SaaS BPM: Silencing the Skeptics (Strategic Focus)

Develop a SaaS strategy to stay ahead of the game

OVERVIEW

Catalyst

Business process management (BPM) has been a critical part of the enterprise technology market for over three decades. Traditional on-premise BPM has helped organizations respond to business challenges, support key business processes, and generate competitive advantages through execution. As business processes change, it is imperative that BPM transforms accordingly. A successful contemporary BPM suite should be able to provide end-to-end support and customization for processes, many of which will reside partly or completely off-premise in the future. Furthermore, BPM will also have to retain its appeal to the business user, facilitating easy consumption but delivering robust functionality. For those reasons, this report looks at the applicability of the software as a service (SaaS) model to BPM systems.

Summary

This report provides a comprehensive evaluation of the burgeoning SaaS BPM market, assessing the market opportunities, technology evolution, enterprise requirements, competitive landscape and go-to-market strategies. Datamonitor draws the following conclusions:

- The market for SaaS BPM is still nascent but is picking up momentum.

- The argument for SaaS BPM will become increasingly compelling as more processes move off-premise.

- Some parts of the BPM stack are well suited to the SaaS model, drawing vendor attention.

- Most vendors are still divided on whether to offer complete execution in the SaaS model.

- Competition is sparse given the market's immaturity but the early movers could capitalize on this phase.

- Prudent go-to-market strategies should target maximum payoff areas of SaaS BPM first.

KEY MESSAGES

The market for SaaS BPM is still nascent but is picking up momentum

While demand in the on-premises BPM market continues unabated, SaaS BPM is slowly finding acceptance in certain pockets of the BPM market. Datamonitor believes that lower entry costs, broader reach and faster deployment could well endear SaaS BPM offerings to customers that are comfortable with applications in the cloud.

The argument for SaaS BPM will become more compelling as processes move off-premise

BPM is one of the primary tools used in process improvement. Because of this, it has to maintain end-to-end process visibility. Many business processes now touch areas that are executed outside an organization, such as BPO, SaaS customer relationship management (CRM), supply chain management (SCM) and cloud infrastructure. As the number of external touch points in a process grows, it will become imperative for BPM to be able to customize the external services it consumes.

Some parts of the BPM stack are naturally suited to the SaaS model

One of the advantages of the SaaS model is the effective collaboration between end users. Being relatively inexpensive and technology agnostic, SaaS solutions can be rolled out to many participants. Among the various parts of the BPM stack, Datamonitor believes that modeling and business rules will be well suited for the SaaS model of delivery. Processes and rules that are modeled in a collaborative fashion will benefit from rapid adoption.

Most vendors are still divided on whether to offer complete execution in the SaaS model

Beyond modeling capabilities and business rule design, most of the other parts of the BPM stack require execution capabilities. However, vendors appear divided on whether these should be offered in the cloud. While a few specialist vendors are in favor of a comprehensive cloud-based strategy, others seem content with pushing out modeling suites into the cloud and keeping the rest on-premise. Datamonitor believes that complete cloud execution will likely require gaining customer trust and convincing them of the vendor's commitment to the SaaS model.

Competition is sparse given market immaturity—existing vendors could reap benefits now

The effect of SaaS BPM offerings on the BPM market will be complementary rather than cannibalistic, expanding the proliferation of BPM and reaching a larger and underpenetrated user base. However, not all categories of vendors will seize these opportunities. The SaaS BPM market is likely to be explored by smaller, specialist BPM vendors, followed by generalist Platform as a Service (PaaS) providers. Conglomerates, at least currently, will prefer to cater to larger, on-premises deployments, occasionally dabbling in SaaS BPM as per demand.

Prudent go-to-market strategies should target maximum payoff areas of SaaS BPM first

Datamonitor believes that vendors should target areas of the market depending on where they anticipate maximum payoffs in the near term. Vendors that are well invested in the SaaS model should start with a bottom-up strategy to market, starting with a platform offering that serves as the basic layer on which applications can be built. Vendors that are contemplating a SaaS strategy but have a considerable base of clients in the on-premises model could start with a

top-down strategy. Finally, vendors that specialize in one particular area in BPM or software conglomerates that have an active SaaS strategy in an area adjacent to BPM could take the middle-out approach, offering SaaS options at any part of the pyramid and then branching out following customer demand.

Table of Contents

Table of Contents

>DATAMONITOR

TABLE OF FIGURES

TABLE OF TABLES

MARKET IMPACT

The evolution of the SaaS delivery model and the increasing adoption of BPM over the last two years have been nothing short of remarkable. While SaaS continues to outgrow the inhibitions of users in almost every field of enterprise applications, BPM has grown in importance as the application of choice in the current economic environment. The ongoing recession has helped the cause of both SaaS and BPM. The SaaS model has endeared itself to customers that are wary of upfront capital investments, while BPM has helped businesses adapt quickly to the massive changes in the external environment. The inherent success of the delivery model and the application has forced many vendors to rethink the oft-debated question: can and should BPM be offered through the SaaS model?

Datamonitor believes that this is the right time for BPM to take its SaaS strategy mainstream. The BPM vendors of the future may need to have a balanced mix of on-premise and on-demand solutions in their portfolio, with a proper migration path both ways. This report explores the latest developments in the field of BPM and looks at SaaS BPM offerings critically.

The key to BPM's success in the recession is in its ability to facilitate change

The business environment has undergone a sea change since the last two years, pushing organizations to drive change initiatives that can help them respond to business challenges. By adopting BPM, enterprises have been successful in supporting key business processes and defending competitive advantages even when the external marketplace has undergone significant transformation. BPM as a discipline has helped companies cut costs, manage processes and execute change.

The environment in which organizations operate continues to change at a rapid pace, more so during the recessionary environment that the global economy is currently witnessing. If an organization is to maintain or improve its market position, then it must continually re-evaluate its internal competencies and its external surroundings, adjusting priorities and launching new initiatives to ensure the efficiency and effectiveness of its operations.

The effect of this change on the IT organization is substantial. The architecture of traditional IT systems has been application-centric, implying that an application platform designed to address a business issue at a point in time cannot be easily applied to similar problems in the future. In the case of transaction-based systems, the core assumption has been that processes remain relatively static. This myopia of vision has in turn resulted in inflexibility, leading to the creation of a generation of applications that are fit for a single purpose, but difficult to modify as business needs change. As a result, IT is perceived as a barrier to change that is unable to react quickly to meet new initiatives, requiring additional investment for each new project. The eternal build versus buy argument has also plagued IT projects. While building a new system for every incremental change in technology is virtually impossible, buying commercial off the shelf (COTS) technology usually means modifying processes to suit the functionality offered, rather than vice-versa.

To overcome these issues, an approach to IT that incorporates flexibility in all aspects—from architectural design through to models of delivery—must be practiced. From an application perspective, this will translate into adopting a process-centric view of business, making it easier to relate software to business functions. BPM, business rules, composite applications, and model-driven development will play an important part in enabling this change. From a delivery model perspective, BPM will also have to evolve.
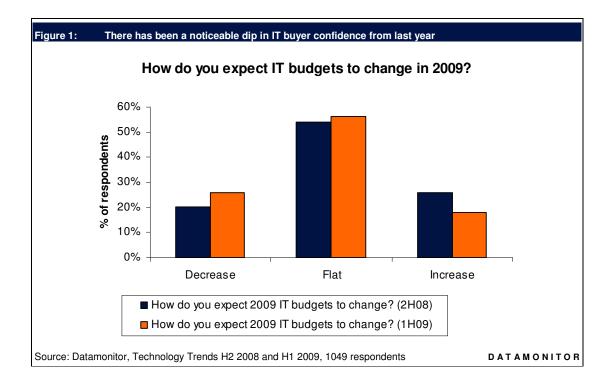
This success of BPM will depend on whether it is able to retain its capability to alter its role in the organization. In downturns, BPM will need to combine tools and methodologies to help transform an organization, making the business

more efficient and cost effective. In better times, BPM will need to help businesses identify growth opportunities and become more agile to change with market needs. Dynamism will therefore remain a critical component of BPM solutions.

The ongoing recession has caused rapid changes in business

Recessionary pressures have a significant impact on an organization's propensity to invest in new projects. Given that the nature and duration of any recession is hard to predict, Datamonitor notes the changing sentiments of IT buyers at different points of the cycle. In the second half of 2008, positive sentiment about 2008 dominated, and positive sentiment about 2009 was visible, though a little muted. However, in the first half of 2009, negative sentiment towards 2009 dominated, while positive sentiment about the next year was clearly visible. Figure 1 presents another view of the expectations of enterprises about their IT budgets in 2009.

Figure 1: **There has been a noticeable dip in IT buyer confidence from last year**

How do you expect IT budgets to change in 2009?

Legend:
- How do you expect 2009 IT budgets to change? (2H08)
- How do you expect 2009 IT budgets to change? (1H09)

Source: Datamonitor, Technology Trends H2 2008 and H1 2009, 1049 respondents

DATAMONITOR

The results indicate that a larger number of people now believe that the recession has a deeper impact on IT budgets than in 2008. In the second half of 2008, only 20% of respondents expected that they would undergo an IT budget cut in 2009, while 26% expected an increase in budgets. However, first-half results for 2009 indicate that recessionary sentiments have played a larger part in IT budgets than expected, with 26% reporting a cut in 2009 IT budgets and only 18% reporting an increase.

DATAMONITOR

Table 1:	How do you expect your IT budget to change in 2009?			
	H2 2008		**H1 2009**	
	% of respondents	Count	% of respondents	Count
Decrease	20%	105	26%	136
Flat	54%	280	56%	298
Increase	26%	135	18%	95
Total	100%	520	100%	529

Source: Datamonitor, Technology Trends H2 2008 and H1 2009, 1049 respondents   **DATAMONITOR**

It is evident that the overall business environment has changed since the last year, altering the expectations of IT buyers. In order to create value through IT in such a volatile situation, vendors must be able to deliver solutions that can be changed to reflect real world situations and help organizations alter strategy and execution accordingly.

Business changes warrant a transformation in processes

Given that processes are the lifeblood of any organization, it is evident that with changes in the overall business environment, processes must change accordingly. In essence, process reengineering for the current recession should focus on revamping business processes and systems in order to foster effective production, develop a leaner supply chain, stabilize sales, control costs and reduce capital expenditures. Process change initiatives must examine opportunities for removing elements that do not add value at every step, doing away with ones that create unnecessary cost. Whether in services or manufacturing industries, there are strong economic imperatives to process improvement.

Based on the positive 2008 sentiment, as evident in Figure 1, businesses would typically invest in revenue expansion initiatives. In process terms, this could involve launching a bigger marketing campaign and targeting expansion into non-native geographies. However, as sentiments turn negative in 2009, the same businesses could consider folding these initiatives and going into the cost cutting mode. The same processes should now help the businesses consolidate operations, strengthen partner relationships, and cross-sell to their existing bases.

