Chapter 44
Web Services in China

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ABSTRACT

This chapter examines Web services in China. More specifically, it examines the state-of-the-art of China's Web services in terms of cloud services, mobile services, and social networking services through exploring several leading Web service providers in the ICT industry, including Alibaba, Tencent, China Mobile, and Huawei. This research reveals that the Chinese culture has played an important role in the success of China's Web services. The trade-off ideology and communication conventions from Chinese traditional culture, as well as Mao Zedong thought, greatly influenced the development of China's Web services. The findings of this chapter might facilitate the research and development of Web services and better understanding of the growth in China's ICT industry, as well as future trends.

INTRODUCTION

Generally speaking, a Web service is a service on the Web. The fundamental philosophy of Web services is to meet the needs of users precisely through providing Web services and thereby increase market share and revenue (Sun, Wang, & Dong, 2010). Similar to other countries, the development of Web services in China also encountered similar challenges such as how to meet the customer's demands, how to attract more customers as well as how to improve traditional services using Web services. The demand from markets and societies has been the driving force of the rapid development of the Web services in China.

There are many researches examining China's Web services. For example, Ai and Wang (2007) examine China Mobile's service model evolution. Yang and Liu (2009) analyze the successful strategies of Taobao's e-commerce platform services.

Ou and Davison (2009) look at why eBay lost to TaoBao in China. Yan (2011) expound Huawei's cloud computing. Fu and Shi (2007) compare electronic services in China to the U.S. China Academy of Telecommunicatoin Research of MIIT (2012) publishes the *Cloud Computing White Paper* to look at the state of art of China's cloud computing and cloud services. However, there are not systematic investigations into China's Web services in terms of cloud service, mobile service, and social networking service (SNS) in a unified way. This chapter addresses this issue by examining Web services in China. More specifically, this chapter examines the state of the art of China's Web services in terms of cloud services, mobile service, and SNS through exploring several leading Web service providers in the ICT industry including Alibaba, Tencent, China Mobile, and Huawei. This research reveals that Chinese culture has played an important role in the progress of China's Web services. The approach in this research might facilitate the research and development of Web services and the better understanding of China's ICT progress along with the dramatic development of China's economy in the past few decades. The finding can also help international e-service firms develop effective marketing policies to gain competitive advantages in the Web service marketplace.

The rest of this chapter is organized as follows: We analyze the fundamentals of Web services including the various understanding about Web services, and players in Web services, Chinese culture, and the relationship between culture and the Web services. We also look at China's answers to Web services, and examine Alibaba as the leader of Web services, Tencent as the leader of social networking services, Huawei as the leader of cloud services, China Mobile as the leader of mobile services from a cultural perspective. Finally, we end this chapter with concluding remarks and future research directions.

FUNDAMENTALS OF WEB SERVICES

This section first reviews Web services and then looks at Web services in terms of cloud services, mobile services, and social networking services.

Web Services

Web services can be defined from both a technological perspective and from a commercial perspective. From a technological perspective, a Web service is a communication approach between two electronic devices over the Web. That is, a Web service is a software system that can be accessed by other applications with widely available protocols and transports (Gartner, 2013). In other words, a Web service is a software system provided at a network address over the Web or in the cloud. Web-based applications are one of the critical components of Web services. They are composed of coarse-grained business functions accessed over the Web or in the cloud (Chung, Lin, & Mathieu, 2003). With the dramatic development of the Internet and mobile technology in the past decade, Web services have been flourished in e-commerce and e-business. They have also offered a number of strategic advantages such as mobility, flexibility, interactivity, and interchangeability in comparison with traditional services..

From a commercial perspective, a Web service is a collection of business activities within a business process and it is available over a network to internal and/or external business partners to achieve commercial goals. A Web service consists of Web service entities, Web service platforms, and Web service transactions (Yang, 2008). A Web service entity is an objective object engaged in e-services, such as an enterprise, a bank, a shop, a certification center, a government agent or an individual. Web service entities consist of service providers, service requestors, and service brokers

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