

Oracle Empowers Business Process Excellence through Business and IT Collaboration

An Oracle White Paper
July 2007

NOTE:

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Oracle Empowers Business Process Excellence through Business and IT Collaboration

Business Process Management is once again a pressing senior management concern. Today, a successful BPM strategy can power an enterprise's full business process cycle and help achieve innovation, differentiation, and bottom line growth.

The importance of BPM lies in its ability to enable companies to quickly adapt to changing circumstances, meet critical regulatory compliance, and rapidly improve critical business processes.

EXECUTIVE OVERVIEW

Business Process Management (BPM), at the top of many IT agendas a decade ago, is again a focus for CIOs today. Oracle's unique offerings make it the vendor of choice to deliver complete solutions to companies ready to link IT and line-of-business systems for true process—and performance—excellence. Read this white paper and learn

- Why BPM is a pressing senior management initiative
- What is different about BPM today and how it powers the full business process cycle
- How Oracle's BPM solutions can help you achieve end-to-end organizational innovation and growth
- How your organization can take existing IT assets and enhance them

PROCESS-FOCUSED MANAGEMENT IS BACK—AND ORACLE IS LEADING THE CHARGE

Corporations are not just a loose connection of separate department functions but an enterprisewide *interconnection* and *interaction* of business processes that must be aligned for optimal business purposes at any moment in time. This process management practice is supported by BPM technology that helps corporations making these vital alignments. This is why BPM technology is experiencing a phenomenal comeback today.

In fact, industry analysts project that BPM is one of the strongest growth areas within the IT industry. All IT publishers have Business Process Management in their table of contents and CIOs name BPM in their top three priorities.¹ Packaged application projects, dominant in the past decade, are now being complemented by middleware technologies to deliver much needed enterprise agility. In this arena, Oracle's BPM solutions and service-oriented architecture (SOA) are leading the

¹ Alter, Allan, "October 2006 Business Process Improvement Survey: Creating Smarter, Faster, Cheaper Processes is IT's Main Mission," [CIO Insight](#), October 2006.

charge and making the goal of highly sought after business agility a reality. Here's how.

Senior managers have long recognized that their businesses are a collection of connected processes and that to be agile, those processes must frequently be re-aligned or reconnected so they can address changing business environments, redefined business objectives, and newly imposed regulations. They know, too, that adaptable business processes result in increased operational margins and therefore in true competitive advantage. An agile enterprise can continuously improve key business processes and adapt them to changing circumstances. These enterprises seek to automate routines and constantly capture exceptions that call out innovation and lead to new revenue opportunities. That's why effective business process management has again emerged as a core business asset. As BPM increases in importance, the business process layer within the technology stack has also gained increased attention. And the pressure to connect businesses processes and technology has been increasing.

Smooth BPM is no longer an option. Companies face business challenges that need to be addressed immediately. At the top of the list are the following

- Increasing operating margins to meet competitive pressure
- Reinforcing innovation to expand or tap into new markets
- Complying on schedule with mandatory regulations

Here's a real-world example.

Toyota, renowned for process-driven practices, has demonstrated with their hybrid cars how innovation can be driven by process agility and result in competitive advantage. Toyota was the first automobile company to realize the potential of hybrid cars. This early discovery paired with the ability to execute immediately has given Toyota a significant advantage. It's not surprising that Toyota's process network is a showcase for an adaptable and agile enterprise, one of Toyota's core differentiators. The ability to integrate people and systems, supported by leading process technology, allows Toyota to adjust business and production processes. Thus, the pairing of an early discovery with differentiating process adaptability has given Toyota a three-to-five-year lead over US auto manufacturers and an even bigger lead over European car manufacturers—ample time to cash in on their competitive advantage. And their earnings support this BPM edge: Toyota was reported the biggest auto manufacturer, worldwide for the first time in April 2007.

Another way that BPM helps drive efficiencies is outlined in the following generic scenario. All large enterprises are confronted with integrating new hires into their operations. If human capital is a decisive resource for a specific organization, the onboarding process becomes a critical success factor. Let's say a company has to integrate on average up to 200 highly skilled workers per month, workers who each earn a monthly salary of \$12,500. In this instance, a streamlined onboarding process, which usually spans the departments of human resources, finance,

An agile enterprise continuously improves, discovers innovation, and uncovers new revenue opportunities to beat the competition.

Meeting competitive pressures, increasing operating margins, tapping into new markets and complying with regulations—all make BPM a critical business initiative today..

Case in point: Realizing the potential of hybrid cars, Toyota paired this innovation discovery with excellence in execution for a lucrative advantage over all their competitors worldwide.

Employee onboarding demonstrates another way that process excellence can deliver efficiencies and significant savings to the bottom line.

facilities, and IT, could generate significant savings. In fact, reducing the integration time by one week of newly hired knowledge workers that earn a salary of \$12,500/month would result in \$7.5 million in savings per year.

This example shows the potential of process improvement in one area, but BPM applications span all organizational and enterprise boundaries. Now the focus of optimization is on business processes instead of business functions (the focus of optimization with packaged applications). While packaged applications improved the efficiencies of organizations on a functional level, they are limited primarily to the departmental level. That is, a financial application greatly improves the financial operation of a company; a sales force management system brings great improvements to an enterprise's sales force, and a supply chain management solution focuses primarily on improving the supply chain discipline.

