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SODAN
20 Mead Road
Uxbridge, Middlesex
UB8 1AU
United Kingdom
Tel/fax +44 (0)1895 233194

Website www.sodan.co.uk
Email ebp@sodan.co.uk

Editor and Publisher: Keith Hales

Production Editor: Peter Quinn

NEWS

BEA WebLogic Server 10 and AquaLogic BPM Collaboration Edition

WebLogic Server 10 designed to simplify Java development and support SOA

BEA Systems has previewed BEA WebLogic Server 10, the next major release of its application server, and the release of BEA Workshop for WebLogic 10, to support SOA.

The new release will implement the latest Java specifications including Java Enterprise Edition 5 (Java EE 5) and Enterprise Java Beans 3.0 (EJB 3.0), as well as additional enhancements to help users simplify the development of applications and services, while achieving next-to-zero downtime. Among these features is enhanced support for Web Services, significant control and security improvements and better interoperability with both leading proprietary and open-source platforms.

Also due out in the first quarter of 2007r is the next release of BEA Workshop for WebLogic, which will include support for Eclipse 3.2 and Web Tools Platform 1.5. Workshop for WebLogic 10 will mirror the ease-of-use, control and security functionality built into WebLogic Server 10.

Both products represent the foundation for and the initial step in recasting the entire WebLogic product family to support BEA SOA 360. Beginning with this release, BEA Workshop products in particular will play a key part in enabling the developer role in Workspace 360. Due to enter the market throughout 2007, Workspace 360 is intended to fundamentally change the way both business and IT professionals collaborate and work individually across the extended enterprise.

AquaLogic BPM Collaboration Edition

BEA has also introduced a new BPM system which supports more contextual and collaborative process needs. AquaLogic BPM Collaboration Edition combines three BEA products for portals, collaboration and BPM into a single, integrated offering. AquaLogic BPM Collaboration Edition is designed to provide business users with an interactive environment for collaborative and activity and knowledge-intensive processes.

"Traditional BPM often focuses on automating what can be automated, but struggles to address the more dynamic process challenges that require deeper context and collaborative work between process participants," said Mark Carges, executive vice president at BEA Systems. "This type of business process is difficult to address with a single system and is best supported by the combination of BPM, collaboration technology and a rich interactive portal framework."

AquaLogic BPM Collaboration Edition is claimed to be the first integrated solution to unite three of the most valuable enterprise assets: people, process and knowledge. AquaLogic BPM Collaboration Edition combines the capabilities of three industry-leading products: AquaLogic BPM Suite, AquaLogic Interaction and AquaLogic Interaction Collaboration to deliver the following:

- Powers the complete business process lifecycle: AquaLogic BPM Collaboration Edition includes AquaLogic BPM Suite with integrated modelling, execution and measurement of business processes.
- Process-enabled, enterprise knowledge: AquaLogic Interaction's Knowledge Directory provides structured access to information across unstructured and structured enterprise source systems, including Documentum, Microsoft SharePoint, FileNet, Microsoft Exchange, Lotus Notes, Windows and Novell File Systems, and more. Links to items from these systems can be attached to business processes in support of the individual activities within the process.
- Collaboration at every level for every step: the new offering also includes the full capabilities of AquaLogic Interaction Collaboration directly integrated within business processes. This is designed to enable automatic system events or people to set up collaborative spaces tied to business processes that support and capture the ad-hoc, unstructured work associated with process activities.
- A uniform, personal user experience: business users can access all these features through AquaLogic Interaction's AJAX-based portal front-end with single sign-on and integrated corporate identity management. The portal is designed to support easy, comprehensive personalization to deliver work environments tailored to each role in the enterprise.

AquaLogic BPM Collaboration Edition is made possible by ALBPM WorkSpace Extensions, a new feature of the AquaLogic BPM Suite. AquaLogic BPM WorkSpace Extensions is designed to provide integration between the products in the AquaLogic BPM Collaboration Edition. They can also deliver the foundation for integrating BPM with additional portal products such as BEA WebLogic Portal or IBM WebSphere Portal.

