

Empower Business and IT to Collaborate for Business Process Excellence

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RETURN OF PROCESS FOCUSED MANAGEMENT IN ENTERPRISES

Business Process Management (BPM) is experiencing a phenomenal comeback. Packaged applications projects, which were dominant in the past decade, are now complemented by middleware technologies for agility, and within middleware BPM and Service Oriented Architecture (SOA) lead the charge. All IT publishers have BPM in their table of contents; industry analysts covering BPM are in highest demand; BPM is projected to be one of the strongest growth areas within the IT industry; and BPM has been named by CIOs among the top 3 priorities for their organizations. Companies realize that their business is a collection of connected processes, and for their business to be agile – those processes need to be re-aligned or re-connected frequently according to constantly changing business environments, redefined business objectives, or newly imposed regulations. An agile enterprise continuously improves key business processes and adapting them to changing circumstances. They automate the routine and are constantly trying to capture exceptions, which represent the inception of innovation and lead to new revenue opportunities. Adaptable processes result in innovation increased operational margins and therefore competitive advantage. Business processes emerged to be a core business asset and with its importance the business process layer within the technology stack gains increased attention.

The core drivers for the BPM comeback are business challenges that need to be addressed immediately, such as increasing operating margins due to competitive pressure or reinforcing innovation to expand or tap into new markets.

**Example: Hybrid cars from Toyota,
innovation through process excellence**

For example, Toyota, a poster child for process driven practices demonstrated with their hybrid cars how innovation can be driven with process-agility resulting in competitive advantage. Toyota was the first automobile company to realize the potential of hybrid cars. This early discovery paired with the ability to immediately execute gave Toyota a significant advantage. Toyota's process network is a show case for an adaptable and agile enterprise, one of Toyota's core differentiators. Toyota's ability to integrating people and systems; supported with leading process technology allows them to adjust business and production processes. The pairing of an early discovery with differentiating process adaptability gave Toyota a 3-5 years lead compared to US automobile manufacturers and even a bigger lead compared to European car manufacturers, ample time to cash-in on this

competitive advantage. Toyota was reported the biggest auto manufacturer, worldwide for the first time in April 2007.

Process excellence providing efficiencies: employee on-boarding

Another example illustrates a generic process and how BPM helps drive efficiencies. All large enterprises are confronted with integrating new hires into their operations. If human capital is a decisive resource for a specific organization, the on-boarding process becomes a critical success factor. If a company has to integrate on average up to 200 highly skilled workers per month, earning a monthly salary of \$12,500, a streamlined on-boarding process, which usually spans across the departments of human resources, finance, facilities, and IT, could turn into significant savings. Reducing the integration time of newly hired knowledge workers in the previous example by 1 week would result in \$7.5 million in savings per year.

Functional Excellence versus Process Excellence

The previous example shows the potential of process improvement. BPM applications span across organizational boundaries and even enterprises. The focus of optimization is now business processes versus the business function, which was the focus of optimization with packaged applications. Packaged applications improved the efficiencies of organizations on a functional level but were primarily limited to the departmental level. For example, a financial application greatly improved the financial operation of a company; a sales force management system brought great improvements to an enterprise's sales force, and a supply chain management solution focused primarily on improving the supply chain discipline.

If the vertical HR function in the previous on-boarding example were optimized this would not mean that the overall on-boarding process were optimized, hence the projected savings of \$7.5 million/year could not be realized. Therefore, an end-to-end process view where HR needs to optimally collaborate with finance, facilities, and IT to achieve best on-boarding results is required to target the on-boarding savings. A business process approach orchestrates the execution of the appropriate task 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.

