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Win in the flat world

Business Process Platform:
How fast can you change?

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Overview

Every business strives to survive and excel. To do so, both business and IT systems should be aligned closely. With regard to IT systems, survival is conditional upon a stable, streamlined & seamlessly integrated IT system. However, excellence can be achieved when IT systems are leveraged as a competitive advantage - one that not only drives revenue and growth, but also opens new markets and opportunities. This requires IT systems and strategies to constantly evolve to new business opportunities and threats - on the fly. Therefore, an agile business process needs to be accompanied by an agile IT system. This creates the need for an over arching Business Process Platform (BPP). Being adaptive is the key to building distinct competitive advantage.

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Background

In a global business environment (*Flat world*), companies are competing to get better innovation, operational efficiency and to capitalize on unanticipated market opportunities. To remain competitive, they must become agile; to sustain their focus on high value-add areas, they must become adaptive.

Adaptive business processes are one of the main competitive differentiators for any successful company. These processes orchestrate interactions between system, services, people, and partners to achieve key strategic and operational objectives. The definition and flawless execution of business processes enable organizations to provide quality products and services, reduce costs, improve customer service, and react quickly to changing market conditions. These business processes are the key differentiators in a competitive space.

The need to be agile and adaptive not only calls for a new operational model, but also requires a highly flexible approach for process alignment. For processes to be optimized, companies need easy-to-use technologies to support dynamic and rapidly changing process flows, both inside and outside of the business. In the traditional IT business model, the business puts its requests in queue and IT does it best to execute the projects. Now, the adaptive business model puts the process management technology into the hands of business managers.

The desire to have adaptive business processes that can quickly respond to the changing business environment, government regulations and competitive pressure has resulted in Business Process Management (BPM). The IT platform required to support BPM needs a BPP.

Next generation architecture strategies

Legacy systems survive because they are critical to an operation or represent a sizeable investment, the replacement of which is not justifiable. Managing legacy applications is the responsibility of IT. However, they are not always adaptive toward the changing business environment and the valuable data in these systems is isolated from the business operations perspective. The reason for this could be attributed to the fact that when the system was deployed, the enterprise didn't operate on an on-demand basis. While the legacy system may have held valuable data that could be useful for the enterprise, it is difficult to get that data to the right audience at the right time.

Enterprise Resource Planning (ERP) systems, in their complex and heterogeneous style, are also not the answer to the adaptive business approach. We can argue that enterprise applications have not fulfilled the promise of standardizing and automating mission critical transactional process. However, the fact that these applications delivered implicit processes that were built on proprietary code standards created a problem for organizations. This is because these organizations sought to integrate best-of-breed solutions or modify and extend a base process to fit their way of doing business. ERP capabilities are best suited for back-office functions, largely unaffected by market volatility.

As we move forward, businesses are seeking agility to drive growth in continuously changing environments. The rise of outsourcing, shared services combined with increasing industry consolidations has forced enterprises to seek a common language and architecture that supports adaptable processes to drive growth. This new frontier requires a unified process platform that delivers system and human orchestration to support end-to-end processes. These are processes that can be explicitly defined and declaratively modified. It further requires architecture to deliver loosely coupled standardized services that can be modified and monitored to drive visibility into process bottlenecks, along with the ability to take action to eliminate these inefficiencies.

Different technology architectures have evolved over a period of 30+ years including character based, batch mode, On-line mid range, Client-server, and Web Client. The traditional architecture presents constraints for companies striving to be adaptive. They can see which processes need to be changed and automated, but can do very little about it. A process change becomes a “project”. In the world of global, rapidly changing business, the “new” process may need to be altered before it even gets implemented.

Why architecture matters?

- ✓ Keeps business systems in pace with organizational changes
- ✓ Allows easy access to information
- ✓ Addresses business needs without compromising security
- ✓ Allows repeated benefits; every new layer should build upon what already exists
- ✓ Maintains consistent system performance, while covering organizational changes
- ✓ Reduces administration costs with simple IT infrastructure

