



WebSphere software

Collaborative business process management

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Introduction

Business process management (BPM) and collaboration aren't ideas that seem to go together naturally, so collaborative BPM might sound a little mysterious.

While BPM is about things like optimizing, modeling, simulating and tracking process execution among systems and people, it's ideally a quite structured and highly engineered activity, and it usually produces predictable improvements – usually from increased efficiency and optimization. At least until an exception occurs.

In contrast, collaboration is the natural result of people interacting with one another, and the dynamic, often ad-hoc, cognitive activities that go on. Unlike BPM, it doesn't have a fixed value or predetermined ROI. Results aren't very predictable, but improvements often result from increased effectiveness. Innovation is often an output of effective collaboration, and when the events are repetitive, innovation can be turned into a process.

Therefore, almost all processes are the results of people collaborating, the results of larger or smaller organizations working together in order to reach their business goals. So if we think about BPM and all the business processes we want to improve or optimize, we always have to think about the ecosystem that exists around these processes, and the vital part of that ecosystem is us – the people collaborating.

Thus, we have a spectrum of needs, from rigid and structured processes on one end to ad-hoc people interactions on the other. Collaborative BPM sits right at the center of the spectrum. It extends the value of BPM investments by making the natural interactions of people available as inputs to BPM logic and data analysis, as well as facilitating the resolution of exceptions with a structured process. Indeed, collaborative BPM offers a way to harvest more value from existing investments and can dramatically increase efficiencies. In addition, it can increase personal efficiency when performing a job, leading to a much more satisfying and motivating workforce. Having a motivated work force is becoming more and more important, because overall process quality is directly impacted by the workforce carrying out business processes.

Purpose of this white paper

In this paper, we will discuss the emergence of *Collaborative BPM* and how it integrates system processes and people collaboration to drive innovation and business value. We'll highlight the place that Collaborative BPM holds in the evolution of business systems and processes. We will also discuss the increasing value that clients see from Collaborative BPM, and describe the robust capabilities of IBM's collaboration and BPM portfolios.

Business users: Paradigm shift in activities and responsibilities

Business users have seen waves of innovation in computer technology with particular focus on user interface design. From mainframe green-screen terminals to the early days of the Internet and today's Web 2.0-enabled user interfaces, human interaction with technology has evolved dramatically. *This shift in technology has significantly changed the way that people go about their day-to-day activities.*

In previous decades, modern enterprises comprised vast numbers of employees focused on the execution of redundant tasks, evoking the persona of a paper-pushing employee of the '80s and '90s.

Rapid technology adoption and evolution have caused a decrease in human labor costs for redundant tasks while freeing workers to address a wider range of business activities. Productivity has risen sharply, enabled by technology and in the wake of globalization and an increase in overall competition. As you might know, one of the key advantages in BPM lies in business process automation, which is about automating not only redundant, but modest and, therefore, often boring business activities. We – the people – are smart, and we normally tend to be more interested in performing challenging and more creative business tasks.

As a result, business users' day-to-day activities by intention have become more and more sophisticated, requiring a new generation of product capabilities.

From individual productivity to team collaboration to global integration

In support of the transactional work style, terminals and other application-specific connections were deployed, extending back-office systems outward to employees and closer to customers. Tasks grew more complex, and enterprises focused on the productivity of individuals.

For example, massive first-time investments in the 1980s were made in office productivity tools. With personal productivity increasing, a new way and wave of working emerged as business users consulted more and more with coworkers and partners, often in varying geographic locations. The 1980s also saw the consultant lead the push of business process reengineering and the resulting push back from business due to the lack of clear return on investment.

Ubiquitous networking and client-server technologies enabled new work modalities, a process that was massively energized by the rise of the Internet in the 1990s. Online discussions and document sharing were early technology innovations in team collaboration, soon joined by mainstream electronic mail and Internet-bred technologies such as Web conferences and instant messaging. This allowed employees to deviate from former work and job descriptions to do their work more efficiently, taking advantage of collaborative offerings that were suddenly available. The simple reason for that is, again, that people are smart; if they see that certain steps can be simplified, or accelerated, or performed better for whatever reasons, they will do it. Over time, this led to process improvements that were no longer documented in business process models that couldn't keep up to date, because the speed at which these processes changed had increased significantly.

Social networking

As this has been going on, the Internet has driven the rise of pure collaborative systems — commonly called *social networking* — that derive value from the collective interactions of participants. Tools such as personae, blogs, shared bookmarks and wikis enable the formation of organically optimized communities, which self-assemble in support of a particular subject, process or task. Innovative organizations are embracing these additions to the collaboration toolkit for competitive advantage.

