

BUSINESS PROCESS MANAGEMENT WITH OMG SPECIFICATIONS

Business Process Management (BPM) is a set of techniques for the continuous, iterative improvement of all the processes involved in running a business. In recent years BPM techniques have helped reduce errors, reduce costs and increase productivity at organizations ranging from manufacturing companies to telecoms providers, insurance companies and government departments. BPM's successes stem from both more process automation, and more repeatable, error-free manual processes.

BPM complements other approaches to organizational improvement, and in particular fits well with the SOA (Service Oriented Architecture) software design philosophy; BPM prompts managers to continuously change and evolve business processes, while SOA can help software architects create enterprise systems that adapt to these ever-changing requirements.

While BPM is unashamedly focused on the people within a business and how they work together, good tools for analyzing, understanding and documenting business processes are one of the keys to BPM success. Object Management Group (OMG) is an international, not-for-profit collaborative industry consortium that develops and maintains several key specifications used in BPM tools.

Business Process Maturity Model (BPMM)

The Business Process Maturity Model describes an evolutionary improvement path that guides organizations moving from immature, inconsistent processes to mature, disciplined processes. It provides a reference model for appraising processes within the enterprise and helping prioritize improvements to them. BPMM

can also be used to assess risks when developing and deploying new enterprise IT applications supporting business processes.

BPMM is based on Watts Humphrey's original Process Maturity Framework, which is also the foundation of the widely respected Capability Maturity Model for Integration (CMMI) used to help organizations institute repeatable software engineering processes. Following CMMI's success, as many as 200 different maturity models have appeared. However, most are simply descriptions of how an organization might look at different stages of evolution, giving little guidance on the specific steps necessary to move between maturity levels. By contrast, BPMM provides a detailed roadmap for business process improvement.

Like all maturity models guided by the Process Maturity Framework, BPMM is divided into five maturity levels that represent different states through which an organization is transformed as its processes are improved, evolving from poorly defined and inconsistent practices (level 1), to repeatable practices at the workgroup level (level 2), to standard organization-wide end-to-end business processes (level 3), to statistically-managed and predictable processes (level 4), and finally to continuous process innovation and optimization (level 5). Achieving each maturity level also entails satisfying all the requirements of the lower levels.

Business Process Modeling Notation (BPMN) & Business Process Definition Metamodel (BPDM)

Business Process Modeling Notation is rapidly becoming the de-facto standard for business processes diagrams. It is intended to be used directly by the stakeholders who design, manage and realize business

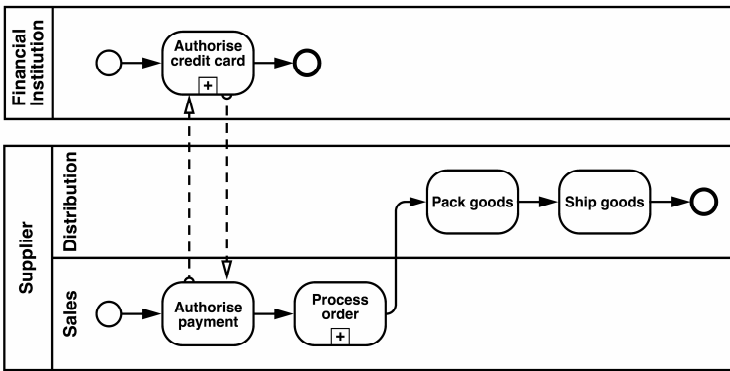


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processes, but at the same time be precise enough to allow BPMN diagrams to be translated into software process components. BPMN has an easy-to-use flowchart-like notation that's independent of any particular implementation environment.

OMG has now built a new foundation for BPMN – the Business Process Definition Metamodel. This technical specification provides the bridge between business-friendly BPMN diagrams and the software tools that automate and coordinate business processes across organizations. By providing a common, syntax-independent vocabulary for business process concepts, BPDM standardizes the way BPMN diagrams are stored and exchanged; a vital facility for organizations that want to move BPMN diagrams between different BPM tool suites. BPDM also supports two fundamentally complementary views of processes – orchestration and choreography. Orchestration is the traditional view of a process defined as a sequence of activities, whereas choreography describes the interaction protocols between multiple, independent, collaborating entities.



A simple BPMN diagram

BPDM's Common Behavior Model supports the exchange of process information across cooperating organizations, each of which may have its own process view of the complex choreographies in which it's participating.

BPDM is built on OMG's Meta-Object Facility (MOF), the common framework that underpins all OMG modeling specifications. MOF-based tools support reasoning about and transforming models, so that process definitions captured using BPMN/BPDM or the other modeling specifications described here can be maintained in common, standards-based repositories and translated into the database definitions, software components, test scripts and other IT artifacts necessary to automate aspects of the business. This unified approach to creating, storing, translating and directly using models in the enterprise's activities forms part of OMG's Model-Driven Architecture (MDA), and is a major benefit of

using specifications from OMG's BPM suite.

Business Motivation Model (BMM)

Most organizations begin using BPM by trying it out on one or two smaller, well-defined projects. When BPM begins to be used more widely across an organization, it's useful to represent the relationships between the business processes being modeled and how they fit into the overall organization. The Business Motivation Model provides a structure for documenting, communicating and managing the key elements of the business and their interrelated purposes in an integrated way. BPM allows the organization to create MOF-based representations of the internal and external forces that influence the design of the business, the business's assessment of those forces (such as strengths, weaknesses, opportunities and threats), the organization's objectives, the strategies and tactics used to achieve the objectives, and the relationship of all of these to the business rules and processes that make the business operate.

Semantics of Business Vocabulary and Business Rules (SBVR)

When communicating information within a business, it's vital that all participants have a shared understanding of the exact meanings of all the terms being used. OMG's Semantics of Business Vocabulary and Business Rules specification provides the means to precisely define business terminology, formally and unambiguously specifying each definition in terms of other definitions in the vocabulary. The specification provides a powerful hierarchical categorization of vocabularies, allowing concepts to be organized from the general to the specific, and also handles synonyms, abbreviations, cross-references and multiple vocabularies, so that one set of meanings can be represented in different languages.

SBVR also supports the definition of governance rules that use the terms in the businesses vocabulary. Although based on precise logic, SBVR rules are expressed in natural language to allow them to be easily read and written by business practitioners. SBVR's MOF modeling foundation supports tools that allow vocabularies and rules to be mechanically checked for consistency, detecting undefined terms, inconsistencies and different rule statements that have overlapping meanings. By providing the tools to store and manipulate vocabularies, SBVR provides much of the glue that ties together business models created using other OMG BPM specifications.