Sarbanes-Oxley compliance is a useful example for understanding the more dynamic and collaborative requirements of the high-value business processes supported by AquaLogic BPM Collaboration Edition. Compliance with the Sarbanes-Oxley Act involves automating some routine work, but also coordinating a number of important activities that cannot easily be automated, including collaborating on compliance documents, working with external auditors on ad hoc timelines, submitting documents for approval and review, accessing systems of record and archiving work history.

AquaLogic BPM Collaboration Edition is a key component of the BEA SOA 360 platform.

www.bea.com

Cardiff unveils Expertise Recommendation solution for intelligent documents

Automatically recommends experts and content to accelerate Business Processes

Cardiff, a division of Autonomy Corporation plc and provider of intelligent document solutions, has announced Expertise Recommendation for Intelligent Documents. Powered by Autonomy's Intelligent Data Operating Layer (IDOL), Expertise Recommendation understands the meaning of an on-screen business document based on the concepts it contains, the person interacting with the document and the environmental context. Using this information, the system can identify and link supporting content and experts with other relevant knowledge sources within the organisation, to assist the user to complete a task while also increasing decision confidence. This understanding and linking represents a technological breakthrough unique to Cardiff.

Cardiff Expertise Recommendation for Intelligent Documents links the entire enterprise, including people and documents, using the document itself as the medium. Within any industry such as financial services, insurance and healthcare, the experts, knowledge, documentation and regulations for any given activity or process are dispersed throughout the organization; this is especially true for organizations operating in distributed environments. This knowledge dispersal presents a challenge to streamlining businesses processes, reducing errors and maintaining compliance. Cardiff Expertise Recommendation for Intelligent Documents automatically addresses these issues without the need for major configuration and training or administrator overhead.

Moving beyond self service technologies that require the manual building and maintenance of rules and databases, Expertise Recommendation for Intelligent Documents is self-learning, self-adapting, and embedded within the document itself, requiring no peripheral application. In cases where subject matter experts are automatically identified and suggested, the user can choose to consult these experts through instant messaging, email or other means to more effectively and confidently complete the task at hand. Powered by Autonomy's IDOL, Cardiff Expertise Recommendation gets better over time, through the automatic application of feedback to fine tune its understanding of the concepts that distinguish one type of document and one situation from another.

As part of the Cardiff Intelligent Document suite, Expertise Recommendation for Intelligent Documents works in tandem with other modules to automate all aspects of both paper-based and web-based document-centric business processes. The Cardiff system delivers significant cost reduction, accelerated processes and an improved customer experience by taking formerly static documents and enabling them to 'process themselves' through the introduction of embedded intelligence.

www.cardiff.com.

HandySoft Launches Watson-Powered dynamic BPM

Delivers information to users as they work

Intellect and HandySoft have announced that HandySoft's new OfficeEngine software will use Intellect's Watson technology to deliver the information that users need to complete their tasks as they work.

OfficeEngine enables knowledge workers to create, assign, sub-delegate, track and execute mission critical work in real time. OfficeEngine models and displays work in real time as it unfolds. What was once a series of disjointed peer-to-peer emails is now a single, centralised dashboard, clearly illustrating the journey of all work items from creation, to assignment, to sub-delegation, to completion -- including all individuals involved, all collaboration, all attachments and all related status information.

OfficeEngine uses Intellect's Watson technology to interpret the business context of each task assigned, and then automatically search internal and external information sources -- desktop files, content management systems, knowledge management systems, learning management systems, resource scheduling systems, employee performance management systems and the Web. The solution proactively displays documents, presentations, and content that is most likely to assist the knowledge worker in completing his/her task. The result is a much more productive employee and a more efficient organization.

"Today's knowledge workers live in a world rich with information," said Scott Byrnes, vice president of marketing and product management, HandySoft. "The challenge is getting them the right information at the right time. By dynamically modelling mission-critical work and proactively delivering context-specific information to knowledge workers, the combined OfficeEngine / Watson solution marks a breakthrough in executive visibility and employee productivity."

