

Chapter 6

Collaborative Web Based System (CWBS)

When I am working on a problem I never think about beauty. I only think about how to solve the problem. But when I have finished, if the solution is not beautiful, I know it is wrong.

Buckminster Fuller (1895-1983)

CHAPTER KEY POINTS

- Applies the process-model in practice for a ***Collaborative Web Based System (CWBS)***
- Discusses the technical basis for the CWBS for business collaboration.
- Identifies and discusses the Business Process Management Notation (BPMN) that is used for modeling the processes for ***CWBS***.
- Discusses the software architecture (based on the ***CBPE*** concept) for ***CWBS***.
- Demonstrates, through an example use case related to memberships, how collaboration occurs in ***CWBS***.

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- Demonstrates, by extending the above example, the placement of prospective members of a system in the right directory within *CWBS*.
- Explains how the customer requests can be accepted and processed in a collaborative manner within *CWBS*.

INTRODUCTION

This chapter describes the modeling of the *Collaborative Web Based System (CWBS)*. This *CWBS* is the means by which the *CBPE* model, discussed earlier in this book, is practically implemented. The focus of this chapter, however, is on the models of collaborative business processes that can be implemented in CWBS. The software architecture aspect of the CWBS is based on the detailed discussions of technologies in previous chapters 2, 4 and 5. The models in this chapter are based on the Business Process Modeling Notation (BPMN) and the use cases are based on the specifications of the Unified Modeling Language (UML). These notations and the ensuing process models are important when organizations try to collaborate with each other. These process models show, visually, how the interactions amongst multiple organizations will take place from a business viewpoint. Subsequently, these process models need to be implemented in the CWBS using appropriate technologies. Each collaborating organization can decide to use its own technology – however, the interaction between the organizations need to be based on web services (WS) that ensure that the specific technical environment does not impede business transactions.

CREATION OF A CWBS BASED ON CBPE

There are four major inputs that go in the creation of a *Collaborative Web Based System*. These are shown in Figure 1 as:

- (a) The concepts and theory of *CBPE* and business collaboration as discussed thus far in this book, which provides the foundation for why organizations should collaborate
- (b) The modelling of business processes using a modelling standard – BPMN in this case, which provides the visual basis for carrying out activities geared towards satisfying customer needs
- (c) The concept of Services Oriented Architecture (SOA) and Web Services (WS) – as discussed in Chapters 2, 4 and 5, that provides the basis for software architecture for CWBS that is independent of technological environments within the organization, and

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