The Business Process Platform

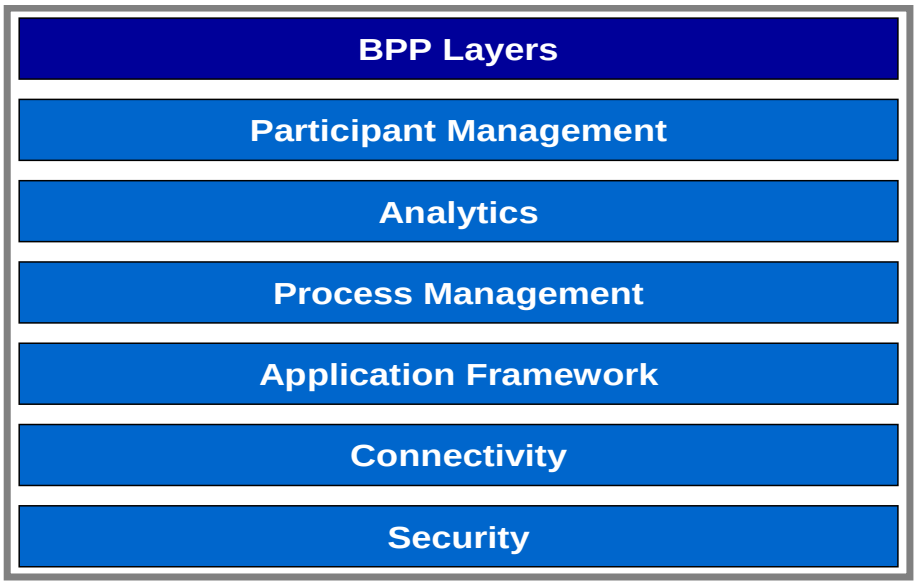
Far too many companies over-rely on there IT. As IT is already restricted by its budget and the need to maintain legacy systems, the use of technology is often governed by what it cannot do rather than by what it needs to do. Businesses need to be able to re-align process interaction, both within the organization and with their trading partners. They also need to drive these processes collaboratively and should automate wherever beneficial. To do so, they need tools to refashion these processes whenever required and greater insight into their supply chain processes.

Until recently, the technologies required to address the business mandate were not delivered in a convenient and complete pack. However, companies can now have technology that enables them to incrementally expand their technology architecture footprint, while dramatically changing the way they use new and existing technologies to conduct business.

BPP initiatives, like Fusion, are software providers’ response to customer demands for agility, interoperability, and business process capabilities in their enterprise systems. As we move forward, we believe that Oracles’ Next Generation Applications leveraging Fusion Architecture

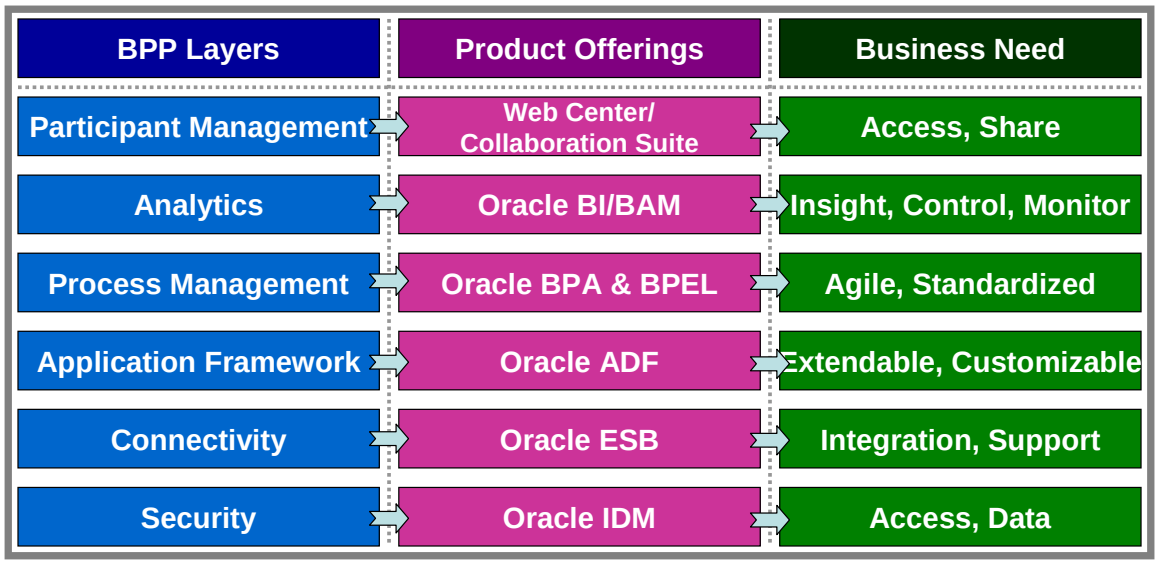
and Middleware will provide a complete BPP. It will combine the content and process automation capabilities of today's applications with a marriage of Event Driven and Service Oriented Architecture (SOA), supported by a single orchestration platform for human and system task flows to deliver.