BUSINESS PROCESS OR BUSINESS FUNCTION?

If a vertical HR function in the previous onboarding example were deployed, the overall onboarding process could *not* be optimized and the projected savings of \$7.5 million/year would *not* be realized. To achieve best onboarding results, what's required is an end-to-end process view where HR collaborates with finance, facilities, and IT to target onboarding savings. A business process approach orchestrates the execution of appropriate tasks in the right department at the right time and automates necessary application transactions, rather than focusing on an isolated task within only one department at a time.

Siloed improvements delivered by packaged applications improve the individual department, but *all* functions across the enterprise must improve their processes for the corporation as a whole to benefit.

Function-centric and process-centric optimizations are both necessary but a business process approach has the greater potential to drive innovation, competitive differentiation, and more enterprisewide success.

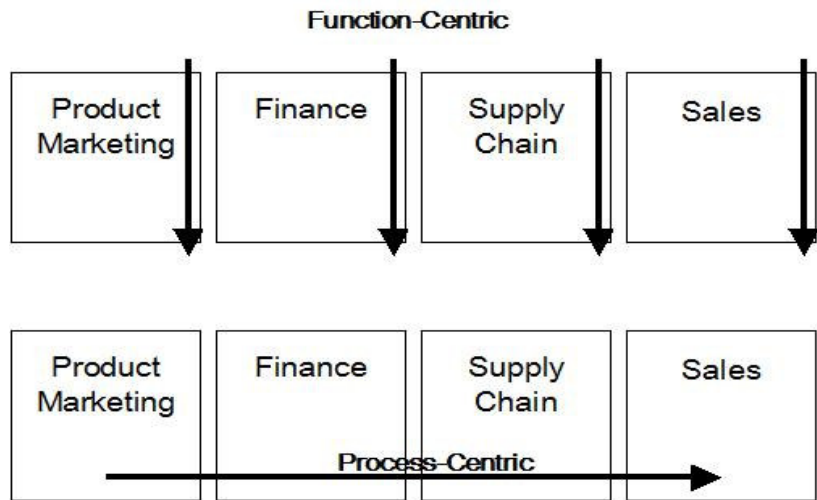


Figure 1: Function-centric versus process-centric management discipline

Obviously, both functional and business process focused optimizations are vital for enterprises. However, with their previous overriding focus on business functions, organizations were skewed towards functional excellence. Today, a business process approach has great potential to drive optimization and innovation further within organizations. This potential can only be realized, however, if top management mandates business process excellence and their companies embrace BPM holistically, across all departments, equally affecting technology and organizations.

HOW DOES THE BPM APPROACH WORK?

Business process-driven applications—as opposed to business function packaged applications—follow the latest IT paradigm: service orientation architecture. Together, BPM and SOA define a new IT world, which drives innovation and efficiencies using existing IT assets and producing results within months. The new paradigm promotes loosely coupled IT systems that replace the previous tightly integrated, hardwired packaged applications. Packaged applications are broken down into services of different granularities. These services are orchestrated on the process level and are simply consumed in a way that supports optimized business processes. Also, an open, standards-based SOA accelerates BPM to a new level of process focus by emphasizing metadata. This heightened level of process focus defines a platform with BPM in its core, integrated with business intelligence, security, and business service registries. These platforms enable software services to support business processes. Thus a business service repository can provide for the management and correct use of those services and data.

BPM IS NOT BUSINESS PROCESS RE-ENGINEERING

A process-driven management approach did exist in the past, just before the packaged applications boom in the 1990s and its subsequent functional emphasis. Known as business process re-engineering, it captured the mindset of business leaders and technology vendors alike but it was a short-lived concept that rapidly gave way to the function-oriented application approaches. This previous attempt to establish a process-centric application approach is important, however, because the lessons learned and the technological implications have been instrumental in achieving business process excellence today through BPM.

Business process re-engineering highlighted the need to make business processes more transparent. It proposed modeling and documenting processes in their existing states and their existing interconnections. These models, the existing state of processes, were then the basis for discussions among process owners to optimize processes according to the underlying business challenges. The concept aimed at one-off revolutionary changes and targeted the sum of all business processes within a corporation as a whole.

BPM software combined with service-oriented architecture defines today's IT paradigm. They use existing IT assets, enable software services to support business processes, and get results fast.

Remember business process re-engineering? A short-lived approach aimed at one-off revolutionary changes, business process re-engineering laid the groundwork for achieving the type of ongoing business process functionality that is sought after today.

Business process re-engineering didn't live up to expectations because at the time, technology didn't allow for flexible, agile process implementation. Custom coding was necessary, object orientation was new, and capsulation of IT assets unproven. In addition, lines of business and IT were disconnected and technology just wasn't able to close the gap.