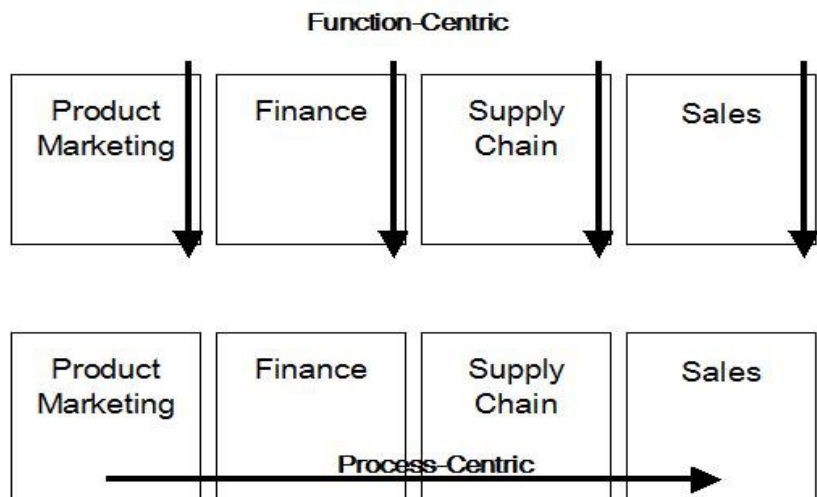


Figure 1: Function-centric versus process-centric management discipline

Both functional and business process focused optimizations are vital for enterprises. However, with the strong focus on business functions over the last decade, enterprises realized that their organizations are skewed towards functional excellence. Hence, a business process approach opens great potential to further drive optimization and innovation within organizations, today. However, this potential can only be leveraged if enterprises embrace business process excellence holistically, across all departments and driven by top management, affecting equally technology and organization.

Business process driven applications are different from packaged applications. The difference is more profound with the latest IT paradigm: service orientation. BPM and SOA together define a new IT world, which requires driving innovation and efficiencies based on existing IT assets and producing results within months. The new paradigm promotes loosely coupled IT systems, which replace tightly integrated, hard-wired packaged applications. Packaged applications are broken down into services of different granularities; those services are orchestrated on the process level and are simply consumed in a manner that supports optimized business processes. Also, SOA accelerates BPM to a new level of process focus by emphasizing metadata. This heightened level of process focus describes 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. A business service repository provides for the management and correct use of those services and data.

BPM COMPARED TO BUSINESS PROCESS RE-ENGINEERING

A process-driven management approach existed before, just before the packaged applications boom in the 1990s and their functional emphasis reigned. The discipline was known as business process re-engineering and captured the mindset of business leaders and technology vendors alike, similar to BPM today. Business process re-engineering was a short-lived concept and rapidly gave way to the function-oriented application approaches. The previous attempt to establish a process-centric application approach is important, as the lessons learned and the technological implications are instrumental in striving for business process excellence today, with BPM.

Reflection on business process re-engineering

Business process re-engineering highlighted the need to make business processes more transparent. It proposed to model and document processes in their current states and their current interconnections. These models, the AS-IS state of processes, were then the foundation 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.

Shortcomings of Business Process Re-Engineering

The process models changed vividly along with the frequently changing business requirements; however, the gap between documented processes and implemented processes grew wider with each additional change. The models on paper were able to change on a daily basis, whereas 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 the corresponding optimized process models. The technological ability at that time 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. However, automation - in other words the implementations of optimally designed business processes - was a pre-requisite 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 which inhibited the success of business process re-engineering.

Business and IT remained disconnected entities, as the technological ramifications did not 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 (LOB) - achieving real-world savings based on process automation and process optimization - could not be realized with business process re-engineering, which eventually led companies to focus on other organizational concepts.

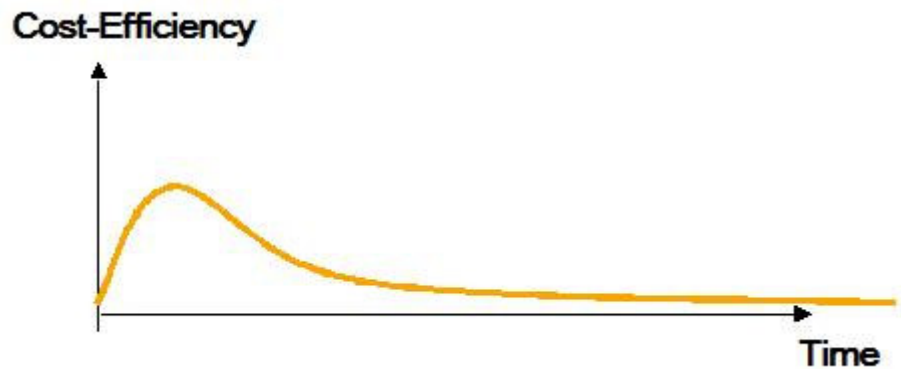


Figure 2: Early efficiencies wore off rapidly as Business Process Re-engineering never progressed to implementing the optimally modeled business processes

Learning from the past for Business Process Excellence today

Processes are the “setscrew” for business manager to manipulate their business success.

