnered with Magic Software Enterprise to compete as a broader BPM product. However, we found that W4 really is more of a pure-play product than a BPMS, with partial functionality in user and group collaboration, simulation and optimization, and the registry/repository. Nevertheless, the combined resources of both companies may enable them to expand globally and to continue to expand product functionality.

Added

New Vendors in This Magic Quadrant
- Ascentn
- AuraPortal
- Captaris
- EMC
- Intalio
- Microgen
- Oracle
- Software AG
- SunGard

Dropped

Vendors Dropped From This Magic Quadrant
- Axway: See the "Other Vendors Considered for This Analysis" section.
- CA: CA does not sell its product as a general-purpose, BPMS (as defined by Gartner) that is appropriate for any process. Rather, in our view, CA approaches this market as a process specialist, focusing on IT processes, especially those defined by the IT Infrastructure Library.
- Graham Technology: See the "Other Vendors Considered for this Analysis" section

Evaluation Criteria

Ability to Execute
At this point in the evolution of the BPMS market, vendors' products must deliver strong capabilities in all 10 feature areas for them to achieve long-term leadership in the classic BPMS market as described. We also heavily weighted sales execution and pricing, because it is a key measure of market reach and commercial viability. As major software infrastructure vendors such as Software AG and Oracle continue to enter this market, the smaller, private, best-of-breed vendors must establish a strong market share to maintain their leadership. Marketing execution goes together with sales execution to create "mind share;" thus, we have weighted these criteria high.

Overall viability continues to be an important criteria for buyers. However, standards support and runtime interoperability with complementary software infrastructure products, such as application servers and portals, increase buyers' comfort level with smaller, best-of-breed BPMS suppliers. Thus, we weighted this criterion as standard. Market responsiveness and track record also is weighted as standard; all vendors are shipping multiple releases or versions in a year. Because one of the most distinguishing characteristics of the BPMS market is the enablement of less technically knowledgeable individuals to play key roles in the process improvement life cycle, we heavily weighted the business user friendliness and the single-product experience delivered in the overall customer experience criterion. Finally, the operations criterion reflects our evaluation of the management team and how

well the company works with partners and its customers (see Table 1).

Table 1. Ability to Execute Evaluation Criteria

Evaluation CriteriaEvaluation Criteria	Weighting
Product/Service	High
Overall Viability (Business Unit, Financial, Strategy, Organization)	Standard
Sales Execution/Pricing	High
Market Responsiveness and Track Record	Standard
Marketing Execution	High
Customer Experience	High
Operations	Low
Source: Gartner	

Completeness of Vision

Completeness of vision in the BPMS market considers the same types of criteria we use to rate a vendor's ability to execute, but with an eye on the future. Because the included vendors already have started to pursue multiple growth paths (such as BPMS, BPP, BPMS-powered SaaS and business process outsourcing [BPO] models), in this analysis we evaluated their completeness of vision in how their products meet the classic BPMS use case as described. Revenue for 2006 experienced the sharp growth we expected, indicating that this market has turned from a growth market into an early mainstream market. Nevertheless, with so many vendors still competing, a vendor's plan for enhancing the product and for meeting the needs of new roles continues to be an important selection criterion. Purchasing decisions typically are split between business and IT professionals; a particular business process improvement project drives the collaboration between IT and business to find a solution. We reduced the weighting of the market and sales strategy, because these criteria must support the vendors' understanding of the market; otherwise, their message and value proposition will not resonate with buyers.

Because there are so many competitors, we heavily weighted product strategy as the criterion that most reflects the vendor's vision for R&D. We asked if the vendor will develop additional features itself, leveraging open-source-based technology, or partner or acquire capabilities. A vendor's product strategy also has a significant impact on customer experience. In the business model criterion, we considered whether the vendor is funded adequately and staffed with individuals who we believe can execute the product vision. Although specific support for vertical industry needs was considered, we de-emphasized this criterion to focus on the general-purpose software infrastructure technologies buyers will find in a BPMS. Nevertheless, process templates and frameworks are a product area where few standards exist; thus, there is a lot of opportunity for vendors to

further distinguish themselves and to deliver higher added value to their customers' initiatives. With standards gaining popularity, including BPMN, XPDL, BPEL, Business Process Definition Metamodel and Web services for remote portlets, we also rated innovation as extremely important for long-term differentiation. Finally, although BPMS adoption is strongest in North America, the regions of Europe, Australia, and South and Central America are growing, so we weighted geographic strategy as "standard" (see Table 2).

