

BPM and SOA - A Synergy Creating a New Business World

These two have brought about a paradigm shift in the realm of IT development by moving away from a "design-compile-run model" to one based on the "assemble-configure-monitor model" and thus significantly reducing the cost associated with the development activity.

The automation of business processes enables a shift in focus for the employees of an organization. Instead of getting tied up with the non-value adding tasks they can concentrate on higher value, customer-facing activities.

In addition to delivering better visibility and robust traceability on the status of work within the organization, the combination of BPM and SOA also fosters the concept of reusability by making use of existing standardized and process-based business capabilities.

Business processes and services exist in their own spheres completely independent of each other. This architecture or structural arrangement ensures that changes made to the processes do not affect the underlying services and line-of-business applications with which they interact and vice-versa. This aspect significantly increases process agility by isolating the impact of change.

Coordination and automation of business processes leading to improvement in the productivity do not remain within the four walls of an enterprise. BPM and SOA provide the opportunity to choreograph the participants of the processes across the value chain, whether they are customers, partners, suppliers or regulators.

In short, BPM piggybacks on SOA to create an elaborate and cohesive infrastructure that cuts across all the departments of an organization. It covers the entire gamut of core functionalities of an enterprise - in substance and essence - and allows the organization to have performance as the key driver for gauging growth.

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Conclusion

It takes two to tango. In IT, nothing proves it better than the chemistry between BPM and SOA. The process-driven and service-oriented architecture presented by the combination of BPM and SOA respectively provides an ideal environment for building adaptable, model-driven composite applications from existing IT assets and infrastructure which translates into optimized profitability, cost-effectiveness, increased market share and a defining edge over competitors.

BPM and SOA are complementary technologies. BPM without SOA is useful for automating applications, but difficult to extend across the enterprise. SOA without BPM is useful for creating reusable and consistent services, but lacks the ability to turn those services into an agile, competitive enterprise. But, together, they transcend the power that each individually possesses.

The bottom-line is: BPM and SOA are here to stay. Organizations that wish to leap-frog ahead of their competition can ill afford to ignore the combined potency of these two. For a business to function at its optimum, BPM and SOA need to join hands and leverage each other's strength.

The marriage of BPM and SOA will equip an organization with the ability to think on its feet so that it responds to the needs of the customers and the rapidly changing business requirements/environment in time. Together they have the potential to change the face of the business realm by bringing about a radical change in the way businesses are conducted throughout the world. Organizations that embrace the technology-duo - sooner than later - will shatter the long standing power equations in the business arena.

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Overview

Few technologies have been a matter of as much debate as Business Process Management (BPM) and Service-Oriented Architecture (SOA) have been. In a short span of time, they managed to capture the imagination of the whole IT world.

This white paper aims to establish that BPM and SOA are made for each other as, together, they possess the firepower to propel a business to unprecedented heights.

BPM Marries SOA - Heralds a New Era in the Business World

The current difficult economic climate is that of a relentless pressure to cut costs, increased competition, informed and demanding customers as well as commoditization of products and services. Companies are being asked to do more with less.

Unpredictable drivers such as mergers and acquisitions, expanding regulatory requirements and globalization can depress revenue growth. To survive and thrive, organizations need to improve their ability to respond to customers, partners and suppliers alike.

Organizations respond by re-organizing, re-inventing and re-orienting their businesses. To support these changes, companies are striving to have a system in place whereby they can replicate their success on a continuous basis.

Managers are adamant that investment in any technology should bring tactical and strategic benefits for the business. If a solution solves a specific tactical problem, saves money, frees up valuable resources, or opens up a new revenue opportunity, that's great. However, if that solution presents itself as a reusable model that can be replicated successfully to deliver benefit on a continuous basis, that's even better.

The challenge before organizations is to increase business efficiency and agility in the face of competitive pressures, shrinking profit margins and changing business conditions such as compliance with new regulations.