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

- Reducing the on-boarding process by 1 week, by automating various tasks
- Reducing the error rate when closing the books by setting up optimized review tasks

Therefore, Business Process Management technology needs to appeal to a business audience, users in business departments or 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 is eventually dependent 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 the business managers. For example

- IT needs to be able to translate business requirements more easily to keep pace with business changes
- IT needs to set accurately set expectations that help them and business together to target the same goals and jointly deliver towards them
- Process-innovation based on simulation needs immediate translation into real world process execution, which enables enterprises to differentiate themselves.

This collaboration between business and IT is critical, as modern BPM projects are expected to show results within 4-6 months. Striving for process excellence means avoiding a "big-bang" approach, where applications are developed in the labs for years and then released to the users. An incremental approach, along the "business process lifecycle" is key to ensuring business process excellence. The incremental approach grants two important advantages:

1. Project teams are enabled to show quick results, as the benefits of BPM kick in immediately – first results serve as foundation to build out and optimize the process
2. Constant incremental change requires business process monitoring, which leads to process optimization in actual business environments; this is what business managers need to appropriately manipulate their business success

The business process lifecycle only works when business process analysis (modeling and simulation), execution (system- and human-centric and business rules), monitoring, and optimization are tightly integrated, and if it allows business and IT to seamlessly collaborate.

ORACLE BUSINESS PROCESS MANAGEMENT DELIVERS THE BUSINESS PROCESS LIFECYCLE

The mentioned business process lifecycle represents the methodology framework for BPM projects at enterprises. This framework can be refined and broken down into more granular tasks, which eventually describe best practices for business process management approaches. Oracle describes a lifecycle for BPM projects, which was developed along multiple projects and directly influenced Oracle Business Process Management. The following 6 steps are fundamental for

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

successful BPM projects and are promoted as Oracle Business Process Management is deployed:

The Business Process Lifecycle

1. Model & Simulate

- Model & Simulate Business Requirements to Analyze your Business Processes

2. Implement & Deploy, Execute

- Generate an Outline Model of Business Requirements & Business Process
- Use Tools to Integrate the Business Process with Interfaces or Services of Existing Systems & Applications
- Implement Business Process; Define Business Rules Associated with Process; and Map Data

3. Monitor & Optimize

- Make Processes visible for End Users; Monitor Efficiency of Business Process in Real Time & Historically

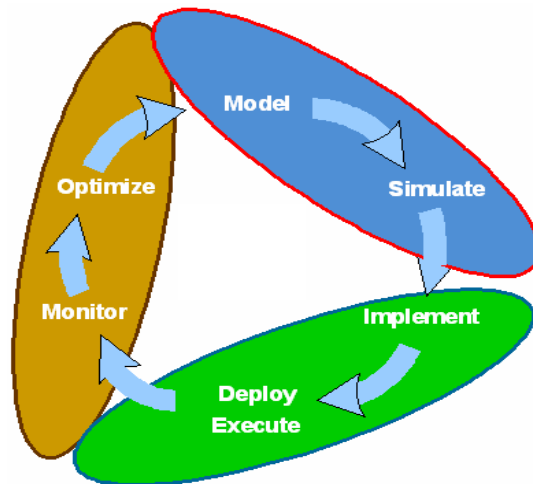


Figure 3: The Business Process Lifecycle

Introducing Oracle Business Process Management and its components

Oracle offers a unique and complete Business Process Management Suite, within Fusion Middleware, which can be mapped to the preceding 3 steps. 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, for 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, 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 while building the integration between the above-mentioned components. As previously outlined, the gap between business and IT was an obstacle, which previous process-oriented disciplines couldn't overcome. With Oracle BPM, business managers are able to capture original verbally presented business requirements in standardized models and begin to structure and simulate their process definitions with the Oracle BPA Suite. IT, which needs to turn those requirements into executable applications, is able to use the same models for further refinement and technological enrichment, which is done in Oracle BPEL Process Manager. These refined and enriched models could at any time be enhanced by business, as the shared metadata between the conceptual model and the executable model allow for closed-loop engineering. Business and IT are enabled with Oracle BPM to closely collaborate and turn business requirements into executable business process logic.