Shortcomings of Business Process Re-Engineering

Business process re-engineering had several downfalls. The process models changed vividly along with the frequently changing business requirements; but the gap between documented processes and implemented processes grew wider with each additional change. The models on paper could change on a daily basis but implementing those changes in process applications took weeks and months. Business process re-engineering was never able to automate the real-world processes according to their corresponding optimized process models. The technological capabilities at that time simply did not allow for an agile and flexible process implementation. Applications were mainly developed with custom coding practices, object orientation was in its infancy, and capsulation of IT assets was an unproven concept, but automation (the implementation of optimally designed business processes) was a prerequisite for enterprises to reap the benefits of business process re-engineering. Also, aiming to change the process infrastructure in a revolutionary way caused friction with the people involved in those organizations. All of these inhibited the success of business process re-engineering.

Ultimately, business and IT remained disconnected entities since the technology did not yet allow for close collaboration between the two. Business process re-engineering ended up being an exercise for consultants, who delivered documented processes and an improved understanding of business processes for business people. The true benefits for lines of business—achieving real-world savings based on process automation and process optimization—could not be realized with business process re-engineering and its failure led companies to focus on other organizational concepts.

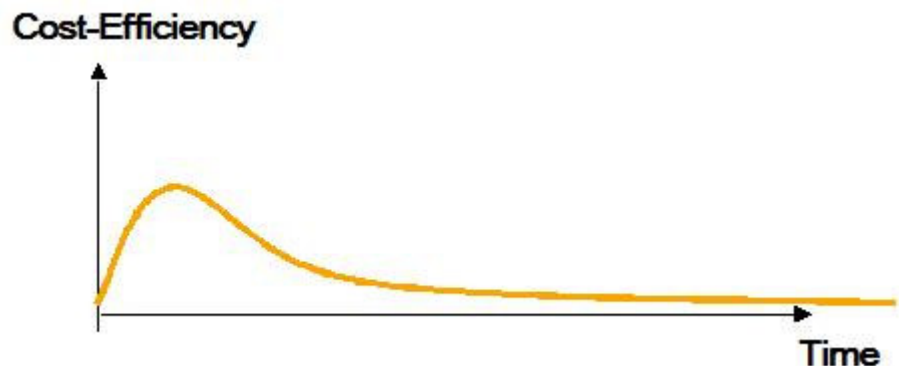


Figure 2: Early efficiencies wore off rapidly since Business Process Re-engineering never progressed to implementing the optimally modeled business processes

Processes are the “setscrew” for business manager to manipulate their business success. That’s why business people drive BPM projects and often the funding for those projects.

Learning from the past for BPM excellence today

Business Process Management is a management discipline that affects the organization of an enterprise and is supported by technology. More than with other technologies, business managers are as involved in evaluating and using BPM tools as IT staff. The increased level of business user interest stems from the fact that processes are the “setscrew” for lines of business staff to manage their success. Business people drive BPM projects and funding for these projects often originates in business departments rather than in IT. BPM’s value proposition reaches far beyond IT efficiencies and reveals immediate benefits to business users, such as:

- Reducing the onboarding process by one week, by automating various tasks
- Reducing the error rate when closing the books by setting up optimized review tasks
- Increasing the invention cycle by introducing new product or services offerings more frequently
- Responding to nonstandard customer requests faster by involving the right people immediately
- Responding to regulatory mandates fast preventing impact on your ongoing business

For this reason, Business Process Management technology must appeal to users in business departments and very business-focused IT employees, such as business analysts.

Besides BPM’s appeal to business users, IT needs to be tightly involved, as the success of BPM ultimately depends on IT’s capabilities to implement and execute the process applications. This means IT needs to seamlessly receive the business model and continue to build the application required by business managers. For example, IT must be able to

- Translate business requirements more easily to keep pace with business changes
- Accurately set expectations that help them and business users target the same goals and jointly deliver on them
- Deliver simulation technology that can be immediately translated into real world process execution so companies can differentiate themselves

Collaboration between business and IT is also critical since modern BPM projects are expected to show results within four to six months. Process excellence avoids the “big bang” approach, where applications are developed in the labs for years and then released to the users all at once. An incremental approach along the “business process lifecycle” is key to ensuring business process excellence and provides two important advantages:

Successful BPM requires tight IT involvement since IT’s ability to implement and execute the process applications can make or break any BPM initiative.

Incremental development along the business process lifecycle is critical for business process excellence

- Project teams can show quick results, since the benefits of BPM kick in immediately and the first results serve as a foundation to build and optimize the process
- Continuous incremental change requires business process monitoring, which leads to process optimization in actual business environments and this is what business managers need to appropriately oversee and drive their business success

Most importantly, business process excellence can be achieved only if all the stages of the business process lifecycle—modeling and simulation; implementation and execution; and monitoring and optimization—are tightly integrated, and if lines of business and IT can smoothly collaborate.

Let's take a detailed look at the business process lifecycle and how Oracle delivers the technology to power it.