Leaders

Leaders are distinguished by their relentless focus on driving a paradigm shift toward increased business user participation in the entire process improvement life cycle by enabling explicit, model-driven solution deployment rather than traditional coded approaches. With the exceptions of IBM and Software AG, leaders come to this market with products advanced from BPM pure-play tools and that best support the emerging use case described. Products from leaders (except IBM and Software AG) have proved to be the most effective solutions for business problems. They excel at enabling collaboration among business users and IT professionals, from the design and modeling phase through execution and optimization, using an iterative process improvement methodology in which the artifacts (outputs) of each phase move seamlessly into the next.

The products from all leaders have unique features that make sophisticated technical capabilities much more accessible to business process analysts and operational managers. However, products from former BPM pure-play vendors are still the closest to delivering model-driven, round-trip behavior. This means that all technologies in the suite work together in a seamless life cycle manner, artifacts produced by the model move seamlessly into execution, execution results are monitored and analyzed easily, and the data is used easily in simulations and further design iterations.

Table 2. Completeness of Vision Evaluation Criteria

Evaluation Criteria	Weighting
Market Understanding	High
Marketing Strategy	Standard
Sales Strategy	Standard
Offering (Product) Strategy	High
Evaluation Criteria	Weighting
Business Model	Standard
Vertical/Industry Strategy	Low
Innovation	High
Geographic Strategy	No Rating
Source: Gartner	

Because the model is executable, processes can be flexible without sacrificing management control.

In addition, as a group, leaders exhibit superior sales and marketing execution. Many leaders exhibit strong innovation in their products, business models, consulting and educational services, and solutions. Many of these vendors have introduced new SaaS offerings and BPO alliances, and are developing their partner ecosystems to support the emerging BPP model. We anticipate that these vendors will continue to be leaders during the next 18 to 24 months as interest in this use case and paradigm shift continues to grow and transition to the BPP model.

Metastorm and Global 360 are the only Microsoft-centric BPMS providers in the Leaders quadrant. Microsoft loyalists prioritize their requirements for BPM a bit differently than users, who typically focus on Java Platform, Enterprise Edition (Java EE)-based tools. In particular, the ability to integrate with Microsoft Office SharePoint Server and Microsoft Office is increasingly a key evaluation criterion. Therefore, comparing these vendors' products to Java EE-based products can, depending on the weighting of the evaluation criteria, be a direct comparison. Furthermore, the difference in the underlying component model makes for a different implementation experience. Nevertheless, Metastorm and Global 360 have similar growth strategies – to expand nonorganically through the strategic acquisition of technologies and services that broaden their platform offerings and enable them to sell beyond the traditional, midmarket, Microsoft-loyalist enterprise.

Challengers

Challengers in this analysis approach the market with products that reflect a hybrid vision and strategy; they are not focused exclusively on the classic BPMS market. Each offers products that address this market yet strongly reflect their visions for other, emerging markets. In each case, this "hybrid" vision and strategy keeps them in the Challengers quadrant rather than in leaders; each has an interesting market vision that is not perfectly aligned with the classic BPMS market needs. For Fujitsu and Oracle, the vision encompasses the convergence of SOA/service-oriented development of applications with BPM in pursuit of an integrated composition environment. Oracle's vision goes even further to embrace the BPP concept and service-oriented business application. Oracle and Fujitsu often appear on buyers' shortlists, especially when the IT organization is trying to establish a technology standard for SOA-enabled BPM. However, these vendors sometimes lose the deal to a vendor in the Leaders quadrant if the business buyer involved in the selection values the paradigm shift mentioned. Products from both vendors are not as strong as those from the Leaders quadrant for supporting a more agile methodology with strong business user involvement throughout.

In contrast, Adobe and EMC approach this market by emphasizing one process style more than others. Adobe targets its resources first on processes that require strong, human-interaction management. Adobe's core competency in producing easy-to-use collaboration tools for the consumer market is extended into Adobe LiveCycle Enterprise Suite, which is differentiated by its ability to create a highly interactive, engaging, multimedia-based user experience. References in consumer-focused industries

particularly valued these capabilities. Although external-facing processes are the "sweet spot" for BPMS deployments, few buyers express requirements for these kinds of features. To become a leader, Adobe must evolve its BPMS to support SOA and Web services standards and interactions, enabling the coordination of enterprise-level strategic processes that also rely on agile system resources. EMC is a relative newcomer to this market, entering after completing its BPMS with the acquisition of ProActivity. It targets is resources first on processes with high document management requirements. As a newcomer, EMC has fewer installations than the leaders, and many referenced deployments do not fully exploit all the technologies provided.

