

Business process management

White paper

July 2008



WebSphere software

End-to-end business process management

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Typically, the most complex and impactful process decisions are made by people collaborating to reach an informed, cognitive decision. For more information about collaboration and BPM, please download the IBM white paper [Collaborative business process management](#).

Introduction

In today’s global economy, companies of all sizes are competing in a constantly changing business landscape. Forced to reshape themselves in fundamental ways, they address four primary challenges:

- **New and changing customers.** *China and India will add more than 1 billion new consumers over the next 5 to 10 years. Baby boomers will either spend their accumulated wealth or pass it on to their heirs.*
- **Global integration.** *Technology and standards will enable the immediate transfer of goods and services, as well as redefine how information is shared. Work will be broken into pieces that flow globally to wherever it can be done best and then reassembled—and will be segmented so that particular units of work are done in the optimal location for overall business performance.*
- **Business model innovation.** *Industry, revenue and enterprise models will emerge that enable companies to rapidly seize new opportunities and differentiate themselves and their partners by dynamically adapting to change.*
- **Technology innovation.** *New architectures, systems and skill sets will emerge to more effectively support business model innovation.*

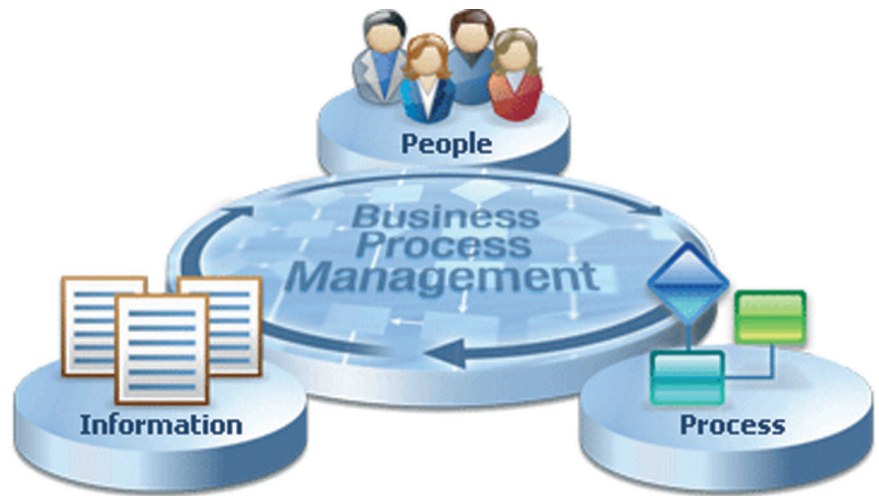
Business processes are central to addressing these challenges. Processes define how you run your business and how you differentiate yourself from your competition. Simple or complex, hundreds of processes weave through your business every day and set the pace of your operations. Processes guide what work gets done and how and when it gets done. They also determine who participates and coordinates the complex interactions between networks of people, systems, information and applications. As a result, process provides a means to innovate, collaborate, implement business models, and enable interaction with customers, partners and suppliers.

Highlights

Customer success stories

BPM is better when combined with SOA, but to achieve maximum agility for maximum ROI, BPM should be built on the IBM Smart SOA™ approach—over 2,800 IBM clients are using this approach to achieve tangible results. Companies cannot afford to not act now and leverage the experience and knowledge of the Smart SOA approach and community to achieve results like these IBM clients:

- Pay By Touch, a company revolutionizing retail through biometrics, reduced the cost to integrate acquired companies by 25 percent and achieved a 30 percent increase in IT staff productivity. Overall, they achieved a 15 percent reduction to their TCO.
- People’s Bank improved response times by 400 percent, not to mention upgrading their customer service and increasing their ability to up-sell and cross-sell.



Processes within and between organizations are frequently not well understood, agreed upon or sufficiently documented. Process knowledge is often limited by organizational boundaries. For example, the sales department knows their processes but does not understand those of the accounting department, and vice versa. Often, no one in the organization has an end-to-end understanding of the order-to-cash process. As a result, visibility into business operations is limited, and responding to opportunities or threats is cumbersome, slow and costly. With impaired visibility it is difficult if not impossible to understand where value is created, lost and distributed.

What can BPM do for me?

