Chapter 5

Critical Issues to Consider when Evaluating Inter-Organizational Process Integration Configurations

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ABSTRACT

Networks of companies can use a range of configurations to create inter-organizational processes. Problems become apparent when partnering companies decide to set them up. Those problems take a different form in centralized and decentralized inter-organizational process-integration scenarios. This chapter identifies eight process issues to be taken into account when evaluating inter-organizational integration configurations: difficulties to identify when a task should be executed, understanding what a task does exactly, agreeing how to trigger tasks, distributing investments among parties, delivering appropriate service levels, preserving value of the inter-organizational process, process ownership clarity, and managing in the frame of changing relationships. Examples are given of how problems arise in a completely centralized and in a completely decentralized inter-organizational process integration scenarios.

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1 INTRODUCTION

Few companies produce all data, specifications, components, products and services it requires to satisfy their customer’s needs. Entrepreneurs seek and manage opportunities in order to provide their clients with solutions, even if little of the value-add is created internally. Data, specifications and plans must be created prior to committing significant capital investment. Demand profiles and key performance indicators must be set in order to attempt to achieve or exceed expectations. Suppliers must be evaluated and developed in comparison with the future expected requirements. They may need to be convinced to invest and commit to ordering from their suppliers and supply chain partners.

1.1 Inter-Organizational Process Optimisation

To varying degrees, each company in a supply network or chain may exchange requirements, plans, data, suggestions, lessons to learn etcetera. The aim is to create seamless integration between and across supply chain participating companies’ activities.

Optimization schemes can benefit from focusing on inter-enterprise integration. Al-Naeem et al. (2005) defined inter-enterprise integration as ‘the integration of business processes and data with external trading partners’. Goethals (2008) evaluated data related aspects of this definition. He discussed ‘information sharing problems’ associated with setting up an inter-organizational system to exchange data. That article asserted eight problems have to be examined when evaluating inter-organizational data integration configurations.

This article complements the 2008 article by investigating process aspects of Naeem et al.’s definition: “problems that show up when partnering companies decide to set up inter-organizational processes”. Eight process integration problems are presented that typically arise when integrating inter-organizational processes and that enable evaluation of different inter-organizational process configurations.

Davenport & Short (1990) defined a business process as “a set of logically related tasks performed to achieve a defined business outcome”. From a reengineering perspective, Hammer and Champy (1993, p35) “define a business process as a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer.” Inter-organizational processes range from short-term or spot trading through long-term partnering. This article uses the term ‘Extended Enterprise’ to signify a long-term collaboration and ‘Market B2Bi’ to indicate short-term relationships (following Goethals et al., 2005). Irrespective of the long- or short-term nature of their corporate relationships, the term ‘partner’ refers to task executing parties.

1.2 Simple Example of an Inter-Organizational Business Process

The eight process issues identified in this paper will be contextualized in the frame of an order fulfillment system. Figure 1 shows a simplistic BPMN (Business Process Modeling Notation) process description. This description should not be regarded as an attempt to model a real-life process: it is merely a simplified process diagram that is used in this paper to contextualize the issues. In BPMN, solid arrows show sequence flows and dashed arrows are message flows.

Process flows shown in Figure 1 represent direct and support activities that may be undertaken by various corporate parties, for example in the Personal Computer (PC) industry. In this simple process model shows four parties, with different roles, are involved when customers order products from a reseller:
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