Visionaries

Vendors in the Visionaries quadrant (by definition) are innovators. Generally speaking, small and highly innovative vendors are the most susceptible to acquisition. With the exceptions of Ultimus and Singularity, visionaries are recent entrants to this market and have fewer deployments and less market visibility. Most visionaries are small. Singularity is a U.K.-based company that is expanding gradually beyond Europe, the Middle East and Africa. Intalio, the only open-source-based BPMS vendor, brings a unique business model to the BPMS market; it is attempting to counter typical commercial software market dynamics with a community-based, go-to-market strategy. Ascentn and AuraPortal are young companies. Ascentn's product reflects capabilities typically found in some leaders' products, such as Lombardi, yet it is based on Microsoft's core infrastructure servers and tools. Ascentn's Visio models are executable XML (driven by dynamic metadata) and provide round-trip behavior without sacrificing management control. AuraPortal, based in Spain, has expanded globally by concentrating first on Spanish-speaking countries.

Ultimus is a privately held company that expanded from its roots in human-workflow management into BPM, participating in Gartner's BPM Magic Quadrants since 2003. In 2007, Ultimus introduced a significantly re-architected product. Its v.8 uniquely provides a 3-D XML data hierarchy to streamline Web services creation to communicate with third-party applications. The references we spoke to were part of the final beta testing.

SunGard is a newcomer to the BPMS market, having acquired a small German BPM pure-play technology provider, Carnot. Unlike the other visionaries in this analysis, SunGard has the resources to accelerate the adoption of Carnot as a stand-alone BPMS and as core infrastructure technology for empowering business domain solutions provided by its other divisions and to support its customers' BPP models. Furthermore, SunGard also provides its product directly, via consulting, SaaS or outsourcing services.

Niche Players

The overall dot pattern in our Magic Quadrant graphic highlights the maturing of the BPMS market. This technology area is moving into mainstream adoption, with all vendors moving toward the right in the Magic Quadrant. We have only two niche players: Microgen and Captaris. These two companies have taken a more specialized approach to process automation and business user control for years. Leadership at Captaris seems determined to keep Captaris Workflow a specialized workflow solution largely embedded in image and document-centric solutions from its value-added

resellers, rather than a general-purpose BPM technology. Microgen is a European company whose core business is financial services solutions and consultancy, with some expansion into energy. Its Aptitude product initially was meant to support the corporate value proposition of developing mission-critical products, solutions and services for markets that need to process high volumes of transactions and complex data. In 2007, Microgen's leadership identified the BPMS market as a high-growth software segment in which it might compete. Thus, Microgen is a newcomer to this market. Its version 2.3 reflects new functionality in human workflow and simulation to meet the needs in this market. The company is just beginning to expand outside Europe.

Vendor Strengths and Cautions

Adobe
Strengths
- Adobe's BPMS reflects a strong understanding of the evolving IT and business roles and responsibilities in process improvement. Its unified, model-driven design environment is highly intuitive and reflects the activities and perspectives that are appropriate for each role.
- LiveCycle Enterprise Suite treats documents and forms as first-class process objects, with security at the action level, not just the document level. It integrates tightly with popular enterprise content management solutions. Users with form/document-driven workflows highly value this functionality.
- LiveCycle Enterprise Suite blends PDF, Flex, Adobe Integrated Runtime and process management capabilities to deliver rich and dynamic user interfaces to keep process participants engaged in online or offline modes. This is highly valued for external-facing processes. Adobe has a proven track record for creating ubiquitous technologies that contribute to long-term success.

Cautions
- Some customers have expressed concern about Adobe's support services, especially for large, global-solution deployments. Adobe is addressing this issue by adding client relationship managers, dedicated support resources for Adobe LiveCycle Enterprise Suite and improved escalation procedures.
- Adobe does not yet have a strong ecosystem of solution partners building process frameworks for its platform.
- Adobe has not yet marshaled all its resources behind its vision and product to establish leadership in this market.

Appian
Strengths
- Appian's BI BPM product, Analytics Everywhere, stores and exposes all process instance data in memory on the process server. The data is structured in columns and time sequences so that business analysts can create reports easily, without requiring a data administrator.
- Appian Enterprise 5.6 is one of few BPM products that provides a 100%, thin-client architecture for design time and runtime. Its tightly integrated environment provides a seamless user experience for each component. With this unique architecture, Appian is offering a complete BPM SaaS offering, Appian Anywhere.

- Unlike its peers, Appian does not charge a per-seat price for its process designer, allowing as many users as possible to participate in optimizing processes.

Cautions
- To avoid performance issues, system administrators must pay keen attention to memory use and the archiving of data out of the in-memory database. Appian is aware of this issue and is addressing it in its next release.
- Writing business rules could be simplified for business users. Appian's approach is similar to programming complex Excel formulas vs. using simple decision tables or English-based conditional statements.