There are tangible financial and time costs associated with projects that undertake process improvement. Many organizations that look to undertake frequent process changes find themselves restricted by a number of limitations such as high costs, high people involvement, long rollout time, and less flexibility. During the recession, Datamonitor expects demand for process improvement initiatives that do not impact the bottom line by a large amount, are quick and easy to set up, and retain their flexibility even as the external environment changes. BPM solutions delivered through the SaaS model can effectively position themselves to address this business need.

Process changes have been driven by external factors and industry events

Processes are no longer confined to companies' firewalls alone

Process reengineering as a discipline came into prominence in the early 1990s with Michael Hammer's ideas on reengineering the corporation. Most organizations that began to reengineer BPM efforts did so by focusing on parts of the

process that were easy to control, due to the virtue of their execution inside the enterprise. Parts of business processes which were supported by partners and service providers outside the enterprise were largely ignored.

Over the last decade, outsourcing has grown at an exponential rate, threatening and eradicating many internal divisions in an organization. Due to outsourcing, many businesses have realized greater cost savings and increased scalability. The need to realize cost savings, one of the primary drivers for outsourcing, has also resulted in rampant standardization of outsourced processes. For example, many organizations turning to BPO often focus too deeply on cost containment to care about process improvement at the provider's end. Process reengineering, in its original form, has therefore not been successful in developing a comprehensive framework to tweak parts of processes which are outsourced or otherwise executed outside the company's immediate confines.

Growth in outsourcing will bring about a need for process visibility and flexibility

BPM software is one of the primary tools used in process improvement. Because of this, it has to maintain end-to-end process visibility. Many business processes now touch areas that are executed or consumed outside of an organization, such as BPO, SaaS CRM, SCM and cloud computing infrastructure. As the number of external touch points in a process grows, it becomes imperative for BPM to be able to customize the external services it consumes. Datamonitor believes that businesses which outsource part of their processes will increasingly look beyond cost control. While outsourcing will continue to flourish as a business model, clients will increasingly expect greater visibility and business process flexibility from providers of outsourced processes.

Many common business processes now require interaction with cloud-based services. For example, most organizations in the financial services domain now ingest industry data to ratify their processes against external benchmarks. Similar examples exist across verticals and functions in the form of fraud check audits, credit card databases, stock price checks, RSS feeds, regulatory news trackers and industry key performance indicators.

Datamonitor believes that creating a competitive advantage through processes will require continual assessment and rationalization of every part of the process. As processes reach out beyond the boundaries of the enterprise, process excellence may need to be supported by tools that reside outside a company's IT framework.

The success of cloud computing ensures that more applications move to the cloud

Cloud computing is fast becoming a widely accepted model of software consumption and delivery. In Datamonitor's definition, cloud computing is an IT consumption pattern that relies on abstracted, shared and elastic resources accessed over an IP-network that are typically paid through some form of the utility model. The SaaS delivery model is one of the various uses of cloud computing. SaaS applications typically reside with the vendors and allow multiple end users to access the same instance of the application (multi-tenancy) remotely. However, many SaaS vendors now offer various other tenancy models such as isolated tenancy, in which the basic software instance is not shared, although the database instance may be.

Cloud applications now offer a diverse set of capabilities, covering almost all classes of enterprise and consumer applications. Several vendors also offer infrastructure as a service (IaaS), with comprehensive middleware capabilities delivered through the cloud computing model. Datamonitor's report, *'Can Cloud Computing Help Enterprises Weather the Economic Storm? (Market Focus)'* (DMTC2267), published in April 2009, presents a selection of 35 cloud vendors across CRM, HR, enterprise resource planning (ERP), collaboration, office productivity, BPM, business intelligence (BI) and IT systems management. Along with these areas, performance management and analytics are also making a mark in cloud-

based environments. The increasing popularity of cloud computing will ensure that many such applications migrate to the cloud environment. Processes that cut across several applications will therefore need to develop a cloud strategy.

BPM will have to evolve with current business changes

BPM is currently seen as the adhesive that binds various components of a process together in a simple, code-independent environment. In many ways, it has become a de-facto development platform for business users. While what constitutes the core value in a BPM suite is open to debate, typical use cases illustrate that BPM is mainly used for process automation, application development and integration. All these areas have been significantly impacted by the SaaS model of delivery and the cloud computing environment.

- **Process automation through modeling** – any process automation exercise usually begins with modeling processes. Process modeling is inherently collaborative, making applications distributed through the SaaS model a perfect fit for this purpose. Datamonitor notes that a large number of BPM vendors such as IBM, Software AG, and Metastorm have launched SaaS modeling capabilities in the recent past.

- **Application development** – while many vendors now allow process model editing in SaaS mode, only a few such as Appian, Cordys and Vitria offer application development and complete execution in the cloud. As the span of SaaS vendors and SaaS solutions increase, it may be easier for SaaS BPM offerings to bind these services and execute composite applications on the cloud. Lightweight applications can also be created through mashups drawing on various cloud applications, furthering the case for SaaS BPM. Datamonitor believes that there is a huge potential for user developed applications in the future. BPM technologies are naturally suited for catering to this market given that they can easily provide the orchestration and workflow capabilities required for creating such ad-hoc situational applications. To that end, exposing SaaS BPM capabilities to customers could help kick start this fledgling market. Along with BPM mashup providers such as Appian and Cordys, IBM's Mashup Center and Serena's Business Mashups are notable. Both these are available in the SaaS mode and use BPM technologies such as workflow engines in the background to help business users create applications.

- **Integration** – the presence of a large number of SaaS-based applications creates the necessity for code free integration enabled through major pre-configured web services. As business users are increasingly exposed to services delivered over the web, they will start expecting BPM to help them seamlessly integrate SaaS applications into their processes. Vendors such as Boomi, Jitterbit and RunMyProcess provide pre-configured integration services, which can be used within an existing workflow without the need for additional coding. While not all of these can be called BPM, they can certainly help BPM suites achieve functionalities that end users might expect. Using the same, users can create applications spanning major SaaS providers such as Google Apps, Salesforce.com and Zoho.

The major use cases for BPM will increasingly be impacted by the SaaS paradigm in more ways than those listed above. Datamonitor believes that in the future, possessing a clear SaaS strategy will become imperative for vendors. To maintain the status quo as an enabler for business processes, BPM as a discipline will be ill-advised to ignore the SaaS model of delivery.

SaaS BPM to experience growth over the longer term
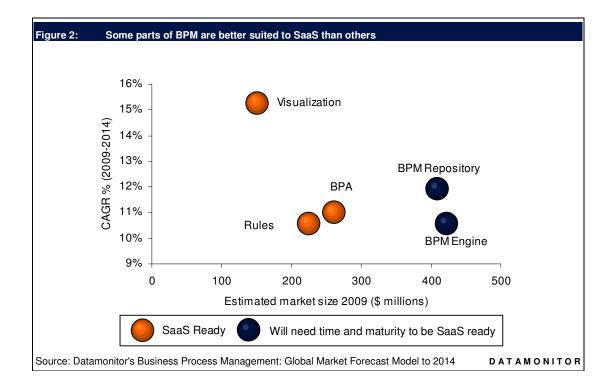
Datamonitor foresees healthy demand to continue in the traditional BPM market. According to Datamonitor, the global BPM market is expected to grow from $1.5 billion in 2009 to $2.5 billion in 2014 in license revenues alone, growing at a

compound annual growth rate (CAGR) of about 11.5% over this period. Figure 2 illustrates the expected growth of various parts of the BPM stack.

A closer look at the addressable market for various parts of the BPM stack throws light upon the opportunities for SaaS BPM. In particular, visualization, business process analysis (BPA), and business rules appear ripe for SaaS offerings. Datamonitor believes that areas which are easy to replicate in the SaaS model and require the involvement of human elements could experience greater adoption in the SaaS model. While SaaS offerings will not compete with on-premise offerings, they could well extend the overall target market for BPM. Figure 2 shows parts of the BPM stack which appear SaaS ready. The market size and growth for these areas can provide an idea of the opportunities existing in these segments, but have no bearing on the propensity of a particular segment to operate in the SaaS model.

Figure 2:   **Some parts of BPM are better suited to SaaS than others**

Source: Datamonitor's Business Process Management: Global Market Forecast Model to 2014   **D A T A M O N I T O R**

Three parts of the BPM stack, highlighted in orange in Figure 2, appear SaaS ready:

1. **Visualization** – the visualization layer is the user interface for a BPM suite and helps in data collection and representation. Interfaces deliver user interaction interfaces, advanced visualization, and data collection through forms. Interfaces supporting Flash, Flex, AJAX and Adobe PDF standards are also considered. Datamonitor expects this area to experience a large push from BPM-based mashups.

2. **BPA** – comprises a set of process modeling and monitoring tools that help organizations illustrate, develop, and monitor their business processes. Typically, BPA software offers advanced visualization, mapping and simulation capabilities to create architectural diagrams that demonstrate the relation of multiple processes to IT components. This category also includes business activity monitoring (BAM). Datamonitor expects the maximum impetus for growth in this area following the release of SaaS modeling tools by most major BPM vendors.
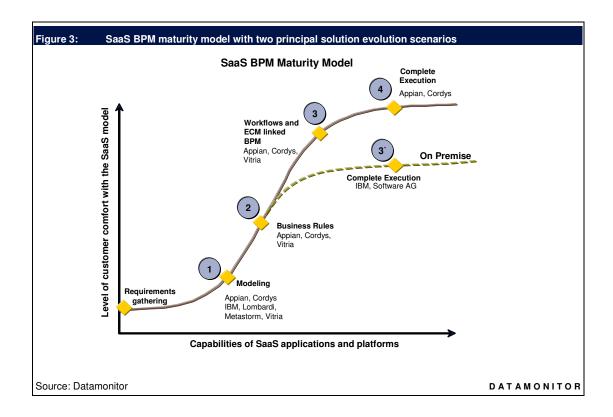
3. **Business rules** – business rules management systems manage and execute rules that govern business processes and their interrelations with each other. Datamonitor believes that as customers of SaaS solutions develop trust in the capabilities of SaaS BPM solutions, the demand for SaaS-based business rules could take off.

A SaaS BPM maturity model

Datamonitor's view of the SaaS BPM market considers two possible scenarios. Figure 3 illustrates the maturity model, and shows leading vendors along both paths. These paths diverge after stage 2. Up to that point vendors will most likely agree on the path to market. Datamonitor believes that over the longer term, many vendors will choose to deliver modeling and business rules capabilities through the SaaS model alongside an on-premises version.

