

Business Process Management with IBM Business Process Manager

IBM Redbooks Solution Guide

Business process management (BPM) solutions enable an enterprise to choreograph processes and the process steps across disparate applications, people, and systems. In addition to reduced cost through continued process improvement and automation, BPM provides the foundation for converged and agile business and IT responsiveness. Figure 1 illustrates the concepts of the BPM discipline.

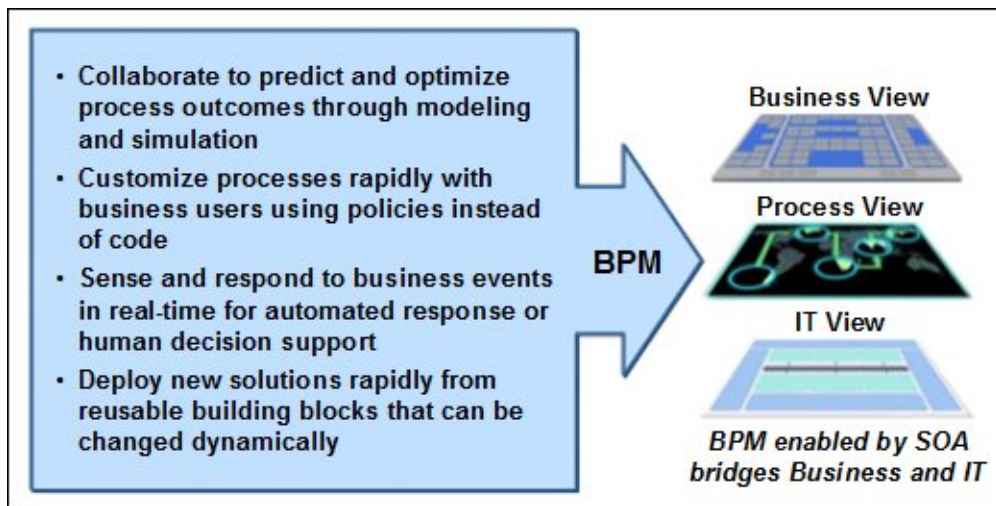


Figure 1. BPM drives business and IT alignment and responsiveness

Did you know?

The basic principals of business process management—that a process can be broken into distinct operations, with each operation performed by a role—was famously documented in the 18th century by Scottish moral philosopher Adam Smith. Smith described the production of a pin, breaking down the tasks to make a pin head into eighteen distinct operations.

Business value

The notion of process optimization gained prominence during the Industrial Revolution through “specialization.” Thought leaders worked on streamlining their processes for producing goods in order to get more to markets at lower cost. In the industrialized world economy, business leaders have recently started embracing an enhanced version of this concept because they need help to manage the interactions between systems and humans. This discipline is BPM.

The key distinction between BPM and process optimization is BPM's added focus on flexible and dynamic process design, process orchestration, and automation through IT enablement. In addition to reducing costs through continued process improvement and automation, BPM provides the foundation for converged and agile business and IT responsiveness. Business leaders today look to it to help them get their goods and services to market better, faster, and cheaper than their competitors.

Intrinsic to BPM is the principle of continuous operational improvement, perpetually increasing value generation and sustaining market competitiveness or dominance. BPM focuses on driving overall bottom-line success by integrating business verticals and optimizing core work (for example, order-to-cash, integrated product development, and integrated supply chain). This focus helps direct the deployment of resources throughout the organization into efficient processes that create customer value—which differentiates BPM from traditional (that is, compartmentalized) functional management disciplines.

Solution overview

An essential aspect of BPM business processes is that they are managed. A managed business process is one in which stakeholders and process owners have both visibility into the process and the ability to modify it in order to produce better business outcomes. With process control, you can make informed decisions on how best to change the behavior of your process. These decisions might affect the process itself, or they might impact domains outside of the business.