Watson was born out of the idea that wherever you are, whatever you are doing -- even whatever you are thinking -- your technology should be serving you, finding you the information you need. According to the Chicago-based company, having to go to a search box doesn't cut it anymore.

"By including Watson technology in OfficeEngine's dynamic process framework, HandySoft is raising the bar for business software," said Jay Budzik, Ph.D., CTO of Intellect and inventor of Watson. "Unlike so many others in the enterprise software space, HandySoft understands that the wealth of information available to users is only valuable when they get the right information at the right time. The first application of its kind, OfficeEngine gives users the information they need to complete their tasks, even if they don't know it exists or would never think to search for it."

www.handysoft.com/ , www.intellect.com/.

IBM's 2006 results

Revenues up, excluding divested PC business

Revenues from continuing operations for 2006 totaled \$91.4 billion, essentially flat as reported and adjusting for currency compared with \$91.1 billion for 2005, which includes PC revenues of \$2.9 billion for the first four months of 2005 only. Excluding the divested PC business, revenues increased 4 percent (3 percent, adjusting for currency) compared with the 2005 period.

From a geographic perspective, the Americas full-year revenues were \$39.5 billion, an increase of 2 percent as reported (4 percent, adjusting for currency and PCs) from the 2005 period. Revenues from Europe/Middle East/Africa were \$30.5 billion, essentially flat (up 2 percent, adjusting for currency and PCs). Asia-Pacific revenues decreased 6 percent (up 2 percent, adjusting for currency and PCs) to \$17.6 billion. OEM revenues were \$3.9 billion, up 18 percent compared with 2005.

Software revenues in 2006 totaled \$18.2 billion, an increase of 8 percent (7 percent, adjusting for currency). Revenues from the Global Technology Services segment totaled \$32.3 billion, an increase of 3 percent (2 percent, adjusting for currency) compared with 2005.

Revenues from the Global Business Services segment were \$16.0 billion, flat (up 1 percent, adjusting for currency). S&TG segment revenues were \$22.0 billion, an increase of 5 percent (4 percent, adjusting for currency). Global Financing revenues totaled \$2.4 billion, a decrease of 2 percent (2 percent, adjusting for currency).

For total operations, net income for 2006 was \$9.5 billion.

IBM ended 2006 with \$10.7 billion of cash on hand and net cash provided from operations, excluding the year-to-year change in Global Financing receivables, was \$15.3 billion - an increase of \$2.2 billion from last year. The balance sheet remains strong, and the company is well positioned to take advantage of opportunities.

www.ibm.com

SAP's results for 2006

Ten percent increase in business

Product revenues increased to euro 6.6 billion (2005: euro 6.0 billion) for the year-ended December 31, 2006, representing an increase of 11% (12% at constant currencies)(1) compared to the full-year 2005.

Software revenues increased 10% (12% at constant currencies)(1) to euro 3.1 billion (2005: euro 2.8 billion) for the full-year 2006 compared to the same period last year.

Total revenues were euro 9.4 billion (2005: euro 8.5 billion) for the 2006 full-year, which was an increase of 10% (11% at constant currencies)(1) compared to the same period last year.

"While we did not achieve all of our targets in 2006, we ended with solid growth at constant currencies for both product revenues and software revenues -- the fourth quarter alone marked our 12th consecutive quarter of double digit growth in software revenues at constant currencies -- and at the same time we improved our profitability," said Henning Kagermann, CEO of SAP. "Regional performance for the year was also strong -- we reported double digit software revenue growth at constant currencies in each region, the first time we have accomplished such a strong, well-balanced, regional performance since the year 2000. On top of this, we continued to gain significant worldwide share among Core Enterprise Applications vendors. Our share increased by 2.8 percentage points to 24.0% for 2006."

www.sap.com

Cognos acquires Celequest

Adds real-time operational dashboards to performance management

Cognos has acquired privately held Celequest Corporation, a provider of operational business intelligence solutions based in Redwood City, California. The acquisition closed on January 16. Financial terms were not disclosed.