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

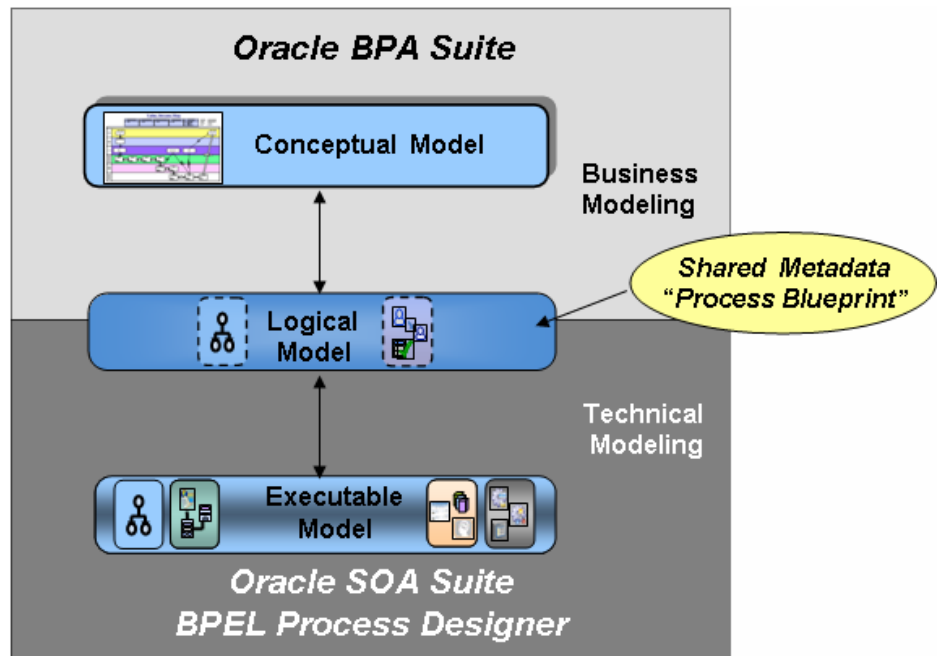


Figure 4: Conceptual models created by business and executable models owned by IT share the same metadata for tight collaboration.

“Process Blueprint – an Oracle invention to empower business and IT to collaborate

Oracle calls the shared metadata model “Process Blueprint.” It is a key concept to generating value for organizations that pursue business process management. The Process Blueprint is a unique Oracle innovation that empowers business and IT to tightly collaborate. Enterprises can consistently generate value and strive for excellence, beyond the creation of mere process models as the following step – executing the process models – is already enabled with the Process Blueprint. Companies are able to increase their cost-efficiency ratio constantly as their business process management discipline becomes more mature in their organization. The following graphic shows how Oracle’s BPM Suite generates increasing efficiencies, by enabling business and IT to closely collaborate. The dark line describes the increased efficiencies that can be generated with Oracle BPM, compared to the cost-efficiencies of business process re-engineering previously.

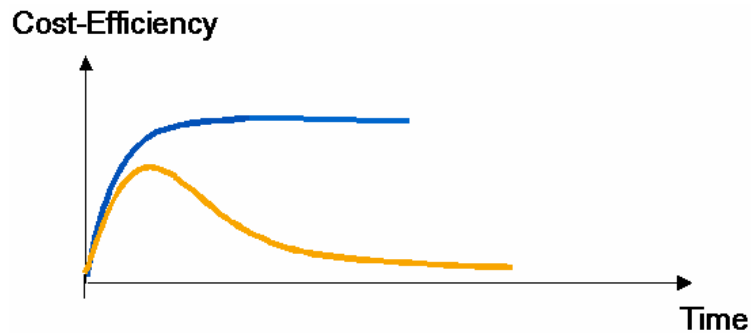


Figure 5: The Oracle Business Process Management Suite consistently generates increasing efficiencies (dark line) based on closed-loop engineering, as opposed to previous process management techniques (bright line) where initial gains in efficiencies wore out quickly due to the lack of integration and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

Integration between Oracle BPEL Process Manager and Oracle BAM

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 aspects:

1. By constantly measuring actual process performance during execution with Oracle BAM, business analysts and IT personnel can immediately capture valuable data to influence the iterative business process development cycle most ideally
2. The immediate graphical representation of process bottle-necks and process delays in the form of dashboards allows business managers to understand and address exception handling very effectively

Beyond the previously outlined integration between Oracle Business Activity Monitoring and Oracle BPEL Process Manager, Oracle’s BAM solution is also tightly integrated with Oracle Business Process Analysis Suite. By connecting the analysis component with the modeling and simulation tool, business users are now able to feed real-world data captured in Oracle Business Activity Monitoring into the simulation engine. Those model-driven recreations are very effective in imitating certain business scenarios, which allows business people to draw conclusions for future process changes. Simulations are usually performed when the current real-world business process reveals major weaknesses in the form of low cycle times or unexpected delays in process throughput. Simulation based on

real-world data is another form of driving business process excellence by testing new business models with varying data. In that capacity, simulations are vital for innovation, as they enable enterprises to test and verify new process scenarios without having to waste expensive resources.