To meet this objective, companies are turning to BPM to provide a comprehensive solution that models, monitors, simulates and redesigns processes for competitive improvement. The ultimate goal of BPM is to achieve process flexibility wherein events or process outcomes will determine and control the execution of the workflows (both human and automatic) in real-time. This will allow the business to act appropriately and competitively irrespective of the situation.

BPM, however, cannot attain process nirvana - achieving complete flexibility in the design and usage of processes - on its own. For this to happen, processes should be dissociated from specific information resources and task automation applications. The integration technology must allow loose coupling of the applications and resources that make up the

process, otherwise the logic of a process will get hard-wired into a particular technology platform, which may be expensive to change and therefore defeat the entire purpose of BPM.

SOA provides the technical ability to create that process independence. SOA standards, such as Web Services, make information resources and task automation applications available, loosely integrated for process designers to use and reuse at will. (Web services offer one of the many ways in which SOA can be implemented in an organization.) Thus, processes modeled with BPM tools can be rapidly implemented in production via a SOA infrastructure.

Organizations have started using SOA implementations to transform systems and operations around a SOA model, leveraging BPM to build adaptable, composite applications capable of supporting today's constantly changing business environments. Process engines lie at the heart of these solutions, enabling the separation of business logic and application logic, and allowing changes to rules and processes to be made on the fly without affecting underlying systems or interaction channels.

SOA in conjunction with BPM makes it possible for enterprises to utilize core processing applications that offer best-of-breed services to create a completely automated system for managing the firm's business. This is accomplished by using the SOA to represent business functions as simple, generic interfaces based on a set of data standards.

These generic interfaces or services are used as building blocks that are orchestrated via BPM to model and automate a large, complex, end-to-end business process. Further, by leveraging the built-in rules capabilities within a BPM suite or rules created in a separate rules engine - exposed to the BPM as a service - businesses can offer distinct service, product bundles, and product pricing within a defined process. This helps allow enterprises to achieve dramatic improvements in market capture, cost effectiveness and profitability. Thus, BPM and SOA in coalition will facilitate the next phase of business process evolution from merely "automated" to "managed flexibility".

Business in the Hands of Business Process Owners

BPM based on SOA has created a clear demarcation between the roles of a business manager and the IT developer. It has resulted in the formation of a process layer and a service layer, each independent of the other. It offers an environment that changes the traditional way for altering an application to reflect changed business rules or processes. It places the controls for change management in the hands of the business process owner rather than on IT's shoulders.

Through intuitive, visual interfaces, effective BPM environments offer business managers ways to change rules and alter processes without having to drop down to the coding level. The elegance of this approach is that business people need not concern themselves with the underlying services and the line-of-business applications with which they interact.

IT developers using a SOA platform typically develop a series of coarse-grained integration services such as "Retrieve Customer Profile", "Update Address", "Calculate Credit Score" or "Update Inventory". When a business process requires a service, the business analysts using a business process designer, can inspect the registry of available services, choose the correct one, drop it into the process flow and then map the relevant inputs and outputs.

At the same time, augmentations made to the technical underpinnings of the service by IT developers do not have any impact on existing processes that use the service. This flexible design approach significantly increases process agility, isolates the impact of change and allows the specialized skills of business analysts and IT developers to be properly harnessed.

As IT increases the depth and breadth of service assets, business processes require less and less complex development, and business analysts gain greater control over the end-to-end process; each group can work in an independent but collaborative manner to quickly and economically implement process management.

The objective of this is to ensure that the BPM solution is in line with business goals, translates into rapid response rates and boosts the ROI of the solution, regardless of the frequency with which the goals change.