Emergence of interenterprise, collaborative processes

As team collaboration has been increasing, so has *collaboration among organizations*. Moreover, organizations have widely begun to *collaborate on shared processes*.

An important example is supply chain management (SCM), which can be viewed as a set of collaborative, interenterprise processes involving organizations, people, systems and information. Analysis of supply chain processes affirms that employee, partner and customer constituents are enmeshed, performing not just well-defined tasks but, moreover, collaboratively solving complex problems. There's a need to relate collaborative requirements to structured processes in these situations. There's a drive to collaborate on outsourcing, managing inventories, improving auditability, and enhancing and speeding new product introduction within product life-cycle management.

Traits of a collaborative process

Traditional business processes typically require a participant to approve a work item, such as a purchase order request, or resolve a process exception, such as an incorrect invoice in an accounts payable process. In contrast, a *collaborative process* requires multiple participants to engage, discuss, iterate and decide before progressing to the next activity or phase of a business process. You see, the real world actually has both extremes from a process point of view. There is the need for highly repetitive and structured business processes on the one hand, and for rather unique, unstructured, unpredictable and flexible processes on the other hand. Looking at organizations today, all combinations of these two characteristics apply on various levels to contemporary and future business operations.

As a result, a unique set of capabilities are required to enable and optimize collaborative business processes, including optimized collaboration and improved exception processing. These capabilities can be grouped into three sets of collaborative processes:

- Entirely free form - *characterized by the sole use of instant messaging, e-mail, and impromptu meetings and discussions*
- Free form, with explicit work assignments - *free form, but inclusive of structured and ad-hoc human tasks*
- Modeled processes - *distinguished by a predefined process leveraging free form, collaborative activities and explicit work assignments*

Collaborative business processes are human-centric and typically rich in content. They leverage business documents stored locally in collaborative team spaces, in enterprise content management systems and in a formal process when an exception occurs (at least until its resolution, when it is placed back into the formal process flow). Collaborative processes are often characterized as dynamic and involve multiple ad hoc activities, including e-mail, instant messaging, online discussions, and Web and video conferences, as well as phone and in-person meetings. Increasingly, collaborative processes are being designed as capabilities available pervasively within more structured processes.

Importance of collaborative BPM

Why is it so important to combine requirements of collaborative processes with structured processes? The reason is that at the end of the day, all business processes must complete with the expected result in terms of time, money and quality, whereas quality lies in the eyes of the beholder. So, even the unstructured part of a business processes needs to be measurable and accountable. Bringing together highly flexible collaborative business processes with highly structural and, therefore, automatable business processes would allow monitoring of overall business process performance, helping business users, process owners and executive management to have full insights into their business operations.

Examples of collaborative business processes

Business processes, from relatively simple human resources (HR) processes to complex maintenance, repair and overhaul (MRO) processes are inextricably tied to the inherent collaborative activities between process participants.

In the case of MRO processes, a supplier's service technicians collaborate with one another as well as with their customers to make complex decisions that advance, for example, an overhaul and repair process towards its conclusion. For example, the MRO process for a particular engine requires multiple constituents to collaboratively discuss, comment and decide on engine repair decisions.

An accounts payable (AP) process typically requires human intervention in ten percent of its instances. These exceptional cases require a business person to find required information to make a decision, such as the original purchase order, the invoice in question and the original sales contract. By leveraging Collaborative BPM, business people can automatically be routed relevant business documents and contextual information tied to the problem invoice. Furthermore, a business partner's contact information can be provided, including presence-awareness information, enabling a business user to immediately contact the business partner using instant messaging and collaborate using a team space tied to the AP process.

Similarly, a relatively simple HR process, such as employee recruitment and onboarding, involves multiple constituents, from a hiring manager, to ad hoc interview-team members, to external recruiters, who collectively inform a decision reached through both collaborative and structured activities.

End-to-end governance and auditability

Linking collaborative and process activities for processes such as the HR and MRO examples mentioned previously can provide end-to-end governance over both the structured tasks of a process and the ad hoc activities of collaboration.

Increased agility

Without a collaborative approach and capabilities for BPM, solutions can be constrained by processes that fail to embrace inherently collaborative activities. In contrast, a collaborative process requires vital cognitive activities, increasing process flexibility and enabling point-in-time decision making.

Line of business (LOB)-led innovation can also be further empowered and accelerated through the use of collaboration, BPM and service oriented architecture (SOA). This is because SOA provides encapsulation of services, creating greater flexibility at the process layer.

Similarly, interlacing collaborative activities with and within processes can further accelerate agility for nonroutine, cognitive activities. Over time, patterns can be recognized and captured, enhancing speed and quality for repeated or similar processes in the future.