"This is a great complementary acquisition for Cognos. Celequest's innovation in self service dashboard creation and real-time information monitoring extends our vision for operational BI and enhances our market-leading performance management solution," said Rob Rose, chief strategy officer at Cognos. "This gives us the opportunity to reach a new class of users who need to continuously monitor performance against key metrics and make decisions based on real-time, operational information. Celequest's operational dashboards are immediately interoperable with Cognos 8 BI, delivering a more complete view of enterprise information for better overall performance management."

Celequest is a dashboarding solution offered as an appliance or via a Software as a Service (SaaS) model, which allows for fast and low-cost deployment -- a big advantage for departments or companies with limited staff and IT resources. Powered by patent-pending, in-memory streaming technology, users can monitor real-time feeds from transactional systems. Celequest is certified on AppExchange and can continuously monitor Salesforce data in a hosted environment. And with process or user-triggered alerts, operational managers in industries such as financial services, manufacturing, and retail can see the most relevant information at the time they need it most, easing their ability to manage day-to-day business activities relating to risk exposure, operational efficiency, or inventory control.

www.cognos.com

Metastorm announces 2007 developments

New Features for organisational agility and transformation

Metastorm has announced its product plans for 2007. As the focus of BPM moves from addressing discrete departmental challenges to improving overall enterprise agility, Metastorm will deliver new product features in its BPM Suite, focussing on four key themes.

Metastorm will provide new collaboration features integrated with Microsoft Office 2007 and Windows Vista. Knowledge workers of any level can create content, engage in collaborative processes and perform work directly from Office 2007 applications like Excel, Word and Outlook, without the need to access a separate process view or task list application. Support for Vista Gadgets and the Microsoft Office 2007 Ribbon in Metastorm BPM allows for real-time monitoring and control in addition to increasing worker productivity.

In addition to standard support for BPMN and Metastorm's highly popular Stage Action Role (STAR) modelling notation, Metastorm will provide an environment whereby partners and customers can extend the power of Metastorm's Process Designer by adding their own modelling notations, services and events quickly and easily. Deployment will remain as easy as a one-step publishing action that will extend the process out to participants across a variety of platforms and interfaces.

Building on early leadership in tying together BPM and SOA, Metastorm will continue to expand its Universal Process Orchestrators for web services, Java and .NET to allow both business and IT users to tie SOA components into business processes. The strength of the Metastorm Integration Manager module ensures that mainframe and other critical legacy applications can be exposed as services and controlled and managed in a service-oriented architecture.

Metastorm combined BPM and BI by introducing Metastorm Insight for advanced process intelligence in 2004. In 2007, Metastorm will extend its dashboard and reporting capabilities to incorporate scorecard technologies and external baseline metrics, including industry best practices, key performance indicators and target benchmarks that can be linked directly to Metastorm BPM processes. This will enable organisations to close the gap between high-level strategic objectives and lower level process/business execution.

www.metastorm.com

Information Builders releases WebFOCUS Magnify

Service-Oriented approach to search technology

Information Builders, the enterprise business intelligence (BI) supplier, today announced the release of WebFOCUS Magnify, the industry's first search navigation tool that dynamically categorises search results and supplements them with analysis and reporting capabilities. Magnify uses the metadata from Google or other search engines to index structured data records and provide access to all WebFOCUS capabilities through the search interface. This dramatically improves relevancy of results and reduces time spent searching for information needed to do their jobs effectively.

According to a recent study of 1,009 managers at US and UK companies with annual revenues of more than \$500 million, Accenture found that the average middle manager spends about two hours a day looking for data, and IT managers spend 30 percent of their time trying to pin down information relevant to their jobs.¹ Similarly, *BusinessWeek* reported that across enterprises the average time spent on searching for information has increased 1.1 hours per week per employee from 10.9 hours to 12.0 hours. The report also concluded that what the industry needed was a service-oriented approach to search technology that is configurable to the varied needs of enterprises and users.

A unique feature of WebFOCUS Magnify is that it captures data on a message bus. Using standard integration technology from iWay Software (an Information Builders company) it enriches the messages, adds metatags and submits it to the search engine indexing mechanism. This avoids the need for crawling data stores, particularly database records, combining structured data in databases with unstructured search. WebFOCUS Magnify leverages the metatags and provides results in a navigation tree to guide users to the information they need. This is especially valuable when relevancy ordering puts what is wanted far from the first page.