BPP is traditionally defined by the following layered framework:



BPP in Oracle Fusion world - A framework

In this section, we analyze how Oracle Fusion provides a complete framework for BPP. The key criteria for a BPP are defined below and mapped to the Oracle Fusion suite of products.



Let’s look at the above mapped Oracle fusion offerings for each BPP layer in detail.

- **Participant Management** – Oracle Collaboration suite 10g provides the necessary tools for an enterprise to seamlessly collaborate from within any application or device. It is designed to augment any existing business process and application. The key features of Oracle Collaboration suite 10g are Content Services, Real-time Collaboration, Unified Messaging and Workspaces. These features are described below in detail.
  - Content Services: A truly enterprise-scalable and secure content management solution that extends the value of content by making it accessible to all members of an organization, while reducing business risk and facilitating regulatory compliance
  - Real-time Collaboration: This is the secure, presence-aware, integrated solution for the enterprise. It accelerates business processes by enabling individuals, teams and entire organizations to detect presence and collaborate instantly
  - Unified messaging: A unified inbox for email, calendar, voicemail, faxes, and threaded discussions helps users manage information overload and increase productivity. Enterprise-wide Web and mobile access supports today's diverse work styles and information needs
  - Workspaces: A team-based views to track and manage content and communications in the context of the business process. Workspaces provide a single place to capture, organize and view documents, meetings, tasks, email, discussions, and announcements related to any project or process

  Oracle Collaboration suite 10g provides a collaborative environment on the grid. Through this, an enterprise can leverage Oracle resources to decrease the total cost of ownership and increase service levels. The suite offers an adaptable platform to mitigate risks and strengthen corporate compliance by managing email, electronic documents, instant messages, voicemail, fax, and Web conferences in a database repository. Oracle is the first mainstream vendor to deliver a collaboration suite that utilizes a relational database. Oracle Collaboration Suite does this securely, reliably and cost-effectively, by simplifying and consolidating IT infrastructure. This in turn, is able to reduce hardware, software and administration costs.

- **Analytics** – Information is crucial while making decisions. To make the right decision at the right time, accurate data and real-time reporting is required. This forms an essential part of BPP. Oracle Business Intelligence (BI) and Oracle Business Activity Monitoring (BAM) provide answers to this problem.

  Oracle BI 10g is a comprehensive, standalone product designed to address the entire spectrum of analytical requirements. These include information access, analysis, reporting, data integration, and management. It also has the capability to work in conjunction with applications, and to derive the value and demonstrate its benefits to the enterprise.

  Oracle BI 10g includes the following integrated components:

  - Oracle Discoverer - query, reporting and analysis with dashboard features

- Oracle Spreadsheet Add-In - direct access to Oracle OLAP from within Microsoft Excel spreadsheets
- Oracle Warehouse Builder - robust data quality and ETL functionality
- Oracle BI Beans - custom BI application development.

Oracle BAM gives business executives a dash board and an ability to monitor their business services and processes in the enterprise, to correlate KPIs down to the actual business process, and to change business processes quickly or to take corrective action if the business environment changes.

Oracle BAM is a complete solution for building real-time operational dashboards and monitoring and alerting applications over the Web. Using this technology, business users get the ability to build interactive, real-time dashboards and proactive alerts to monitor their business services and processes.

- **Business Process Management (BPM)** – It is absolutely essential that the BPP provide business managers/ operators the ability to change business flows as soon as the need is recognized. When Oracle BPA's capabilities are combined with the Oracle Business Process Execution Language (BPEL) Process Manager and Oracle Business Rules, Oracle Fusion provides a complete BPM solution. Business Process owners and analysts will use BPA to design, publish, and simulate business processes, which can be saved out as BPEL code. This can further be consumed by BPEL Process Manager and orchestrated into applications.

  The Oracle BPEL Process Manager, hailed as the best BPEL implementation in the market, enables organizations to easily implement adaptive transactions and collaborative business processes based on composite applications. The solution includes an engine for executing business processes, a console to monitor, manage and debug business processes and a rich graphical interface to design and build business processes.

  In many organizations, business analysts or a central policy committee define the business rules, but the acute rule evaluation is embedded in the process logic itself. This typically results in inconsistent application of these rules across processes, making it difficult to propagate changes when company policies are revised. The desire to have adaptive business processes that can quickly respond to changing business environments and competitive pressures can be achieved by separating the business rules/ logic from business process. Here Oracle Business Rules Engine comes into play and it forms a core component of BPM.