As a manager, you regularly participate in decisions for change (see Figure 2). All management decisions, at any level in the organization, can be associated with one or more of the following domains: corporate strategy, business resources, and business processes.

Examples of corporate strategy decisions include entering new markets, discontinuing a product, and selling assets. You can imagine how these decisions might affect or lead to decisions in the business resource domain, such as hiring or training new human resources, outsourcing jobs, investing in technology, or making capital improvements to facilities. Decisions in the business process domain might include changing a decision threshold in a process flow to reduce the human workload (that is, lower the threshold) or reducing risk (raising the threshold) by changing the behavior of the process. Business process decisions might also include feedback to change the process by adding or removing activities.

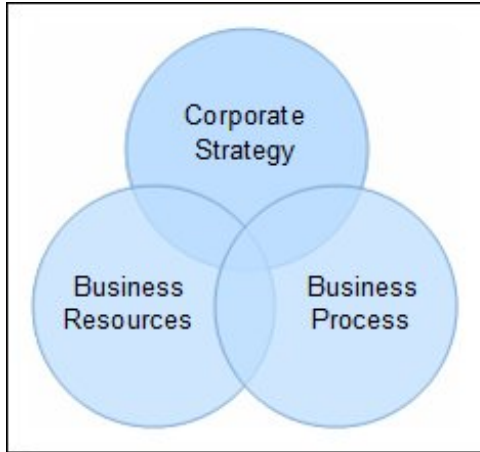


Figure 2. Domains of change for a managed business process

Process automation, visibility, and control are compounding elements of the business impact that is realized by BPM (see Figure 3). Process automation immediately accrues business value by increasing efficiency, reducing errors, eliminating process variation, and removing rework for human tasks. It is important to recognize, however, that automation is not the end goal of process improvement via BPM.

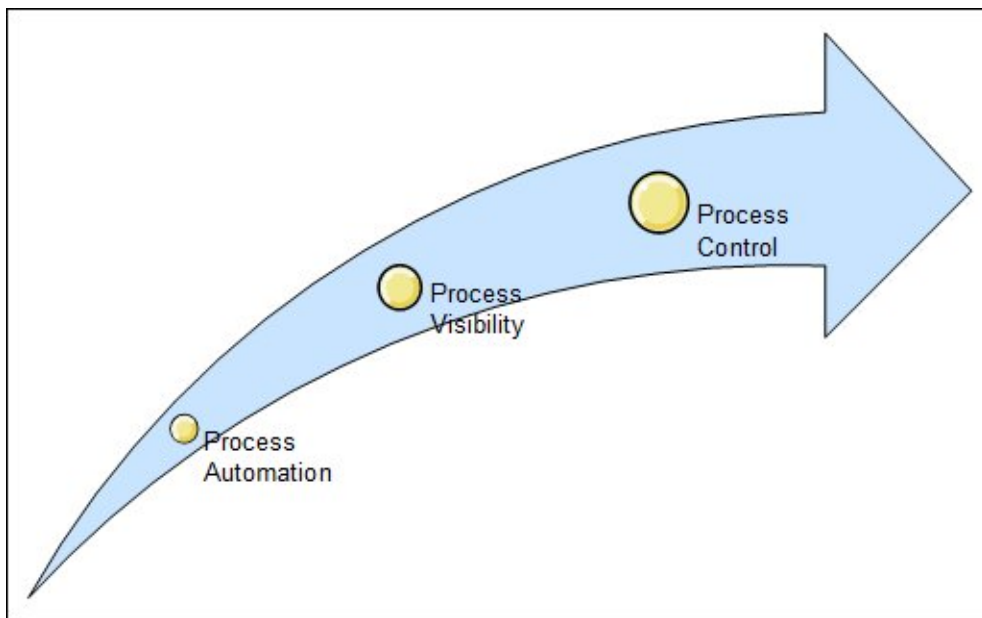


Figure 3. Elements of compounding values of a managed process

Process visibility allows you to see new aspects of your processes in tangible ways, and in some cases, in real time (when invoked). These capabilities provide insight into the performance of your processes, which can help identify areas for improvement through timely action. In addition, all users get a full, end-to-end view through process visibility.