Ascentn
Strengths
- Ascentn AgilePoint is a model-driven, .NET execution engine and a metadata-driven, IT asset-abstraction framework that, together, dynamically process-enables the entire Microsoft software stack, including BizTalk Server, SharePoint Server, Windows Workflow Foundation, Office and Visual Studio. The metadata-driven, IT asset-abstraction framework can be used to process-enable system activities into AgileParts and dynamic human activities called "AgileWorks" that can be assembled and configured at the process layer to create directly executable processes.
- AgilePoint's modeler is Visio, building on the business user's experience and comfort with this tool.
- Ascentn is a preferred partner in the Microsoft Business Process Alliance program, which entitles Ascentn to direct Microsoft R&D, marketing and sales support.

Cautions
- Ascentn is an extremely small company, with less than $10 million in revenue.
- If you don't have the Microsoft supporting technologies in place for AgilePoint, then it will require multiple product installations that drastically could increase total cost of ownership.
- Ascentn does not provide packaged vertical templates, such as claims management for the insurance industry; it relies on partners for domain expertise.

AuraPortal
Strengths
- AuraPortal delivers an example of next-generation BPMS. The company understands that BPMS products need to be business-user-oriented.
- AuraPortal BPMS features model-driven execution (models can be executed immediately, without the need to program any code).
- AuraPortal BPMS has been developed around .NET and is completely Web-based.
- AuraPortal delivers features such as a process dictionary, secure rooms (domains for providing user-defined access protection to specified parts of the process in execution), the creation of private external portals and a "guest user"' that not only triggers processes but also participates in process execution.

Cautions
- Until recently, AuraPortal was available only in Spanish, and the company had a marketing strategy only for Spanish-speaking countries. AuraPortal has implementations in 18 countries, mostly in Latin America. However, the product has been translated into several other languages, and the company is preparing to enter new markets, especially in North America.
- As is typical of startups, AuraPortal will go through organizational challenges as it delivers on its growth strategy.
- AuraPortal does not yet deliver its own vertical solutions, leaving these entirely to its partners.

BEA Systems
Strengths
- BEA Systems' AquaLogic BPM Suite 6.0 empowers business users to collaborate with IT during all phases of the business process life cycle, while providing a comparatively fluid round-tripping experience.
- AquaLogic BPM has its own modeling and rules capabilities but also works with other popular tools in these categories. Its process engine combines strong H2H, H2S and S2S capabilities in an open, standards-based architecture.
- AquaLogic BPM appeals to organizations that want a solid, model-driven integration platform to support strong business user involvement in constructing process-centric solutions involving SOA and Web 2.0.

Cautions
- The integration of complementary BEA products, such as WebLogic Integration with AquaLogic BPM Suite, is not seamless in support, administration or documentation.
- BEA bases its BPM value proposition on product innovation. This message may not resonate with BPM buyers that are looking for business results.
- AquaLogic BPM Suite supports design time only simulation and optimization.

Captaris
Strengths
- Captaris Workflow has a business-user-friendly, wizard-driven modeling for designing workflows. It is a pure .NET 2.0 tool, generating VB.NET.
- There are strong, out-of-the-box, human-workflow tasks and form-building capabilities.
- Integration with SharePoint (supporting Web Parts) and Microsoft Office SharePoint Server 2007 for event triggers and InfoPath forms is strong.
- Simulation is a nice add-on module for those who are ready for it; it supports optimization of resources, and this module leverages Microsoft's Windows Workflow Foundation.
- This is an extremely cost-effective tool for human and document-/image-centric departmental workflows to complement key Microsoft server technologies.

Cautions
- Captaris has been slow to recognize the BPMS market opportunity and remains more interested in selling scanning, faxing and imaging workflow products. Some users report that their inquiry calls are not returned.
- Captaris is not a Microsoft Business Process Alliance partner, although it participates in Microsoft's independent software vendor program. Therefore, Workflow, as a BPMS product, gets little Microsoft sales assistance.

EMC
Strengths
- EMC has formed an independent BPM unit and has invested heavily in the EMC Documentum Process Suite, which is based on Documentum's proven architecture. The company wants to focus on complex, mission-critical processes showing high demands on availability and scalability.
- With the purchase of BPA vendor ProActivity, EMC acquired strong process analysis capabilities, excellent BPA methodologies and a lot of knowledgeable people.
- EMC has invested heavily in a BPM consulting practice that it offers to leading system integration/consulting organizations.

Cautions
- EMC has not yet articulated a clear position about its market differentiation. The company will have to fit its BPM message within its other successful messages, such as information life cycle management and transactional content management.
- EMC is still new in this market and has few references that combine all its different components.
- EMC's sales force and partners are undertrained on BPM implementation designs and best practices vs. enterprise content management (ECM) and workflow.

Fujitsu
Strengths
- Fujitsu's Interstage Business Process Manager 8.1 offers a completely integrated BPMS environment that excels in managing high-volume, human task management and system integration, and it offers one of the most robust service repositories on the market, CentraSite.
- Interstage's best-fit use is when an integration process layer is needed to tie together composite applications that involve the coordination of systems (especially exposed as SOA services) and humans.