The path beyond point 2 will likely be dependant on vendor and customer preferences. Some vendors such as Appian, Cordys and Vitria may choose to retain their focus on SaaS solutions, concurrently offering on-premises deployment as an option (path 3). Datamonitor believes that more vendors would attempt level 4 only when they have garnered customer trust and are able to convince customers of their commitment to the SaaS model. By this token, vendors such as Salesforce.com that have already managed to convince customers of their SaaS intentions and gained the trust of a large user community could have a significant edge should they choose to offer BPM execution capabilities through their PaaS offerings. Datamonitor does not consider the entry of generalist PaaS providers in this area to be unlikely.

Figure 3: SaaS BPM maturity model with two principal solution evolution scenarios

SaaS BPM Maturity Model

Source: Datamonitor

D A T A M O N I T O R

On the other hand, several BPM vendors may choose to keep all execution in the on-premises mode (path 3). Datamonitor believes that, as of now, the on-premises model caters for a supermajority of the BPM market. In the future, a healthy market for on-premises BPM will continue to exist.

The path to SaaS BPM contains opportunities and challenges

To sum up, Datamonitor believes that there is an emerging market in SaaS BPM ripe for exploration. The arguments in favor of SaaS BPM will increasingly move from convincing to compelling, mirroring similar developments in other areas of enterprise applications that now have mature SaaS offerings. Datamonitor reaffirms that not all vendors will need to adopt the same SaaS strategy. However, vendors would do well to reevaluate their offerings in the light of recent developments and discover their sweet spots in SaaS. Key business benefits of SaaS BPM will include:

- reduced business continuity risk;

- unification of rules and modeling repositories;

- easier reach into multiple geographies and customer size bands;

- easy mashups and simplified application development;

- greater collaboration during modeling and manual discovery.

Key challenges of SaaS BPM will remain:

- security concerns;

- lack of richness in functionality;

- customization.

TECHNOLOGY EVOLUTION
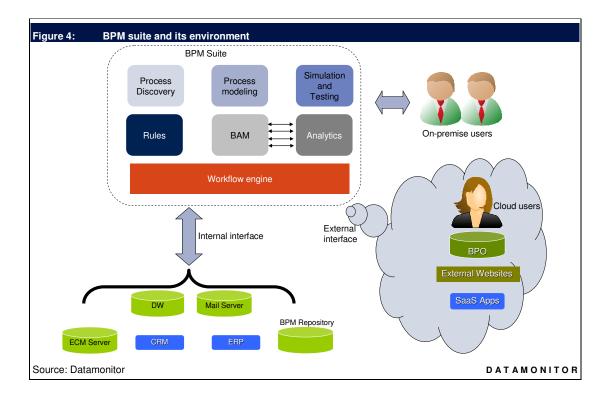
The cloud computing milieu has undergone a sea change over the last two years. While the term itself came into public knowledge around late 2007, it has thereafter been one of the most rapidly developing areas in terms of technology. From a pure technology perspective, the idea of cloud computing is every IT organization's dream: the ability to seamlessly deliver any product as a service, thereby abstracting the physical layer and the underlying infrastructure complexities from the end user.

Although the SaaS paradigm, enabled by a cloud computing ecosystem, has experienced early successes with applications such as CRM, BPM has not been a natural choice for this model. There are many reasons for this, such as the limited configurability of SaaS applications, integration issues, and security concerns. However, Datamonitor notes that several BPM vendors have made significant progress towards developing SaaS solutions as a part of their portfolio.

This section evaluates the current maturity of the SaaS BPM market and discusses emerging on-demand development platform providers and their offerings. The section also provides thought leadership on the expected direction of technology evolution, touching upon the areas within BPM that are more likely to see increased traction in a SaaS model.

A BPM suite can be deconstructed into five core and two secondary layers

Figure 4 shows the basic structure of a BPM suite. The various components of a BPM suite are listed below.

Figure 4: BPM suite and its environment

Source: Datamonitor

D A T A M O N I T O R

DATAMONITOR

According to Datamonitor, most BPM suites can be thought of to consist of the following modules:

1. **Process discovery and project scoping** – follows process chain that combines data and events from various systems and applications inside the organization to generate a basic process model.

2. **Process modeling and design** – help participants accurately model business processes.

3. **Business rules** – define and implement business rules based on data generated within and outside the enterprise.

4. **Workflow engine** – executes the process model.

5. **Simulation and testing** – allows users to run test cases to ascertain the response of a model to a variety of data, including live production data.

Two additional areas that some vendors now include within BPM:

1. **BAM** – aggregation and presentation of process information. BAM inputs may feed into mechanisms that help create a closed feedback loop that aims to keep process parameters within an acceptable range.

2. **Analytics** – application of analysis frameworks and methods to process data.

Process modeling and design is best suited to SaaS

Business process modeling is a key component of any well-featured BPM suite as it helps encapsulate process knowledge in a structured format. A model, as the name implies, is an abstraction of a working process, task or system. Modeling software comprises a set of process tools that help organizations illustrate and develop business processes, with a view to making them transparent and easily executable.

With the steady adoption of service-orientated architecture (SOA) principles, the view that processes need to be further decomposed into reusable components with the help of web services has found steady adoption. There is a growing need for expanding the scope of integrations created within BPM initiatives beyond the context of individual process implementations, with an architectural, cross-project oversight. Another realization that has also dawned upon enterprises is that with increasing process complexity, BPM initiatives now require a higher degree of abstraction and access to metadata from a horde of other applications.

Given these emerging requirements, Datamonitor believes that modern process modeling software, whether on-premise or delivered in the SaaS model, should enable the following:

- collaboration;

- ease of use for both business and IT users;

- customization;

- quick rollout;

- standardization to ensure easy portability.

Collaboration is easier in the cloud

Every process has a definite number of participants which provide inputs or in some way affect the flow of the process to allow it to achieve its objective. While some of these participants may well be other enterprise software, human

participation is required in most cases. In such cases, collaboration is required to keep business users and IT users working along the same lines to try and develop a system that meets business requirements.

Datamonitor notes that many organizations have realized the need for collaboration during the modeling process, but have been traditionally constrained by the limited set of collaborative features that commercial modeling software provides. As a result, most collaboration efforts amount to little more than emails, PowerPoint slides, word documents or Visio diagrams. Many organizations also approach the collaboration process offline and sequentially, rather than in line and concurrently. Such limitations make the entire effort unstructured in nature, with little enforcement capabilities. They are also difficult to maintain or reference, making it complicated to have a consistent picture of what a business process should be.

Enabling collaboration in modeling environments therefore requires a unified environment which must be simple enough for the business user, while being robust in the background for enabling the requirements of process users. Datamonitor notes that SaaS modeling platforms are slowly emerging as a preferred way to engage process participants.

Many vendors provide modeling capabilities in the cloud

Lombardi Blueprint, IBM Blueworks and Software AG Alignspace all provide valid cases of standalone on-demand modeling platforms that provide modeling capabilities in the cloud. Lombardi's Blueprint, for example, provides standard modeling capabilities and the company is planning to introduce additional workflow capabilities in the medium term that would allow users to run simple processes in the platform's modeling environment. On the other hand, Appian, Cordys and Vitria provide on-demand modeling along with an option to execute it over the cloud as well.

For tackling relatively unstructured processes, Cordys' case management provides a good example. Its Case Management module in the Business Operations Platform (BOP) enables highly unstructured business processes to be managed alongside structured ones, through the entire process lifecycle—from design through to execution, enabling non-sequential, event-driven processing of case-based processes. Along with supporting static, integration-centric processes (the flow of which is always the same), Cordys BOP also supports patterns from case-oriented—that is, highly dynamic and loosely structured—processes.

Emerging practices that have yet to be deemed as well-established processes can be approached using solutions that serve as a precursor to modeling platforms. Datamonitor believes that this will be an interesting area to watch, given that Google has announced Google Wave platform, originally intended for the consumer market, but which could convert standard email into a rich, collaborative interface with versioning and tracking capabilities.

Business rules could be the next to move to the cloud

Business rules govern decisions based on data generated both within and outside the enterprise. A business rules management system allows rules to be held in a unified location such as a repository, so that these can be managed consistently. A unified rule repository also allows for greater reuse of pre-existing rules across business functions. These rules can be modified by both business and IT users through an interface or IDE, and executed through a rules engine in a runtime production environment.

The steady adoption of SaaS modeling tools implies that rules management systems could well be the next part of the BPM stack to move into the SaaS model. A large part of rule creation is collaborative, implying that a web-based solution would be better equipped to handle rule creation. However, Datamonitor expects many vendors to be hesitant in offering the full execution of rules in the SaaS model. While delivering a unified rules repository and rule modeling capabilities will

be achievable with point SaaS solutions, rule execution can also be carried out through a PaaS-like offering that provides an interoperability design and runtime infrastructure through which existing data and logic can be exposed and executed.

Cordys provides an instance of a rules engine that is executed in the cloud. The Cordys Rules Management system is an integral component of the Cordys BOP and allows the seamless integration of business rules within business processes and business objects during modeling. Business rules are externalized from individual application codes and processes into a single repository using a standards-based syntax. Following the modeling phase, the rules are deployed and executed over its robust, high availability SOA platform.

Process discovery and project scoping are challenging in the SaaS model

Automatic process discovery follows an event-driven process chain that combines process related data and events from various systems and applications inside the organization. For large and diverse enterprises, a single process could involve data from ERP, CRM, application servers and legacy applications. These events are then reconstructed and depicted to mirror the executed process instance. The process instance is depicted in one of the more adopted process notation standards.

Datamonitor believes that an efficient discovery mechanism should be able to do the following:

- Extract and combine data from distributed sources for a single end-to-end business process.

- Discover processes from a variety of disparate code bases.

- Analyze existing database models.

- Import existing processes into implemented design tool.

- Record KPIs from existing processes.

- Abstract and expose existing activity rules and process flows.

- Aggregate unrelated subsets of process instances to discover the process model.

- Identify and expose existing forms and documents used within existing processes.

While many of these steps can be performed in the cloud, Datamonitor believes that not many enterprises have reached the SaaS maturity to switch to a full cloud strategy. The most logical limitation to making this happen is the amount of data exposure with which customers are comfortable. If the customer organization operates on a full SOA environment, a single audit log and work list/queue log exposed could be sufficient. However, organizations could be hesitant to expose distributed data that is tied up in several servers and legacy applications.

Process analytics: integration with on-demand BI dashboards

The popularity of analytics continues unabated even during the recessionary period. Of late, organizations have started to realize that the value of analytics and BI can be maximized if they are spread out into the enterprise and across functions, rather than preserved as a distinct layer accessible only to power users. The idea of process analytics has been borne out of this particular notion. To cater to businesses managing complex environments that change on the fly, managers now need to perform real-time or near real-time analysis on process data.

To perform analysis in real-time, there are two major considerations. Data architecture has to be highly scalable and current to suit the needs of a real-time process and application environment. There are many ways to enable this, including operational data store and data marts that handle low latency data and place it between the operational systems and the data warehouse. Alternatively, approaches such as Appian's can be used, in that they use a database platform (Kdb) which is designed to capture, analyze, compare and store data at high speeds and on high volumes, operating as an in-memory environment. Also, there has to be an extensive library of analysis methodology that can act upon the data in real-time.