Process control, however, is what ultimately differentiates a managed process from unmanaged ones. Having control over your design-time and runtime business processes means you can engage the right skills to address problems or effect change in a timely manner. By default, control demands full governance of your processes to ensure all are operating consistently and in compliance with both internal and external policies and regulations.

Solution architecture

IBM® Process Manager is a comprehensive and consumable business process management platform that provides visibility and management of your business processes. It allows IT to enable business users and managers to track their entire business operation on a single dashboard, receive alerts, and subsequently drill down to the lowest level of instance detail.

Figure 4 depicts the major components of IBM Business Process Manager.

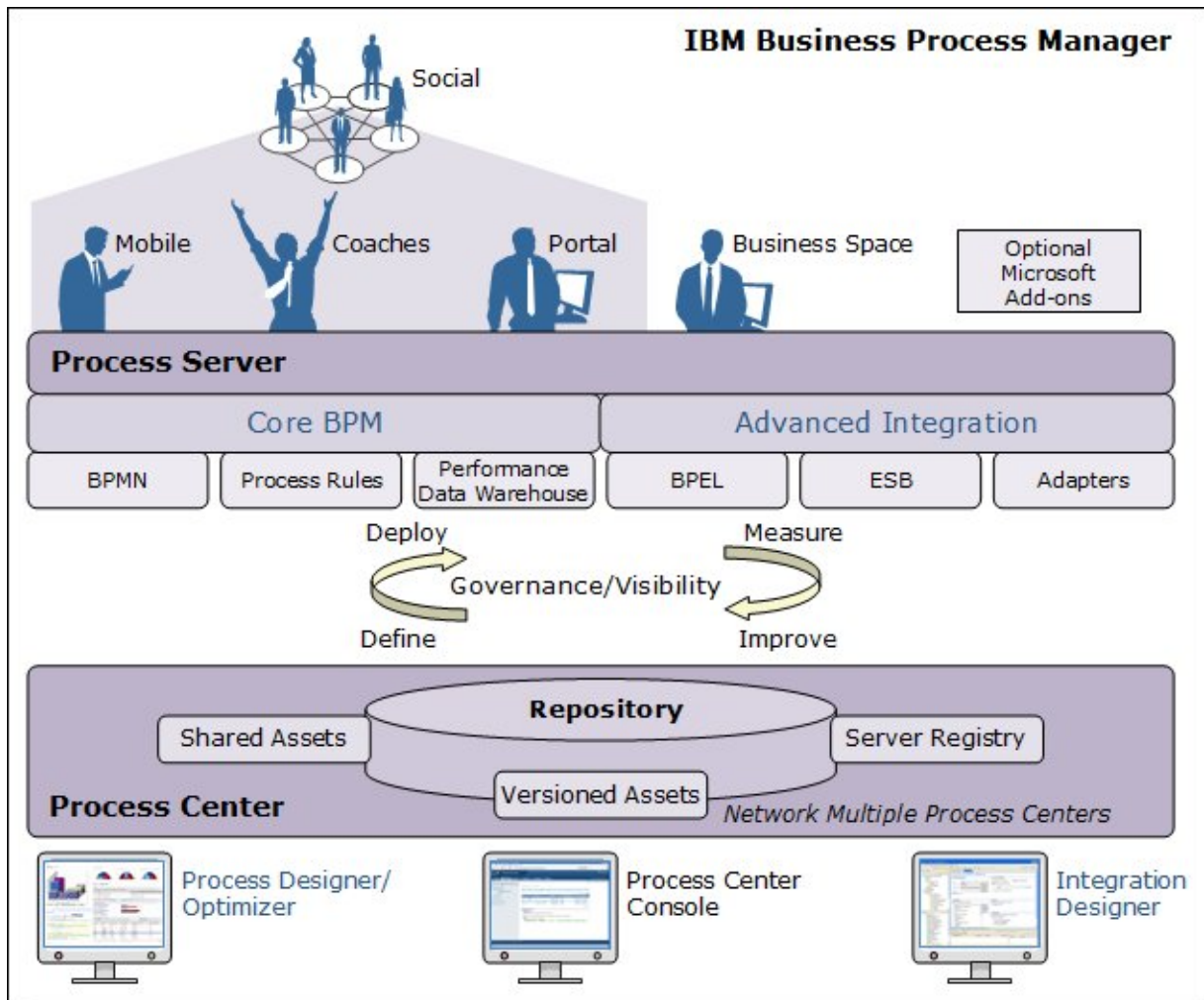


Figure 4. Major components of IBM Business Process Manager

IBM Business Process Manager V8.0 is available in the editions listed in Table 1.

Table 1. IBM Business Process Manager editions

Edition	Phase
Advanced	Transformation Complete set of business process management capabilities: <ul style="list-style-type: none"> ● Extended support for high-volume process automation ● Built in SOA components for extensive enterprise-wide service integration and orchestration
Standard	Program Configured for typical business process management projects: <ul style="list-style-type: none"> ● For multi-project improvement programs, with high business involvement ● Basic system integration support ● Rapid time-to-value and improved user productivity
Express	Project Configured for first business process management projects: <ul style="list-style-type: none"> ● Rapid time-to-value: improved user productivity ● Low entry price ● Easy installation and configuration

The major components of IBM Business Process Manager are described below.

Process Center

Process Center is a runtime environment that includes a repository for all process models, services, and other assets that are created via IBM Process Designer or IBM Integration Designer, the IBM Business Process Manager authoring environments. It has a console with the tooling you need to maintain this asset repository.

From the Process Center, console administrators can:

- Install process applications that are ready for testing or production on the process servers in those environments
- Manage running instances of process applications in configured environments
- Grant appropriate authorization for users and groups to access the repository