The index flows inherent in iWay work behind the scenes to help enhance the search experience by delivering more relevant, meaningful content. WebFOCUS Magnify offers immediate, at-your-fingertips retrieval of information that improves a user's ability to make decisions.

"We have developed a product that answers the woes of the all users in organisations wondering why they waste so much time searching for the data they need to do their jobs better and not being able to get the results they need," said Gerald Cohen, CEO of Information Builders. "Magnify turns the traditional search model on its head and provides users the ability to perform not only the search but also analysis on the search using Active Reports. This innovation will reduce the time users spend browsing and searching for results by two thirds."

www.informationbuilders.com

STRATEGY

SeeWhy business intelligence

BI tool compares events with history in real time

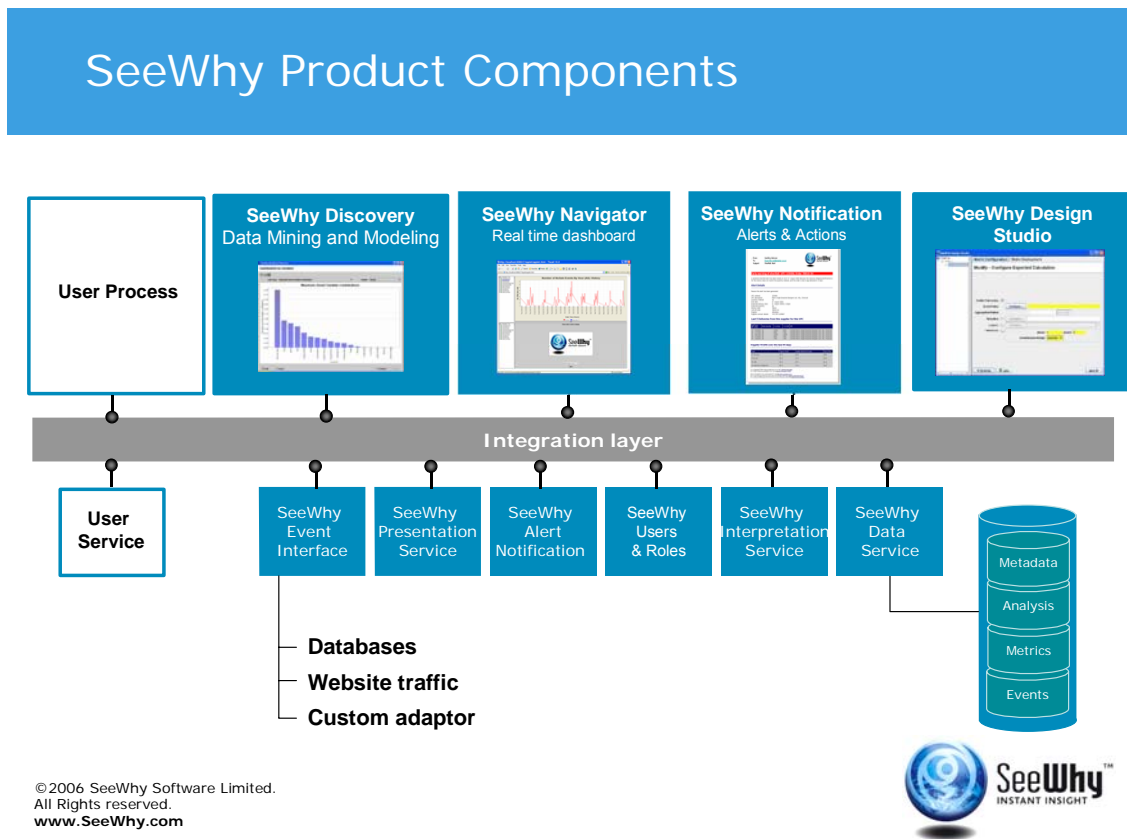
SeeWhy Software was founded in 2003 by Charles Nicholls, formerly of Business Objects and Sybase, , together with Paul Thomas, formerly of Mercator. SeeWhy is a private, UK-based company backed by venture capital, and currently employs just over a dozen staff.