Datamonitor believes that with the proliferation of SaaS BPM platforms, it may be easier for vendors to offer easy integration with BI providers so that existing analysis frameworks may be easily reused.

Mashups and composites can be governed with SaaS BPM

A mashup is an application that combines data or functionality from two or more external sources to create a new service. The concept is to make the development process easy so that business domain experts can build applications without having to call on the IT department. While a large number of mashups are now successful in the consumer market, the uptake of mashups in the enterprise has been limited. Datamonitor believes that there are a variety of reasons for this, namely:

- **Data exposure** – how much of business data can or should be exposed?

- **Reliance on external APIs** – how does an organization guarantee that external APIs will provide reliable service and the required uptime?

- **Governance and maintenance of mashups** – who takes the onus of monitoring and servicing the mashup?

- **Applications duplication** – how does an organization track that multiple developers do not target the same need?

Given the risks associated, it is evident that mashups need strict policies, along with a clear understanding of their intended usage. Enterprises encouraging the use of mashups need to address the security, data and proliferation issues, while having a clear path to migrate successful mashups to more robust and governed services.

Datamonitor believes that SaaS BPM could help bring the much needed structure to mashups and popularize it within enterprises. The role of BPM in mashups is understandable given the entire model-driven execution philosophy of BPM strives towards this exact goal—helping business users easily create applications. However, applying BPM methods and frameworks to the mashup environment will help vendors structure the entire mashup creation exercise as an extension of a SaaS modeling tool. After creation, mashups that gain popularity could be pushed to production (after getting the required sign-offs), while mashups that are yet to be popular could run test cases and be part of a work-in-progress modeling repository.

Cordys provides a good example of a vendor that uses BPM principles and applies them to mashups. Cordys Process Factory enables business users to create, run and manage on-demand processes called MashApps, process-centric web applications available on demand. Customers of Cordys Process Factory can create and assemble new mashups from an existing repository of reusable mashup components (e.g. Process Library, external Web Services Repository, Widget Repository). The interface provided in MashApps is guided ser interface-based, giving business users the option to drag and drop widgets and web services to quickly build and deploy. Integrations with third-party applications, both on-premise and on-demand, can be modeled without dependency on the IT team.

SaaS BPM technology is just picking up momentum

Datamonitor notes significant interest in the SaaS model from most BPM vendors. However, in terms of technology, many products provide only parts of the full BPM stack in the SaaS mode. Larger vendors for the moment seem content in being at the lagging side of the delivery model, pushing out products only after a particular area has gained a critical mass of customers in the SaaS model. On the other hand, some smaller vendors see this indecision by the larger vendor community as an opportunity and are looking to profit by offering comprehensive SaaS BPM solutions. These vendors stand a chance to attract new users to BPM and expand the addressable market.

Datamonitor believes that the long-term success of the SaaS BPM paradigm is dependant on many adjacent developments such as the provision of a flexible public-private cloud infrastructure. However, vendors that manage to remain at the leading edge of SaaS BPM technologies currently could well use the momentum gained to their advantage in the future.

CUSTOMER IMPACT

The customer and user communities are expected to be the primary beneficiaries of the SaaS model of BPM deployment. The biggest gain from SaaS BPM systems will be in the involvement of a larger number of people in the process modeling exercise, helping to recreate processes that accurately reflect real world scenarios. SaaS will inherently render the modeling process more inclusive, ensuring that organizations glean the experience of participants that have traditionally been ignored. For example, a call center may deploy a team of consultants and business managers to design a transaction processing system, but end up ignoring the inputs of call center executives that actually perform the day-to-day transactions. As opposed to traditional methods, SaaS-based modeling environments will serve as a viable route to capturing the tacit knowledge from process participants without incurring prohibitive costs and extended timelines.

Enterprises using SaaS BPM could witness a faster response time in reacting to events in the external marketplace. In many cases, SaaS BPM will also help in accurately mapping total project costs to benefits. Overall, Datamonitor believes that SaaS initiatives will invigorate the perpetual business and IT alignment exercise.

SaaS BPM will add new impetus to the business IT alignment exercise

Since its inception, BPM has been seen as an enabler of change by its end-user community. While most technologies from the silo application development and monolithic stack era have struggled to maintain their versatility, in the process becoming inhibitors to progress, BPM has remained a solution capable of delivering the much needed agility in the day to day operations of a company.

One of the inherent objectives of a BPM system is to enable strong linkages between the business and IT. Business requirements change often, necessitating change in technologies that enable business. However, users continue to struggle with technology solutions that are built for a single purpose and cannot take on major redevelopments when operational changes occur. BPM has traditionally helped business overcome this issue by fostering a code-free environment that allows business users to monitor and manage business the way they want to, without requiring intervention from IT. To maintain this flexibility, Datamonitor believes that it will be important for future BPM solutions to have a presence in the cloud. On the one hand, cloud-based products existing in harmony with an on-premises offering will expand the gamut choices for the end user. On the other hand, possessing capabilities in the cloud will also help BPM solutions get closer to adjacent enterprise applications that will choose to operate in the pure on-demand model. Datamonitor believes that managing changes in business models will require BPM vendors to think of alternative ways to service business, and SaaS could emerge as an enabler.

BPM in the SaaS model could bring back the modularity in the BPM stack

Given that BPM in its various forms has existed since the turn of the century, modern BPM solutions comprise a mature set of tools, products and services. As is typical in a mature market, there has been significant consolidation among vendors. For example, Tibco built its BPM portfolio from its acquisition of Staffware while BEA, later acquired by Oracle, did the same through Fuego. Similarly, IBM acquired iLog for its BRMS capabilities, while Software AG broke off its partnership with Fujitsu and acquired webMethods, later going on to acquiring IDS Scheer for its modeling capabilities in July 2009.

The integration of competing product lines, along with the constant appending of adjacent technologies in BPM solutions, has saddled many BPM suites with additional baggage. For example, many BPM suites now offer an analytics engine on top, a domain which was not considered part of BPM a few years ago. Similarly, BAM, which has been considered a separate domain in the past, is now a part of standard BPM offerings. While providing a comprehensive functionality set is

certainly desirable, Datamonitor believes that every BPM solution also needs to have a flexible, quick deployment option that caters to specific customer needs.

Vendors and customers still disagree on the value of various components in all-inclusive offerings, which further advocates the need for a BPM suite where the individual components can be easily decoupled. In fact, many modern BPM suites are increasingly adopting a web services-enabled modular architecture so that point solutions may be matched to specific customer requirements. For example, customers who wish to use the modeling and simulation capabilities of IBM may only deploy WebSphere Business Modeler. Customers interested in process automation can only deploy the IBM process engines, while customers looking for BAM capabilities can deploy WebSphere Business Monitor independently.

SaaS BPM could enable business users to build and modify processes with minimal IT intervention

BPM vendors would do well to remember that the core value of BPM is in enabling the business user to build and modify processes with minimal IT intervention. To that end, developing a SaaS module as a complement to an existing on-premises solution could serve as an extremely useful strategy. For example, customers that require only business rules capabilities on an urgent basis may benefit from consuming the rules module of a BPM suite in the SaaS mode. While modular deployment may theoretically be possible with an on-premises solution, Datamonitor's observation is that vendors seldom position modularity as a prime positive of an on-premises solution, instead focusing on pushing a stack as far as possible. Business problems that require urgent attention but do not allow for a substantial amount of time/effort/budget may find this approach obtrusive. Alternatively, a SaaS deployment model can deliver a quick solution without much dependency on existing IT infrastructure, helping business managers take rapid actions without getting caught in organizational red tape or vendor marketing speak.

However, Datamonitor believes that customers considering SaaS BPM offerings should carefully evaluate the solution's maturity and calculate exit costs at different points in its lifecycle. The SaaS landscape is still in a growth stage and depends on the development of many adjacent areas. For example, the evolution of strong SaaS BI offerings influences the kind of capabilities that BAM and analytics vendors could offer on the cloud. Similarly, the popularity of SaaS ECM solutions influences the type of associated SaaS BPM capabilities that can be provided.

To gain customer trust, Datamonitor advises existing vendors contemplating a SaaS strategy to ensure easy portability for customers switching to the on-demand model, while providing a rich functionality set in both modes.

SaaS BPM will improve budgeting accuracy and direct budgets to business cases

Business IT alignment advocates a need for IT and business management to work more closely, ensuring that IT systems support the right business requirements. Apart from making the IT organization more responsive to change, one of the primary aims of business IT alignment is to streamline IT budgets. An effective business IT alignment strategy seeks to bind IT initiatives to business action, in the process creating a measurable return to business from investments in technology.

Infrastructure investments will be closely scrutinized in the recession

Given that there are multiple ways to support any particular business action, making a choice among various technology alternatives becomes inevitable. Ideally, organizations should attach identical priorities to business and IT operations, taking the view that IT projects are actually business programs that need to be enabled through IT initiatives. However, such organizations are a rarity in the modern business environment. Given the ongoing recessionary environment and the

resulting cautious sentiment in buyers, investments in technology will increasingly need stronger business cases to be considered.

Datamonitor observes that technologies which manage a higher buy-in in the current environment directly support businesses in performing actions, rather than ones that support enabling frameworks. In other words, while investments in technologies that touch the frontend of business may require a marginally higher sales push than normal during the recession, dollars spent in infrastructure enhancements have to face extensive scrutiny. Wherever possible, these investments also need to have a clear, demonstrated tie-in to the top lines or bottom lines of a company.

Quantifying the exact costs and benefits of infrastructure hardware and software is sometimes challenging. Most infrastructure investments are expensive and deliver their promised value over a long period of time to the organization. These benefits are accrued, often unevenly, by different parts of the organization in ways that are not always easy to identify up front. As a result, the costs and risks of such investments are often quantifiable, but value derived is not. The longer break-even period and expensive nature of investments could necessitate approval from the CEO and the office of finance, introducing a delay in the process. Businesses may fail to capitalize on developing opportunities due to approval delays. The logic that underlying infrastructure enhancements ultimately benefit business will likely be outdated in the future. Businesses will need to clearly demonstrate the value of all IT investments and align the same to business growth.

SaaS BPM will further the case for IaaS and help tie new investments to business action

Given the extensive scrutiny of infrastructure investments, organizations that require new servers to run and execute BPM in-house could look to instead start with a SaaS BPM solution. BPM delivered in the SaaS model inherently uses IaaS in the background, ridding organizations from having to think about procuring additional resources for the purpose. The per-month-per-user SaaS BPM chargeback model incorporates the cost of infrastructure, enabling the streamlining of IT resources and tracking usage. Using SaaS, BPM will help business applications make a direct case for themselves without having to hide infra requirements behind spurious, and at best, long and hard to realize business cases. Infrastructure behind SaaS BPM may also be adjusted up and down as necessary. Pilot projects that have less predictability around their infrastructure requirements and need a variable source of shared infrastructure could directly avail of the same from the SaaS vendor's end, without the end-user having to plan for it.