Administrators who do not actively work in the Designer view can use the Process Center console to provide a framework in which BPM analysts and developers can build their processes and underlying implementations.

Process Server

Process Server provides a single BPM runtime environment that can support a range of business processes, service orchestration, and integration capabilities. Because it is integrated with Process Center, you can run your processes as you build them directly in the authoring environments.

When you are ready, you can install and run those same processes on the process servers in your runtime environments to test and prepare each for full deployment. The Business Performance Data Warehouse component collects and aggregates process data from your processes running on the process servers, which enables you to test and refine your processes before formal deployment. You can use this data to improve your business processes.

Process Designer

Process Designer is available in all Business Process Manager editions, and it comes with easy-to-use, graphics-oriented tooling for you to create process models, reports, and simple services. In addition, you can call a service that is created in Integration Designer via an interface to access back-end systems or obtain customer data. In short, Process Designer focuses on the business process and Integration Designer focuses on automated services to complement the business process.

Process applications that are developed in Process Designer can at any time be run on the Process Center server or saved to a snapshot and deployed on the Process Server. The same is true of services that are developed in Integration Designer and associated with process applications.

Integration Designer

Integration Designer is available in Business Process Manager Advanced Edition or as a stand-alone toolset. It is designed as a complete integration development environment for those building integrated applications. Integration developers use it to call applications on Enterprise Information Systems (EIS), involve business processes across departments or enterprises, and invoke applications locally or remotely written in a variety of languages and running on a variety of operating systems.

Process Center console

The Process Center console provides a convenient location for users to create and maintain high-level library items such as process applications and toolkits. It helps provide a framework in which BPM analysts and developers can build their processes and underlying implementations. In addition, the Process Center console provides tools for maintaining the repository, including setting up the appropriate authorization for users and groups.