ORACLE BUSINESS PROCESS MANAGEMENT DELIVERS THE BUSINESS PROCESS LIFECYCLE

Oracle has defined the business process lifecycle for BPM projects, a lifecycle that evolved through multiple projects and that directly influenced the development of the Oracle Business Process Management Suite. The following lifecycle steps are fundamental for successful BPM projects and are promoted by Oracle Business Process Management:

- **Model and Simulate** – Model and then simulate business requirements to analyze your business processes
- **Implement and Deploy/Execute** – Generate an outline model of business requirements and business process; use tools to integrate the business process with interfaces or services of existing systems and applications; implement business process, define business rules associated with process, and map data
- **Monitor & Optimize** – Make processes visible for end users and monitor efficiency of business process in real time and historically

The Business Process Lifecycle

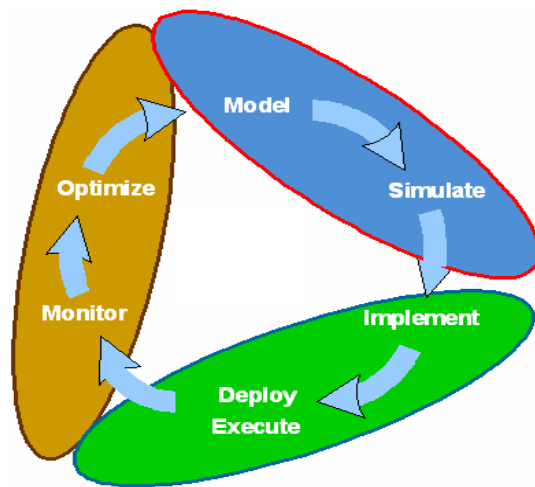


Figure 3: The Business Process Lifecycle

Introducing Oracle Business Process Management and its components

To help enterprises successfully work within the business process lifecycle, Oracle offers a unique and complete Business Process Management Suite, within Fusion Middleware. The Oracle Business Process Management Suite includes:

- The industry-leading modeling and simulation engine—Oracle Business Process Analysis Suite—which shares the same metadata format with the process execution engine and helps business and IT to seamlessly collaborate
- The top-selling process execution engine—Oracle BPEL Process Manager—for human workflow- and application-driven integration tasks with BPEL; part of the Oracle SOA Suite
- The tightly integrated rules engine—Oracle Business Rules—which allows business users to design their own policies, and which is part of the Oracle SOA Suite
- The highly intuitive process monitoring solution—Oracle Business Activity Monitoring—which captures executed process data in real time and feeds that data back into the simulation engine for real-world planning; also part of the Oracle SOA Suite.

Oracle Business Process Management is designed from the ground up to target business process excellence. For example, collaboration between business manager and IT was a major requirement in integrating the above-mentioned components. As previously outlined, the gap between business and IT has been an obstacle that previous process-oriented disciplines couldn't overcome. With Oracle Business Process Management, business managers are able to capture original verbally presented business requirements in standardized models and begin to structure and simulate their process definitions using the Oracle Business Process Analysis Suite. And IT, which needs to turn those requirements into executable applications, is able to use the same models for further refinement and technological enrichment

by using Oracle BPEL Process Manager. These refined and enriched models could at any time be enhanced by business since the shared metadata between the conceptual model and the executable model allow for closed loop engineering. Business and IT are enabled with Oracle Business Process Management to closely collaborate and turn business requirements into executable business process logic.

Oracle technology permits business managers to drive process excellence, which not only lives on documented models, but also connects with IT for rapid and meaningful process automation. Figure 4 depicts the concept of the shared metadata model between business modeling and technical modeling.

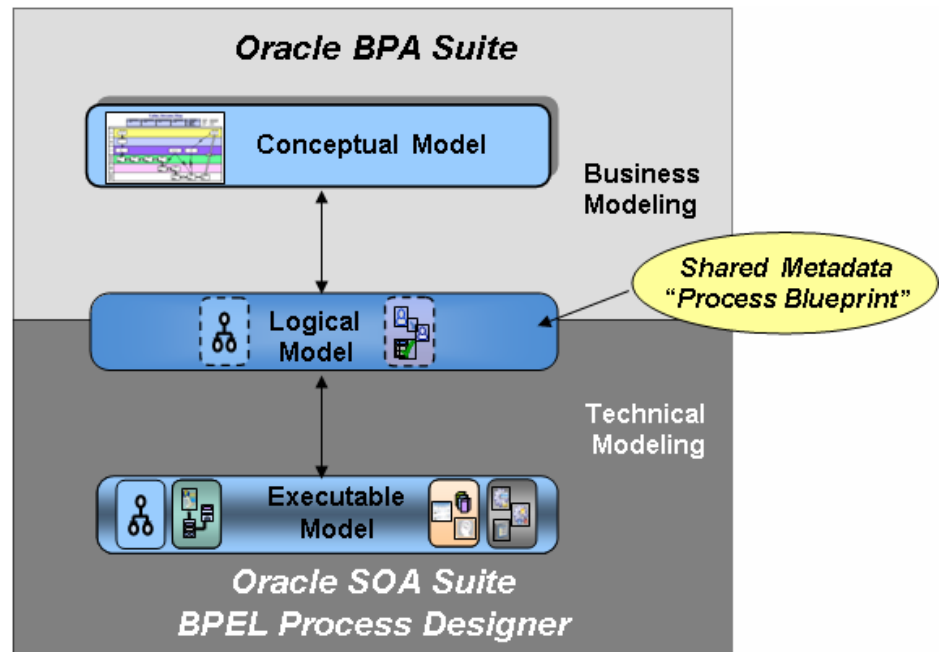


Figure 4: Conceptual models created by business and executable models owned by IT share the same metadata for tight collaboration.