SaaS BPM will help capture tacit knowledge from process participants

The term 'tacit knowledge' was coined by scientist and philosopher Michael Polanyi, and relates to the knowledge that people acquire through real-life experiences. As opposed to explicit knowledge, tacit knowledge is more intrinsic to a person, and is therefore difficult to capture through formal methods of communication.

Capturing tacit knowledge could be critical while mapping processes

The importance of tacit knowledge in the enterprise cannot be ignored. While a large amount of data about the functioning of an enterprise can be codified, an even larger gamut of tacit knowledge regularly escapes organizations. In some cases, the impact of the loss of tacit knowledge is significant. Consider the case of organizations in the domain of providing specialized knowledge, such as consulting or research organizations. Very often, the success of smaller, boutique consulting organizations is based on the tacit knowledge of a handful of key partners. Such knowledge could involve knowing the 'soft' preferences of a large buyer, understanding which channels to target for cutting through the red tape of government clients, or simply comprehending latent, subliminal needs in stakeholders. This information resides with key

people and is seldom captured through formal information exchange methods. The loss of tacit knowledge is particularly pressing in companies that experience a rapid growth in employee numbers or record above-average employee turnover.

In BPM implementations, capturing tacit knowledge from process participants is considered an important part of modeling. Vendors deploying BPM systems at clients often realize that a large part of the deployment process is spent in getting people to share their tacit and explicit knowledge, so that it can be fed into process models. However, few vendors focus on technologies that enable the exchange of knowledge in an informal setting, resulting in the marginalization of tacit knowledge. As a result, processes built without capturing participant knowledge through informal and formal settings experience buy-in issues.

Social, collaborative user environments can remove perception barriers to knowledge capture

Knowledge management as a discipline recognizes socialization as a viable method to capture tacit knowledge. Technologies that enable socialization through informal communication, white boards, file-sharing, instant messaging, forums for debating and brainstorming are more likely to capture a larger part of tacit knowledge. While socialization through the use of collaborative technologies is theoretically possible in both on-premise proprietary solutions as well as SaaS-based open collaboration forums, SaaS solutions arguably possess an advantage in this regard.

A frequently encountered barrier to the capture of tacit knowledge is the lack of motivation, whereby participants perceive that the efforts required for the task do not lead to measurable and commensurate benefits. Datamonitor believes that the best strategy to record tacit knowledge is to design a system to capture knowledge in the course of, or as a consequence of, working, rather than a dedicated activity. Social software could be a likely solution to this problem. A collaborative environment that can be easily rolled out to a large number of participants and integrates into a familiar environment for the business user has a higher chance of overcoming negative perception hurdles.

SaaS-based modeling solutions are ideal for engaging a larger number of participants

In order to be rolled out to many participants, such an environment must appear technology agnostic to the users end. In addition, this technology cannot be expensive, which would inherently restrict distribution and democratization of the solution. SaaS modeling tools fit these requirements well and manage to overcome many traditional boundaries to collaboration.

Metastorm ProVision offers a proprietary SaaS-based modeling environment where existing process models can be imported. Users can then use these models to append, modify and annotate further changes. Cordys, on the other hand, takes a radical approach to collaboration. The vendor provides the Cordys Professional Cloud, an online collaboration forum where users and Cordys developers share ideas, issues and best practices. Customers, interested parties, and partners can use the facilities provided in this space—the Knowledge Domain spaces, the Cordys@Work methodology, and a forum space called Cordys Tech Talk—to post technical queries and be directed to the correct information.
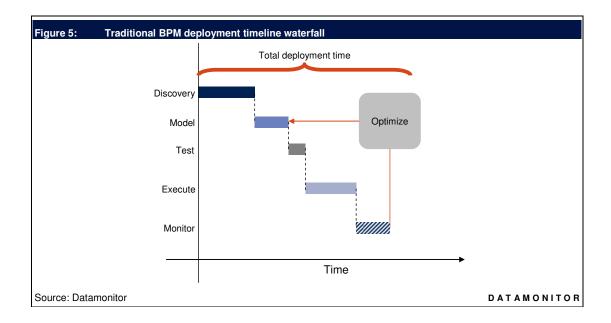
It may be argued that providing the same set of functionalities with on-premises offerings is possible. Indeed, there are little or no technological limitations to collaboration in an on-premise modeling suite. However, Datamonitor believes that the SaaS model is better suited to enable such environments in an economical fashion, at the same time engaging process participants. Most enterprise users today are exposed to social computing on the web and thereby expect any modeling software to possess features that simulate a rich, collaborative environment. In the future, Datamonitor believes that a significant part of a collaborative modeling tool's experience will be achieved through the integration of social networking websites, blogs, wikis, mashups and RSS feeds into the framework of the solution. A SaaS-based solution will be easily

> DATAMONITOR

able to simulate such a web-based environment, thus extending the modeling environment into an expanded sphere for social interactions. To that end, Datamonitor advises BPM vendors considering a SaaS strategy to learn from the success of on-demand CRM providers.

Hybrid implementations could transform the BPM deployment lifecycle

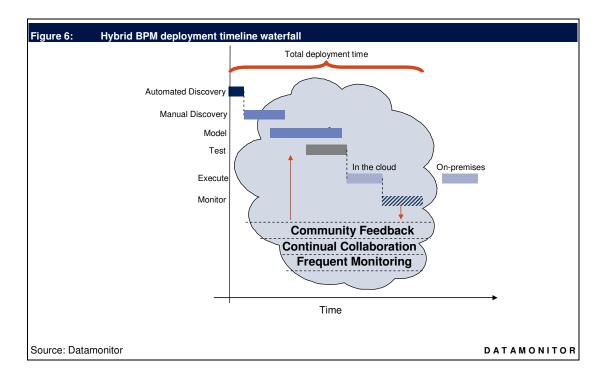The success of any BPM project depends, among other things, on its deployment strategy. Traditionally, BPM has been regarded as one of the most challenging kinds of software to deploy, due mainly to the level of detail and the number of touch points it involves. The key steps to a BPM deployment cycle include discovery, modeling, testing, execution and monitoring, each requiring a different amount of time for completion. However, organizations very often prioritize these stages erroneously and end up with a flawed deployment that fails to engage the participants in the right fashion. Figure 5 shows the typical deployment cycle of an on-premises BPM implementation with average timelines for each stage.

Figure 5:   Traditional BPM deployment timeline waterfall

Source: Datamonitor   D A T A M O N I T O R

It follows that stages which involve human participation should receive higher priority and time during deployment, while tasks of automation should ideally be shorter in duration. Given its collaborative nature, Datamonitor believes SaaS BPM can properly align the BPM deployment cycle to the ideal time required at each stage. Figure 6 shows a modified deployment cycle that may be achieved using a hybrid/pure SaaS BPM implementation, with average timelines for each stage. The manual discovery, model and test phases have been portrayed in the same color in this diagram given their natural overlaps. Datamonitor believes that the collaborative SaaS BPM solutions could make these phases less distinct and more entwined within each other, reducing total time taken.

DATAMONITOR

Figure 6: Hybrid BPM deployment timeline waterfall

Source: Datamonitor   **DATAMONITOR**

Manual discovery, modeling, and testing could overlap during deployment

Manual discovery can be executed better in SaaS deployments

A manual process discovery mechanism relies on process participants to produce a thorough requirements analysis, defining an accurate process flow, business drivers, and related KPIs. Other requirements from the process, such as planning, reporting, and analytics, can also be included at this stage. Datamonitor believes that the adoption of a SaaS-based modeling solution will make discovery and modeling the centerpiece of the exercise, rendering it ideal for modeling processes that involve a lot of human elements.

Historically, traditional on-premises BPM deployments required participants to gather requirements on paper or office productivity applications that allowed for little coordination. Many BPM vendors later realized that manual process discovery and requirement gathering should ideally be done using structured tools that allow for collaborative workspaces. However, there was a natural hurdle to overcome before this could happen. Process documentation and requirement-gathering usually happened before the purchase of BPM software, implying that participants needed to have access to structured tools prior to purchase of the BPM software. A majority of modern BPM suites now provide a free modeling environment that helps end users navigate through the requirement gathering to the modeling stage without requiring purchase. Given these considerations, Datamonitor believes that manual process discovery lends itself very well to SaaS. Using online collaborative tools, users can easily document and gather requirements while engaging a large number of participants in the exercise. In contrast to modeling tools that require local deployment and depend on IT operations, web-based tools are zero-footprint and require little else than a browser and web connectivity, making them ideal for reaching out to many participants.

Modeling will be a natural extension to manual process discovery

After the discovery phase, the modeling phase usually requires the involvement of business users and business analysts to depict the process as accurately as possible. Modern modeling tools provided by both on-premises and on-demand vendors are adept at helping participants generate process diagrams. This helps business users gain greater control over process diagrams without having to worry about the technical complexities or modeling notations. Typically, such software offers advanced visualization, mapping and simulation capabilities to create architectural diagrams that demonstrate the relation of multiple processes to IT components. Datamonitor believes that SaaS-based modeling solution will unite discovery and modeling, focusing time and effort to the most critical part of the deployment lifecycle.

Similar to manual process discovery, Datamonitor believes that SaaS-based modeling could be a viable addition to most BPM suites in the future. End users will benefit from collaborative modeling environments, while vendors will benefit from the addition of content and experiences to their online communities. Using Web 2.0 and rich internet application-enabled applications, users will be able to send participation requests to multiple stakeholders. Integration into shared workspaces and features such as concurrent editing will help create mashups and applications that appear seamless to the user.

SaaS could align model development and testing to agile practices

Once a process model is built, it is put through a rigorous testing exercise to validate the model and ascertain performance under various conditions. Given that most software applications need to be tested on similar frameworks, testing has traditionally been a separate area managed by specialists. Most BPM vendors OEM or partner with specialist testing vendors to include testing as a part of a full BPM suite. Datamonitor notes the evolution of agile development methods that are increasingly gaining in popularity. One of the tenets of agile methods involves looking at development as an incremental exercise, with frequent testing and validation at each stage. To that end, Software Change and Configuration Management (SCCM) check-in is used as a central part of an agile practice. Real-time metric monitoring is another approach whereby reports and analysis are available as problems begin to arise, allowing project management to respond. Datamonitor believes that the adoption of SaaS-based modeling tools has the potential to make the model development and deployment process coherent to agile practices. By ensuring that smaller parts of the model are tested in various stages of development rather than testing the entire model post-production, SaaS modeling can help guide an Agile BPM project on track. In particular, the users themselves can drive black box testing, acceptance testing and usability testing in the SaaS mode.

