

Chapter XXXIV

The Future of Mobile Technologies and Applications in China

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ABSTRACT

This chapter deals with the future of mobile technologies and applications in China. The effect of emerging technologies, especially mobile technologies, on the massive market of China cannot be ignored in the global context. This chapter gives the reader an insight into China's mobile telecommunication industry today. The authors firstly relate statistics about China's mobile business market including user and device analysis that helps in providing an understanding of mobile business in China. This analysis is followed by a description of the major mobile technologies employed in China and a brief view of the Chinese market's status, followed by an insight into some newly rising industries which are potentially successful mobile sectors in China. Finally, a real life example is examined—that of M-Government Project in Gunagzhou, capital city of Guangdong Province.

INTRODUCTION

After the arrival of the Internet in China in 1987, there were huge changes to the way the Internet developed further in China. Earlier, without the popularity of the Internet, both people and businesses used dial-up modems to log onto the Internet. Later, Digital Subscriber Line (DSL) technology came into common

people's lives. A few years later, it was the application of broadband, which made the connectivity to the Internet very popular. Finally, in 2004, wireless technology further extended the application of the Internet in people's lives as well as in businesses. These various methods cover almost all markets of Internet access; they are both beneficial for Internet service providers (ISP) and Internet operators. They

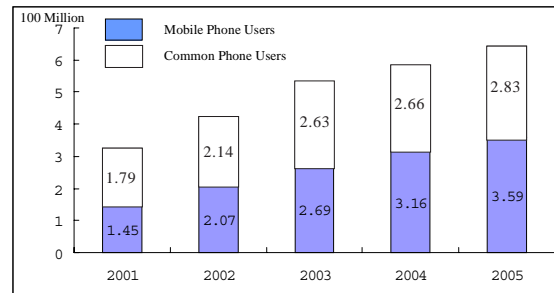
bring in plenty of profits for the two major Internet operators—China Telecom, and China Netcom—and the two make the Internet market more ubiquitous. However, traditional access methods like dial-up and DSL technology need stable network facilities for the support, therefore it will not be convenient for the users to use the Internet without distance limit, and it might be a limit for business use and ensure the business processing in anywhere customers needs. For the high demand of moveable and convenient business, a new-generation connecting method called “Mobile Internet” (Wireless Internet) has been developed; its the main technologies are wireless application protocol (WAP), General Packet Radio Service (GPRS), Code Division Multiple Access (CDMA), Centrino, and Chinese Wireless Authentication and Privacy Infrastructure (WAPI). WAP was the first trial of Mobile Internet in China, but it seemed to be a failure; Centrino and WAPI are the two latest trends of Mobile Internet in China; both have advantages and disadvantages. Which will be chosen by the future, and which will be dominant in China’s Mobile Internet industry? Let us take a look. In this chapter, we discuss the importance of mobile technologies and applications in this modern era with relevance to mobility in China.

MOBILE STATISTICS IN CHINA

Business Statistics

The information industry has been the one of the major drivers to impact economic development in China. And within the information industry, the communication and network markets have continued to maintain high-speed progress. Up until the end of 2003, the number of telecommunication users in China exceeded 400 million, and the number of Internet users

Figure 1. Trend of increment of China’s common phone users and mobile phone users from 2001 to 2004, and forecast for the number in 2005 (CLI4 Report, 2003)



reached 79.5 million. These figures establish the foundation of the development of mobile technologies and applications in China (OECD Report, 2004).

In China’s domestic telecommunications market, mobile communication equipment and services are widely accepted and adopted not only by individuals but also organizations. At present, mainstream mobile communication equipment includes mobile phones and PHSs (Personal Handphone Systems). As the largest mobile phone market, China had 269 million users in 2003, which increased 30% from 2002. Figure 1 shows the trend of increment of China’s common phone users and mobile phone users from 2001 to 2004, and it makes forecast for the number in 2005 (CLI4 Report, 2003).

Along with the upgrade of technologies, the number of PHS users also goes up dramatically from 2002. In September 2002, the number of PHS users exceeded 10 million, and at the end of 2002, the number increased to 11.13 million. At present, this number continues to increase at high speed (CLI4 Report, 2003). From Table 1, we find the number of PHS users in 2002 was over 11 million, and in 2003 the number boosted to 24 million, double that of 2002. Also we find the numbers of mobile phone users and other

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