The vision was based on the realisation that traditional business intelligence (BI) tools operated on databases, and so only gave historical views. SeeWhy was conceived to offer BI based on real-time data, as events occur. The first products were released from mid-2006, and this year the plan is to exploit those commercially.

SeeWhy connects to middleware such as integration software and ESBs (enterprise service buses) to gather event data, and can also connect to databases and network and HTTP traffic via third party applications. A common use will be in conjunction with BPM systems, which can feed process monitoring events directly to SeeWhy. Each event is automatically compared with a rolling baseline based on historical performance to identify exceptions. These can then be either simply notified as an alert, or used to trigger processes. SeeWhy is essentially a combination of traditional BI and BAM (business activity monitoring).

SeeWhy

The software is Java based, and the primary development platform is JBoss. The architecture is shown in the diagram below.



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www.SeeWhy.com

The components are linked through the integration layer, which can be any ESB, or message oriented middleware such as JMS. The Event Interface captures events from the integration layer, which it passes to the Interpretation Server. This interprets it according to pre-defined criteria by comparing events automatically with an 'expected' calculation, built from historical data, which enables anomalies to be identified. If an alert condition is required, the Notification Server is invoked to send an email alert or create an XML event to initiate another process. From such a message, users can access the detailed data through Navigator, to drill down into the underlying cause. The Interpretation Server also persists event, metric and alert data to a database for resilience purposes.

A key feature of Interpretation Server is that it does everything in memory; it does not use a database (unless the event specification call for an external database look-up as part of a calculation). This gives it the power to handle large-scale scenarios, such as supermarket point of sale events item by item.

SeeWhy Designer is used to specify the events to be monitored and configure the metrics and expected calculations. No programming is required, so once the system is connected up to event sources, the metric configuration can be carried out by business users. Initially done in test mode, specifications can be subsequently deployed in live operational mode. There is also an administrative function to set up users with appropriate authorities. For example, hot deployment of metrics into live operation can be restricted to certain users.

SeeWhy Navigator dashboard display

- Web based real time display of metrics
- Actual, expected and forecast to goal
- Drill down to lower levels of detail
- Compare and rank performance of dimension instances



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www.SeeWhy.com



Customers

SeeWhy already has some users. One is Diageo, the drinks manufacturer and distributor. Diageo uses SeeWhy to monitor the distribution supply chain of Guinness to the US market from Europe. Although it was despatching supplies from the brewery on time, only half were reaching the sales outlets on time. Since using SeeWhy, this has already improved to 60%.

SeeWhy monitors the barcoded containers at various points in their journeys, and can recognise when delays are occurring by comparing the shipping events with historical data, and appropriate rescheduling can be made to compensate.

In another example, a courier company, SeeWhy is used to monitor incoming bookings. If bookings from a particular customer fall below normal, customer services make a phone call to enquire whether or not there is a problem. A further application will constantly compare bookings with capacity, and the most valuable customers given priority when capacity approaches its limit.

Products

There are two products:

- Community edition
- Enterprise edition

Community edition is a free download from SeeWhy's website. It includes most of the facilities of Enterprise edition, but is limited to a single processor. It's purpose is to allow prospective users to deploy and try the software on a limited basis.

Enterprise edition is multi-processor, and incurs a subscription charge of £20,000 per processor per year, including support and maintenance.

Summary

BI and BPM, including BAM, have long been separate worlds. BI traditionally offers the ability to analyse events long after they have occurred, while BAM focuses purely on current operational performance. SeeWhy offers the ability to bring these together, and hence provide real time business service management by constantly comparing current events with recent history to identify deviations. As such it offers a valuable extension to BPM systems, even those which already have BAM.

www.seewhy.com

VIEWPOINT

Three dimensions of BPM Maturity Models

by Dr. Setrag Khoshafian, VP of BPM Technology, Pegasystems

The original Capability Maturity Model (CMM) was developed by the Software Engineering Institute (SEI) and provides a robust discipline to help developers achieve maturity in their software development processes. There are a number of factors that influence the maturity of the software development processes within an enterprise. These include the strategic plans of the enterprise, the enterprise's own organisation and culture, as well as the technologies that are adopted within the enterprise IT architecture. The CMM has been applied to several disciplines within different industries. It is not surprising that maturity models have also been applied to Business Process Management (BPM).

