

Chapter 15

The Use of Customer Relationship Management Software in Meta-Enterprises for Virtual Enterprise Integration

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ABSTRACT

To make the Virtual Enterprise (VE) a real, competitive, and widely implemented organizational and management concept, it is fundamental to assure that the requirements of this organizational model are achieved in the several phases of the Virtual Enterprise life-cycle. The support to VE (comprising design, creation, operation and reconfiguration) must be assured by meta-enterprises based on a broker and computer-aided tools, capable of managing, controlling and enabling virtual enterprise creation/operation/reconfiguration, which may represent a strong contribution towards the VE performance. The chapter introduces the VE model requirements, focuses one specific meta-enterprise environment called the Market of Resources, and introduces the incorporation of CRM in this environment as one of the computer-aided systems.

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INTRODUCTION

The Virtual Enterprise (VE) model relies on dynamically reconfigurable collaborative networks, with extremely high performances and strongly time-oriented, while highly focused on cost and quality, in permanent alignment with the market, and strongly supported by information and communication technology. Networking and reconfiguration dynamics are the main characteristics of this model, which claim for enabling and supporting environments able to assure that the requirements of dynamic business alignment, preservation of leakage of private information on products or processes at bearable transaction costs, inherent to the VE competitiveness, are achieved.

The support to Virtual Enterprise integration is fundamental to managing, controlling and enabling virtual enterprise creation/operation/reconfiguration. VE integration should be supported by organizational infrastructures as meta-organizational structures for VE design (or integration) and operation, such as the Market of Resources – an environment developed and validated by the authors to cope with the VE requirements (Cunha & Putnik, 2005, 2006; Cunha, Putnik, Gunasekaran, & Ávila, 2005). Several environments are mentioned in the chapter, but particular focus is given to the Market of Resources.

In this “virtual” environment, offer corresponds to *resources providers* (individuals, enterprises) that make their *resources* (products, components, operations) available, as potential partners for VE integration¹, and demand corresponds to *client* or *VE owner*, the entity looking for a product, components or operations (resources) to create/integrate a VE to satisfy the *Customer* or market opportunity. *Brokers* act within the Market of Resources as intermediation agents for agility and virtuality. The customer, that is, the one who gives rise to a business or market opportunity, is considered as an external entity.

The *Client* is the one that wants to answer to a market opportunity, by capturing the correspond-

ing market requirements, and contracts the *Market of Resources* for optimal VE design, selection and integration, traducing the market requirements into resources requirements, process requirements and product/operation requirements.

The services offered by the Market of Resources and the broker aim at dynamically and permanently align the VE stakeholders with the market, which involves:

1. Market alignment (alignment of the VE to be created/reconfigured with the market requirements);
2. Product/service and operations alignment (Operations provided by the selected resource providers must conduct to the desired product);
3. Resources Providers Alignment (Aligning Resources Providers with the market requirements).

In this environment, CRM is the strategy for managing the MR (and broker) interactions with its stakeholders, that is, the tool to accomplish

1. The alignment between the resources providers and the VE owner (the best possible match), and
2. To enable resources providers to access the best VE integration opportunities.

Besides all the functionalities that the MR must offer to its users (resources providers, brokers and VE owners), CRM tools can be offered by the MR to help resources providers to increase their business opportunities, that is, their opportunities to be integrated in VE instances.

The chapter discusses the VE requirement for reconfiguration dynamics; introduce some of the most recent developments and environments to cope with these; and presents the meta-organization Market of Resources as part of a new generation of electronic marketplaces, a tool for managing, controlling and enabling networking

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