Execution, monitoring and optimization in the cloud may not significantly affect deployment

In the execution phase, the process model so far built using organizational inputs touches its real operating environment for the first time. Execution validates the business processes model and pushes the same to production. Subsequently, the process is monitored and optimized on an ongoing basis.

Datamonitor believes that these areas do not clearly impact deployment times in the cloud as yet. However, some areas where cloud-based execution, monitoring, and optimization could alter the deployment cycle are:

1. **Execution** – SaaS BPM projects could be piloted very easily, reducing the overall deployment time.

2. **Monitoring** – SaaS BPM offerings can easily be integrated into SaaS analytics engines and rolled out to multiple participants, increasing reach and process visibility.

> DATAMONITOR

3. **Optimization** – optimization can be continual given that a larger number of participants can monitor the process and suggest changes to the process model at runtime.

SaaS BPM will make the modeling process inclusive

There are definite benefits to the user community from well fleshed-out SaaS BPM application. Parts of the BPM stack which are inherently collaborative would perhaps help end-users the most, involving a large number of participants and ensuring the capture of tacit knowledge. Processes that are modeled in a collaborative fashion will also need lesser user acceptance testing efforts and stand a better chance at rapid adoption and implementation. For enterprises that are wary of adding new infrastructure during the recession, SaaS BPM could emerge as the viable tool that consumes IaaS in the background, helping track and moderate expenditure as necessary.

COMPETITIVE LANDSCAPE

The contemporary BPM market has been formed through the blending of a large number of adjacent software areas, most of which had their roots in automation technologies. Because of this, the background of vendors in this market is extremely diverse. For example, many vendors added BPM capabilities as a natural extension to their ECM suites, while others from the almost dormant EAI market chose to enter the BPM market. Some vendors that provided pure-play enterprise architecture modeling entered BPM via the modeling route, while some SOA vendors chose to provide connectors within a BPM suite, in the process offering components of BPM themselves.

Regardless of their origin, most of the established BPM vendors have now bridged gaps in their portfolios. Vendors at the top end of the market are now near indistinguishable, having developed a comprehensive BPM suite through in-house development and acquisitions. This lack of distinction was apparent in Datamonitor's BPM Decision Matrix (DMTC2176), published in April 2008. In this Decision Matrix report, Datamonitor benchmarked and classified leading BPM vendors primarily on the basis of their technology assessment scores. Given the maturity of the market and the suites under consideration, it was difficult to assign the top rank to any one vendor. Most of the BPM vendors profiled offered well-executed, comprehensive portfolios that garnered very high overall technology assessment scores.

Possessing a SaaS strategy could be the next frontier for differentiation

The fact that none of the vendors claim the sole market leadership position testifies to the consolidated and competitive nature of the BPM market. One of the key takeaways from the Decision Matrix assessment was although there was no one leader per se, the leading vendors did form a distinct top rung. This group set itself apart by deriving competitive differentiators in the technology areas adjacent to BPM, typically business rules, SOA integration, analytics or event-driven frameworks. With a SaaS solution complementing their existing portfolio, Datamonitor believes that vendors can alter the competitive landscape in various ways:

- SaaS vendors will expand the addressable market for BPM by getting into smaller customer accounts.

- SaaS BPM will integrate with adjacent applications in the cloud, spurring differentiation among vendors.

- BPM communities will create marketplaces to exchange BPM templates and tools, generating additional revenues.

SaaS BPM applications will broaden the scope of the market

The BPM market continues to grow at a healthy pace and records high growth rates even amid the recession. According to Datamonitor's Business Process Management: Global Market Forecast Model to 2014, IMTC0341 published in July 2009, the BPM market will account for about $1.5 billion in 2009 in license revenues alone, growing at an enviable CAGR of 11% (2008–14). However, year-on-year growth rates are expected to be lower than this CAGR in the next two to three years and pick up beyond 2011. Figure 7 shows the forecast growth rates in the BPM market from 2009 to 2014.

Given the medium-term depression in growth rates, Datamonitor believes that a SaaS strategy can be very effective. SaaS BPM offerings can help vendors broaden their target market and enter greenfield customer accounts. As the market emerges from the lull in growth rates, vendors that manage to establish a footprint in smaller or underpenetrated accounts can also use these customer accounts as extended revenue opportunities.

> **DATAMONITOR**

Figure 7:   Growth rate in the BPM market up to 2014

Source: Datamonitor's Business Process Management: Global Market Forecast Model to 2014   **D A T A M O N I T O R**
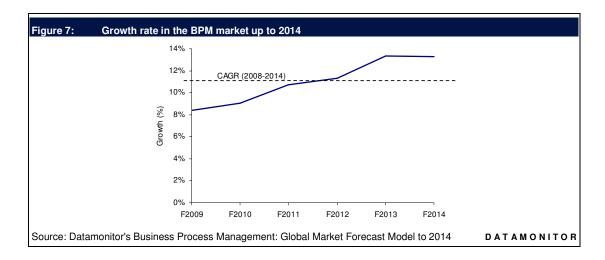

Figure 8 shows an extended competitive landscape that illustrates the presence of a variety of participants in the BPM vendor landscape. In the figure, vendors offering PaaS products are shown as they are expanding functionality and targeting similar customer needs as BPM vendors. However, Datamonitor believes that the effect of these offerings will be complementary rather than cannibalistic, helping extend the overall BPM landscape.

Figure 8:   Future segmentation of BPM market

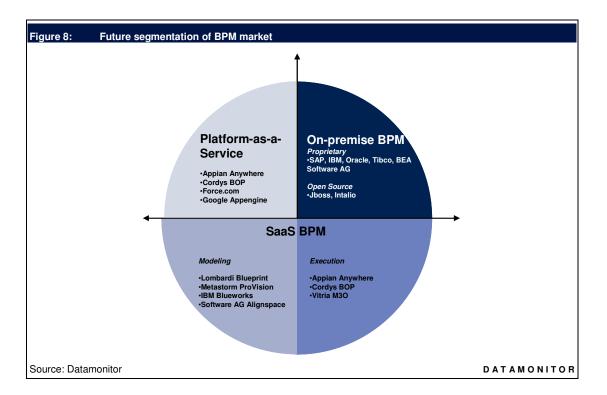Source: Datamonitor   **D A T A M O N I T O R**

Figure 8 shows that the coexistence of proprietary on-premise BPM vendors alongside SaaS and PaaS vendors. Datamonitor believes that, with time, these quadrants may converge in more ways than one. For example, Intalio uses its strengths in open source and cloud computing to create unique open-source on-demand products. On the other hand,

---

SaaS vendors could naturally evolve their products to full fledged PaaS offerings. Furthermore, many proprietary on-premises vendors could also choose to keep a larger part of their BPM stack in the SaaS mode.

Vendor diversity and specialization will decide the SaaS strategy

Datamonitor classifies BPM vendors on the scope of and the role of BPM in their product portfolio. Given the nature of the offerings in the market, the competitive landscape can be segmented into three primary categories: BPM specialists, middleware conglomerates and application vendors. However, Datamonitor also notes the emergence of some specialized middleware specialists and platform vendors.

Traditional BPM specialists will be at forefront of the SaaS wave

BPM specialists comprise pure-play vendors that possess entire BPM suites or best-of-breed BPM modules spanning across vertical and horizontal solution categories. The primary identifier for this group is that their business is focused on providing BPM functionality, with little interest in enterprise application middleware. Vendors in the group also focus on process management rather than integration. Some notable examples of BPM specialists include Lombardi, Appian, Savvion, PegaSystems, Global360, Ultimus, Metastorm, and Intalio. Alternatively, BPM specialists may also include best-of-breed BPM modules, for instance IDS Scheer in the BPA segment and ILOG (now IBM) in the business rules market.

Some BPM specialists now offer components of their BPM suite in the SaaS version

Most of the prominent participants in the SaaS BPM market come from the BPM specialists segment. Pure-play BPM specialists are typically below $200m in revenue and privately owned, making them slightly more agile than multi-billion public conglomerates. These vendors derive almost all of their revenues from BPM, which necessitates that they keep ahead of larger stack conglomerates with continuous innovation. Given that larger conglomerate vendors are typically more difficult to take on in the integration game, BPM specialists use their nimbleness to deliver new and inventive approaches to processes, be it new models of deployment such as SaaS, new licensing models, or adherence to latest standards.

In addition, some of these vendors also have a presence in the small and medium business (SMB) segment and see SaaS as a viable strategy to better service this target market. As a result, it is not surprising to see many of the prominent SaaS BPM offerings emerge from BPM specialists. Although purists might consider many of these offerings to be quasi-SaaS (devoid of a multi-tenant architecture), these offerings definitely serve to add to the diversity in the competitive landscape. BPM specialists that currently offer one or more modules of SaaS BPM include:

- Appian (Appian Anywhere).

- Cordys (Cordys Business Operations Platform).

- Lombardi (Lombardi Blueprint).

- PegaSystems (Pega SmartBPM Suite).

- Metastorm (Metastorm ProVision).
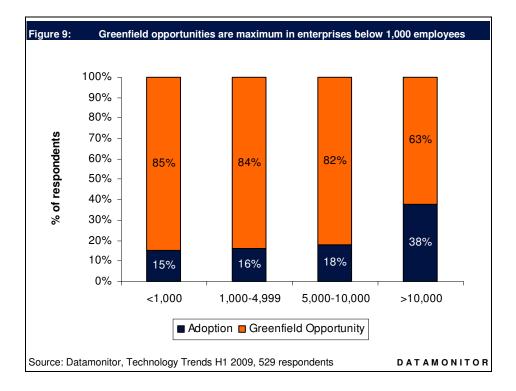
- Vitria (Vitria M3O).

Some of these specialists have managed to tap into the underpenetrated SMB segment

Small enterprises (below 1,000 employees) have conventionally been a sore spot with BPM providers. Such enterprises traditionally start by adding applications and infrastructure on a need-to-have basis, and the limited complexity in their IT

infrastructure does not make robust middleware a distinct need in most cases. However, exceptions to this rule do exist. For example, small trading and investment organizations in the financial services domain typically handle billions of dollars in assets with a small group of highly trained employees. Such organizations differentiate themselves with the help of their skill-sets and the robustness of their processes.

In many cases, such firms have to quickly change their processes to capitalize on an emerging opportunity in the markets in which they trade. Similarly, professional services companies that handle high volumes of data and revenue with a small number of employees also require process adherence and versatility. However, very few vendors currently offer BPM solutions packaged to the convenience of such enterprises. Figure 9 shows the current state of BPM adoption in organizations of different sizes.

Figure 9: Greenfield opportunities are maximum in enterprises below 1,000 employees

Source: Datamonitor, Technology Trends H1 2009, 529 respondents   DATAMONITOR

Currently, just 15% of organizations with fewer than 1,000 employees have deployed a BPM or workflow solution. The adoption rate remains equally low among medium enterprises (1,000–4,999 employees) at 16%. The situation improves significantly in organizations above 10,000 employees, with a penetration of 38%. Datamonitor believes that the low penetration in SMBs can be improved by matching customer needs with the right kind of solutions and pricing plans, furthering the case for BPM delivered through the SaaS model.

