

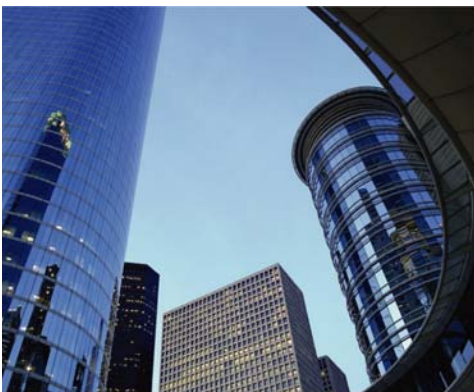
webMethods®

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Business Process Productivity

Achieve Greater Agility, Efficiency & Control

November 2004



CONTROL. EFFICIENCY. AGILITY.

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TABLE OF CONTENTS

- INTRODUCTION 4**
- THE BUSINESS DILEMMA 5**
 - AGILITY, EFFICIENCY OR CONTROL? 5
 - THE IT PERSPECTIVE 6
 - TIME FOR CHANGE..... 7
- A NEW APPROACH 8**
 - A FOCUS ON BUSINESS PROCESS 9
 - INTEGRATE, ASSEMBLE, OPTIMIZE 9
 - BUSINESS PROCESS PRODUCTIVITY IN ACTION..... 10
- REALIZING BUSINESS PROCESS PRODUCTIVITY 11**
 - BEYOND EAI AND BPM 11
 - THE SIGNIFICANCE OF SERVICE-ORIENTED ARCHITECTURE 11
 - ADDITIONAL CONSIDERATIONS 12
- CONCLUSION 13**

INTRODUCTION

This white paper discusses the ideas behind Business Process Productivity. It will be of interest to business and IT executives who are looking for ways to transform their organizations; get to market more quickly, respond more rapidly to business opportunities, competitive pressures and regulatory requirements; and differentiate how their companies do business.

The notion of an “agile” business has long captured the imagination of business executives. The agile business is able to embrace changes of corporate direction, internal transformation and new legislation without missing a beat. It empowers the management team to use its business acumen to deliver substantially increased value to its stakeholders.

But delivering these benefits requires companies to ensure that all the corporate procedures and infrastructure are in place to support the new processes. Among other things, this translates into a need to handle significant Information Technology (IT) challenges. Unfortunately, however, by virtue of the central role that IT plays in enterprises today, business responsiveness has become a function of the company’s ability to rapidly marshal the underlying IT systems in alignment with business need.

The advent of end-user productivity and development tools—and their spiritual big brother, “shadow” IT organizations operating autonomously of the corporate IT department—offered a level of autonomy and productivity that enabled business units to more quickly address process changes, thereby improving agility. However this new agility came with a cost—it promoted inefficiencies through duplication, while making it almost impossible to gain a complete real-time view of overall business performance.

Countering the desire for flexibility was the equally important expectation of efficiency. Many companies standardized, with varying degrees of success, on application package suites like SAP and Siebel to impose a consistent approach to business processes. But package applications had the effect of restricting the flexibility of the business to make process changes, while also reducing the opportunity for initiative and creativity.

Consequently, business executives find themselves caught between the need to become more agile in order to compete and survive, and the financial pressure to increase efficiency and return on shareholder investment.

Finally, the solution to this dilemma has emerged. Powered by a new breed of software, companies are now able to leverage existing IT assets quickly and effectively in support of strategic business initiatives, while quickly implementing the processes that these initiatives depend on. Rather than investing in implementing yet more applications, companies are freed to focus on creating business value and competitive advantage by streamlining, optimizing, and fundamentally changing how they do business.

This is the essence of Business Process Productivity.

THE BUSINESS DILEMMA

In the face of competitive and other market pressures, companies are looking for ways to become more responsive and adaptable in their ability to react to competitive challenges, regulatory requirements, and business opportunities.

One area that companies turn to for help is Information Technology (IT). IT has become an essential underpinning of every company and government agency. The operational efficiencies and productivity delivered by IT have fueled dramatic corporate growth.

But the downside is that business change is now intimately tied to the flexibility—or lack thereof—of the underlying IT systems. Historically, companies have had to compromise between the efficiencies enabled by the deployment of enterprise-wide applications, with their ensuing cost and complexity, and the rapid time-to-implementation, but limited scalability, of end-user productivity solutions. Unfortunately, neither approach adequately addresses the needs of today's dynamic business environment.

Agility, Efficiency or Control?

