ABSTRACT

There have been significant advances in mobile technologies in recent years. The euphoric technology void left by the dot-com crash in early 2000 soured many technology users; however mobile computing has provided much needed enthusiasm for both technologists and business users. In this chapter we focus on aspects of mobile technology, from both a business user perspective and a technology viewpoint. Aspects such as total cost of ownership, return on investment and capital investment have been discussed from a financial perspective. Technical aspects of running and maintaining a mobile technology infrastructure have also been explored. The chapter concludes with a review of potential areas of application for mobile technology. The area discussed is mobile technologies in banking; however, many of the aspects covered could easily be applied to any other business vertical. Finally, this chapter is not meant to be a holy grail for mobile computing. It is simply a glimpse of the need to explore the power of this emerging technology.

THE MOBILE WORKER

This chapter discusses the application of mobile technologies in the business processes related to a mobile worker, with specific emphasis on the financial and banking industry. The term mobile worker has been used for many years to describe a worker who travels to various locations in order to conduct their business. This could describe a mechanic going to the car that needs repair,
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a courier delivering parcels, or even a sales representative who travels in order to showcase and sell his or her products. While these workers have been around for a long time, the term mobile worker has increasingly come to represent a mobile workforce well equipped with mobile technologies and associated devices.

The needs of the aforementioned workforce, coupled with recent advances in telecommunications technologies and infrastructure across the globe, has resulted in abundant opportunities for many businesses to create new mobile-enabled business processes that were hitherto unimaginable. For example, it is now possible to transfer an enormous amount of data at speeds that allow devices and the applications running on these devices to interact in real time with each other irrespective of time and location. The Internet facilitates connection of businesses across geographical and time barriers resulting in increased collaboration demanding innovative and technologically savvy business processes (Unhelkar, 2003). For example, many small business owners are totally eschewing physical offices and, instead, operate their businesses almost entirely on the road by fully utilizing the capacities of their mobile telephones and personal digital assistants (PDAs). Medium to large businesses also have a need to customize those business processes that can incorporate mobile technologies. However, the manner in which businesses and people within businesses utilize mobility depends on the type of industry in which they operate and the specific organization’s own methods of doing business. The deployment of a mobile workforce has unique challenges that also depend, to a large extent, on the individuals that comprise the workforce. UK Company Softlab Ltd. (2004) suggests that mobile workers fit into one of three core groups requiring a mobile solution:

- management,
- sales and marketing personnel, or
- customer service representatives.

Managers are able to make key decisions and send and receive important correspondence via laptops and PDAs anywhere within mobile network coverage. Sales and marketing personnel can close deals with their clients and process the order while still at their client’s premises. This alone ensures that the level of customer service is higher by allowing the worker to spend more time in front of the customer and not having to wait until they are back at the office to fulfill the order.

Customer service representatives can be armed with many different types of mobile devices designed to enhance the customer experience. An example in the banking sector is the ability to approach a customer waiting in line at a branch and quickly processing their request by connecting wirelessly to the bank’s internal network via a tablet PC (Kuykendall, 2004).

The mobile workforce will grow rapidly as the next wave of mobile solutions arrives. We can expect to see a much wider deployment of applications to a greater number of workers from different industries. The applications that mobile workers use will vary depending on the business need. The 2003 findings of UK Company QNB Intelligence, who interviewed IT directors across Europe to gauge what applications they would use in their business if they were to deploy a mobile workforce, showed:

- 88% required general office applications
- 56% required applications to automate the sales processes
- 46% required tools to assist field agents
- 36% required applications to assist delivery and collection of goods
- 24% required management recording tools

Some sample applications within the above categories are explained further.

General office applications include tools such as e-mail and calendar events. A worker can have