Design-time collaboration

BPM implementation success stories are typically characterized by excellent process methodology. The approach to agreeing to and deciding upon *as-is* and *to-be* process definitions is often part science (for example, Six Sigma) and part art (for example, the cultural challenges of process change).

In order to reach collective decisions about a process' design and implementation, constituents, process owners and consultants need to collaborate on complex process definitions that span organizational boundaries. It's also critical to find and integrate expertise wherever it resides. Collaborative BPM embraces the requirements of design-time process collaboration by supporting cross-team process design and implementation.

And not to forget; during business process design, business analysts, process owners and line-of-business managers need to balance between parts of the end-to-end process being highly collaborative, or being highly structured. Both aspects have advantages and disadvantages but, when combined, allow organizations to finally implement extremely efficient and creative business processes. Nevertheless, the underlying technology used to implement Collaborative BPM needs to be able to handle this wide range of expectations and requirements.

Enhancing innovation through collaborative BPM

Alluding back to the example of SCM, close *collaboration* among suppliers enabled Toyota to revolutionize the *process* of building automobiles based on demand (Just in Time [JIT] Manufacturing), enabling an innovative approach to manufacturing.

Because innovation involves dynamic cognitive activities among varying constituents and a set of related processes, it can be enhanced by the application of collaborative BPM technology and practices.

Achieving business agility

Business agility is achieved by standardizing, automating and integrating key business processes, and managing the performance of these processes to optimize business functions and enterprise activity. Collaborative BPM capabilities accelerate business agility in these areas:

- Modeling and simulation - *Design and model strategic business behavior, operations and processes, leveraging industry benchmarks. Simulate business processes and collaborate on process design to identify the best business process alternative.*
- BAM - *Track performance, processes and operational activity using key performance indicators (KPIs).*
- Process execution - *Orchestrate processes across people, content, applications and systems.*
- Expertise and accelerators - *Accelerate delivery of BPM deployment by using services and prebuilt assets.*
- Collaboration - *Collaborate across the enterprise value chain to improve productivity and drive innovation.*

Collaborative BPM supports business agility and innovation by enabling users to become more responsive to changing market conditions – opportunities, customers and competitive actions.

Collaborative BPM in action

By integrating collaboration processes, the value of BPM increases. While many processes integrate human interaction at various points, often as an input or variable, collaborative BPM offers additional interaction vectors between people and processes. These vectors are more natural and more intelligent than a standard BPM interaction could be.

For example, simply by viewing a status icon next to a team member's name, a business manager can more easily communicate with the team member in the context of a business process. IBM Lotus® Sametime® integrates these capabilities throughout the SOA stack. This use of ubiquitous awareness in BPM applications makes it easy to associate processes with people and their status. Other examples abound and are enabled by the breadth of market-leading IBM offerings in both BPM and collaboration.

Lotus Connections provides another example of collaboration increasing the value of BPM. The set of social software tools, optimized for a business setting, has a number of capabilities that capture the value created by collaboration processes and make that value easy to reuse and exploit.

Dogear, one of the Lotus Connections tools, is a social networking tool that allows users to bookmark content for future reference. Other users in the person's network can then perform a search based on the content to find relevant information, improving the quality of business search results. Thousands of IBM employees use it every day for results that are relevant and in appropriate context.

Similarly, Lotus Connections can track people's expertise through *persona* (profile) records, automate projects through activities templates and map relationships across multimodal communication channels. For users, the Connections tools provide a way to easily find expertise and content as it is needed at any given point in time. For BPM designers and managers, the tools provide a wealth of intelligent input that can be used in a performance-based monitoring (PBM) system. For example, a process that requires human input can be accompanied by a list of related experts and resources. Or a process can determine its own path based on expertise location as listed in a profile document.

BPM is all about context, and collaboration is the most contextual activity that any business undertakes. The ability to integrate the collaboration output as BPM data is what makes Collaborative BPM so interesting.

Summary

Over the past three decades, the way in which business users go about their day-to-day activities has changed significantly, transforming from repetitive individual tasks to team collaboration among employees, partners and customers.

In response and in parallel, human interaction technology has evolved from mainframe terminal screens to highly interactive Web 2.0 interfaces. As process management evolved from automating redundant human tasks to providing comprehensive products and approaches to BPM, collaborative BPM has emerged as critical to enabling business agility and innovation.

Future economies will have an increasing demand for more and more skilled, motivated and creative people to think about new business models and new business processes to compete in highly flexible markets with changing customer demands and fast changing competitors. Organizations will have to invest in Collaborative BPM to allow their business users to successfully manage these challenges.

IBM's portfolio of leading collaboration and BPM products can unlock the value of collaborative and cognitive activities, advancing your business to new levels of process excellence.

For more information

To learn more about IBM's portfolio of Collaborative BPM solutions, contact your IBM sales representative or visit:

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