

Abstract

Internet technology and electronic commerce (EC) have brought up a complete overhaul on the information and communication technology infrastructure to do business in a new manner where companies try to leverage new technologies to enable a set of complex cross-enterprise business processes allowing entire value chains to share decision-making, workflow, capabilities, and information with each other. However, companies often have problems in making their internal information technology (IT) systems communicate with their partners. Although eXtensible Markup Language (XML) represents the most versatile and robust format for exchanging business information, there is also a need for process integration standard that enables processes to be modeled, deployed, executed, and managed. In this research, business-to-business collaboration process integration issues have been studied and an ebXML-based Collaborative Commerce Business Process Model is developed. According to a consistent modeling methodology, UN/CEFACT Modeling Methodology (UMM), we identify and specify the inter-enterprise business processes of the global logistics industry in a logical and systematic way. The ebXML Business Process Analysis Worksheets is used as modeling aids to record and represent analysis results of global logistics industry. Based on the ebXML-based business process model, we develop a B2B process integration prototype system which shows that the business process model is feasible and suggests a possible solution for real-time and efficient B2B electronic commerce.

Keywords: XML, UML, UMM, ebXML, C-Commerce, Global Logistics, B2B Process Integration, Business Process Model

摘要

對企業而言，Internet 和電子商務的興起提供了一個全新的商業交易方式。許多企業企圖融合新的資訊科技與企業流程，讓他們可以跨越企業間的藩籬進而互相分享價值鏈中的決策、工作流與資訊。然而，當企業嘗試著以其內部的資訊系統與交易夥伴溝通時，卻發現到處都是問題。雖然 XML 提供了一個多功能的且健全的資料交換格式，但仍然不夠，必須有一個流程整合的標準來進行企業間交易流程的塑模 (modeling)、部署 (deploying)、執行 (executing) 以及管理 (managing)。在本篇研究中，將探討企業對企業間協同流程的整合，並且發展一個以 ebXML 為基礎的協同商務企業流程模式。基於 UN/CEFACT Modeling Methodology (UMM) 此一一致性的塑模方法論，本研究以邏輯化且系統化的方式來發現並詳細表達出國際物流業的跨企業交易流程，並以 ebXML 流程分析表格 (ebXML Business Process Analysis Worksheets) 為流程塑模輔助工具，進行國際物流業流程分析結果的記錄與表達。基於此一 ebXML 為基礎之流程模式，本研究開發了一個企業間流程整合的雛形系統，藉以證明此企業流程模式是可行的，同時提出一個即時有效率的企業間電子商務可行方案。

關鍵字：XML、UML、UMM、ebXML、協同商務、國際物流、企業間流程整合、企業流程模式