

Magic Quadrant for Business Process Management Suites, 2006

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BPMSs are a natural advancement to meet the growing requirements for greater degrees of process management maturity and agility. Users should anticipate further churn in this market through 2008 as these and other “special mention” vendors jockey for leadership.

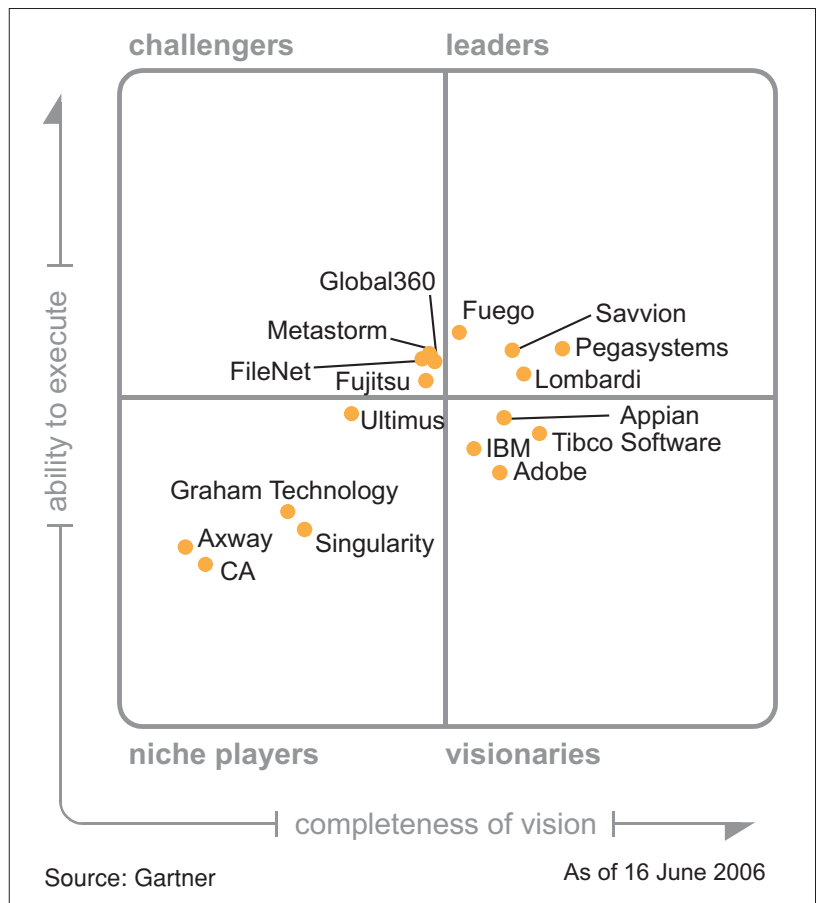
WHAT YOU NEED TO KNOW

- Business process management (BPM) and technologies to support its disciplines should be considered for investment by user organizations interested in increasing enterprise agility. Business process management suites (BPMSs) are one technology stack to be considered.
- BPMSs represent the second generation of BPM-enabling technologies that have been packaged into a suite, rather than sold as independent, best-of-breed tools. In 2003, Gartner identified the market for BPM pure-play products, which were the first products to deliver multiple BPM-enabling technologies built from the ground up to address process coordination holistically. Most importantly, these were the first BPM-enabling technology products to coordinate the interactions among people, systems and data as equally important aspects of work. Although the BPM pure-play products will continue, through 2008, to support business’s desire to see and manage their processes across organizational boundaries and give nontechnical managers hands-on control of those processes, BPMSs build in additional capabilities to support collaboration between IT and business users.
- Although this Magic Quadrant reflects the second generation of BPM suites, the results still reflect early market characteristics. For example, only a few of the BPM pure-play vendors have advanced their products and strategies sufficiently to move into the Leaders quadrant. There are other BPM technology vendors that did not qualify for inclusion here yet have strong products that users should consider when their requirements are not as expansive as our BPMS functionality list. Likewise, there are multiple, large, public software infrastructure technology providers represented here that have only recently entered this market, with products only beginning to ship (such as IBM and CA). Others, such as Oracle, Microsoft and SAP, have not yet completed their architectures for

BPM. Clients may find it unusual to see IBM in the Visionaries quadrant; IBM is uncharacteristically early to this market.

- Some of the vendors reflected here are still assembling their full offerings, often provided under an original equipment manufacturer (OEM) agreement or by partnering with other best-of-breed BPM technology providers to fill capabilities within the core 10 feature areas. For inclusion, vendors only had to have seven out of 10 capabilities. Functionality could be provided by a partner; however, we did evaluate the fluidity of the process improvement life cycle experience. (We labeled this criterion “single product experience.”) Thus, not all products evaluated deliver as fluid a single product experience.
- BPMSs support a more comprehensive approach to process coordination than BPM pure-play and best-of-breed BPM point products patched together. However, BPMSs are still maturing. Therefore, organizations that

Figure 1. Magic Quadrant for BPMSs, 2006



have already made investments in earlier generations of BPM-enabling technologies should determine whether they have solved their BPM problem and potentially reassess their entire BPM technology strategy. They should monitor the evolution of this market and work with their vendors to promote a more integrated solution using their existing tools. If BPM problems are still acute, despite earlier investments, then, in addition to driving their current vendors toward creating a more integrated solution, users should evaluate the potential incremental value of a BPMS to further address the enterprise's transformation to a process-driven culture.

