Chapter 9

Short Message Service (SMS) and its Applications

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ABSTRACT

The use of short message service (SMS) has grown tremendously in the past few years. Billions of users use this service to send text messages. Various applications have been introduced by service providers, e.g., mobile banking, summons checkpoint, SMS chat, etc., all of which have become a huge success. This chapter gives an overview of how this service is provided and discusses various SMS applications offered to the user. We explore the reasons behind its success and the issues that must be addressed to provide these applications. We also examine future trends and the challenges that must be overcome in order to enhance this service. We hope that this chapter gives a better understanding of how SMS applications are provided and what may be expected in future applications given the enhancement on the current SMS and technology advancement.
INTRODUCTION

Short message service (SMS) was first introduced in 1991 in Europe. The European standard for digital wireless, which is now known as the global system for mobile communications (GSM), includes short messaging services. In North America, SMS was made available on digital wireless networks built by pioneers such as BellSouth Mobility, PrimeCo, Nextel, and others. These digital wireless networks are based on GSM, code division multiple access (CDMA), and time division multiple access (TDMA) standards.

Since its introduction, SMS has gained worldwide acceptance and has grown tremendously. In many parts of Europe, SMS is more frequently used compared to other services. In Germany, the UK, and Italy, SMS is very popular and its popularity continues to rise among young people (WirelessDevNet, 2000). Over one billion messages were sent through SMS in Europe per month (O’Brien, 2001). In a press release, the GSM Association reported that 50 billion global text messages were sent in the first quarter of 2001 (GSM World, 2001). It also forecasts that 360 billion SMS messages will be sent in 2002 (GSM Association, 2002). Figure 1 shows the rapid growth of SMS usage. Developments like WAP and SIM toolkit contribute much to increased SMS usage.

What is SMS and why has it received such enthusiastic acceptance? This chapter explains what SMS is and its applications and explores the reasons for its astounding growth, the issues and problems in providing SMS applications, and its future direction.

Figure 1: SMS growth: Current SMS messages per month (GSM Association, 2002)