Chapter 26
An Overview of Business Process Management

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ABSTRACT

BPM (Business Process Management) includes support for business process analysis, design, implementation, management methods, techniques, and tools. This chapter introduces the origin of BPM technology and development, covering four fields: Business Process Management benefits, the history of BPM, classification of Business process, the lifecycle of BPM, and Business Process Modeling Techniques. In addition, the authors also determine that the present workflow technology is not enough to exist in the root causes of some deficiencies; concluding the chapter with the future of workflow technology trends.

1 INTRODUCTION

1.1 Business Process Management Benefits

The Information community is interested in providing robust and scalable software systems to accelerate industries' performance. Due to complex business processes, an integrated solution is an important foundation for realization. Business process modeling plays an important role in today's enterprise business activities. It acts as a disciplined approach to identify, design, monitor, control, and measure business processes. Typically BPM is performed by business analysts and managers who are seeking to improve process efficiency and quality. Through Business process modeling, managers will be involved in some ac-

tions such as collaboration, deliberation, improvement, innovation etc, which help to create value and enable an organization to meet its business objectives with more agility. The process improvements identified by BPM may or may not require Information Technology involvement, although that is a common driver for the need to model a business process, by creating a process master.

Although early implementations of BPM have unfolded in large enterprises, managing business processes is critical for any sized organization. Today business process management is growing in popularity and widely used in most companies because it offers major business performance improvement advantages. It appears as a set of tools and services that support human and application interaction with business processes. BPM suites automate manual processes by routing tasks through departments and applications. Organizations use BPM, which will help organizations optimize business performance by discovering, documenting, and automating, to improve the effectiveness of their core operations.

The significance of BPM for enterprise lays not only a description of key business process of the enterprises, but also it can perform as a guideline for the enterprises. This will let to a series changes embodied in the optimization of resources, optimization of enterprise organization and the management system. The purpose of this optimization is to realize the companies' goal: to reduce business operating costs and increase responsiveness to market needs and strive to maximize corporate profits (Wil van der Aalst, Kees van Hee., 2002).

1.2 The History of BPM

The classic business process modeling methodologies such as the flow chart, functional flow block diagram, data flow diagram, control flow diagram, Gantt chart, PERT diagram, and IDEF have all emerged during the 20th century: The flow charts in the 1920s, Functional Flow Block Diagram and PERT in the 1950s, Data Flow Diagrams and IDEF in the 1970s. These represent just a fraction of the methodologies used over the years to document business processes. The term "business process modeling" itself was coined in the 1960s in the field of systems engineering. S. Williams in 1967 published the article "Business Process Modeling Improves Administrative Control." His idea was that techniques for obtaining a better understanding of physical control systems could be used in a similar way for business processes.

With the development of computer technology, the principle of designing software systems has also changed. Before the 1960s, information system built on a small operating system with only a special limited functionality. There is no common software and no industry-specific software; information systems at that time only have professional custom software. As time went on, in the 1970s, the software system has been continually enriched, but also faces many challenges: (1) although a variety of application layer software has been developed, the software vendors face the challenge of how to integrate these applications, how to better reuse of existing procedures? The focus of the development of software has also shifted from pure coding programming to component programming which intend to the composition of more complex systems. (2) data-driven development can't meet real business needs. As the enterprise competition increasing, business processes, management tools will update periodically. The traditional mode of development, however, cannot solve these problems. Thus system engineers have turned to process-based system development methodology research and pay attention to business process modeling (Van der Aalst, W., A. Hofstede, and M. Weske, 2003).

In the 1980s, the term workflow was first used in its modern form in the software industry. August Wilhelm-Scheer is regarded as founding the modern Business Process Modeling software industry with the development of the Y-model and the founding of IDS Scheer in the 1980s. Fol-

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