STRATEGIC PLANNING ASSUMPTION(S)

Because so many BPM technology vendors are small companies with limited resources, no more than 25 of today's 150 vendors will make the transition to the BPMS market even by 2008. In addition to early BPM pure-play vendors, other vendors, most notably major software infrastructure vendors that were not in Gartner's earlier Magic Quadrant, will continue to enter this market throughout 2007 and trigger a significant degree of churn in BPMS leaders through 2008 (0.8 probability).

MAGIC QUADRANT

Market Overview

Business managers have always felt handcuffed to the IT organization's long development times for making changes and enhancements to business applications. For years, BPM-enabling technologies have attempted to release this dependency by separating business processes from their specific implementations. BPM-enabling technologies make a process explicit – that is, visible and readily changed. BPM-enabling technologies separate a process model from its implementation. The process model is independent of technologies (including applications, data and infrastructure) that may be used in its deployment. This separation (or "abstraction") of the process from its implementation makes it possible for nontechnical business professionals to manipulate various aspects of the process represented in the explicit model (such as resources, flows and business rules).

For years, BPM-enabling technologies have abstracted singular aspects of business processes. For example, human workflow automation products isolated the human

interactions of processes by providing tools to better coordinate human activities. By putting controls around human tasks, these tools made these interactions more visible and, thus, more manageable by managers. However, some of these early products, although they often incorporated forms as part of the workflow, tended to ignore the importance of other business content as well as the importance of system-based work steps. Similarly, integration servers isolated the system interactions within processes by providing tools to better coordinate system interaction, yet ignored the importance of human contributions to the successful completion of work. Many of these early BPM-enabling technologies remain available as distinct products. Only recently (around 2000) did products appear that approached process abstraction more holistically. In 2003, Gartner identified the market for pure-play BPM products, which were the first suites of BPM-enabling technologies built to address process coordination in which people and systems are treated as equally important aspects of work. These tools support businesses' desire to see and manage their processes across organizational boundaries and give nontechnical managers hands-on control of those processes.

However, users' needs for BPM-enabling technology have continued to advance. Users now understand that the interactions of people, systems, information and business policies contribute to optimal work outcomes and operational process excellence. Thus, in late 2005, Gartner defined a new and growing market, the BPMS market, which is aimed at providing a technology base for business users (with assistance from IT professionals) to create and manage dynamic business processes for business advantage. This market analysis attempts to represent this dynamic and the potential major paradigm shift that the leaders in this quadrant are driving. Gartner recognizes that not all processes in all organizations require the same degree of process management and flexibility. In comparison to earlier BPM-enabling technologies, a BPMS is most appropriate for processes that have balanced requirements for the management of people, systems and information (structured and unstructured content) and where management of the interactions/interdependencies among all three aspects of work is critical to work outcomes.

To this end, Gartner has defined 10 major categories of business and technical functionality with detailed requirements. Although the advantages of this functionality

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will take several forms in terms of short-term benefits (such as cost and time savings), it will also support managing end-to-end processes while staying compliant and liquid in terms of managed agility to meet changing market and constituent needs. Products in this emerging market will address these more advanced market requirements, delivering an environment to more fully support the whole of the process life cycle (from modeling through execution to monitoring and refinements over time), and making process models the reference core (the metamodel) of the executed business process. To realize the agility that this model-driven approach promises, business managers must learn new process management disciplines and embrace a new culture of collaboration across process stakeholders.

We believe the ability to deliver on all 10 feature areas during the next 12 to 24 months will naturally narrow the number of players that can compete as general-purpose BPMSs. We also believe that the investment level needed to quickly deliver these capabilities is high. This requirement will also reduce the total number of long-term contenders to approximately 25 vendors. Nevertheless, we also anticipate that there will be specialized BPM vendors that will complement these general-purpose BPMSs with industry or horizontal process solutions, which will feel like applications to end users. Such business process solutions, which are executed by a BPMS although they sit architecturally on top (independent) of the BPMS, may last for decades while the organization evolves to an agile enterprise to compete in a changing global business environment. Gartner is also tracking many vendors, some of which market themselves today as general-purpose BPMS providers, that have already begun to differentiate more on their process and industry domain expertise (see the “BPM Specialists” section).

Market Definition/Description

A BPMS enables the direct control and management of operational processes in near-real time by business managers and process owners to better meet today’s business cycle time needs and enable more-agile processes. A BPMS integrates the following BPM-enabling technologies, many of which are also available as independent products, into a suite.