The words “business process” might generate unpleasant memories of the 1990s and the era of business process reengineering (BPR). With BPR, the focus was on cost cutting and downsizing, with processes examined in functional silos. In that era, the available “process technology” was only basic

Highlights

Customer success stories

- Yansha, a Chinese retailer, reduced order lead time from 2.5 days to 4.5 hours and achieved their ROI in 9 months.
- Travelex achieved an 85 percent reduction in time required for customer processing of foreign exchange transactions.

Process represents the work in a business that creates value for the customer and value for the business.

tooling to help with documentation of process reengineering projects. Businesses built or bought individual applications to support business functions. Several competing improvement methodologies were popular, and that added to the confusion. Also, the tools for process change or continuous improvement were primitive or lacking completely. The results of BPR were mixed, at best.

The business landscape has evolved from a need for automation of routine processes and activities to a critical point that requires organizations to focus on optimizing their *value-creating processes* to maintain a competitive advantage. Today, business process management (BPM) enables businesses to develop highly responsive and adaptive processes so they can react immediately to events. Businesses achieve this by fusing processes with the systems and information they need, while maintaining flexibility.

The remainder of this paper focuses on the drivers of the management of these *end-to-end processes*:

- *Collaboration and communication between business and IT roles*
- *The need for agility in a complex environment*
- *The need to activate content and manage risk and compliance*

Business and IT—a match made in ... ?

External demands from customers, investors and governments are forcing organizations to operate in new and innovative ways. For example:

- *24x7 shopping*
- *Instant access to order status information*
- *Shortened product and service life cycles*
- *Improved levels of financial performance*
- *Tighter corporate and government audit and compliance requirements*

Highlights

Although these demands have always been factors, globalization and technological innovations such as the Internet have dramatically increased the pressure. Other factors include existing competitors who can move swiftly on opportunities and new competitors who can emerge because of lowered barriers to entry. Almost overnight, a business can find itself with an entirely new set of customers, investors or competitors.

To deal with these challenges, organizations must be able to innovate and optimize. This requires deep insight into the business to determine where change can be most effective—and the ability to implement change quickly and cost effectively. Every organization today depends on technology in some way, but gaps can exist that prevent an organization from fully leveraging technology to its advantage. Line of business (LOB) professionals understand the business and what changes need to be made to address these challenges. However, LOB professionals are typically not equipped to work with technology that has been tailored for an IT audience. Conversely, IT professionals understand technology but often have insufficient knowledge about the business and its processes.

BPM bridges the gap between business and IT by providing a common framework for collaboration, communication, and optimization of business processes.

BPM provides LOB professionals with the tools to express their needs in terms of the business processes they understand. They can define what is done, when it is done, and who does it, leaving the “how” to the technologists. Using modern BPM software, they can translate business requirements quickly into automated solutions that solve real business issues. Through this collaboration based on business process, business and IT can work together to effect positive, efficient change in the business.

Maintaining a focus on the business user

Despite the potential for complexity in IT systems today, BPM enforces a continued focus on the needs of LOB professionals by giving them the ability to model, simulate, analyze and modify processes. For those processes that require people to make decisions—or in situations where people might be

asked to assess an automated process—delivering the information in the context of business use is paramount. These processes rely on some type of information, whether it be structured data in a database or unstructured content, which might include photos, images, faxes and forms. Processes are frequently triggered by changes in content that are part of the transaction, for example:

- *A new application, claim or invoice is received.*
- *A technical document is revised.*

To make the right decision, systems and business users need immediate access to both structured and unstructured information pertinent to the transaction or process at hand.

Addressing complexity: Processes and participants

BPM enables organizations to automate, monitor and analyze processes. Beyond that, it enables them to easily change the critical elements:

- *The routes that information must take among people and systems*
- *The roles that participate in the processes*
- *The rules and policies that govern these interconnections*

Furthermore, the roles of those who participate in these processes must also be addressed. These include the roles of LOB process owners, IT professionals providing integration and tailored features, managers and executives who need only see dashboard representations of performance across processes, and business analysts who might model and simulate processes. BPM must offer tailored experiences supporting all of these circumstances and participants.

Addressing the agility imperative

Being able to sense changes in the business environment and reposition the business to new situations is at the core of business agility. We understand how BPM enables this agility for the business, but it is equally important to understand the other side of the equation—IT agility.