IT's legacy in helping the business to become more efficient is exemplified by the enterprise package application. With the goal of corporate-wide standardization of business processes, the idea of using enterprise applications was grounded on the ability of the vendor to deliver the functionality and consistency of view that made it easier to manage the business as a whole. It also ensured that ongoing maintenance and adoption of new technological advancements became the responsibility of the vendor.

On the surface, these were significant IT benefits to go along with the increased levels of efficiency and control provided to the business. But it quickly became apparent that there were some real drawbacks. Once the package was in place, implementing significant process changes required either new or modified package capabilities or, very often, requests for updates to the vendor. This proved even more of a restriction than having to take requirements to the internal IT department. Also, having to adhere to the package's functionality removed the ability of business units to be creative in developing new processes. As a result, agility was severely affected. And, as other companies within the same industry adopted the same packages, it became more and more difficult to create any competitive process differentiation.

To recapture some of this lost agility and flexibility, companies turned to low-cost desktop productivity and development tools—Microsoft Excel, Access, Visual Basic, etc.—to create ad hoc solutions. Individual business units put in place their own departmental computing facilities and application development capabilities, in effect, setting up “shadow” IT organizations. This gave them the desired level of agility (at least at first) to respond more rapidly and independently to new business needs.

However, this wide-spread phenomenon further exacerbated one of corporate IT's major challenges—namely, the need to manage and integrate disparate stand-alone systems—and made it even more difficult for the enterprise to get a complete and accurate view of business performance. Also, some of these “mini-IT” groups were not as conscientious

about adhering to corporate practices such as security, regular backups, and so on, thus creating business-continuity risks for the enterprise.

The emergence of the Internet and the associated rush to e-business further punctuated the need for companies—and, by association, IT—to become more responsive to market dynamics. But, with different departments launching their own initiatives and, oftentimes, duplicating each other's work, the result was reduced visibility and control, along with reduced economies of scale.

The IT Perspective

IT has unquestionably provided an enormous service to business, helping companies to reduce overheads, reach new markets, speed up delivery times and generally run in a far more productive fashion than ever before. IT is now a critical part of any company's corporate strategy. However, as markets move quickly and new opportunities and competitors emerge, companies are increasingly challenged to close the gap between IT and the needs of the business.

There are good reasons for this gap. IT organizations have to struggle with a range of complex and consuming issues that hamper their agility. Perhaps the biggest issue is that change has to be implemented while the core IT operations supporting the business continue to function smoothly and seamlessly—in essence, upgrading the wings of a plane while it is in flight.

Furthermore, there is seldom the luxury of starting with a clean sheet of paper. With the vast investments that have been made in systems and infrastructure, there is an overriding financial imperative to leverage existing resources. So, new or modified business services have to be delivered rapidly without affecting current operations, while also maximizing the use of in-place assets, with all their associated constraints.

The Legacy Challenge

One significant constraint is the difficulty of leveraging existing legacy systems for new purposes. Many Global 2000 organizations continue to rely on “legacy” applications to run their core business processes. Far from being an indictment, these systems are proven, mission-critical, and responsible for much of the world's commerce. But, by their nature, many of these applications are a poor fit for a more flexible and dynamic IT ecosystem. Based on older, closed technologies and usually heavily modified over time, they are often proprietary and difficult to access and modify. The result is that the business logic contained in these systems—functionality that companies would like to link into new business processes—remains trapped and unusable.

A related constraint is the integration problem. As IT moved broader and deeper into business operations, different solutions were adopted for specific parts of the business. So, for example, one system would be put in place to support customer service, another to support back office, yet another for financials, and so on. These investment decisions were often made within the confines of the business unit to be served, and within discrete parts of the organization. The result is the familiar spaghetti mix of different applications,

often based on different computing technologies and platforms, serving disconnected business processes and fragmenting the view of the business as a whole.

More recently, integration software has emerged as an effective and viable approach to bridging these silos. Still, with the technologies available to date, companies have only had limited success in truly leveraging their existing in-place application assets—whether legacy or package application—to support new business initiatives.

The Growing Application Backlog

At the same time that IT has been trying to deal more effectively with unwieldy legacy systems and applications that were never designed to interoperate, the business need for change has grown. The rapid pace of business change has driven a corresponding increase in the rate and volume of IT change.

To make matters even more challenging, companies are bringing new products and services to market faster and faster to maintain an edge, which means that application shelf life is becoming shorter and shorter. Not only is this a problem for IT in pure delivery terms, but it is difficult to write off the necessary investments without appearing to be less efficient in utilizing budgets.

Clearly, for IT to support the business effectively, the organization needs a way to work through the growing application backlog more rapidly and efficiently, while minimizing the need to invest in short-term, one-off solutions.