- **Graphical process modeling (business process analysis [BPA] technology)** to create visual representations of the work process. In a BPMS, the authoring/modeling environment is designed for use by business analysts first, with IT professionals as a secondary role supported in the process improvement life cycle. The graphical modeling environment reflects at least these two perspectives on the same process – one for business professionals and another for IT professionals (with greater technical details represented).
- **Orchestration engine (such as a BPEL engine)** to coordinate the sequencing of the steps and tasks (system steps and manual steps) according to the

graphical flows and business rules described in the process model. An orchestration engine records the state (status) of the execution of the steps.

- **Process analysis tools (business intelligence and business activity monitoring [BAM] technology)** to support analysis of data produced during process execution. Capabilities range from reports to online analytical processing analysis to graphical user dashboards. BAM technologies do this in real time with proactive alerting.
- **Rule engines** execute rules that abstract business policies, flows and decisions from the underlying applications and make process change easier and more accessible to nonprogrammers.
- **Process registry/repository** to contain process models, business rules and other process metadata to enable real-time execution and component reuse across multiple processes.
- **Simulation and optimization (BPA technology again)** enable business managers to compare new process designs with current operational performance. Risk assessments in the form of scenarios are executed, altering resource constraints and business goals that display the financial impact on the organization.
- **Integration (enterprise service bus [ESB] and integration broker suite technology)** link the orchestration engine to other systems’ (data and logic) assets that support automated work steps included in the process model.
- **Document/content repository (enterprise document management [EDM] technology)** to contain structured and unstructured content that is either created or consumed as part of the work process and, therefore, must be managed as an integral aspect.

In a BPMS, these technologies are pre-integrated (modules that work together) to deliver a single product experience. In the better BPMSs, these capabilities are delivered as a single, unified architecture that enables users to move quickly and fluidly through the process life cycle, from analysis to design to execution to monitoring to

Table 1. Ability to Execute Evaluation Criteria

Evaluation Criteria	Weighting
Product/Service	high
Overall Viability (Business Unit, Financial, Strategy, Organization)	standard
Sales Execution/Pricing	high
Market Responsiveness and Track Record	no rating
Marketing Execution	standard
Customer Experience	high
Operations	no rating

Source: Gartner (May 2006)

Table 2. Completeness of Vision Evaluation Criteria

Evaluation Criteria	Weighting
Market Understanding	no rating
Marketing Strategy	high
Sales Strategy	low
Offering (Product) Strategy	high
Business Model	no rating
Vertical/Industry Strategy	standard
Innovation	high
Geographic Strategy	low

Source: Gartner (May 2006)

revision, with greater collaboration between business users and IT professionals than ever before throughout the entire life cycle. The best BPMSs are not just a bundling of previously stand-alone products; rather, they are architecturally integrated, service-oriented components. In this way, a BPMS acts like a single product (despite its modularity) and delivers a consistent process management experience for users, both in the design phases and in the execution phases. With help from the IT organization, application logic and data can be made accessible to the BPMS, enabling business managers to monitor, analyze and iteratively refine the execution path for work, including the manual efforts of people and the system-automated steps. As the market for BPMSs matures, additional technologies, such as user interface support, process templates and frameworks, a real-time agility infrastructure, and collaboration technology support, will be further integrated into BPMSs.

Inclusion and Exclusion Criteria

This market perspective drives our inclusion criteria for representation in our first BPMS Magic Quadrant. Included vendors had \$25 million in revenue or more for the 2005 calendar year to sustain them for the future. In addition, included BPMS vendors aptly support at least the first seven out of 10 major feature/functionality areas we define for a BPMS. These are:

1. Human task support
2. Business process/policy modeling and simulation
3. Pre-built frameworks, models, flows, rules and services
4. Human interface support and content management
5. System task and integration support
6. BAM
7. Business policy/rule management support
8. Collaboration anywhere support
9. Runtime simulation, optimization and predictive modeling
10. Real-time agility infrastructure supports

In our view, the first seven areas are the minimum set required to support incremental process improvement in a business environment requiring near-real-time response. The process improvement life cycle enabled by these capabilities starts with modeling and analyzing alternatives, supporting human-intensive process steps as well as system-intensive process steps equally. It incorporates business content (documents, pictures, physical evidence, images and so on) to support each step along the way. It reflects activity measurement, drawing from data and business events, and it enables business managers to manage near-real-time policy/rule changes. Last, included process templates and frameworks provide some business intellectual property for jump-starting process flows in multiple business domains.

Included vendors support these seven major function areas in a speedy round-trip fashion with all the components highly linked, and they have clients that have processes in production actively using each of the functions in a living fashion. We expect the included BPMS vendors to eventually provide all of this functionality as one well-integrated, service-oriented platform in its internal architecture. In the short term, some of the products evaluated reflect functionality supported by partner technology embedded inside or bridged to/from the BPMS. Nevertheless, included vendors relying on any partners must still provide support by the BPMS vendor as the single point of contact for the business client.