“Process Blueprint”—an Oracle invention—empowers business and IT to collaborate.

Oracle calls the shared metadata model “Process Blueprint,” a unique value-generating innovation that empowers business and IT to tightly collaborate. Enterprises can go beyond merely creating to executing their process models—since the executing process is already enabled with Process Blueprint. Further, companies can continuously increase their cost efficiency ratio as their business process management discipline matures within their organizations.

Figure 5 compares the cost efficiencies delivered through the Oracle Business Process Management Suite with the cost efficiencies of previously used business process re-engineering methods.

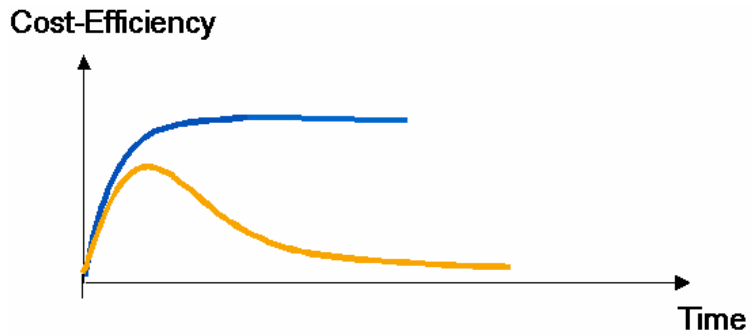


Figure 5: The Oracle Business Process Management Suite consistently generates increasing efficiencies (dark line) based on closed loop engineering, as opposed to previous process management techniques (bright line) where initial gains in efficiencies wore out quickly due to the lack of integration and the missing collaboration between business managers and IT.

Integration between Oracle BPEL Process Manager and Oracle Business Activity Monitoring contributes to process excellence. Business managers can understand and address exception handling while business analysts and IT personnel capture data to influence the iterative business process development cycle.

Oracle Business Process Management further drives process excellence by focusing on the integration between the process execution engine, Oracle BPEL Process Manager, and the business activity monitoring component, Oracle Business Activity Monitoring. This tight integration contributes to process excellence in two important ways:

- Business analysts and IT personnel can immediately capture valuable data to influence the iterative business process development cycle most ideally—through constantly measuring actual process performance during execution with Oracle Business Activity Monitoring
- Business managers can understand and address exception handling very effectively using dashboards which graphically represent process bottlenecks and process delays

Oracle's Business Activity Monitoring integrates with Oracle Business Process Analysis Suite to deliver modeling and simulation tools to business users and help them achieve continuous business process improvements.

In addition, Oracle's Business Activity Monitoring solution is also tightly integrated with Oracle Business Process Analysis Suite. By connecting the analysis component with the modeling and simulation tool, business users can feed real-world data captured in Oracle Business Activity Monitoring into the simulation engine and use the resulting recreations to draw conclusions for future process changes. Business users perform these simulations when their current real-world business process reveals major weaknesses such as low cycle times or unexpected delays in process throughput. Business users also use simulation based on real-world data to business test new business models with varying data and verify new process scenarios without having to waste expensive resources.

Finally, the connection between Oracle Business Activity Monitoring and the Oracle Business Process Analysis Suite completes the business process lifecycle and is required technology to help enterprises achieve continuous business process excellence. Figure 6 identifies the Oracle Business Process Management components and their role within the business process lifecycle.

Oracle delivering the full business process lifecycle

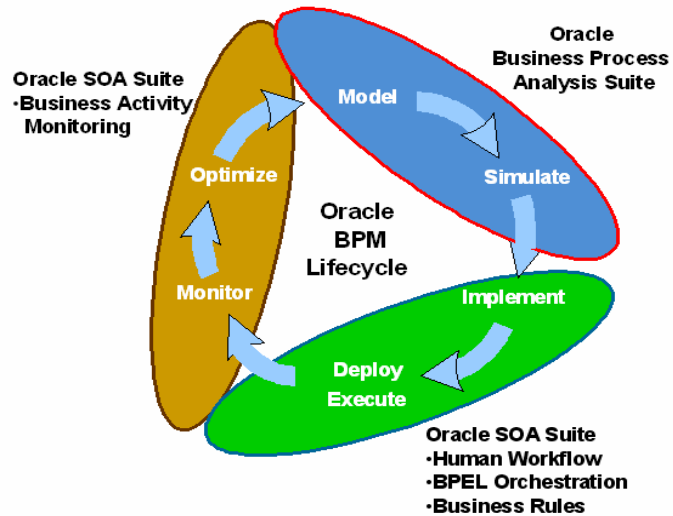


Figure 6: Oracle Business Process Management Solution and the business process lifecycle

IMPROVING THE ORDER FULFILLMENT PROCESS AT FORMFACTOR

Case Study: FormFactor targets a 10–20% reduction in cycle times of fulfillment process activities using the Oracle Business Process Management Suite.