A distinct category of BPM platform specialists may emerge

Datamonitor notes the emergence of small categories of specialized vendors that cannot be strictly classified within the traditional segments. Prominent among these are vendors that provide a full development and execution environment in the SaaS mode, but maintain a functional focus on process management and improvement. Features offered by such vendors include the presence of middleware capabilities, provisioning, and orchestration in the cloud, with the option of

multiple tenancy models. In addition, these vendors choose to focus on the delivery of BPM capabilities and modeling tools on demand. While many of these capabilities may be similar to what PaaS providers offer, Datamonitor believes that the BPM focus of these vendors sets them apart.

Cordys BOP proves the best fit for this category. As a fully integrated platform deployable in the cloud as a complete PaaS, Cordys BOP enables dynamic business service provisioning via the cloud, enabling the composition of user-specific applications based on packaged and custom-built business services. It also enables dynamic orchestration and provisioning in a multi-tenant environment, delivering full application server, middleware, integration and BPM capabilities in private and public clouds.

Generalist PaaS providers could jump in with process-based applications

PaaS products have gathered a lot of momentum over the recent past and are now seen as a viable expansion route for SaaS application vendors. PaaS in this context pertains to on-demand development environments and partner ecosystems that allow users the same degree of freedom as a flexible software development kit, while allowing easy distribution, sharing and collaboration.

Although PaaS vendors initially offered little other than simple point and click customization capabilities, the current range of options offered is extensive and caters to both developers and business users. The popularity and adoption of these platforms, coupled with their expanding capabilities, warrants PaaS vendors a place in the competitive landscape. While PaaS vendors can provide many BPM capabilities in the cloud, many of them choose to remain faithful to a central application/area (like NS-BOS) or completely agnostic (like cloud IDE providers). In the future, Datamonitor believes that more cloud providers will show a BPM focus, competing with existing market participants on ad-hoc development capabilities, mashup platforms, and possibly workflows.

Middleware and application conglomerates may be the last to adopt SaaS

Datamonitor defines middleware conglomerates as those possessing a scale of operations and revenue more than BPM specialists, typically in the $500m–$800m bracket. Middleware conglomerates have broad and diversified portfolios, combining SOA, BPM and portal offerings with legacy middleware products. However, BPM accounts for only a portion of total revenues, typically no more than 25%–30%. Examples of middleware conglomerates include Tibco, BEA and Software AG. On the other hand, application conglomerates such as IBM, Oracle, Microsoft and SAP are conglomerates in the true sense, meaning that they cater to many technologies and markets spanning across middleware and enterprise applications.

Datamonitor believes that the conglomerates may not be the first to offer SaaS BPM solutions. These vendors have a strong foothold in enterprises above 5,000 employees and are therefore better placed to up-sell BPM into these accounts. In addition, many of these vendors are significantly invested in traditional licensing models, and so changing may require a rethink in several adjacent software areas. The sweet spots for these vendors will probably lie in organizations above 5,000 employees that have invested in other parts of the conglomerate's stack.

However, as the success stories of the SaaS model abound, some exceptions among conglomerates are slowly emerging. Conglomerates have now started to realize that some parts of enterprise applications could eventually move to a cloud-based deployment only, necessitating a SaaS strategy in adjacent areas. Datamonitor notes that many SaaS vendors now profit from this model while catering to small as well as large enterprises, which furthers the cause for conglomerate vendors to have a uniform SaaS strategy across their application and middleware portfolio.

DATAMONITOR

While none of these environments enables model simulation, testing or execution in the cloud, Datamonitor believes that they serve to further the interests of conglomerates. These efforts could well attract more customers to try a part of a conglomerate's modeling capabilities before purchasing its on-premises version. With increasing popularity, these may also serve as marketplaces for the exchange of partner developed or community developed extensions to core models.

Competition will be low at the leading end of SaaS BPM over the medium term

The market landscape of the BPM sector will likely expand with the proliferation of SaaS offerings, given that these solutions will be able to reach a larger and underpenetrated user base. However, not all categories of vendors will seize the same opportunities. The leaders are likely to be smaller specialist BPM vendors, followed by generalist PaaS providers that may choose to expose BPM tools to customers. Conglomerates, at least currently, will prefer to cater to larger, on-premises deployments, occasionally dabbling in SaaS BPM as per demand.
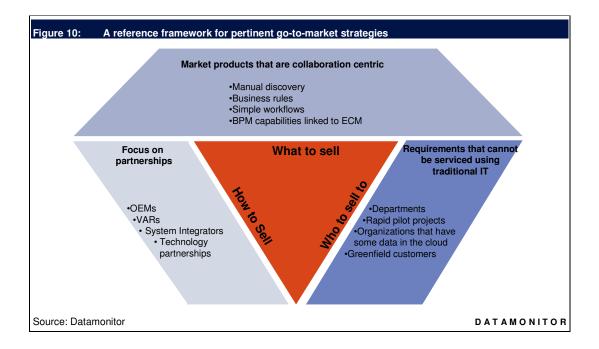
GO TO MARKET

Organizations consider BPM investments to be among the most high-involvement purchases. Most BPM initiatives start from the requirements-gathering stage and require a sign-off from many parts of the business, including business professionals, line-of-business executives, developers and C-suite executives before they are purchased. On the other hand, the SaaS delivery model is usually, and sometimes erroneously, associated with an over-simplistic go-to-market model that plays on easy delivery over the web, minimal hassle because of zero-footprint solutions, and a simplified payment structure.

Distinguish between delivery options and go to market strategies

Datamonitor believes that an important distinction must be made at this stage between delivery options and go-to-market strategies. While simplified delivery options will continue to be a key selling point for SaaS solutions, vendors will need to develop extensive and sophisticated go-to-market strategies in the BPM market for reaching the right target market. Many customers or primary influencers for SaaS BPM will be looking to bypass organizational red tape to get a solution up and running quickly. Catering to such customers will indeed need a simplified way to deliver resources and help them consume the same. However, reaching such customers and ensuring that a vendor's brand gets the correct recognition and positioning in the consumer's mind will not likely be served by simplistic marketing methods.

Figure 10:   A reference framework for pertinent go-to-market strategies

Market products that are collaboration centric

•Manual discovery
•Business rules
•Simple workflows
•BPM capabilities linked to ECM

Focus on partnerships

What to sell

How to Sell

Who to sell to

Requirements that cannot be serviced using traditional IT

•OEMs
•VARs
• System Integrators
• Technology partnerships

•Departments
•Rapid pilot projects
•Organizations that have some data in the cloud
•Greenfield customers

Source: Datamonitor

D A T A M O N I T O R

It is necessary that vendors rethink their marketing strategies to cater to customers' changing requirements. Datamonitor believes that a robust go-to-market strategy should define three key elements: product mix, customer segmentation and targeting and market channel strategy. Figure 10 illustrates three elements of a go-to-market strategy that Datamonitor believes can be helpful.

What to sell: capture the low hanging fruits first

Datamonitor believes that vendors need to gauge their readiness to adopt the SaaS delivery model and thereby decide on future product strategy. While ignoring the SaaS model will not be a viable strategy in the long run, all vendors need not have the same attitude or aptitude to SaaS.

Manual discovery is easiest to sell and has clear, demonstrated benefits for customers

Manual process discovery is one of the best fits to the cloud, given its inherent collaborative nature. Datamonitor defines manual process discovery as a mechanism that relies on process participants to analyze requirements and define process flows, business drivers and related KPIs.

For a long time, BPM vendors have struggled with an ominous fact: that by the time an organization has codified its BPM requirements and decided to purchase a BPM solution, it is too late to make it rethink its process documentation methods. The ideal entry point for any BPM provider is therefore at the start of the requirement-gathering process. However, vendors have traditionally faced challenges in marketing modeling products to organizations at that stage, given that many of these prospects do not end up purchasing a full BPM stack post their documentation exercise. On-premises vendors deal with this issue by providing a free modeling environment.

Given the challenges involved in this approach, end users are increasingly realizing the value of collaborative solutions that help expand the reach of modeling software. Datamonitor notes that many vendors are already experiencing a moderate to high success rate with their SaaS modeling solutions and believes that SaaS modeling may indeed be on a growth trajectory. Vendors can capitalize on this opportunity in the following ways:

- Pure on-premise BPM vendors could explore options to provide modeling solutions that are either web-based (such as Lombardi Blueprint) or delivered as a standard downloadable, executable file. For vendors that are heavily invested in on-premises modeling solutions or would not like to offer any part of the BPM stack purely through the SaaS model, hybrid delivery could be an option. Metastorm provides a good example of this model, offerings its modeling tool ProVision both as a standard on-premise downloadable file and in an on-demand version. However, such vendors should be mindful of the fact that multiple choices for addressing a single need could complicate the offering. For executing on the hybrid approach, vendors will need to define the criteria that would help dictate the selection process for end users, at the same time ascertaining that both options carry a similar pricing rationale.

- Vendors that are looking to eventually offer a part of their BPM stack in the SaaS model could better use the strengths of the SaaS model and provide a platform-like environment. To demonstrate value over pure modeling offerings, such a platform should be able to offer some testing and execution capabilities in the cloud. Examples of vendors that provide such offerings include Cordys and Appian.

Business rules, simple workflows, other BPM capabilities linked to ECM could be next

Datamonitor believes that beyond a modeling environment, vendors interested in exploring the SaaS BPM space could easily provide simple business rules capabilities in the cloud. A cloud based BRMS solution should build on the strengths of SaaS, helping simplify the rules building process and allowing a larger number to participate in mapping business rules. Similar to modeling, SaaS based rules management offerings can effectively use a RIA-enabled Web 2.0 environment to help business users better visualize and depict rules. Similarly, basic workflow capabilities can easily be offered in the SaaS model and have the potential to capture an untapped part of the market.

ECM-linked BPM could take off

Many modern BPM suites have evolved from the ECM area. Datamonitor believes that ECM could well be on the verge of achieving widespread adoption in the SaaS mode, implying that BPM embedded in ECM solutions could then follow suit. Of late, many large as well as small ECM vendors have started offering a variety of SaaS solutions across the document management, workflow, collaboration, and archiving functions. For example, Nuxeo offers a cloud-based version of its ECM offering with Amazon AWS as the cloud storage provider, while Xythos provides a SaaS option. Alfresco, in collaboration with cloud computing partner ParaScale, has made its ECM suite available in the SaaS model, while SpringCM now offers full ECM capabilities on-demand. On the traditional SaaS front, Salesforce.com also provides document collaboration capabilities in its Sales Cloud offering. It is evident that all these offerings include certain BPM capabilities but are not overtly marketed as BPM to clients. In due course, these capabilities could be packaged and sold separately as BPM in the cloud.