Cautions
- Fujitsu is making considerable investments in improving its BPMS market share in the U.S. but still has a way to go to gain parity with the other large software infrastructure vendors.
- Fujitsu's simulation and business rule capabilities are average, as compared with those of other BPM competitors.
- Although Fujitsu espouses a strategy of cross-business-unit synergy to improve its overall position in North America, the company still needs to improve the synergies between the Interstage Group and Fujitsu Consulting to meet growth goals for North America and fulfill customers' demands for BPM consulting expertise.

Global 360
Strengths
- In addition to Process360, a complete Microsoft-based BPMS, Global 360 offers Insight360 as a stand-alone process analytics and optimization server, and Case360, a Java EE case management solution. These capabilities appeal especially to large enterprises seeking stand-alone, BPM-enabling technologies rather than suites.
- With Insight360 2.0, Global 360 extends optimization to the problem of broader workforce optimization; workforce performance events can be generated by any application and fed into the Insight360 analytic engine.
- Global 360 has a record of high customer retention.
- A common-process metamodel is shared across Global 360's simple, business-oriented process modeling and its technical modeling environment. This enables full round-tripping, although it is manual.

Cautions
- Realizing the value of Global 360's process intelligence, case management and process optimization capabilities requires a higher level of process management maturity than is typical of Microsoft-centric buyers. (Most Microsoft-centric BPMS buyers are looking for graphical-workflow modeling and execution rather than sophisticated process analysis or optimization.)
- Global 360 is pursuing a complex product, market and sales strategy, trying to appeal to large enterprises and traditional Microsoft midmarket buyers. We think this will be difficult to execute. Customers should watch for any impact on sales, support and consulting responsiveness and for delays in maintenance releases and versions as a result of the company's efforts to balance potentially conflicting market and customer needs.
- Global 360 has few independent software vendor partners creating process solutions for its platform. The company plans to increase investments in this area.

IBM
Strengths
- IBM has marshaled all its resources, including Global Services, university outreach, industry expertise and its partner ecosystem, to accelerate user adoption of BPM as a management discipline.
- IBM has a broad and strong set of BPM-enabling technologies to help users advance their SOAs and evolve toward a BPP model.
- WebSphere Business Modeler and Business Monitor are intuitive for business users and analysts, facilitating their involvement in the design, monitoring and analysis phases of process improvement life cycles.
- IBM has built an impressive software and IT services ecosystem for its SOA Foundation and has established notable market awareness of its SOA and BPM capabilities.

Cautions
- IBM doesn't have one BPMS product; its strategy for BPM is federated interoperability across a wide range of products, including Tivoli, WebSphere, Lotus, FileNet and Rational. Consequently, there is no unified product experience for any role engaged in the process improvement life cycle.
- In IBM's approach to BPM, changes to the deployed executing process remain predominantly an IT responsibility.
- IBM's BPMS product and professional service offerings do not yet sufficiently support the business-user-driven, good-enough, agile solution development characteristic of successful BPM initiatives.

Intalio
Strengths
- Intalio has a unique business model that uses open-source content, licensing and community marketing.
- Clever use of the open-source business model could expand Intalio's customer reach far beyond what it could achieve using traditional commercial approaches.
- More than 250 companies subscribe to Intalio BPMS Enterprise Edition 5.0.
- Users whose BPM initiatives are being driven more by IT professionals than by business users and want to do early proof-of-concept testing should consider the Intalio BPMS Community Edition.

Cautions
- As software infrastructure titans increasingly dominate the BPMS market, small companies such as Intalio will find it increasingly difficult to compete with the larger vendors' hefty investments in marketing and sales.
- Companies that use Intalio should be prepared to invest in training, because Intalio does not offer consulting services or have consulting alliance partners in all geographies.

Lombardi
Strengths
- Lombardi continues to be one of the most progressive BPMS vendors, providing an environment for incremental, business-driven process improvement. The company focuses on ease of use and real-time feedback.
- Blueprint, an SaaS-based product, addresses business planning activities that must be modeled early in the process life cycle.
- Customers report that Lombardi Teamworks 6 has enough functionality to satisfy the IT department, yet is rapidly embraced by business users and business analysts.
- Lombardi has trained 1,700 consultants since 2006 in North America and Western Europe and has expanded alliances with system integrators.

Cautions
- Teamworks is an intuitive, easy-to-use product that delivers the right amount of functionality for the various business and IT roles engaged in process composition. However, users that need specialized simulation, optimization, ECM and rule capabilities may need to augment the product with best-of-breed tools.
- As the business rule engine (BRE) market continues to consolidate, Lombardi's alliances with pure-play BRE vendors are at risk, limiting customers to the basic BRE provided with Teamworks.