This article focuses on a three-dimensional taxonomy of maturity models. The three dimensions are maturity in developing BPM solutions, adopting BPM solutions, and governance through BPM solutions. We will describe potential maturity levels in these three dimensions. But more importantly, the message of this article is to focus on all three dimensions, since the optimal value of BPM and success in BPM can only be achieved when you move to maturity along all three axes.

Maturity Models in Building BPM Applications

Perhaps the most practical dimension to building BPM applications is the software engineering maturity model. BPM is a new paradigm which provides huge productivity gains. Furthermore, building BPM applications requires a robust BPM methodology. Considering the maturity from the pure project management and optimized repeatability perspective we can realize the following phases by applying the software engineering model:

Initial

This phase is typically characterized by ad-hoc adoption of BPM. Here, BPM projects are managed like other projects, often with project delays, cost overruns, and poor quality - similar to other programming projects. Staying in the Initial phase will result in a poor perception of BPM as unpredictability both in terms of schedules and quality of the BPM solution are present in this phase. You need to move quickly to the next level: Repeatable.

Repeatable: In this level, you start to put in place an iterative BPM methodology. The Business Process Management Suite (BPMS) platform must support the methodology. The overall project delivering the BPM solution demonstrates predictability in deployment schedules. Each iteration use cases that are mapped onto BPM elements: process flows, decision rules, information structure, and integration. The repeatable BPM level can then consistently map business requirements onto BPM objects.

Defined

At this phase, you have various best practice patterns in building BPM solutions that are captured, document, and mandated across BPM projects. In a BPM context, the development procedure starts to incorporate re-usability models. This implies, to the extent possible, executable process models, information models and business policy models that are re-used across projects. Furthermore, different groups or projects that are building custom BPM solutions are doing so as much as possible in a consistent and predictable manner. BPM development processes and practices are in place.

Managed

Here the BPM development process itself needs to be measured and managed. This includes the performance of the development lifecycles and the change lifecycles as well as the various participants involved in building the BPM solution. Six Sigma is one disciplined approach especially in quantitatively reducing variances in development process performance. There are other approaches. The main focus here is the maturity, practice, and success in linking higher level BPM solution delivery performance goals to BPM solution development practices.

Optimising

Implementing continuous improvement BPM development practices is characteristic to this level. While improvements span all the phases of an iterative methodology, improvements also potentially revise the roles – both on the business/stakeholder as well as IT side – of the participants who are involved in building the BPM solution. At this level, you also start to encourage innovation. For instance, you might introduce new ways of sharing your process and declarative rule assets; you might introduce new ways of identifying successful business rule, information, or flow patterns. You also use concrete data from deployed BPM projects to feed into the improvement of the processes and project management practices that are used in building BPM solutions. Optimisation requires that you systematically conduct defect analysis to identify the various bottlenecks that were identified in various BPM projects.

Many of the principles and levels identified in this dimension of maturity are similar to software development processes with several caveats. BPM is really a different programming paradigm that closely involves business owners and builds corporate assets through automated business processes, business rules, information models, and integration components. Furthermore, the BPM platform should support the methodology that helps support the BPM development maturity levels.

Maturity Model in adopting BPM

This second dimension of maturity deals with the permeation of BPM within the enterprise -- the departmental and eventually enterprise adoption of BPM. The goal of this dimension is to eventually be able to link your corporate key performance indicators to executing processes and business rules. Note that the previous dimension reflects the maturity in the logistical support (the how) of linking performance measures to executing processes and rules while building application. The focus in the second dimension is on the what: the ease in identifying KPIs and their linkages to operational executions via processes and rules.