The connection between Oracle Business Activity Monitoring and the Oracle Business Process Analysis Suite completes the full process lifecycle, which is required to deliver effective business process technology, ready to support enterprises to achieve business process excellence. The following figure describes the Oracle BPM components and illustrates their role within the business process lifecycle.

Oracle delivering the full business process lifecycle

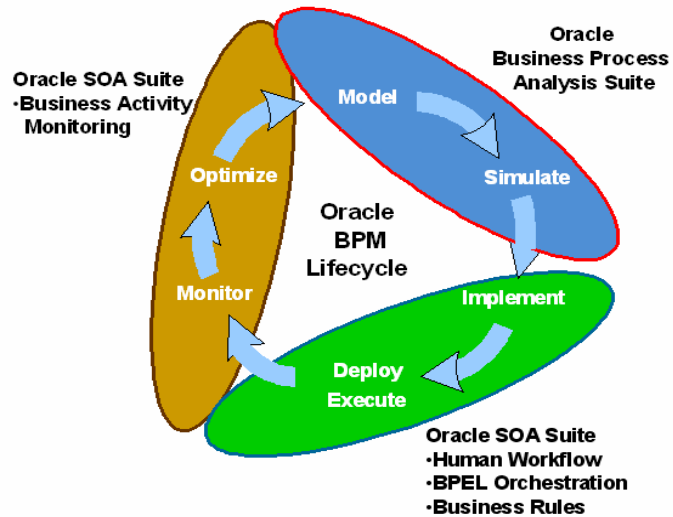


Figure 6: Oracle Business Process Management Solution and the business process lifecycle

ORACLE BUSINESS PROCESS MANAGEMENT FOR BUSINESS APPLICATIONS

Oracle’s strategy to make their application portfolio SOA-enabled is closely tied to Oracle Fusion Middleware. Oracle is the first business application vendor to promote a standards-based and service-oriented approach to developing their applications. This initiative has already started and was unveiled with the Oracle Application Integration Architecture.

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

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 across Oracle's portfolio of applications. Each business flow leverages Oracle Business Process Management and uses a methodology that enables a quick implementation by customers or partners. By offering pre-built 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 representing logical models of key business processes of an industry

1. Industry Reference Models – a set of industry best practice processes, representing logical models of key business processes of 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. 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 a generic representation of business objects across the Oracle portfolio of applications

2. 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, etc. Oracle provides a methodology to produce such objects. This results in the following benefits for EBOs: IT spends less time on maintenance, freeing itself to spend more time on value-adding tasks such as innovative new business projects; secondly, through the ability to plug in different applications, it's easy to switch out applications or even have multiple systems offer the same functionality, since the requester of the application functionality is shielded from the other side.

In summary, 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 pre-built 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

Modern Business Process Management requires software tools that go beyond mere business process modeling and design by business users or consultants. Contemporary tools require extensions to the business process models, which 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, providing optimal collaboration between LOB and IT. Further, business execution finds its extension in business process monitoring, which captures data during the execution of business processes and

prepares them for analysis. This helps business and IT to detect process limitation, which can be directly addressed to improve the business process. Moreover, the business process-monitoring component needs to be able to feed its data back into the process-modeling environment for real-world simulations. This integrated cooperation between the components of a business process management suite describes the process lifecycle, which 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, which enables business and IT to do closed-loop engineering. The integrated lifecycle can be fully provided with Oracle Business Process Management, which consists of Oracle Business Process Analysis Suite and Oracle SOA Suite.

Oracle uses its Business Process Management Suite to define business processes across Oracle's portfolio of applications. This initiative represents the start for customers to move their applications environment towards Oracle Fusion Application, a unique application platform based on service-oriented architecture 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 that span any kind 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. Enterprises are free to start with any given process in their organization, regardless of their underlying application 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 has the potential to show significant improvements for the enterprise in terms of efficiencies or innovation. Only convincing results turn a one-off BPM project into a management discipline throughout a corporation. With the outlined BPM methodology in chapter 3 and Oracle Business Process Management, enterprises are equipped to make their route to BPM successful.



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