Metastorm

Strengths

- Metastorm has a strong heritage in providing BPM software based on Microsoft technologies and is a leading Microsoft Business Process Alliance partner.
- Metastorm continues to bolster its BPMS offering with strategic acquisitions for technology and process management expertise. Metastrom's acquisition of Proforma (a market-leading BPA tool), Spotlight Data (a process data collection tool) and Process Competence (a European BPM services firm) significantly broadens its customer commitment in streamlining the process discovery process above and beyond that of most BPM players.
- Metastorm's go-to-market strategy is to offer best-of-breed enterprise architecture, BPA and BPM technology that can be implemented as stand-alone solutions or as integrated components. With these three pillars of technology, the company aims to help organizations unify strategies, analyses and process executions.

Cautions

- Gartner feels that Metastorm's native rule technology is somewhat simplistic. For sophisticated rule capabilities, the company integrates with Fair Isaac's Blaze Advisor and Microsoft's BizTalk Server Business Rules Engine.
- Metastorm's license and pricing structure is unnecessarily complex, and many customers have found it confusing.

Microgen

Strengths

- Aptitude BPM Suite delivers one common programming language, user interface and data model to support business and IT collaboration.
- Its event-driven processing within an SOA context enables real-time operations, with full transaction management (using Extended Architecture) and compensating operations.
- There is rich simulation at design time for data distribution and people, although resource simulation is harder to set up.
- Multithreaded and rule-centric architecture provide strong support for high-volume, data- and transaction-intensive workflows.
- There is strong support for staged deployment; for example, the roles/security model is applied to authoring and runtime, and user credentials are taken from LDAP and Active Directory (but not roles, yet).

Cautions

- Because Microgen is new to the market, few references are exploiting all the functionality of its BPMS.
- Aptitude BPM Suite has low support for BPM-centric, open standards such as BPMN, XPDL, BPEL and BPDM.
- Modeling is more programmatic, showing Aptitude's heritage as a rule engine and making it less business-analyst-friendly.

Oracle

Strengths

- Users can license capabilities incrementally, for example, starting with the Oracle BPA Suite and adding BPEL Process Manager and Oracle BAM.
- Oracle's BPA Suite and SOA Suite read the same metadata repository (Process Blueprint), supporting design time collaboration among business analysts and developers. Models created in Oracle BPA Suite and saved in BPMN format are mapped directly into BPEL constructs via Process Blueprint. Oracle JDeveloper can edit these models. This enables full round-tripping, although it is manual.
- BPEL Process Manager has strong human-workflow extensions to support advanced capabilities, such as voting, group assignments and time limits on activities.
- Oracle's event-driven BAM is strong, with pre-built metrics and dashboards that are created easily and visually (although it requires a strong data understanding).

Cautions

- Collaboration between IT and business is inhibited by the use of different design and authoring environments by role. For example, exchanging models across roles requires the convergence of versions from disparate tools.
- The overall user experience reflects a traditional development methodology rather than a model-driven, collaborative and agile method.
- Simulation is supported only at design time in Oracle BPA Suite.

Pegasystems

Strengths

- Pegasystems SmartBPM Suite has many new features to support agility, including automated use case capture and save, automated testing and integration with the SharePoint 2007 developer portal to support multiple forms of synchronous and asynchronous collaboration.
- The application accelerator wizard quickly builds process workflows, generating all the artifacts and storing them. Users can run process instances immediately through the generated application and can simulate or analyze its behavior.
- SmartBPM Suite has many advanced features, such as data encryption, granular security, advanced testing support, and support for language translation and disabled workers, reflecting the company's large-scale deployment experience.
- SmartBPM Suite features rich user interface support, including Flex, Ajax and rules – even in thin clients – to support intent-led/contextually smart interfaces.
- SmartBPM Suite is a highly integrated product, with one object model reflecting all process artifacts.

Cautions

- Pegasystems has few independent software vendor/business domain partners to leverage as incremental solution and sales channels.
- Rich functionality can be overwhelming for new users, and few Pegasystem skills are available on the market. Most buyers rely on Pegasystems consulting for initial assistance, adding to the entry cost

- Although publicly traded, Pegasystems is still a fairly small company, with fewer resources than its larger competitors. Thus, deal size and relationship potential tend to influence the sales and support attention buyers receive.

Savvion
Strengths
- Savvion BusinessManager 7.0 is one of the most mature BPMS products in this analysis. Its proven ability to handle high-volume workflows, requiring tight coordination of people and systems, has contributed to Savvion's growing success in the BPO market.
- Savvion's tightly integrated Java EE BPMS aligns the right capabilities to the various roles, such as business process analyst, business process architect and process participants.
- Savvion's process modeler and process repository are easy for businesspeople to use.
- Savvion's new, process-monitoring component, Business Expert, analyzes in-flight processes and dynamically suggests changes to process conditions and rules to keep running processes optimal.