In the longer term, this capability cannot be accomplished with point solutions or off-the-shelf applications. It requires the use of mission-critical, composite applications—those that differentiate a business in the marketplace. To “unlock” these applications requires business and IT people to effectively collaborate and mechanisms from IT to facilitate change—especially change that can minimize disruptions and enable the most efficient use of limited IT resources. IT plays a key role in business process and can either facilitate success or inhibit it. To better understand this, let’s look at the root causes of IT as an inhibitor.

The complexity and inflexibility of heterogeneous IT environments

In many cases, companies don’t even have a complete inventory of their high-value, mission-critical software assets—applications or middleware. Instead, they have a wide spectrum of solutions that were designed to address very specific business needs. Typically, these consist of off-the-shelf products or custom-developed applications. Even in cases where a business has invested in broader, large-scale solutions—for instance, with customer relationship management (CRM), enterprise resource planning (ERP) and supply chain management (SCM)—point solutions are still common. In fact, sometimes these solutions exacerbate complexity when “heavy customization” or integration with other enterprise applications is needed. Leveraging IT assets in such an environment is further complicated because the business function provided tends to be “hard-wired” or embedded and not architected for reuse. In other words, although many applications deliver solutions that support business processes, they cannot be changed easily without reengineering, nor

can they be reused seamlessly by other processes. Dealing with such an environment requires a high degree of discipline, highly skilled talent and a diversity of skills, including hard-to-come by application knowledge and related technical and IT skills. Even then, it is almost impossible to understand how all of an organization's solutions are interrelated or how they interact. The complexity of today's IT environments makes change that supports business goals a costly, risky and slow endeavor.

Leveraging the power of SOA

Service oriented architecture (SOA) is an approach to designing your business's IT systems to build in the flexibility and responsiveness that your business requires. Traditionally, building your IT systems meant piecing together a collection of hardware, software and networking. These components were rigidly integrated and making changes was difficult. With SOA, your IT is built with modularly assembled and easily reconfigurable components. The components are no longer individual pieces of hardware or software but a service to provide business functions—similar to checking credit or tracking a shipment. BPM composes these services together to perform the business processes that run your enterprise.

BPM enabled by SOA provides business agility

So now we have BPM—a business discipline and associated software for managing value-added work in the business, and SOA—an IT architectural approach for designing and constructing business applications. When combined, these two form a powerful means for delivering business solutions that directly align the business by addressing the issues of IT complexity and inflexibility.

BPM software provides a wide range of capabilities and consists of three core elements:

- **Designing and modeling**—*the ability to visually model and design processes collaboratively between business and IT people, simulate the execution of those processes, and create meaningful assets for IT and business to use in implementing the business processes.*
- **Executing and automating**—*the ability to leverage IT to facilitate or automate the execution of the business process. This includes integrating content, facilitating workflow and orchestrating complex interactions between IT systems to ensure process integrity.*
- **Monitoring and optimizing**—*the ability to establish metrics and key performance indicators (KPIs) for processes that can be measured and reported on in real time to monitor performance, trigger responses, and provide feedback for continuous improvement and optimization of the process.*

These three elements provide the core capabilities that support the end-to-end BPM value proposition. Implementing BPM results in a more agile and responsive business that is able to quickly detect emerging business situations (either opportunities or threats) and design and execute changes to the business to take advantage of the situation. When implemented correctly, BPM can help your business maneuver with speed and accuracy through the complex and changing business landscape.

Meeting the need to activate content and manage risk and compliance

Events trigger the use, creation and management of content and associated processes. To be more responsive to customer or market demands, organizations must be able to react directly to these events as they occur. Content becomes part of the business process when:

- *It is proactively delivered when and where it is needed to accelerate decisions.*
- *It is enabled to react to business or transactional events.*
- *Its context can launch business processes or updates to enterprise business applications.*

Activated content reacts directly to changes or events and is put to work to solve business problems in real time.

Regulatory compliance has ushered in new requirements for greater visibility and control of processes and content to lower business and financial risk and fulfill corporate governance initiatives. Enforcement of policies and standard operating procedures is essential for compliance. BPM helps companies establish, control and manage business processes to ensure enforcement, operational control and accountability.

Effective regulatory compliance involves not only proving that a standard operating procedure exists. It also means proving how decisions were made and being able to manage the artifacts that represent the transaction. It is here that automated management of the entire records-management life cycle process becomes critical. The real opportunity is to integrate compliance as part of the process rather than treating it separately. In-line content and records management delivered within BPM deliver a substantial return on investment (ROI) through reduced corporate risk, lower operational costs and improved productivity.