Datamonitor believes that vendors will need to gauge organizational maturity to SaaS on a case by case basis to decide which deployment model would best fit their clients. Presently, offering rules and BPM capabilities that accomplish only simple tasks and do not require a lot of interaction with different enterprise systems will be prudent. A majority of customers are still skeptical of the security of data in the cloud, which could restrict current demand. Workarounds for this do exist: technologies that synchronize secure private and public clouds can now offer choices for customers that want to move non-critical data out to public clouds and keep the sensitive data in-house. However, changing user perception about data security will probably take a longer time. As customers become more comfortable with the concept of exposing organizational data to public clouds, vendors could try expanding their SaaS footprint.

Testing and simulation can be offered through PaaS eventually

Datamonitor believes that selling automated discovery, testing, and simulation in the cloud may not be easy presently. While most of these have been made possible in the cloud and are offered by vendors such as Appian and Cordys, customers will need more evidence that consuming these technology areas in the cloud offers distinct advantages over an on-premises model. Vendors should therefore look to offer these in the SaaS model only after they have exploited the other, easier to target market segments. Conversely, vendors already offering these parts of the BPM stack through the SaaS and PaaS models could look to exploit the lack of competition in their niches.

How to sell: partner extensively to expand reach

SaaS vendors operate on different margins and revenue recognition standards than traditional on-premises vendors. As such, their methods to reach markets differ from on-premise vendors. However, Datamonitor believes that, like on-premise vendors, SaaS vendors should also prioritize the development of partnerships as the most important part of their market outreach strategy.

SaaS BPM vendors stand to realize significant value in employing partners for customization, integration, infrastructure services and reach expansion. Datamonitor sees healthy opportunities for partners in this market and expects a wide variety of partnerships to emerge, catering to a diverse set of end-user expectations. However, the nature of partnerships could undergo some changes, shifting away from the traditional partner services offered by on-premises partners. In Datamonitor's opinion, SaaS vendors could pursue the following kinds of partnerships:

- **OEM partnerships** – OEM partners integrate SaaS BPM solutions with their own suite of products, adding-on, bundling, hosting, or embedding SaaS BPM software directly with their own. Independent software vendor

partners could help design applications based on the basic platform that the BPM provider sells, which can either be provided for free or at a price in the vendor's marketplace. Other partnerships could include integration specialists such as Jamcracker and Jitterbit that could help SaaS providers compose process models that cut across various offerings from other vendors. Vendors could also partner with other SaaS providers so that effortless integration or mashup offerings between two platforms may be possible. Finally, vendors would do well to partner with organizations that provide application programming interfaces to various real-time and market data providers so that composite applications using the same could be built.

- **Partnerships with VARs for industry solutions** – these partners may customize and package SaaS BPM solutions for the specific needs of a vertical or industry. VARs may also provide professional services such as consulting, integrating, customizing and implementation support for deployment.

- **Partnerships with system integrators** – system integrators tie their consulting and implementation services with SaaS BPM solutions, which increase revenue opportunities for the vendor. These players are usually engaged in implementing large enterprise software applications for global companies, and may possess functional expertise as opposed to vertical expertise.

- **IaaS and hosting partnerships** – with shared infrastructure and hosting being critical elements of any SaaS providers' strategy, forming hosting partnerships with a large number of vendors could be extremely useful. Apart from public cloud deployments, vendors with an extensive network can use smaller, localized IaaS providers to cater to a larger and more demanding client's needs by hosting an instance closest to the client's location. The availability of a large number of infrastructure resources networks will also allow vendors to provide flexible options to customers that may want to switch from public clouds to private clouds or shared instances to isolated instances of software.

Who to sell to: target the users for which enterprise IT cannot cater

One of the biggest strengths of the SaaS model is in its ability to address subcritical yet persistent needs in an organization. Most of these needs cannot be effectively catered to using traditional means due to a number of bottlenecks, including the reluctance to invest a large amount of resources upfront, a lack of enterprise IT agility, or a the lack of a decentralized purchase approval mechanism. Datamonitor believes that SaaS BPM can well address these issues and target people that have traditionally been ignored or side-lined by enterprise IT.

According to Datamonitor, departmental deployments represent the largest opportunity for SaaS BPM in the current market scenario. Given the recessionary sentiment in buyers, departments of large organizations may not be in a position to gain approvals for small software purchases. However, SaaS BPM might be a quick workaround to solving interim issues and exploiting emerging opportunities. Rapid pilot projects represent another key opportunity area for BPM SaaS providers. Vendors affected by the longer sales cycle for BPM software, especially since the recession, could target a larger user base through a SaaS model. While the ultimate deployment might be on-premises, the SaaS model could be used to speed up the pilot phase.

Another area that BPM SaaS providers could target is the mapping of unstructured and nascent processes. This would work well when the business processes are not yet sacrosanct, implying that end users will be able to use simple BPM offerings with little configuration to suit their needs.

SaaS providers could also target organizations that have a large amount of their process data in the cloud. Obvious examples of such organizations are firms that deal in stock trading and market intelligence. However, instead of the
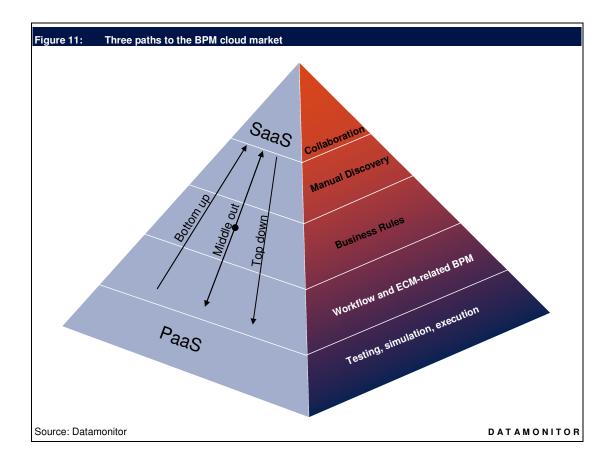
> DATAMONITOR

traditional business rules and event processing approach that typically takes precedence in such organizations, SaaS vendors could promote the creation of easy mashups on their website using application programming interfaces from various market data sources. Given that most of the data for such processes would reside on public clouds, process performance/throughput would likely be acceptable and it would be easier to find ready users for the same.

Lastly, greenfield customers represent another key opportunity for vendors. Vendors that offer the full stack of BPM capabilities in the cloud have the best chance of deployment at greenfield customers. Such organizations would likely have less of legacy IT infrastructure baggage and would therefore be more open to adopt SaaS solutions. Such organizations may be well served by vendors that will provide different process-driven applications on an incremental basis, such as HR on-boarding, followed by payroll, financial consolidation, marketing, and so on.

Develop go-to-market approaches based on your intended SaaS strategy

Datamonitor believes that vendors should decide on go-to-market paths depending on their future SaaS strategy. In other words, the importance of the SaaS model to vendors' future revenues should ideally decide their approach to the SaaS BPM market. Figure 11 outlines the various paths that Datamonitor believes vendors could explore in the current market scenario. Given the nascence of this market, Datamonitor also believes that newer paths might emerge in the future.

Figure 11:   Three paths to the BPM cloud market

Source: Datamonitor

D A T A M O N I T O R

DATAMONITOR

Bottom-up approach: tools vendors

Vendors that are well invested in SaaS solutions should start with a bottom-up strategy to market, beginning with a platform offering that serves as the basic layer on which applications can be built. This platform should be able to offer users most of the modeling and execution capabilities that an on-premise vendor can. Cordys' business operations platform is a good example of this model. Datamonitor foresees dominant on-demand platform providers adopting this approach to BPM in the future.

Top-down approach: customized applications vendors

Vendors that are contemplating a SaaS strategy but have a considerable base of clients in the on-premises model could start with a top-down strategy. In this model, vendors should look to provide SaaS services in descending order according to the pyramid in Figure 11, catering to the easy to target areas first and gradually building out a comprehensive offering. Datamonitor envisions many entrenched pure-play BPM providers to take this route.

Middle-out approach

Vendors that specialize in one particular area in BPM or software conglomerates that have an active SaaS strategy in an area adjacent to BPM could take the middle-out approach to BPM. In this model, vendors can start offering SaaS options at any part of the pyramid and then choose to go up and down following customer demand. Datamonitor believes this approach makes sense for software conglomerates that may have an active SaaS strategy or a PaaS offering in an adjacent area, such as BI, CRM or ECM. These vendors can use the popularity and existing user base around their SaaS or PaaS offerings to cross-sell BPM.

APPENDIX

Definitions

Business activity monitoring (BAM) – a process that identifies the ways in which the provision of instant access to disparate data sources and applications can optimize the speed and efficiency with which business decisions are made.

Business process management (BPM) – the set of activities for creating a managed environment for understanding, automating, monitoring and improving repeatable business processes to better achieve the goals of the organization.

Business process analysis (BPA) – the set of activities and techniques required to identify business needs and determine solutions to business problems including process modeling, analysis and simulation.

Business Process Execution Language (BPEL) – the short version of WS-BPEL OASIS standard for specifying business process behavior based on Web Services.

Business Process Modeling Language (BPML) – the execution language corresponding to BPMN. Although not currently developed by a standards body, it is still used by a number of vendors.

Business Process Modeling Notation (BPMN) – a standard for graphical representation of business processes in a workflow developed by Object Management Group (OMG).

XML Process Definition Language (XPDL) – XML-based standard developed by the Workflow Management Coalition (WfMC) to interchange business process definitions between different modeling and execution products.

Software as a service (SaaS) – a model of software licensing and delivery where the vendor provides access to applications, as well as associated support and maintenance, on demand, over the Internet.

Methodology

Interviews with vendors – ongoing briefings with IT vendors and service providers.

End-user surveys – continued surveys of IT decision makers over the course of 2008 and 2009.

In-house research – Datamonitor's publications on related topics.

Further reading

Datamonitor (2009) *Can Cloud Computing Help Enterprises Weather the Economic Storm? (Market Focus)*, April 2009, DMTC2267

Datamonitor (2008) *On-demand CRM: From Top Lines to Bottom Lines (Strategic Focus)*, October 2008, DMTC2255

Datamonitor (2008) *Decision Matrix: Selecting a Business Process Management Vendor (Decision Matrix)*, April 2008, DMTC2176

Ask the analyst

Surya Mukherjee, Senior Analyst, Supply and Demand Analytics   smukherjee@datamonitor.com

Vuk Trifkovic, Senior Analyst, Supply and Demand Analytics   vtrifkovic@datamonitor.com

Datamonitor consulting

We hope that the data and analysis in this brief will help you make informed and imaginative business decisions. If you have further requirements, Datamonitor's consulting team may be able to help you. For more information about Datamonitor's consulting capabilities, please contact us directly at consulting@datamonitor.com.

Disclaimer