Cautions
- Savvion BusinessManager includes an embedded BRE from Yasu Technologies, which recently was acquired by SAP. If SAP does not extend this agreement, then end users needing stronger rule functionality will have to consider other third-party BRE partners.
- As the BRE market continues to consolidate, Savvion's third-party BRE alliances are at risk, limiting customers to Savvion's basic rule functionality.
- As Savvion expands sales through more-indirect channels, such as system integrators and consulting partners, BPO, OEM relationships and SaaS, user enterprises should watch for any impact on sales, support and consulting responsiveness and for delays in maintenance releases and versions as a result of resources being spread too thin.

Singularity
Strengths
- Long experience in the process management world has given this U.K.-based player a sound understanding of the BPMS market. Although Singularity Process Platform is deployed primarily in .NET environments, it now deploys on Java.
- Singularity offers complete functionality but differs from other vendors through its strong focus on knowledge-centric process support. This has resulted in one of the most complete solutions for case management in the BPMS market (for example, support for case modeling, case relationships and predictive analysis).
- Singularity's business model is strong; the company actively supports partners in telecommunications, capital markets and government, as well as a generic BPM channel complemented by the market-specific Process Accelerators.
- Singularity offers a unique implementation methodology in which it forms different teams at the customer site to compete inside the organization.

Cautions
- Although Singularity has some progressive ideas, it still provides an old-style interface with the developer in mind.
- Singularity is small, with 190 people, 60 of whom are in the service department. The company is privately owned.
- Singularity has minimal staff coordinating resellers in North America.

Software AG
Strengths
- Software AG's webMethods BPMS 7.1 appeals to business users that need to continuously modify and improve business processes via a model-driven approach. It also satisfies IT's requirements for an ISE with a comprehensive treatment of metadata and full-service life cycle governance.
- webMethods BPMS offers an integrated business user experience, balanced support for multiple interaction types and well-integrated, attractive simulation capabilities. It also provides SOA governance through a Universal Description, Discovery and Integration v.3 federation service link to CentraSite Governance Edition.

Cautions
- Software AG has not yet instituted a well-developed IT services and application development partner ecosystem for vertical-industry BPM solutions or templates.
- The company has had difficulty in articulating its value proposition and vertical-industry, go-to-market strategy for BPM. The company needs a clear-cut, efficient commercialization strategy to compete with larger BPM vendors, such as Oracle and IBM.
- webMethods BPMS' revenue growth will accelerate as Software AG upsells into its installed base, but the company has not demonstrated that it has a strategy for winning new accounts.

SunGard
Strengths
- Beyond its general-purpose BPMS, SunGard's acquisition of Carnot enables SunGard to develop a new, advanced business model as a networked business services provider.
- SunGard Carnot is a strong Java EE-based suite, easy to embed in other architectures and based on an open-services repository. It offers event-based monitoring that correlates events to process activities and technology adapters for integration.
- SunGard has strong SaaS and BPO features.
- SunGard inherited a lot of management expertise, and we expect it to become an aggressive player in the BPMS market.

Cautions
- The product still must improve in some areas, such as collaboration, and must provide a business "cockpit" and a tighter content management repository.
- Most references for the former Carnot BPMS are in Europe.
- Because of SunGard's strategy of focusing on its financial services customers while being a generic BPMS, the company needs a clear marketing strategy.

Tibco Software

Strengths

- Business Studio 2.0 is an Eclipse-based, unified design environment that supports business process analysts and developers. It is BPMN 2.0-compliant and supports the reuse of process fragments, translation to BPEL via XSLT and semantic validation.
- iProcess Suite uses an event-driven architecture with a strong, wizard-driven BAM layer to enable deep process insight.
- There is good support for many open standards, including XSLT, XPDL, BPEL and BPMN. Artifacts are saved as XPDL, enabling easier translation from BPMN to runtime BPEL and interoperability with other BPM tools, such as IDS Scheer.
- Business Studio's design time simulation is highly graphical. It uses a change history log, enabling side-by-side comparisons of designs.

Cautions

- The overall process improvement life cycle experience is still disjointed; integration with BusinessWorks for SOA and integration work by developers is not complete. As a result, solution deployment is complex for processes that combine human workflow, information flows and service orchestration. Round-trip engineering is weak because of the hard separation of roles and phases between the two runtimes.
- A sophisticated product and high price prevent Tibco from appealing to less-mature buyers and smaller organizations.
- There is little support for complex content interactions, such as case-management-style workflows.