One potential maturity model description in the adoption dimension can be described as "bottom up." Levels in this dimension start typically with small departmental BPM solutions that have mid-level managers championing the advantages of BPM. This is Level 1. Once the BPM has demonstrated tangible results, Level 2 realises adoption expending within the unit or department as well as across functional units or departments. The success starts radiating within the enterprise. In Level 3, the organisation across multiple departments starts re-using BPM objects: processes, business rules, integration, and integration components.

Corporate assets are built and an understanding of reusability is achieved. Also in Level 3, the BPM solutions start leveraging BPM solution frameworks. These are out-of-the-box horizontal (IT, HR, SOX, Customer Relationship) or industry specific (financial services, healthcare, insurance, telecommunications, manufacturing, etc.) best practices that give you customisable BPM solutions including process flows, business rules, integration components, information model, and UI.

In Level 4, you are able to tie KPIs to executing processes, as described above. At this level, managers and stakeholders have the ability to drill down and influence executing processes from management dashboards on a continual basis. You can easily complete the loop from performance goals to automated processes and policies to the service oriented infrastructure supporting the solution.

Finally, in Level 5, BPM is adopted across the enterprise as the approach for building new solutions or extending existing solutions. In Level 5, you have an effective BPM centre of excellence that supports BPM project governance, best practices often involving extended enterprises including trading partners and a growing repository of executable business processes and business rules shared across the enterprise. Performance management, monitoring and improvement becomes more of a science than art. You start adopting consistently management as well as process improvement methodologies.

Maturity Model in Governance or Compliance

The third dimension deals with governance and compliance. It is perhaps the least obvious of the three but could potentially have the most influence on the overall process culture of the enterprise. The goal is to establish a culture of automation and governance through BPM. The Sarbanes-Oxley Act of 2002 is now levying an enormous amount of complexity on enterprises, requiring them to document in detail their business transactions. Governance is a requirement. However, without automating the policies and the business rules encoded in SOX, "manual" governance approach simply will not scale. Instead, we should let BPM automation assist with process and policy conformance. As more processes get automated, the easier it will be to ensure governance and compliance. Therefore, the main focus of this dimension is the maturity in using BPM to implement and monitor processes for compliance. The BPM Suite can provide a repository to store and specialise business processes and business rules along a number of dimensions (product specialization, temporal, geographic, versioning, customer category, etc.). New solutions or extensions are built as specializations – without getting rid of the previous versions. Auditors can always go back and check what the policy or process was at a specific time. Levels in this dimension typically start with adoption of process automation for IT, HR and financial services operations to automation of compliance frameworks such as COBIT for IT compliance, and COSO for finance compliance. As the exceptions, control testing and change management get automated you can start expanding the automation to control procedures (e.g. identity management, training, capacity management, etc.) This goes beyond control management into expanded automation of specific detailed control criteria. At the higher levels, the focus is on performance management, optimization, and streamlining control policies within and across the extended enterprise.

Conclusion

This article presents three dimensions for BPM maturity. The first dimension is the software engineering dimension. This is closest to the original CMM model with a very important caveat: BPM is a new programming paradigm. It changes the very nature of software development. The second dimension is what you will find in most papers or discussions on BPM MM: that is the endorsement, permeation, and penetration of BPM suites within the organisation. It starts with departmental deployments and matures to enterprise deployments with continuous improvements. The third dimension is perhaps the least explored yet very significant, and that is the maturity in deploying BPM for governance and compliance. The three dimensions are interrelated and not orthogonal. In fact, typically organisations will grow in BPM MMs along these three dimensions, and a healthy BPM maturity strategy will include maturity roadmaps along all three dimensions. This could potentially result in an aggregate maturity model that provides objectives for levels that consider building, adopting, and governance as integral dimensions for excellence in BPM.

One of BPM's early pioneers, Dr. Khoshafian is the author of several books on computing and business process management. At Pegasystems, Dr. Khoshafian is responsible for leading product direction and BPM technology strategy, and is also involved in numerous technology, marketing, alliance, and customer initiatives. In the past 15 years he has been involved in the invention, design, and implementation of several advanced products. Previously he was the Senior VP of Technology at Savvion. In addition to BPM, he is a noted expert on SOA, object-orientation, and database technologies.

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