Time For Change

In summary, enterprises find themselves at a crossroads, trying to balance competing priorities while limiting the compromises they have to endure.

The business wants to:

- Find ways to differentiate in an increasingly competitive market. More and more, this means differentiating how a company does business—in other words, its business processes—as much its products or services.
- Increase the organization's agility and ability to respond quickly to new regulatory requirements and changing market dynamics.

Meanwhile, IT's priorities are to:

- Gain maximum leverage from existing resources; integrate in-place applications more effectively, while also repurposing them for new requirements.
- Implement solutions that achieve the efficiency and scalability of enterprise package applications, but with the rapid time-to-market and flexibility associated with end-user productivity and development tools.
- Adopt solutions that can be applied effectively to a broad range of needs.

Until now, there has been no single solution or strategy that satisfactorily meets all of these needs.

A NEW APPROACH

Supported by the convergence of new enabling technologies, a fresh approach has emerged to solve the “efficiency versus agility” paradox and address the needs described in the previous section.

webMethods calls this approach **Business Process Productivity**.

Business Process Productivity is about maximizing the return that a company gets from its IT assets, increasing competitiveness through differentiated business processes, and enabling IT to keep pace with the requirements of the business. Business Process Productivity allows companies to do more with the resources at their disposal and to do things that their competitors cannot easily match.

The benefit of Business Process Productivity—illustrated in the diagram below—is to enable companies to maximize their responsiveness and flexibility without affecting operational efficiency or control, while at the same time, delivering visibility into business performance combined with continual process improvement.

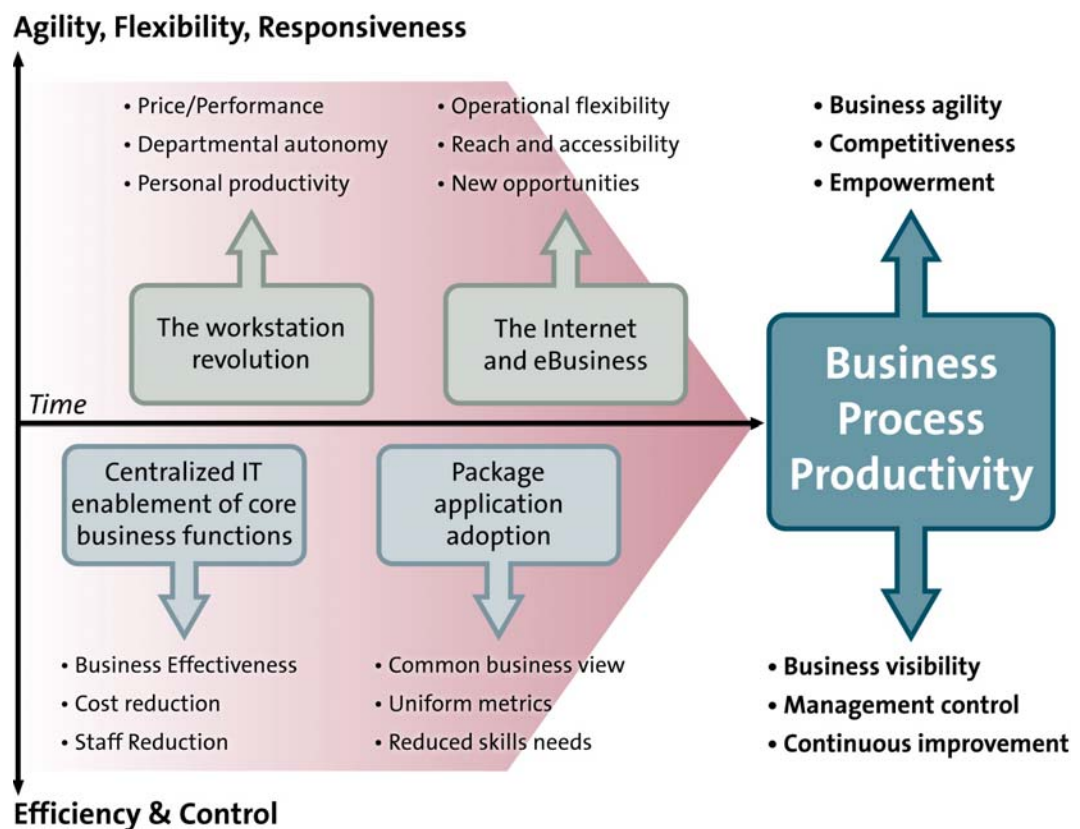


Figure 1. Business Process Productivity: A New Approach

A Focus on Business Process

Business Process Productivity is grounded in the recognition that business processes are the lifeblood of an organization. Whether related to customer service, development of products, or delivery of services, a company's business processes define its ability to compete successfully in the market.