Ultimus

Strengths

- Ultimus BPM Suite 8.0 offers particularly strong human-workflow technology that is conducive to change and decreasing time to deployment, as well as a work management platform that readily can handle exceptions.
- Ultimus' True SOA Server is based on Web services standards and uniquely provides a 3-D XML data hierarchy to streamline Web services creation by enabling communication with third-party applications.
- BPM Suite 8.0 has been localized into 16 languages, sold directly in 16 countries and offered in 80 other countries through partners and value-added resellers.
- Ultimus leverages the full stack of Microsoft technologies, catering well to Microsoft-centric enterprises, while interoperating with other technologies through the SOA architecture.

Cautions

- Since our 2006 research, Ultimus has not experienced revenue growth comparable to other vendors in this analysis. New leadership recently was brought in to address this issue.
- Version 8.0 reflects significant functionality re-architecting and became available only on 30 September 2007; thus, this version has not been field-tested as broadly as other products in this analysis. Beta customers were provided as references.
- Version 8.0 reflects more commitment to SOA than to BPMN, BPEL or other BPM standards.

Vendors Added or Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor appearing in a Magic Quadrant or MarketScope one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. This may be a reflection of a change in the market and, therefore, changed evaluation criteria, or a change of focus by a vendor.

Acronym Key and Glossary Terms

B2B	business-to-business
BAM	business activity monitoring
BI	business intelligence
BPA	business process analysis
BPM	business process management
BPMN	Business Process Modeling Notation
BPMS	business process management suite
BPO	business process outsourcing
BPP	business process platform
BRE	business rule engine
ECM	enterprise content management
H2H	human-to-human
H2S	human-to-system
IDE	integrated development environment
ISE	integrated service environment
Java EE	Java Platform, Enterprise Edition
S2S	system-to-system
SaaS	software as a service
SOA	service-oriented architecture

Note 1
BPM and the BPMS: Implicit vs. Explicit Process Management

Today's accelerated business cycles require managers to manage operations in real time. Managing work activities by using after-the-fact reports is no longer enough. Pressures for information transparency, operational accountability and compliance make it critical for managers to monitor transactions by understanding operational processes and being able to see work in progress to adjust as appropriate. Increasingly, business managers, employees and potentially even external constituents to the process want to proactively adjust work in progress, not just to react to information about completed business transactions.

Furthermore, in today's global business environment, operational excellence is measured increasingly by process responsiveness – that is, agility – rather than by efficiency. By itself, efficiency is no longer enough. BPM is the newest process management theory meant to address these new business realities. BPM's disciplines largely are technology-enabled to better address today's more-unpredictable market dynamics by applying process management approaches. BPM advocates process transparency and effectiveness in addition to agility. Processes that are transparent, effective and agile are more likely to be perceived as innovative by employees, customers and partners.

In most organizations, business processes largely are embedded in applications and people's experiences. Parts of processes may be carried out through informal work practices, which are buried in the experiences of employees, who may leave the company. Furthermore, informal work practices contribute to the lack of process transparency. When a process is automated by an application, it is, at best, implied to the user; the actions of the application show that it is operating by a defined process, but the process is achieved by traditional programming logic and is not created using a process model visible to business users or IT developers. Gartner refers to this style of process management as "implicit" process management. Clearly, a process is at work, but the process is not isolated easily from the runtime implementation expressed in the application; hence, the process is real but implicit, the opposite of explicit.

In contrast to implicit process management, BPM advocates that processes must be transparent to internal and external users. When processes are visible, managers can better manage them, participants can contribute to making the process more effective and participants are more likely to perceive the process as innovative and responsive. Gartner refers to this as "explicit" process management.

A BPMS takes process management to the next level; in addition to explicit process modeling, it makes the model executable, while retaining the model as the central focus for future process changes. The graphic model is actually metadata that is dynamically interpreted and transformed into the executed process. A BPMS supports the entire process improvement cycle, from definition to implementation, monitoring and analysis, and through ongoing optimization. As a software infrastructure platform, it enables business and IT professionals to work more collaboratively on process design, development, execution and enhancement, and to close the execution gap between IT and the business.

BPMSs deliver short-term benefits, such as cost and time savings, and help in meeting compliance demands, and longer-term advantages, including visibility across broad, cross-functional processes and process agility to meet changing market and constituent needs.

Source: Gartner (November 2007)

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor that compete in/serve the defined market. This includes current product/service capabilities, quality, feature sets, skills, and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability (Business Unit, Financial, Strategy, Organization): Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood of the individual business unit to continue investing in the product, to continue offering the product and to advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all pre-sales activities and the structure that supports them. This includes deal management, pricing and negotiation, pre-sales support and the overall effectiveness of the sales channel.

Market Responsiveness and Track Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional, thought leadership, word-of-mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements, and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the Web site, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling product that uses the appropriate network of direct and indirect sales, marketing, service and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature set as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including verticals.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.