

## Chapter 3.16

# Business Driven Enterprise Architecture and Applications to Support Mobile Business

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### ABSTRACT

Information Communication Technology (ICT) needs to provide the knowledge worker with an integrated support system of information management and work-flow. This challenge, however, is further exacerbated in mobile business wherein the knowledge work is not identified with a particular location. Information systems need to be analyzed and modeled, keeping the location-independence of the users in mind. A Model Driven Architecture (MDA) approach, aligned with Object-Orientated Design principles, and driven dynamically as the user interacts, has immense potential to deliver solutions for the systems used by the knowledge worker. An MDA approach provides a unified

approach to solutions architecture, information management, and business integration. At the enterprise level, the desktop, the mobile device and at the emerging marketplace level, the evolving need for real-time decision making on any device, anywhere, anytime, to support mobile business is providing a framework for aligning ICT to business. Further details are presented in this chapter together with some of the challenges and opportunities to be seen within mobile business.

### INTRODUCTION

Enterprise architecture, application development and requirements gathering have all faced a common problem, that of the business environment being highly dynamic and continuously evolving.

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An application that worked is often quickly in need of revision and an existing infrastructure readily loses its performance advantage because business needs are continually changing. Although the demands of mobile business are adding another level of complexity to application development and enterprise architecture, the mobile enablement of business (Sherringham and Unhelkar 2008a) provides a convergence of events to realign Information Communication Technology (ICT) as the assembly line for knowledge workers.

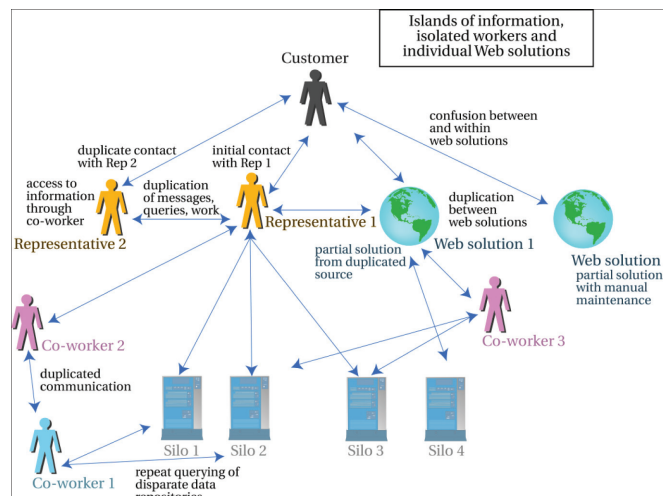
Further recognition of ICT as a utility infrastructure and all of the utility principles underpinning design, operation and management of ICT can also be realised in the mobile enablement of business. The significance of a business focused approach, driven by how the customer interacts, will also be championed during the alignment of ICT to meet mobile business (Lan and Unhelkar 2005). Using the demands of mobility, this chapter discusses the alignment of enterprise architecture and application development to meet current and future needs and how the resulting need for real time decision making will shape some key trends in the ICT industry.

## ROLE OF KNOWLEDGE MANAGEMENT IN MOBILE BUSINESS

Through the application of proven business principles, business has standardised catering, cleaning, farming, minerals extraction and manufacturing. The last great challenge is the standardisation of knowledge workers to lower costs and assure guaranteed service delivery (Sherringham 2005). This need for standardisation and the resolution of information management and work-flow becomes more pressing when the needs of mobile business are considered (Sherringham 2008).

This situation portrayed in Figure 1 often occurs in organisations, where a Customer contacts a Service Representative who is faced with querying multiple disparate backend systems to find the required information to respond to the Customer's request. The Service Representative may not find what they want, so they have a discussion with a co-worker who tries to do the same thing and who may bring in another co-worker. In the mean-time, the Customer gets frustrated and approaches another Service Representative who goes through the same process. Add to this the duplication between Internet and Intranet,

*Figure 1. Hidden costs of knowledge management present in the enterprise*



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