Finally, Gartner must have sensed strong client inquiry activity on the BPMS vendor. These BPMS vendors also have market “mind share” and the beginning of a partner network that is building intellectual property on top of the BPMS.

Vendors That Warrant Special Mention

In analyzing more than 150 vendors currently competing in BPM markets, our challenge was to narrow the BPMS players that met our inclusion criteria not only from a technical perspective, but also from a focus standpoint. Although there are many small, interesting and specialized BPM-relevant vendors, below is a list of notable vendors that we did not include in our BPMS Magic Quadrant. We feel that these vendors warrant a special mention to bring them to the attention of our clients. They fall into two categories: BPM specialists and vendors with a BPMS under construction.

BPM specialists quite often have BPM capabilities that could technically compete with the true BPMS vendors. However, these providers have decided to focus on specific industries and/or use cases or have an alternative business model (such as indirect sales via embedding their product in a partner’s or hosted services) rather than selling directly to end-user organizations.

Our “BPMS under construction” list includes some players that we are keeping a watchful eye on. In essence, we are saying, “watch this space” for these vendors, because they are likely to emerge as BPMS players in the near future.

BPM Specialists

ACI Worldwide: ACI acquired Insession in 2000. It rebuilt this product and now has a high-powered BPM product (ACI Workpoint) that handles high-performance situations, mostly in the banking industry. At this time, ACI uses Workpoint mostly to enable its own payment engines and banking applications to fit into a broader process context. Its go-to-market approach is to sell Workpoint as an embeddable engine for independent software vendors, to sell it to its current payments customers and also to sell directly to users. This product is available in both a .NET and a Java version.

Autonomy/Cardiff combines search and content into a BPM product that makes it a player to consider in supporting highly collaborative business processes.

Captaris acquired Teemplate in 2003, a .NET-based tool. Captaris Workflow extends Captaris’ content management focus into process management. Captaris sells its workflow solutions primarily to midmarket companies, through a direct sales model as well as through a network of service partners and systems integrators with deep expertise in document-centric business processes. This product competes most directly with Ultimus and Metastorm.

DST targets financial services companies with its capable BPM offering. This product runs a significant number of the mutual fund transactions in North America in a process outsourcing fashion. Its product is also used by many life insurance companies for life operations via a partnership with CSC. In addition, DST is developing its expertise in mortgage management and healthcare, leveraging the same BPM capability used in the mutual fund business.

Exigen Group, headquartered in San Francisco, provides a BPMS and vertically oriented end-user productivity applications for insurance, financial services, telecommunications and media industries. Its products and services are offered through a range of delivery models, including traditional in-house enterprise software licensing, outsourcing and industry-specific business process utility ventures. The company’s engineering processes are certified at Level 5 of the Software Capability Maturity Model Integration (CMMI). The breadth of professional services, hosting and customization options Exigen Group offers leads us to categorize it as a service provider rather than a product-oriented company.

Northrup Grumman, which acquired Integic in 2005, primarily targets the government and life science sectors and has significant deployments to date, driven by repeatable solutions built over multiple engagements

focused on case and human capital management. Its product technically is a general-purpose BPMS; however, the company does not market and sell the product this way.

BPMSs Under Construction

Cordys is expanding into the BPMS sector from its initial focus on the essential execution parts of the BPMS (that is, ESB connectivity and Web services development).

HandySoft Global is a vendor that started in the government sector and has branched into new industries and geographies. Although its suite has the components needed to qualify as a BPMS, deeper integration of its components is still required. This integration, as well as migration to industry standards, is planned for this year to enable a more fluid life cycle and customer experience. During the past two years, management turnover and differences with the parent company have been disruptive to its strategy, product road map and sales execution. The U.S. federal government market has been the major contributor to revenue, and the parent company will need to provide more capital to penetrate other market segments equally.

Oracle is a sleeping giant in this market. Once it adds a business-analyst-oriented modeling tool and completes its human-to-human (H2H) capability in 2006, we expect that Oracle will focus on competing as a BPMS vendor. Its capabilities hold great potential for the Oracle client base and new Oracle buyers.

SAP is evolving its NetWeaver infrastructure to include BPM-enabling technologies. However, today, it is not offer a BPMS, lacking a number of required capabilities (especially strong H2H capabilities, optimization and rules). These are clearly areas of improvement acknowledged by SAP and being addressed. IDS Sheer’s ARIS for NetWeaver is SAP’s answer for business-level process modeling, analysis and simulation. Although SAP recognizes that business processes should increasingly 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 its own applications to support business user influence on adaptable processes will be addressed in upcoming releases based on SAP’s Enterprise SOA.