- **Application Framework** – The BPP should provide an application framework that is able to integrate and support the execution of application components and Web services. With the emergence of SOA, many applications are being decomposed into granular components that can be rebuilt into customizable applications. Oracle ADF Faces is a rich set of user interface components based on the new JavaServer Faces (JSF) JSR (JSR-127). The Oracle ADF Faces Components provide various user interface components with built-in functionality - such as data tables, hierarchical tables, and color and date pickers - that can be customized and re-used in your application.

ADF Faces also includes many framework features, most needed by JSF developers today:

- File upload support is integrated at a component level
- Client-side validation is automatically derived from Validators and Converters for an improved user experience
- A page-flow scope makes it easier to pass values from one page to another
- A new hybrid state saving strategy gives developers the best of client and server-side state saving

ADF Faces ensures a consistent look and feel for your application, allowing you to focus more on user interface interaction rather than look and feel compliance. The components support multi-language and translation implementation, as well as accessibility features. ADF Faces Components use Partial Page Rendering (PPR), offering superior runtime interactivity. PPR allows the browser to just render a piece of a page instead of the entire page, achieving AJAX functionality in a declarative way.

Oracle ADF Faces Components can be used in any IDE that support JSF. Oracle JDeveloper provides a visual and declarative IDE for the development of JSF applications, with visual JSF page layout and visual JSF page flow among other features. The JDeveloper Studio Edition comes prepackaged and configured to use ADF Faces.

- **Connectivity** – The BPP serves as the process traffic director to ensure that processes are synchronized to move information in a sequential fashion. Middleware connectors enable point solutions to be integrated for data exchange. The BPP must support a wide variety of protocols and messaging standards. Oracle Enterprise Service Bus (Oracle ESB) provides everything for seamless integration of data and enterprise applications within an organization and with trading partners. Oracle ESB is a key component of SOA, providing low-cost, standards-based integration between systems for greater IT flexibility and responsiveness. SOA allows organizations to easily manage the complexity of their heterogeneous environment, without vendor lock-in to proprietary technologies. Key features of Oracle ESB are listed below.

  - Multi-protocol message bus with optimized, in-memory routing and reliable delivery
  - Hot-pluggable: Interoperates with JMS, MQ Series, Tibco, and Oracle messaging technologies
  - Support for over 250 application adapters and standard B2B protocols including EDI, EDI/ AS2, RosettaNet, UCCnet
  - Enterprise-strength performance, scalability, and manageability with Oracle Grid technology

  Key benefits of using Oracle ESB on an integration platform are listed below.

  - Lower-cost, standards-based integration for all your applications and IT systems
  - Increased IT agility to rapidly and reliably connect systems together
  - Consistent and accurate information across multiple systems

  - Enables efficient integration to external business partners using industry standard protocols

- **Security** – While providing the ability to communicate across applications from various platforms, it is essential to have a strong security system in place. In cases where multiple applications are being accessed by the same business users, an ability to support single sign-on becomes very critical and process effective.

Oracle Identity Management (IDM) suite of products perfectly fits into this BPP criteria. Oracle IDM allows enterprises to manage end-to-end lifecycles of user identities across all enterprise resources, both within and beyond the firewall.

Following are different Oracle IDM solutions

- Single Sign-On and Web Access Control
- Directory Services
- Identity Administration
- User Provisioning and Compliance
- Federated Identity
- Strong Authentication
- Web Services Security

Oracle Web Services Manager (OWSM) is an offering of Oracle SOA suite, which provides a secured environment to manager Web services.

As visible above, the key capabilities of Oracle Fusion Architecture that make it a complete BPP are:

- Complete application solution, based on open standards (standards-based) and supports all prevalent standards
- Unified enterprise portal across applications to offer best of the best software capabilities for participant management
- Unified User Provisioning and Single Sign-On for security
- Composite Applications and Processes
- Enhanced Ad-hoc Query and Analysis
- Updated Enterprise Reporting
- Real Time Business Activity Monitoring
- Service and Event enabled

Conclusion

Oracle fusion is ideal for organizations that are looking for a BPP solution. Oracle BPA, BPEL and Business Rules are the essence of the BPP solution. Oracle Unified Portal covers participant management, while analytics and event management is handled in Oracle Business Intelligence and Oracle BAM. The connectivity component is covered by Oracle ESB. All of the above Oracle products makes Fusion a complete BPP.

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