FormFactor, Inc. designs, develops, manufactures, sells, and supports precision semiconductor wafer probe cards. FormFactor heavily relies on an engineer-to-order strategy to offer products that are custom designed for semiconductor manufacturers wafer designs. FormFactor puts heavy emphasis on initial product design and analysis. To avoid expensive errors during the process, it is imperative to have a high visibility into the manufacturing process. At the same time, FormFactor must address the challenges of higher customer demand and faster time-to-market.

Order fulfillment process is the DNA of FormFactor and a more efficient one will increase its competitive advantage. FormFactor has realized that it will need to optimize its order-to-ship process, especially for the manufacturing of the first batch of products to achieve these goals.

When FormFactor looked at its order-to-ship process (See Figure 7), it recognized high variance in the business process due to differences in understanding of order-to-ship process and siloed IT infrastructure focused on functional rather than process efficiency.



Figure 7: FormFactor's Order Fulfillment process

FormFactor was experiencing long queues at various stages of the order fulfillment cycle. Inefficient handoffs and lack of communication across departments resulted into delays. When an exception occurred, FormFactor had to expend a lot of

manual effort to resolve it. The situation was further compounded by the fact that order-to-ship process required numerous touch points across various backend applications (CRM, MES, Shop floor management, and so on). These applications functioned in silos and operations team had limited view into the end-to-end process.

The FormFactor Approach

Last year, FormFactor had performed integration of MES system with Oracle Shop Floor Management system using Oracle SOA Suite. This provided planners with critical information about factory yield and delay in job movement. Planning was able to react to material availability and plan faster and more accurately, thereby shortening the order-to-ship cycle. This initial SOA implementation played an instrumental role in demonstrating the benefits of SOA to the business community and helped make the case for taking a holistic, process-centric view of core business processes.

This process-centric approach represents a paradigm shift and requires a cross functional team to align the interests of various organizations who have been functioning in silos. Changes need to occur on various dimensions of which IT is a component, so it is important that the stakeholders from different lines of business work “hand in glove” with their IT counterparts to bring this effort to a successful fruition. Under the leadership of senior executives in various departments and supported by the Senior IT Director, FormFactor has rightly defined a Business Process Improvement Committee (BPIC). This committee is chartered to oversee the Business Process Improvement Program (BPI), allocate resources, prioritize initiatives, evaluate tools, and define a methodology.

The BPIC is tasked to

- Deploy BPM technology
- Deploy a methodology for business process improvement
- Identify critical processes that need improvement
- Improve those processes using the deployed methodology and technology

The order fulfillment process is one of those identified for improvement..

FormFactor has adopted the standard Six Sigma DMAIC methodology to improve its critical business processes

Beyond organizational and cultural changes, order fulfillment process improvement is also having an impact on FormFactor’s IT infrastructure. The order-to-ship process spans multiple departments—people and systems from sales, design operations, quality, planning and production, inventory control, manufacturing, and receiving/shipping are all participating in the process. As seen in Figure 2, FormFactor will employ Oracle Business Process Management, including Oracle BPA Suite and Oracle SOA Suite, as the standard platform to achieve order fulfillment process excellence. FormFactor deemed the Oracle Business Process

“Oracle’s Business Process Management provides FormFactor with a unified and standards-based foundation that enabled us to turn business requirements into successful business applications. Through the use of the integrated Oracle Business Process Analysis Suite and the Oracle SOA Suite, we have changed the way we approach Business Process Improvement and Business Technology Solution Development.

The approach will deliver optimized processes that span multiple departments, with hundreds of dependencies and a multitude of back office applications.”

- Nilay Banker

Sr. Director of IT and Business Process Engineering

Management solution the superior choice in increasing the effectiveness of FormFactor's Six Sigma approach. FormFactor also found that the Oracle Business Process Management solution is unique in its ability to foster stronger business-IT collaboration since it provides a truly integrated platform from process analysis and modeling to process execution and monitoring.