Process Admin console

The Process Admin console is used to administer the process servers in your environment, including the users and installed snapshots for each server. In addition, it provides tools to help you manage queues and caches. The Process Admin console includes the Process Inspector, a tool to view and manage process instances for process applications that are running on a specific process server.

Business Performance Admin console

The Business Performance Admin console includes tools for managing the Performance Data Warehouses in your environment. You can use this tool to manage server queues and monitor server performance.

WebSphere® Application Server administrative console

The administrative console is used to administer applications, services, and other resources at a cell, node, server, or cluster scope. You can use the console with stand-alone servers and with deployment managers that manage all servers in a cell in a networked environment.

Business Process Choreographer Explorer and Business Process Archive Explorer

Depending on your user role, you can use these client interfaces to manage Business Process Execution Language (BPEL) processes and human tasks that are created in IBM Integration Designer, work with your assigned tasks, view completed BPEL processes and human tasks that are in an archive database, or delete processes and tasks from the archive.

Business Space powered by WebSphere

Business Space powered by WebSphere is an integrated user experience for business users across the IBM business process management portfolio. Business Space provides a customizable and collaborative environment for you to monitor, review, and administer common business processes, such as human task flows, modeling, and performance indicators.

Business Space is a browser-based graphical user interface that you can use to view and interact with content from various products in the business process management portfolio. Business Space not only provides a single web-based point of access for the content, you can use Business Space to combine the content in useful and interesting ways. These combinations can give you insight into your business and the capability to react to changes.

Business Process Rules Manager

The Business Process Rules Manager is a web-based tool that assists the business analyst in browsing and modifying business rule values. The tool is an option of Process Server that you can select to install at profile creation time or after installing the server.

Usage scenarios

Business Process Manager can be used in a wide variety of scenarios. For example, it could be used in a warranty reporting solution that accepts post-purchase claims for product repair or replacement from the original purchaser and processes all claims via an online reporting tool. IBM Business Process Manager is used in this scenario to implement a business process for the scenario. When business events (such as a customer has made four warranty claims in the past month) are passed by IBM WebSphere Operational Decision Manager, business decisions are invoked to satisfy the process.

This process would be implemented by creating activities with a Decision Service. This type of service is used when you want a decision or condition in a business rule to determine which process implementation is invoked.

Integration

Business Process Manager integrates with a variety of other IBM products. To implement the business decisions described in the warranty reporting scenario above, IBM WebSphere Operational Decision Management should be used. WebSphere Operational Decision Management enables organizations to automate, govern, and improve operational decision making across business processes. You can integrate business rules and events from WebSphere Operational Decision Management into choreographed business processes in Business Process Manager.

Supported platforms

For detailed system requirements for Business Process Manager Advanced V8, see "IBM Business Process Manager Advanced detailed system requirements" at:

<http://www.ibm.com/support/docview.wss?uid=swg27023005>

Ordering information

Ordering information is show in the following table.

Table 2. Ordering information

Program name	PID number	Charge metric
IBM Business Process Manager Advanced	5725-C94	Processor Value Unit (PVU)
IBM Business Process Manager Standard	5725-C95	PVU
IBM Business Process Manager Express	5725-C96	PVU
IBM Business Process Manager Tools and Add-ons	5725-C97	Authorized User Application Instance

Related information

For more information, see the following documents:

- IBM Redbooks publication: *Scaling BPM Adoption: From Project to Program with IBM Business Process Manager*
<http://www.redbooks.ibm.com/abstracts/sg247973.html>
- Business Process Manager product page
<http://www.ibm.com/software/integration/business-process-manager/>
- Business Process Manager announcement letter
<http://ibm.co/W6VklB>
- Business Process Manager Sales Manual
<http://ibm.co/X9vDsQ>
- Business Process Manager information center
<http://bit.ly/X9vOnj>

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