By automating the management of a growing amount of business content associated with the transactions and decisions that the organization manages, organizations can reduce compliance costs. That's because proper policies and procedures are integrated and the right information is automatically captured and declared as records. Compliance simply becomes the way business is done rather than being treated as a separate activity.

Tactical versus strategic approaches to BPM

Not every organization starts by considering BPM strategically. In most situations, specific problems in a single business area are addressed by BPM software implementations. However, even in those cases, a BPM solution cannot stand alone; it must integrate with other applications, be flexible enough to allow frequent changes to processes, and provide the right context for the broad set of people working with it. Tactical BPM approaches should have some of the same quality standards as strategic approaches. Process

integrity must be maintained to ensure that the value of the process for both the business and its customers is properly delivered. Finally, the BPM approach should integrate easily with information management facilities, whether analytical or content related, to ensure that users are presented with information in appropriate context to make decisions. And best practices from small BPM projects can have implications that stretch beyond their initial scope and could benefit process-improvement projects corporate-wide.

Addressing specific business needs with BPM

From a tactical perspective, BPM solutions should offer a full set of integrated capabilities ranging from modeling through monitoring, while addressing the key processes identified by the organization for optimization or even for simple automation. When optimizing, being able to take advantage of analytics derived directly from a process is becoming more critical. So is being able to use analytics that are external but related to a process—such as regional sales data that could affect supply chain processes. It's also becoming more critical to establish and measure process KPIs on an ongoing basis. The ability to remediate a process or even drive policies that can address dynamic business requirements specified through analytics will become a hallmark of next-generation BPM. Tactical BPM approaches must also perform a delicate balance of addressing processes for which they are optimized while providing enough leeway or interoperability to broaden their process scope or address exceptions.

Ultimately, these business processes created by BPM are presented to the customer and business user as business applications that they use to do their job. Some of these applications will be more complex and used repeatedly, such as an account opening process. Others will be more situational—the business user might even create them using mashup technologies. All of these new applications will have intuitive interfaces designed to match the way that the work is done.

Taking a strategic approach

For those organizations that treat BPM strategically, all of the requirements for a tactical approach apply. However, a chosen BPM solution set or portfolio must also provide interoperability among its component parts, providing leverage and rich capabilities for users, managers, developers and other participants. Providers must also offer a broad array of capabilities addressing the span of processes in organizations—collaborative, transactional, structured, content-centric or dynamic. To meet these needs, an organization must be able to optimize processes both from within the confines of the process and with respect to related applications or events outside the process. That's because organizations approaching BPM strategically understand that real-time visibility across processes can not only optimize existing processes, but help define parameters for new processes.

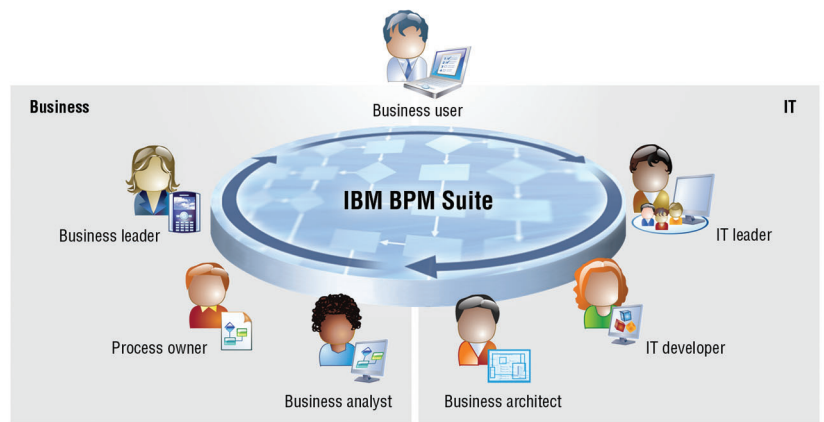
One element that can provide significant help and direction for these various facets is a BPM methodology. Product neutral, a methodology enables organizations to understand aspects of governance, process design and analysis, resource allocation, and other elements relative to both tactical and strategic approaches. It will also help align IT and business goals through a common understanding of effort. Many organizations already possess methods that are BPM oriented, including Lean and Six Sigma. IBM offers a BPM methodology that can dovetail with SOA efforts to more closely unite these providers of agility.

