



BPM: A Global View

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BPM as SaaS: The Next BPM Frontier

The software industry is gradually moving to the Software-as-a-Service (SaaS) model, or to its Microsoft variant Software+Services. Two key technologies are further accelerating the growth of SaaS. The first is the emergence of rich clients, exemplified by Web 2.0 that marginalizes the differences between browser applications and rich desktop applications. These rich browser clients enable SaaS applications to offer the superior user experiences that millions of people have become accustomed to. The second is the rapid advance and adoption of server virtualization, and, especially the emergence of “application appliances.” An application appliance is a fully configured application with an operating system and all other components necessary for running the application on an instance of a virtual server. Installed inside the firewall, customers can “subscribe” to an application appliance on a virtual server and have it isolated from other applications.

Vendors in the BPM industry are also eyeing the SaaS model and beginning to make some noise. SaaS has much the same appeal for BPM as it does to other applications. The attempts being made today for offering BPM as a SaaS fall in to three categories:-

- i. BPM Modules – Offering some partial functionality of BPM, such as modeling or documentation, as a SaaS offering
- ii. Templates – Offering customers the use of simple, pre-defined processes on a subscription basis. Successful processes are targeted and encapsulate the vendor’s domain expertise to solve a specific problem
- iii. Hosting – Hosting a BPM solution for a customer with customized processes.

While these are good first steps, none of them falls into the “True BPM”-as-SaaS category where customers can leverage the full power of BPM in a hosted environment. The ultimate nirvana of BPM as SaaS will be achieved when customers can use hosted BPM for managing and executing complex, personalized fully integrated, mission-critical processes and have the ability to adapt the processes on the fly to meet changing business conditions.

Implementing BPM software as SaaS has two very unique challenges that are not as pronounced for other applications – integration and adaptability. First, BPM is as much about integration as it is about process for the simple reason that processes lose much of their value if they do not interoperate with other applications. Integration is a challenge even in a traditional licensing model where the BPM system resides inside the firewall and close to other applications with which it has to integrate. When a BPM system is hosted in a SaaS model, it resides outside the firewall. This makes integration with other applications far more challenging, especially when the interaction between the BPM system and other applications has to be in real-time.

The second big challenge is adaptability. SaaS applications today can best be characterized as “one-process-fits-all.” Leading SaaS applications such as Salesforce.com and NetSuite offer myriad functionalities that can be configured by end-customers to their unique needs or preferences. However, when it comes to a process, these same applications offer only simple processes that are generalized to the lowest common denominator in order to meet the needs of a large number of users. In many cases these domain-specific processes are good enough for a good number of the customers. However, if they are not good enough, or if the customer’s processes have some uniqueness that is important to their business, then the end customers really do not have much choice. This is very similar to the processes that are embedded in large ERP and CRM applications. Customers can use them as they are, but if they want to personalize them to their unique requirements they are either out of luck or out of a lot of money.

Organizations invest in BPM for competitive advantage when they believe that by optimizing their processes they can offer superior value to their customers that their competition will be unable to match. Processes that create competitive advantage are not generic by definition. And rarely are they simple. Furthermore, organizations that use BPM for competitive advantage also must ensure that the processes adapt and change as the competitive environment around them changes. So the challenges this poses for BPM in a SaaS environment is that it must enable the automation of processes that (i) are unique, (ii) are not simple, and (iii) require change and adaptation. These challenges are not insurmountable, but BPM systems with these capabilities do not exist today.

To evolve towards a true SaaS model, BPM systems will extract and abstract the key components that make up a business process. Extracting components means taking them outside of the BPM application so that they it can be modified and updated without having to change the BPM application itself. The big benefit of this is that changes can be made to update the process in real-time without changing the underlying application. Abstraction means presenting the change parameters in a friendly user interface that hides the complexities of coding and scripting so that changes can be made without programming. By extracting and abstracting key components of a process, a BPM system makes it possible for end customers to change a process in a hosted environment using tools that are business analyst friendly. The following key components of a BPM system have to be extracted and abstracted:

- i. **Roles** – that dictate who is responsible for the various tasks in a process. Roles are not only unique in each company, but they also change frequently.
- ii. **Rules** – that determine the flow or logic of a process. Rules are also very specific to each company and change in response to changes in the external and internal environment of a company.
- iii. **Tasks** – or discrete steps in a process. In many cases task are added on an ad hoc basis as participants in a process decide to collaborate with others, return tasks for more information, or assign task to others in the organization.
- iv. **User Interfaces** – which are generally the electronic forms used by the process. They change less frequently than the others, but still a true, hosted SaaS BPM system must enable an organization to change the electronic forms used at the various steps of a process. This is also important because companies prefer to use electronic forms that are unique to their business, or with which their end users are already familiar.

There are two additional components that could be exposed for the ultimate in adaptability, namely the Integrations and Data Models. Changing these invariably requires IT involvement, and it is not necessary for deployment in the SaaS model to extract and abstract these as they do not change frequently if implemented properly to begin with. If the other components listed above are extracted and abstracted, the BPM system can be deployed very effectively in a SaaS model,

giving end customers the flexibility to change and adapt processes to their unique needs for competitive advantage and agility.

The emergence of rich browser clients that is fueling the growth of Web 2.0 will enable BPM vendors to port key modules of their applications to web browsers so that users cannot only participate in processes, but companies can also change key parameters of their processes remotely. The extracted and abstracted components will be modifiable in the rich browser clients, giving customers enormous power to adapt their processes to changing needs and truly support collaboration that is necessary for the success of BPM. Likewise, the emergence of virtual application appliances provides a good solution to the challenges of integration. BPM systems can be delivered to customers as application appliances, and customers can subscribe to maintenance upgrades. The application appliances exist inside the firewall in proximity to the other applications with which BPM has to integrate. So integration is no more difficult than a licensed application. Add to this the benefit that the application appliance is isolated from other applications in its own instance of a virtual server, thus providing the vendor an environment that is controlled.

For these reasons SaaS is becoming the next frontier for BPM, even though the journey to SaaS will be slow – but steady. Overcoming the challenges of deploying BPM as SaaS will also enable BPM systems to be more agile and adaptable, delivering additional benefits to customers. For vendors, the journey must be taken carefully since SaaS will change the revenue model and the relationship with partners and customers.