SourceCode/K2 is a .NET player that directly augments the weaknesses in the Microsoft application platform. K2 leverages SharePoint Portal and Content Manager, BizTalk Server, Office and SQL Server and builds some of the most popular process use cases around these servers. This product is more of a rapid application development tool for process flows rather than a BPMS. Microsoft loyalists, however, find it easy to use and a great productivity aid for administrative, form-driven and ad hoc departmental workflows. Although Microsoft has other partners, K2 is one of a few working on a Windows

Workflow Foundation version and seems to be the preferred vendor by Microsoft salespeople.

Evaluation Criteria

Ability to Execute

Today's BPMS market has taken a long time in coming to the fore; it has been "emerging" since about 2000, when the first BPM pure-play tools appeared. Nevertheless, Gartner Dataquest now projects license revenue growth to be more than a \$1 billion by 2009, with a compound annual growth rate of 14 percent, making it the second-fastest-growing software infrastructure market overall (security being No. 1). With more than 150 vendors claiming to provide a BPMS, our inclusion and evaluation criteria were designed to identify those vendors that have already entered this market in a serious way with the intention of becoming leaders. With so many small BPM technology vendors with limited resources, we expect that no more than 25 (50 percent) of the 2003 BPM pure-play Magic Quadrant vendors will successfully make the transition to the BPMS market. In addition to early BPM pure-play vendors, other vendors, most notably major software infrastructure vendors that were not in the earlier Magic Quadrant, will continue to enter this market throughout 2007 and trigger a significant degree of churn in BPMS leaders through 2008 (0.8 probability).

To achieve leadership in the long term in this still-volatile market, we feel that a vendor's product must deliver strong capabilities in all 10 feature areas. Although vendors only needed to support seven out of 10 feature areas to be included in our evaluation, we did evaluate and weigh heavily all 10 areas. In addition, with so many vendors still competing, leadership requires a vendor to pull away from the pack. Thus, we also heavily weighted sales execution and pricing as key to gaining market share early. Marketing execution goes hand in hand with sales execution to create mind share; thus, it is a medium-weight criterion. Because one of the most distinguishing characteristics of the BPMS market is the enablement of additional roles (that is, business analysts, process modelers or business managers) to participate in the process improvement life cycle paradigm shift, we heavily weighted the business user friendliness and the single product experience delivered as subcriteria contributing to the overall customer experience criteria.

Completeness of Vision

Completeness of vision in the BPMS market considers the same types of criteria as those used to rate the vendors' ability to execute, but from a future viewpoint. Again, because this market has just turned from emerging to a growth market, with the "hockey stick" growth acceleration expected to happen in 2006, a vendor's plans for enhancing the product and meeting the needs of these new roles is key. We eliminated the market understanding criterion because a vendor's marketing strategy must reflect its understanding of the market; otherwise, its messages and value propositions will not resonate with

buyers. In addition, to rise above the noise being made by 150 contenders, vendors must have a strong vision for a differentiated marketing strategy.

With participants still rounding out their suites in all 10 areas, we heavily weighted their vision for research and development. Will the vendors be developing additional features themselves, leveraging open-source-based technology, partnering or acquiring capabilities? A vendor's product strategy also has significant impact on the overall customer experience delivered. We also considered whether the vendor is adequately funded and staffed with individuals we believe can execute the product vision. In an overcrowded market, sales execution becomes more important than sales strategy because it affects how the vendor will increase market share and grow revenue – critical for maintaining viability. This is especially important for smaller vendors facing competition from vendors like IBM, Fujitsu, CA and BEA Systems. Furthermore, our inclusion criteria eliminated vendors that have indirect sales models.

Process templates and frameworks are a product area where few standards exist yet, and thus there is a lot of opportunity for vendors to distinguish themselves. With standards gaining popularity for so many aspects of a BPMS (standards like BPMN, xPDL, BPEL, Ajax and WSRP), we also rated innovation as extremely important for long-term differentiation. Finally, adoption of BPM is strongest in North America and Europe now, but it is growing in other regions, so geographic strategy is weighted low.

Leaders

Leaders are distinguished both by superior sales and marketing execution and by superior product capabilities and innovation to support a paradigm shift toward increasing the participation level of business users in the entire process improvement life cycle. Products from these vendors excel at enabling a high degree of collaboration between business users and IT professionals, from the design and modeling phase through execution and optimization, using an iterative process improvement methodology in which artifacts (outputs) of each phase move seamlessly into the next. Each of these products demonstrates unique features that make sophisticated, typically quite-technical capabilities much more accessible to business process analysts and operational managers responsible for work outcomes. Fuego's product is distinguished by its business-user-friendly process authoring. It also recently got a boost in business viability with its acquisition by BEA. Savvion is the only vendor that is aggressively promoting collaboration between business analysts and IT, facilitated with its business user searchable repository (called Process Asset Manager) that fosters reuse of existing process componentry. It also is one of only two vendors (the second being Metastorm) to offer a free, downloadable process modeling environment for use with no restrictions designed for business analysts.