BPM from IBM

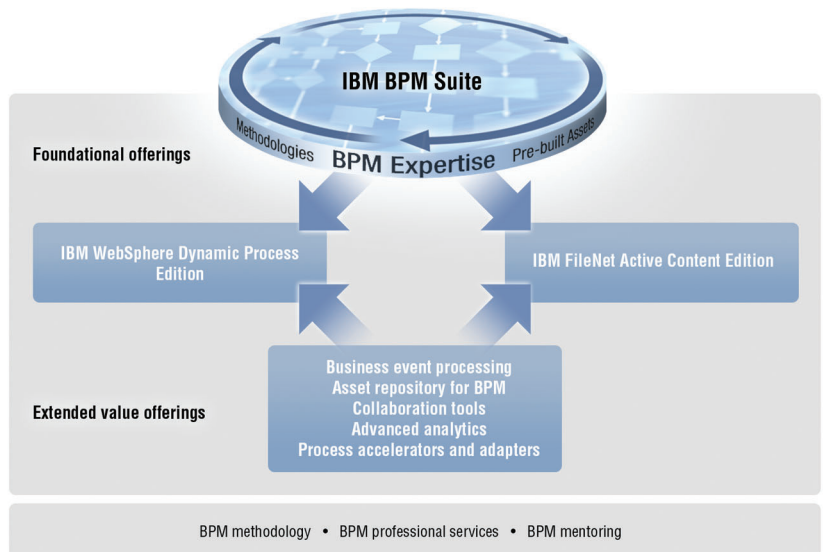
IBM's vision for BPM is to allow customers to create agile and dynamic processes today to serve as the foundation for greater innovation in the future. Our vision is to leverage BPM as a catalyst for alignment between business organization and IT infrastructure, and keep this alignment flexible and continuous to adapt to changing business needs.

IBM is executing on this vision today with the IBM BPM Suite. The IBM BPM Suite is a comprehensive set of role-based, SOA-enabled product capabilities. These provide customers with the ability to continuously optimize processes to rapidly respond to changing needs.

The IBM BPM Suite contains key functions to control and manage business processes across their life cycle. The emphasis is on business user empowerment, active content, compliance and greater collaboration across multiple roles within your organization.



The IBM BPM Suite combines product capabilities from across IBM Software Group into an integrated offering. It can match the way customers purchase, implement and upgrade BPM software while protecting and reusing their existing IT investments.



Foundational Offerings

To make it easier for customers to get started with BPM, we've created Foundational Offerings for the IBM BPM Suite. The IBM BPM Suite includes a choice of two foundational offerings—IBM WebSphere® Dynamic Process Edition and IBM FileNet® Active Content Edition. Foundational Offerings are packaged offerings and are designed to address key customer scenarios.

Each Foundational Offering contains tools to model, deploy and monitor core business processes. The suite also offers a number of optional extended-value offerings to enhance and advance overall capabilities.

Extended value offerings are capabilities that extend the foundational offerings in areas such as business event processing, asset repositories, collaboration and advanced analytics. In addition, prebuilt industry-specific solution accelerators and assets based on industry best practices are available.

Expertise

It is also critical to gain a jumpstart on process optimization through the availability of industry expertise. This can be in the form of pre-established roles and KPIs or industry benchmarks, or delivered through vertically oriented services. Being able to call upon predefined data models or templates reflecting appropriate personas, security and capabilities not only speeds implementation but adds to usability. Given the imperative to empower business users within the organization through BPM, being able to address business needs quickly and easily by delivering familiar and accepted user environments is paramount.

Summary

This white paper has shown how BPM helps businesses to develop highly responsive and adaptive processes so they can react swiftly to events. BPM is achieved by fusing processes with the systems and information that businesses need, while maintaining flexibility.

BPM gives business professionals the tools to express their needs in terms of the business processes they understand—to define what is done, when it's done and who is responsible for doing it. Using modern BPM software, they can translate business requirements quickly into automated solutions that solve real business issues. Finally, effective BPM can help you maximize agility and deliver a substantial ROI by lowering risk and operational costs and improving productivity.



For more information

To learn more about end-to-end business process management, please contact your IBM marketing representative or IBM Business Partner, or visit the following Web site:

ibm.com/software/info/bpmsoa/

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July 2008
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