BPM vis-à-vis SOA BPM - SOA: Many Things in Common

BPM and SOA have a number of characteristics in common:

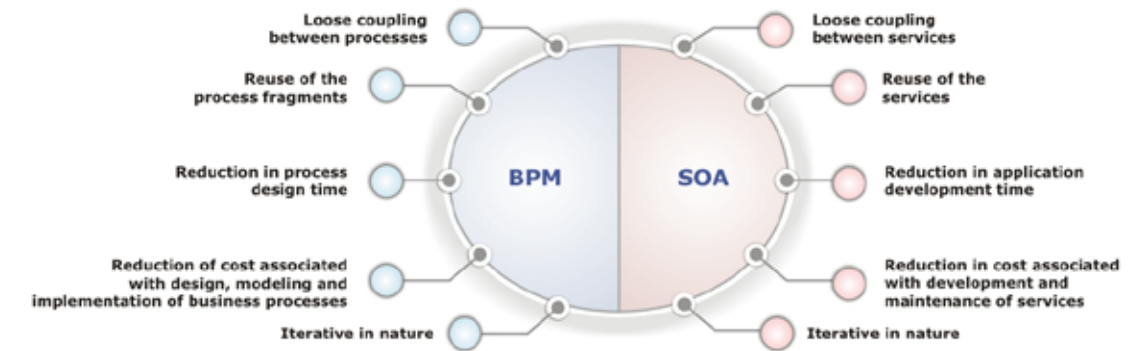


Fig. 1: Commonalities and differentiators between BPM and SOA

Chalk and Cheese Approach

The beauty of BPM and SOA lies in their ability to work towards a common goal in spite of their widely different approaches. Both BPM and SOA are a way of thinking about how the business and IT assets work together; how the business and governance model should be designed; and a way of delivering the technology and applications to support that design. But while striving to achieve the aforementioned objective, they take opposite paths.

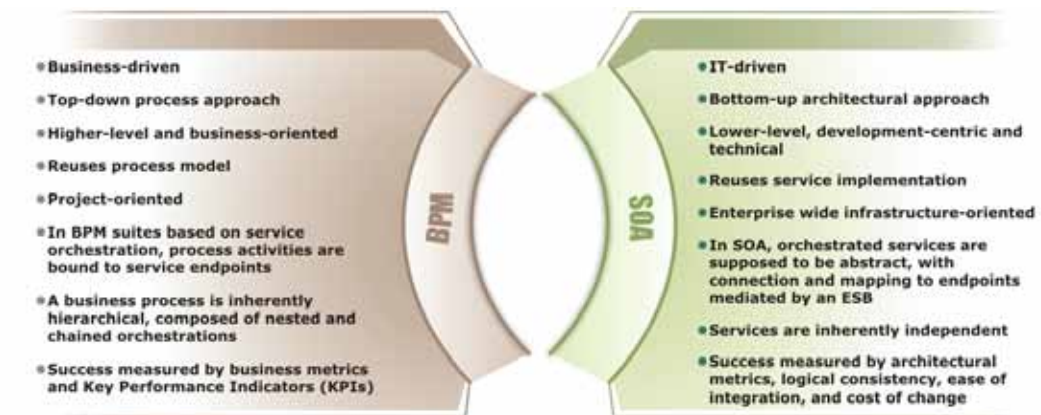


Fig. 2: The complementary nature of BPM and SOA

In short, BPM is about optimizing and improving business performance at the end-to-end process level, bringing innovation in the business, making it more efficient, faster, more agile, more compliant with policies and best practices, and more measurable. While SOA is about leveraging existing investment, transforming IT infrastructure by decomposing it into reusable parts, providing a high-performance reliable communications fabric for interconnecting those parts, and managing those parts for optimal discovery and reuse. The goal is making solution implementation faster and less costly.

The challenge lies in marrying these two perspectives, identifying the commonalities, and resolving the differences.

Business Benefits of BPM and SOA

From a business perspective, BPM and SOA technologies provide a number of related benefits:

The potent combination of BPM and SOA reduces the time to market, and enhances the ability of an organization to respond quickly and efficiently to changes in the business world. They provide the mechanism to both exploit new market opportunities, and then to leverage this speed of response for competitive advantage.