Differentiating a company's offerings is important, but Business Process Productivity is focused on delivering process differentiation, because the ability to quickly, effectively and economically service customers and partners creates differentiation that is sustainable and has long-term value. One of the benefits of Business Process Productivity is to enable companies to concentrate on how they are delivering goods and services in addition to what they are delivering.

Integrate, Assemble, Optimize

There are three primary aspects to Business Process Productivity.

First, to manage the full scope of the business and to increase efficiencies, companies need to **integrate** previously autonomous business processes. Integration on its own, however, is insufficient. At best, this will only allow companies to streamline their existing processes. In the context of Business Process Productivity, integration includes the ability to extend existing IT assets, turning them and the processes they underpin into reusable building blocks (business services) that can be reutilized in a standard fashion. Not only does this enable companies to leverage the investments they have already made, but it promotes reuse with all its associated benefits of reduced costs and improved quality.

This ability to decompose monolithic applications into reusable business services contributes directly to the second aspect of Business Process Productivity. That is, to become more agile, organizations need the ability to rapidly change and **assemble** new business processes in support of corporate initiatives. When processes are able to be composed from existing building blocks, operational changes can be delivered faster, cheaper and with a higher degree of quality, while at the same time improving a company's return on assets (ROA). This ability to rapidly create new "composite" processes for the business is the key to increasing agility.

Third, companies need the ability to monitor every aspect of their key business processes and gain insight into how they can **optimize** how they do business. By tracking metrics that reflect the operational and business performance of a process, and comparing them against previously defined key performance indicators, companies can create a continuous feedback loop that facilitates iterative process improvement. In turn, this maximizes levels of business performance and, ultimately, results in greater business process productivity.

Business Process Productivity in Action

The following case study illustrates the concepts behind Business Process Productivity and how companies are able to benefit from it.

A regional bank was looking for ways to accelerate a loan review process. Under the existing process, a review took anywhere from one to two days, a function of paper-based process (thus incurring the inevitable delays involved in moving paper from one person to another), and a policy that required someone to physically review and approve each application, even when all the approval criteria were electronically verified.

To support expansion into a new channel, the company wanted to enable electronic loan applications and to reduce turnaround time for routine approvals to less than 30 seconds. This was a dramatic shift that required new system capabilities as well as business process and policy changes. To meet these objectives, the options were to either upgrade their existing applications, or to implement an entirely new system. Both alternatives had serious downsides, not least of which were cost and slow time-to-market.

However, by adopting a Business Process Productivity solution, the company was able to avoid these issues and meet all of their objectives expediently.

First, they integrated electronic access into their existing system and automated the customer data capture and loan application entry steps of the process. Next, they assembled a new, fully automated process that leveraged their existing credit verification and rating services, and streamlined the approval step when the loan application met specific credit-worthiness rules. (Loan applications not meeting these criteria are routed into the existing manual review process). Once the new solution was up and running, the company monitored the new process to ensure that the desired service levels—less than 30 second response time and a targeted automatic approval rate—were met consistently. By proactively identifying bottlenecks and exception situations, they were able to optimize the process to ensure predictable service and greater channel satisfaction.

The company gained from a Business Process Productivity solution by:

- Leveraging their existing credit approval application for customer management, credit rating, and audit (avoiding the time and cost of a new system).
- Avoiding the introduction of yet more application functionality that was otherwise unnecessary (a new on-line credit approval system).
- Implementing a solution that was tailored to their specific business needs.
- Gaining the ability to monitor and track every aspect of the process, so they know how and where it can be further optimized.
- Implementing their solution from concept to production in under 90 days.

This particular company was able to get better productivity out of their business processes, enabling them to expand into a new market and increase their revenues through higher loan capture rates. By selecting the right solution, the company was able to not only run their business with greater efficiency, but also change how they do business with greater agility.

REALIZING BUSINESS PROCESS PRODUCTIVITY

As alluded to earlier, Business Process Productivity is made possible by the emergence and convergence of specific technology capabilities. While some of these technologies are mature and others more recent, the power of Business Process Productivity comes about in the way the different technologies are brought together into a cohesive solution.

Beyond EAI and BPM

Some people may be led into thinking that Business Process Productivity can be achieved through enterprise application integration (EAI) or business process management (BPM). However, although integration is an important prerequisite, Business Process Productivity goes considerably further. Traditional integration and BPM approaches fall short of enabling Business Process Productivity in several respects:

- They lack the ability to transform in-place assets into reusable process-oriented business services (the building blocks for new business processes).
- They do not provide the business-oriented visibility of real-time enterprise operations that is necessary to make informed business decisions.
- They do not do enough to help companies continually improve their processes.
- The balance between agility, efficiency and control remains hard to achieve.
- The technology focuses more on the infrastructure than the business process.