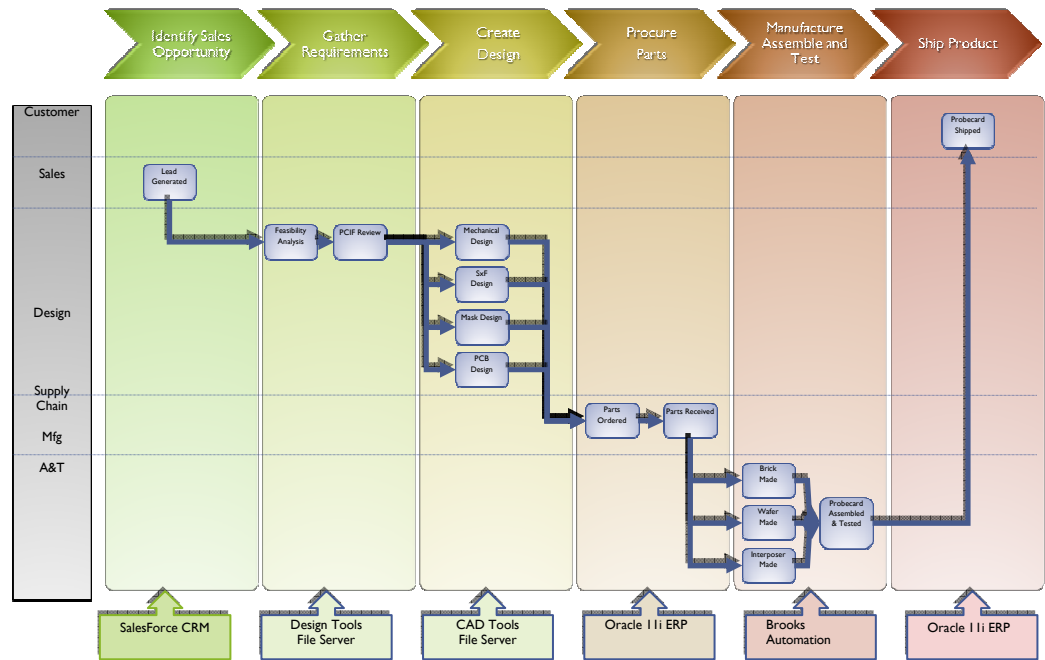


Figure 8: The FormFactor High Level Process Model

In the first phase of this project, FormFactor is creating a common understanding of the order fulfillment process. Oracle BPA Suite is helping to achieve standardization across the organization through development of order fulfillment Process Blueprints. Business Managers are working with their IT counterparts to simulate their process models using real-world data and further refine these models (see Figure 8). Three iterations of process analysis have yielded process models comprised of 1000+ activities, hundreds of dependencies, and multiple hand-offs between different organizations. Since Oracle BPA Suite and Oracle SOA Suite share a metadata model, refined Process Blueprints are ready to be executed as an orchestrated workflow using Oracle SOA Suite. These models generate executable BPEL code with click of a button.

In the second phase of the project, Oracle SOA Suite will provide the backbone for flexible and adaptable business process execution. Oracle BPEL Process Manager (part of the Oracle SOA Suite) will orchestrate the entire process, engaging a number of teams and individuals from 13 different departments and integrating key

applications such as CRM (SalesForce.com), ERP (Oracle E-Business Suite), PLM (Agile), Manufacturing Execution System (PROMIS from Brooks Automation), and data sources such as File Servers, e-mails, and Microsoft Excel spreadsheets. Oracle Business Activity Monitoring will track each critical activity in the end-to-end process, identifying bottlenecks and triggering corrective actions when business exceptions occur.

To avoid an undesirable “big bang” approach, FormFactor plans to leverage as many existing investments as possible by service enabling existing functionality. The initial plan is to perform preliminary analysis of entire order fulfillment cycle, but eventually achieve detailed process modeling and execution at the design review phase. With a focus on the design review phase, FormFactor aims to target the most critical step in the entire process. Process visibility will be an integral part of all deliverables.

Leaving no stone unturned in their BPM initiative, FormFactor is taking all the right steps at organizational, cultural, and technological levels to ensure the harmonious adoption of the new paradigm. Oracle BPA Suite and Oracle SOA Suite are helping drive innovation through seamless integration between business and IT and quickly turning business requirements into executable processes.

Benefits

FormFactor has already started to reap benefits from the first phase of this project—process analysis. Business executives and their IT counterparts are now working more closely to define Process Blueprints. After three iterations of process analysis and process simulation using Oracle BPA Suite, FormFactor now has a much clearer and more consistent understanding of their order fulfillment process. With a shared metadata model, these processes are ready to be executed immediately by Oracle SOA Suite. FormFactor expects to reduce the cycle times of activities across the board by 10–20%, improving the overall order fulfillment cycle time and visibility. This will help them deliver customized wafer probe cards faster to their customers and improve customer satisfaction. They anticipate that improved customer satisfaction will result in an increase of repeat orders with significantly higher margins. By extending automation in processes across applications and even across company boundaries, FormFactor plans to reduce the cost of standard activities and free up resources for more strategic and differentiating endeavors.

Future Plans

The order fulfillment process represents the first BPM initiative within FormFactor, who plans to roll the BPM initiative across several other key processes within the organization for even greater efficiencies. In the future, FormFactor also plans to take process visibility to the next level by offering interactive BI dashboards to business managers. Currently, the business intelligence is focused on data, not processes. Future BI dashboards will enable actionable process intelligence and business managers will be able to use them to perform historical

and real-time analytics across the entire order fulfillment process, taking actions that directly impact the behavior of underlying processes.

ORACLE BUSINESS PROCESS MANAGEMENT FOR BUSINESS APPLICATIONS

Not only does it help customers like FormFactor to improve, optimize, and manage their business processes, Oracle BPM technology is also key for integration efforts of the Oracle application portfolio. Oracle's strategy to make its application portfolio SOA-enabled is closely tied to Oracle Fusion Middleware and Oracle BPM. Oracle is the first business application vendor to promote a standards-based and service-oriented approach to developing their applications. This initiative has already begun and was unveiled with the Oracle Application Integration Architecture.