Lombardi is distinguished by its revenue growth and customer success stories as well as its relentless focus on making sophisticated capabilities, such as simulation and optimization of alternative process designs (aka scenarios), usable by smart, business-savvy process analysts without requiring advanced degrees in specialty subjects. Pegasystems' product is distinguished by its ongoing innovation in using business rule technology to handle technical tasks that would otherwise require sophisticated programming. In addition, Pegasystems offers the richest collection of pre-built process frameworks for vertical-industry-specific areas (for example, banking, insurance, healthcare and credit card) as well as horizontal process areas (for example, customer service, call center and compliance), which enable users to quickly deploy flexible, service-oriented critical processes.

Challengers

Although only Fujitsu, Global360, FileNet and Metastorm are in the Challengers quadrant, we expect more vendors to move in this direction through 2007. These vendors exhibit superior sales execution and strong financials for ongoing investments in product capabilities, process frameworks and additional geographies beyond North America and Europe as interest in BPM expands. Global360 and Metastorm have recently made strategic decisions designed to increase their prospects for becoming leaders. In October 2005, Metastorm acquired CommerceQuest, primarily for its technology assets and market share, and will deliver Metastorm BPM Suite with Metastorm Integration Manager, the module that integrates the acquired assets, as part of its v.7.0 release in July 2006. In February 2006, Global360 executed a private equity buyout for \$200 million to shift control over the company to new management, unify its R&D groups and gain access to cash for additional product investment and market expansion. Products from challengers exhibit similar strengths to those of the leaders, again targeting business analysts as primary process designers and making all aspects of process (flows, tasks, resources, business rules, business content, data, assignments, decision points and execution information) visible, manageable and increasingly adaptable by operational managers and process participants, not just IT professionals. Recent significant investment increases in marketing should help Fujitsu Software increase its brand awareness and mind share in the U.S. market in particular, where buying activity is the greatest. Of the challengers, FileNet concentrates its resources more on its traditional buyer, especially in situations where the user organization is trying to establish a technology standard tool for service oriented architecture (SOA)-enabled BPM, and demonstrates less commitment to driving the paradigm shift toward business users than vendors in the Leaders quadrant.

Visionaries

Each of the visionaries is a relative newcomer to this market. As such, they have fewer deployments and less

market visibility relative to the others. Users should note that IBM is uncharacteristically early to this market, especially compared to its typical competitors (Microsoft, Oracle, BEA and SAP) in software infrastructure technologies. IBM's WebSphere Process Server v.6 is its first version of a more integrated product that unifies system-to-system (S2S) interaction (in a BPEL orchestration engine) with H2H workflow (based on its proposed BPEL4People) with its WebSphere Modeler and Monitor products. Appian is a privately held and funded (not venture-capital-backed) startup that has expanded successfully into the commercial market from its consulting heritage in the U.S. federal government market. For a small company, Appian has a surprising broad product offering, including a document management repository of its own. Tibco Software qualified for inclusion based on its recent delivery of v.10.2, its first version to integrate capabilities acquired from Staffware back in 2004. Compared with other best-of-breed integration middleware vendors, Tibco has made the transition faster and better from enterprise application integration to BPM. Adobe has also only recently entered this market (after acquiring a BPM pure-play and extending its capabilities). Adobe's BPMS vision for people and content-centric processes in which human interactions must be highly engaging is intimately linked with its vision for intelligent documents. With stronger sales and marketing, Adobe could become a significant market force.

Niche Players

As the market matures, we expect niche vendors to reflect a geographic focus or more industry or horizontal process specialization. However, today, those vendors in the Niche Players quadrant exhibit more disparity from each other. For example, Axway and CA are recent entrants into this market. Axway, Singularity and Graham Technology all have very little market presence outside of Europe. The U.S. is clearly a target market for these vendors, yet it also exposes them to a much larger competitive arena where they are still defining their unique differentiation. In contrast, Ultimus has expanded from a BPM pure-play vendor and has strong features in its BPMS product capabilities, but it needs to strengthen its marketing and create a distinct value proposition. It also has the least commitment to business domain content and templates.

Vendor Comments

Adobe

Adobe has stepped up its commitment to a server-based BPMS. Adobe's acquisition of QLink in 2004 for its rich SOA environment, complete with a service directory and balanced H2H/S2S BPM capabilities, put it in a good position to compete in the BPM space. Combined with strength in content management, integrated BAM and rule capability, Adobe may prove to provide strong competition once its marketing and sales strategies pick up more momentum. Adobe's product demonstrates remarkably good integration of acquired technology, technology obtained under an OEM agreement, and partnered

technology, and it provides significant innovation in its rich client and its Qpacks.