In short, Business Process Productivity demands a new generation of software capability.

The Significance of Service-Oriented Architecture

From a software perspective, Business Process Productivity is based on the concept of creating solutions out of parts. These “parts” are the business process steps—check credit, query customer information, update inventory, etc.—that are linked together to integrate different business processes or to create new ones, or modified to optimize the company’s operations (automating approvals, for instance).

The functionality performed in a process step can have various origins; it could be a person (“interview customer”), a software application (“calculate price”), or a third party (“check credit”). At a business level, where and how these steps execute is largely immaterial, provided the business need is met. It is of little significance, for instance, whether the “calculate price” step is done by a mainframe or Excel. At a technical level, though, a mechanism is needed to map a process step to the actual underlying system (or systems), and to provide a standard way for one step to call another.

Service-oriented architecture (SOA) has emerged as the most elegant way of doing this.

Quite simply, SOA is an approach to software design (“architecture”) where systems are assembled from reusable components (“services”). Now, discussing the technical merits of SOA—modularity, encapsulation of functionality, abstraction of a service interface from the implementation, and so on—is beyond the scope of this white paper. What is

important to note, however, is that the technical appeal of SOA relates directly to the business benefits promised by Business Process Productivity. The SOA principle of encapsulating functionality into discrete services, for example, directly supports the notion of assembling business processes out of reusable process steps. Reusability is another important common theme, with its benefits of improving quality, reducing implementation effort, and increasing return on in-place assets.

Fundamentally, therefore, a Business Process Productivity solution should be based on an SOA foundation.

Additional Considerations

The following table lists other important considerations for a Business Process Productivity solution:

Integrate	<ul style="list-style-type: none"> ▪ The ability to connect to a variety of legacy systems and package applications running on a variety of different computing platforms. ▪ The ability to make existing application functions available as re-usable components (business services). These services should be accessible via standard mechanisms to promote interoperability. ▪ Features to support integration of different business services, such as the ability to transform data from one representation to another, or the ability to secure access to services. ▪ Capabilities to manage the inventory of business services, such as a directory of available business services. ▪ Capabilities to monitor and manage the operational health and performance of the system. ▪ An architecture that supports the “event-driven” nature of business processes within an SOA framework.
Assemble	<ul style="list-style-type: none"> ▪ The ability to easily and quickly link different business services together into new composite business processes and applications. ▪ The ability to automate and manage both manual workflows and system-to-system interactions. ▪ Capabilities to effectively incorporate end-users into new composite business processes through the delivery of personalized application functionality.
Optimize	<ul style="list-style-type: none"> ▪ The ability to monitor business process metrics and to link them to key business performance indicators. ▪ Capabilities to compare historical business activity trends, and to compare them in real-time to current activity levels. ▪ A real-time feedback loop to alert end-users proactively to variations in activity that might affect business process service levels.

While this is not intended to be a complete list, it will help to single out those vendors who can truly help to deliver on the promise of Business Process Productivity.

CONCLUSION

CIOs today are being asked to deliver more changes, faster and for less cost, while continuing to offer a high level of service quality. Amongst other objectives, CIOs are looking for the following:

- A tighter linkage to business value to justify IT's role and budgets
- The ability to leverage in-place assets better, to reduce costs
- Solutions that carry minimum risk
- Reduced infrastructure burden (through, for example, fewer vendors, less in-house development, lower total cost of ownership)
- Smarter ways of working that get the most out of the existing resources

In trying to achieve these objectives companies find themselves struggling with the seemingly contradictory pressures of greater business agility and the need for tighter control and efficiency. Business Process Productivity offers the much sought-after paradigm shift. It enables a level of business transformation that companies could only previously imagine, making it possible to adapt swiftly to new market challenges but within an environment of control, efficiency and continuous improvement.

Business Process Productivity is made possible by a new generation of software infrastructure. This infrastructure provides the ability to efficiently integrate the systems and processes that the business relies on; it unlocks the functionality trapped in a company's existing IT assets and enables the rapid assembly of new processes to support the organization's initiatives; and it delivers the visibility and control that enterprises need to optimize their operations.

For More Information

For additional information on how webMethods helps Global 2000 companies and government agencies to increase Business Process Productivity, please visit the webMethods website at <http://www.webmethods.com>, or contact us at one of the phone numbers on the last page of this document.

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