Oracle Application Integration Architecture is an open, standards-based platform for business process management across Oracle, third-party, and custom applications. Oracle Application Integration Architecture provides pre-integrated business flows for the entire Oracle portfolio of applications. Each business flow leverages Oracle Business Process Management and enables quick implementation by customers or partners. By offering prebuilt integration packs, Oracle intends to help significantly reduce the cost to deploy and maintain process-driven integrations, while supporting a more adaptive application infrastructure. Oracle Application Integration Architecture provides a start towards moving to Oracle Fusion Applications.

The concept is created around two main building blocks:

- **Industry Reference Models** – a set of industry best practice processes, representing logical models of key business processes in an industry along with a logical data model of the key information collected and used by each of the processes. The logical models within the Industry Reference Models leverage the metadata, shared by Oracle Business Process Analysis Suite and Oracle SOA Suite. Industry Reference Models enable firms to see where they are in terms of industry best practices and they provide a head start in documenting processes (the first step in improving them). In addition, Industry Reference Models highlight areas where firms should consider adopting best practice processes.
- **Enterprise Business Objects and Services** – elements at the core of Application Integration Architecture, offering sustainability. Enterprise Business Objects (EBOs) are a generic representation of business objects such as customer, sales order, invoice, and so on. Oracle provides a methodology to produce such objects. This results in the several benefits for EBOs. First, IT spends less time on maintenance and can spend more time on value-adding tasks such as innovative business projects. Secondly, through the ability to plug in different applications, it's easy to switch out applications

Oracle delivers: Pre-integrated business processes across the Oracle portfolio of applications, based on Oracle Business Process Management

Industry Reference Models represent logical models of key business processes of an industry.

Enterprise Business Objects and Services provide a generic representation of business objects across the Oracle portfolio of applications.

or even have multiple systems offer the same functionality, since the requester of the application functionality is shielded from the other, more technical, side.

In short, customers can use the Industry Reference Models to optimize their business with industry best practice processes. Enterprise Business Objects and Services reduce maintenance costs and allow other applications to plug into the prebuilt integrations, offering sustainability. Finally, the Oracle Application Integration Architecture provides a start towards deploying a business process platform, with the overall objective of migrating their current applications to Oracle Fusion Applications.

For more information on the Oracle Application Integration Architecture, please read the white paper “[Offering Seamless Cross-Application Business Processes using Oracle Application Integration Architecture](#),” released in April 2007.

SUMMARY

Business Process Management today calls for software tools that go beyond mere business process modeling and design by business users or consultants. Successful contemporary BPM tools require extensions to the business process models, tools that allow IT to use the models to further refine and technically enrich them for execution. This extension between business process modeling and process execution has to be tightly integrated and provide optimal collaboration between lines of business and IT. Further, business execution relies on business process monitoring to capture business process data and prepare it for analysis. This helps both business managers and IT to detect process limitations, which can be directly addressed to improve ongoing business processes. Moreover, the business process monitoring component must be able to feed data back into the process modeling environment for meaningful, real-world simulations. This integrated cooperation between the components of a business process management suite describes the business process lifecycle and helps enterprises achieve business process excellence.

Oracle is the only vendor that delivers the full business process lifecycle with an innovative metadata model for true collaborative process management between business and IT. Process modeling and execution are connected through a shared metadata layer that enables business and IT to perform closed loop engineering. An integrated lifecycle can be fully provided with Oracle Business Process Management which consists of Oracle Business Process Analysis Suite and Oracle SOA Suite.

Oracle also uses its Business Process Management Suite to define business processes across Oracle's portfolio of applications. With this initiative, customers can move their applications environment towards Oracle Fusion Application, a unique application platform based on a service-oriented architecture and spanning best-of-breed applications such as the Oracle E-Business Suite, PeopleSoft, Siebel, JD Edwards and Retek. Oracle is the only vendor that can offer industry-leading

middleware technology with Oracle Business Process Management, which serves as foundation for best-of-breed business applications.

Apart from Oracle Fusion Applications, business process management improves processes run on a wide variety of applications—legacy applications, custom-developed applications, packed applications such as SAP or from other vendors, and, as already mentioned, Oracle’s portfolio of applications. Thus, enterprises are free to start improving any given business process in their organization, regardless of its underlying application(s) or involved departments. To get started, organizations often select a process that targets improving customer service; order entry and billing; sales and marketing; compliance management; or human resources. It is essential, though, that the targeted process have the potential to show significant improvements for the enterprise in terms of efficiencies or innovation. Only convincing results can turn an isolated BPM project into an enterprisewide management discipline. With Oracle’s BPM methodology and Oracle Business Process Management software, enterprises can equip themselves to make a successful route to BPM excellence.

FOR MORE INFORMATION

To learn how Oracle can help your enterprise align line-of-business initiatives with IT technology and achieve true Business Process Management excellence, go to oracle.com/technologies/bpm or contact us at **1.800.633.0738**.



White Paper Title

July 2007

Authors: Thomas Gronbach and Harish Gaur

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:

Phone: +1.650.506.7000

Fax: +1.650.506.7200

oracle.com

Copyright © 2007, Oracle. All rights reserved.

This document is provided for information purposes only and the contents hereof are subject to change without notice.

This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

Other names may be trademarks of their respective owners.