Appian

Appian, which traditionally had a strong customer base in the government sector, has delivered a smoothly integrated BPMS that does an evenly good job at most of the aspects of a BPMS. Until a year ago, Appian was relatively unknown in other industries. This has changed, and Appian is focusing on building a stronger geographical presence and winning a solid portfolio of business. Its homegrown BPMS is built on a modern, 100 percent Web architecture and offers some of the broadest infrastructure capabilities, as well as a number of deep process solutions. Appian continues to show a lot of innovation oriented toward making the product increasingly easy for business users to participate extensively in the process improvement life cycle.

Axway

Axway has traditionally been a player in the integration and S2S BPM space, but has recently added H2H, rules and BAM to its arsenal and is leading the way in applying BPM to business-to-business use cases. Although Axway has made inroads into Asia, it needs to reach North America to compete effectively against the other BPMS players. Its recent acquisition of Cyclone Commerce is already creating cross-selling opportunities.

CA

CA is a real unknown in this sector. CA has built a capable BPMS around its core strengths in its BAM environment, called CleverPath, driven by an excellent rule engine called AION. With new management plus a vision for BPM and a pervasive sales force, just getting trained in BPM, we see CA as potentially a surprise strong player. Until some recent changes in organization and strategy, CA had only been a player in this market for its good focus on internal IT process management.

FileNet

FileNet was one of the earliest BPM vendors to aim for incremental process improvement with its early inline simulation, early inclusion of a rule capability, and pioneer BAM components. This was a major move for FileNet, which has a strong base of IT, EDM buying customers, and it required major retraining of its sales and service personnel. More recently, FileNet's marketing and sales approach targets enterprisewide, content-rich processes – a style of process Gartner describes as content-enabled vertical applications – although its product strategy continues to emphasize the aforementioned strong features. As a result, FileNet implementations typically require significant IT expertise and involvement. This approach has allowed FileNet to expand from EDM into BPM opportunities and command a premium price (with initial investment levels that are often 30 percent to 50 percent higher than competitive average deal sizes). For such deployments, FileNet also

requires certified implementation expertise (its own or partners) for each engagement (also contributing to its higher-than-average initial investment).

Fuego

BEA Systems enters the BPMS market via the acquisition of Fuego, which it has integrated with its portal, collaboration and integration products. The former FuegoBPM Suite has been re-branded as the AquaLogic BPM Suite and is part of BEA's AquaLogic product family. The success of the FuegoBPM Suite is attributable to its strong support for business users participating collaboratively with IT professionals in the process improvement life cycle. It provides a business-user-friendly modeling environment that combines strong H2H and S2S capabilities in an open, standards-based architecture that coexists easily with software infrastructure tools and architectures that are popular with IT professionals. This product could become a dominant long-term player in the BPMS market if BEA commits additional R&D, sales and marketing resources in the next few years. The re-branded AquaLogic BPM Suite has its own capable process modeling facility and also partners well with independent modeling vendors. On the process orchestration side, it supports goal-directed processes that can be led by partner rule engines. BEA's own strong WebLogic composite application development products are just one of the IT-centric platforms that the AquaLogic BPM Suite complements.

Fujitsu

Fujitsu has been one of the more mature providers of human task management with its traditional iFLOW product line and has recently awoken to its assets in other corners of the company. Combined with the potent Interstage integration software and the multiple process modeling and rule partners, Fujitsu is in a solid position to compete in the long term. With recent organizational changes to put more power behind BPM and its partnership with Software AG for a service registry/repository, Fujitsu has begun to show new momentum globally in BPM. On a feature/functionality basis, Fujitsu's BPMS scores well.

Global360

Global360 is a company with a long history as a midmarket-oriented, strong document/imaging management vendor that has grown by acquisition (changing its name and brand multiple times). However, for the past two years, it has been developing a BPMS and a process management console that can be fitted with its own various legacy offerings and the brand-new BPMS. Armed with new and assertive management, marketing resources and leading-edge optimization technology, Global360 is coming on strong in the BPMS sector. With the recent infusion of capital (from a private equity buyout), Global360 is in a position to compete effectively with leading BPMS vendors and face the emerging power vendors as they enter this market.

Graham Technology

Graham is primarily a U.K. regional player in BPM and now has nine global offices (although none in North America). Graham has a solid reputation for delivering process results through professional-service engagements, particularly in the financial sectors. Its J2EE/XML-centric product shows good innovation, especially around human interaction management (for example, its innovation in natural-language self-service). Thus, deployments are primarily for customer-facing processes in service industries (telco, utilities, financial services and retail). Recent investments are allowing Graham to branch into new industries and geographies, but, once again, as the market matures, the management team will have to be aggressive to grow substantially very quickly.

