

Chapter VII

Transitioning Business Processes to a Collaborative Business Environment with Mobility: An Action Research Based on a Service Organization

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ABSTRACT

Web Services (WS) technologies create the potential for an organization to collaborate with partners and customers by enabling its software applications to transact over the Internet. This collaboration is achieved by carefully incorporating Web Services in the organization's software applications, resulting in comprehensive Service-Oriented Architecture (SOA) for the enterprise. This incorporation of WS-enabled applications and components in the organization's overall enterprise architecture requires understanding of the service at three interrelated yet distinct layers: policies, activities, and standards. This chapter describes how the existing business processes of an organization are transitioned in to collaborative business processes that would result in a Collaborative Web-Based System (CWBS). The ideas presented in this chapter have been validated through an action-research carried out by the authors in a large energy supplier organization in Melbourne, Australia.

INTRODUCTION

This chapter reports the outcome of a study conducted in order to study and introduce collaborative business environment to the business processes of the organization. Furthermore, this study also observed the impact of such changes resulting from collaborative business processes to the overall organization. The theoretical background used for the collaborative business model is based on earlier work carried out by Ghanbary (2006a). This chapter also reports the validation of the collaborative business model through an action research project carried out in a large organization dealing with energy supplies of a large city in Australia.

According to Ghanbary (2006a), at present when business applications collaborate with each other, pre-qualification between the collaborating parties is mandatory. However by making use of the technologies of web services and formalizing the right channels of collaboration, it is possible for business applications to interact with each other without any pre-qualifications (This has been explained in detail later in the investigation section of this chapter). These interactions amongst business applications can result in wider opportunities for business to interact with their partners and clients that can provide better service for their customers and have a positive impact on their profit. This study understands and presents how business processes of multiple organizations could interact with each other in a free or open market, where pre-qualification or knowledge about each other's applications is not mandatory.

This chapter present the use of the model of CWBS proposed in Ghanbary and Unhelkar (2007) to present how it will help the real organization to use the technologies in order to achieve their collaborative objectives. Ghanbary (2006b) as well as Unhelkar (2006) have discussed the impact of mobility as an important element of the mobile transition process that is felt at both business and personal levels.

Based on (, 2006) a mobile business process is one that consists of one or more activities being performed at an uncertain location and requiring the worker to be mobile. Such a process can be supported by mobile systems to increase process efficiency. For processes that are supported by mobile systems, the term mobile enabled business process is more appropriate, to differentiate from a mobile business process.

This chapter is using the Business Process Modelling Notation (BPMN) to present the proposed model

of CWBS. BPMN is the new standard for modelling business processes and web service processes, as put forth by the Business Process Management Initiative (BPMI - bpmi.org). BPMN is a core enabler of Business Process Management (BPM), a new initiative in enterprise architecture, which is concerned with managing change to improve business processes (<http://www.telelogic.com>).

The digital revolution has dramatically changed the business world to an extent wherein place and time are no longer barriers for business transactions (Weill & Vitale, 2001). The growth of the Internet and the World Wide Web has had a significant impact on business, commerce and industry (Murugesan, Deshpande, Hansen & Ginige, 2001).

Ghanbary and Arunataileka (2006) clearly state that the concepts of mobile communication, digital networks and service providers have advanced very rapidly in the last few years. This has lead to consideration of mobile communications and corresponding network providers' way beyond the well known data and voice transmissions and into the realm of mobile web services. Mobile commerce first emerged as an extension to e-commerce, by introducing wireless devices (Schwidorski-Grosche & Knospe, 2002). Mobile commerce is described as a discipline that involves mobile devices, applications, middleware and wireless networks (Varshney, 2002) all of which can be classified as mobile technologies. Based on (Gan, 2006) besides improving the user experience, mobile applications can also affect the work environment. In particular, the collaborations of disparate teams stand to benefit from presence awareness.

To achieve our aim of research, we have classified this chapter in the following sections: a) abstract b) introduction c) discussion on collaborative environment d) description of the action research organization e) validation of the proposed model of CWBS and f) conclusions & future directions.

DESCRIPTION OF THE ACTION RESEARCH ORGANIZATION

The organization is a leading Australian energy supplier which provides gas and electricity to over two million Australian homes and businesses. Currently, the service design supports the requirements developed in Arrange Fieldwork service contract. It proposes to either create new service or cancel an existing service contract.

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