Chapter I

Introduction to M-Business Applications: Value Proposition, Applications, Technologies, and Challenges

In this chapter, you will:
- Learn about the drivers behind the growth of m-business
- Learn about the value proposition of m-business
- Learn about the major categories of m-business applications
- Learn about the technologies that enable m-business
- Learn about the m-business challenges companies are facing today

Introduction

Leung and Antypas (2001) defined mobile business (m-business) as both “content delivery (notification and reporting) and transactions (purchasing and data entry) on mobile devices”. Another term often used for m-business is “wireless e-commerce”, as such business activities often leverage wireless and Internet technologies. While still in its infant stage, m-business is destined to have a much larger footprint in the future. If projections hold true, revenues from
m-business will grow to $200 billion worldwide by 2004, and the number of U.S. m-business users will grow to 29 million (Kelly, 2001). The major factors that drive the growth of m-business include:

- Mobile devices such as Internet-enabled handsets, personal digital assistants (PDA), and portable computers are gaining popularity among business and consumer users.
- The wireless infrastructure and support are constantly being upgraded by vendors in order to provide seamless and affordable access. Advances in mobile and wireless technologies are making anywhere, anytime computing a reality.
- Companies want to remove delays and inefficiencies from traditional business processes and explore new business opportunities by allowing employees and consumers to access critical business information from anywhere at anytime.

**Value Proposition**

Before investing in a mobile project, an organization needs to identify the business drivers behind the project and demonstrate how m-business solutions will help solve existing problems, capitalize new opportunities, or create a competitive edge. Therefore, it is imperative for organizations to understand the value produced by m-business. Evidence has shown that m-business offers organizations the benefits of new channels to reach customers, cost reduction, increased customer satisfaction and revenues, and reduced cycle time by redesigning workflows.

Balasubramanian, Peterson, and Jarvenpaa (2002) conclude that the reason m-business offers values unattainable by conventional business practices is because mobile technologies relax spatial and/or temporal constraints of activities. For example, with mobile technologies, a field worker can check and reply e-mails at any time. Without the right mobile technologies, the activity can only be performed at a location where a computer and a network connection are present. In the same vein, Chen and Nath (2003) believe that the value of m-business is a function of the user's immediacy of information needs and user mobility. As the user's immediacy of information needs and/or mobility increase, the value of m-business solutions that can address the user's needs...