IBM

IBM has finally turned the corner in integrating many of its various WebSphere components to provide a budding BPMS with strengths in process modeling, service orientation and straight-through processing. IBM's product reflects many capabilities that will be important in the future (such as a service registry/repository, Web services development and content integration). However, for many buyers today interested in fairly simple form-driven or guided navigation style workflows, its product may actually be too sophisticated. IBM's BPMS provides little support for business analysts beyond the modeling phase of the life cycle. IBM has sought to bolster its rudimentary rule engine with various partners and seeks to deepen its BAM capabilities. IBM's challenges include driving the paradigm shift toward business-led design and enhancement of process without alienating its strongest supporters in the IT organization, building a base of references, and attracting partners to build process models and templates on the WebSphere Process Server platform.

Lombardi

Lombardi is one of the most progressive vendors in providing an environment for incremental business-driven process improvement. Its relentless focus on driving the paradigm shift through product innovation has resulted in its rapid growth since 2004. Focused on ease of use and constant real-time feedback (notably its BAM capabilities), Lombardi is hitting the "sweet spot" of the business-user-led buying market. In light of larger vendors entering this market, Lombardi's big challenge will be attracting and building a partner network that builds a significant number of templates and models on its platform to further accelerate sales of its impressive technology. Another risk for Lombardi (as well as the other leaders) is that the larger software infrastructure vendors will try to alter the current market dynamics to emphasize SOA-driven process flexibility, driven in large part by the IT organization, rather than continuing to push more capabilities to process participants in the business functions.

Metastorm

Metastorm, which for years has served Microsoft-centric users' needs well, is gaining ground competitively by better-serving users who prefer a Java 2 Platform, Enterprise Edition (J2EE)-centric component model, with its acquisition of CommerceQuest. Besides a strong Java S2S capability, CommerceQuest brought a capable set of legacy reuse features. Metastorm's marketing messages have been strong, helping it expand beyond its traditional government sector and form-driven workflows into multiple industries and other process styles. Its focused execution is the major reason why Metastorm has enjoyed eight consecutive quarters of profitability (according to its CEO). Metastorm's near-term challenges are increased competition from larger vendors, availability of capital for ongoing product investment and feature expansion, and deeper integration of all its components and partners.

Pegasystems

Pegasystems is one of the most highly unified BPMSs available today. Known for its capable rule management and rule execution environment, Pegasystems has been relentlessly adding function for process optimization and improving its ease of use for business professionals. Pegasystems also has one of the richest sets of packaged processes available. Pegasystems is one of the few BPMS vendors that provide a methodology to encourage successful BPM projects. Although sales and marketing are improving, to succeed in the long term, Pegasystems must learn to not always "go it alone" and develop partners and channels to accelerate its success.

Savvion

Savvion is one of the better-integrated BPMSs. Its strategy involves seeding the market with a free process-modeling tool that can lead to implementing well-designed business processes. Its Modeler is complemented by a strong business-user-searchable process asset repository to facilitate process integration and component reuse. Savvion Business Manager is an open, standards-based, well-rounded BPMS that has strengths in event recognition and management. During the past two years, in large part due to brand awareness, Savvion has consistently been on user shortlists more than any other vendor.

Singularity

Singularity has traditionally been a U.K. regional player in BPM, with a solid reputation for delivering process results through professional-service engagements. Singularity's BPMS exhibits strong single-product behavior based on architecturally integrated service-oriented components; thus, references report that it is easy to insert Singularity process components into their own Microsoft .NET framework. Singularity will have to branch into new industries and geographies to remain a competitive BPMS vendor. Right now, it is an eager startup that appeals to users who like to work closely with small, nimble partners.

References feel that their investment risks are minimized because of Singularity's .NET orientation.

Tibco Software

Tibco is traditionally known for high-performance S2S BPM, but it is making a strong case for its new and easier-to-use H2H capabilities, which are part of an upgraded version of the Staffware workflow engine. Armed with a strong event infrastructure and activity monitoring capability, Tibco could be a formidable competitor by continued investment in deeper integration of the Staffware technology, process management feature innovation and strong marketing to reinvent itself as a BPM company, not just an integration technology provider.

Ultimus

Ultimus has one of the most potent H2H capabilities in the market – it is extremely easy for the business professional to grasp and leverage. This Microsoft-technology-centric product has been built from the ground up to be a solution platform rather than a programmer's toolkit. Thus, many sophisticated capabilities are pre-built and available to business users to include in process models. The Ultimus BPM Suite is highly integrated, starting with a capable lightweight process modeler and promoting continuous process improvement for organizations that are Microsoft-centric. Ultimus' product is available globally through its direct sales channel in 18 countries and through partners and value-added resellers in 80 countries.

Acronym Key and Glossary Terms	
BAM	business activity monitoring
BPA	business process analysis
BPEL	Business Process Execution Language
BPM	business process management
BPMS	business process management suite
CMMI	Capability Maturity Model Integration
EDM	enterprise document management
ESB	enterprise service bus
H2H	human-to-human
J2EE	Java 2 Platform, Enterprise Edition
OEM	original equipment manufacturer
S2S	system-to-system
SOA	service-oriented architecture
XML	Extensible Markup Language

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, etc., 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 in order 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, etc.

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.