Roadmap for E-Commerce Standardization in Korea

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ABSTRACT

ECIF (Integrated Forum on Electronic Commerce) is a Korean organization streamlining domestic private sector e-commerce standardization facilitation and promoting domestic/international discourse for the enhancement of Korea’s e-commerce competitiveness. Herein is presented a summary of the Roadmap for E-Commerce Standardization, a major Forum project since early 2000. First, we overview the background and the motivation of the roadmap project. The roadmap contains an e-commerce and e-commerce standardization overview, e-commerce technology classifications, an e-commerce core technology standardization status analysis, and a core technology classification standardization timetable. The roadmap project implementation scheme is introduced. Most of the material within the paper is based on the Roadmap version 2.0 and version 3.0, the second- and third-year artifacts. Also incorporated are some features of the ongoing fourth-year development.

Keywords: e-business; e-commerce; e-commerce roadmap; electronic commerce standards

INTRODUCTION

E-Commerce in Korea

In the last decade, Korea recognized information technology (IT) as a vital factor in developing national industry effectiveness and promoted a domestic strategy, the High Speed Networks Information Infrastructure Project Plan and the e-Korea Vision 2006. In 2002, the total production amount of information technology industry approached 189.1 trillion KRW (1 US dollar is about 1,200 KRW), which is 31.8% GDP. Resulting from vigorous investment in the public sector, the public could access the Internet virtually anytime and anywhere (NCA, 2003).

Statistically, as of the year 2002, 26.27 million people (59.4% of the total population) enjoy using the Internet, while about 10 million households use broadband services. According to an OECD report, this represents that Korea has the best broadband service distribution rate among the OECD members; the number of broadband subscribers per 100 capita with 19.1 persons against 5.6, U.S. and 3.9, Japan. Moreover, regarding IT’s industrial production ratio over GDP, Korea among the OECD members ranked first in the world with 14.9%, and IT export ratio over total exports is 28.5% (NCA, 2003).

As national IT improves, its positive influence widely spreads out to industries such as...
as e-business. As of February 2004, there were 3,415 online B2C (business-to-customer) shopping malls, and the amount of B2C trading within online shopping malls was about 7.0 trillion KRW in 2003 (KNSO, 2004a, 2004b). In the third quarter of 2003, the market size of B2B (business-to-business) e-commerce and B2G (business-to-government) trading was about 50.2 and 4.2 trillion KRW, respectively (KNSO, 2004c).

**ECIF (Integrated Forum on Electronic Commerce)**


The mission of the Forum is to streamline the facilitation of domestic, private-sector e-commerce standardization and to promote domestic/international discourse for the enhancement of Korea’s e-commerce competitiveness.

The core values of the Forum consist of a consensus of the recognition of the vital influence of e-commerce on the nation’s global competitiveness, the collection and utilization of e-commerce information, active involvement of concerned parties in standardization, the need for private-sector standardization initiative, and international e-commerce technology standards.

The Forum has augmented and activated these issues via short- and mid-term objectives or plans. A flagship endeavor of the Forum is to publish a roadmap for e-commerce standardization as an establishment of its objective: to suggest guidelines on a continuous basis for the purpose of coping better with e-commerce technology environments.

Along with this endeavor, the Forum biannually performs the nationwide survey to identify usage and conditions applicable to e-business standards in Korea’s public and private sectors and to gather e-business-related user opinions for reference data complementary to and toward the advancement of Korea e-business competition benefit and related standardization strategy (ECIF, 2002b).

**Organization of the Paper**

This paper introduces the Roadmap for E-Commerce Standardization version 2.0 and 3.0 and second- and third-year artifacts published by the Forum in May 2002 and February 2003, respectively (ECIF, 2002a, 2003a). Note that the entire roadmap project itself is a three-year project from 2001 to 2003, and the artifacts of previous years act as the input source of the next year. In addition, the paper also introduces some of the interesting results of the survey of demands for e-business standardization in Korea (ECIF, 2002b).

Note that this paper addresses a specific effort of Korea toward e-commerce standardization. More precisely, the effort explained in this paper is a specific case made by a Korean e-commerce forum ECIF, a leading e-commerce organization that is supported by various governmental and industrial institutes and also by academia. The paper is organized as follows. First, the roadmap project is overviewed in Section 2. Section 3 explains categorization of e-commerce technologies for standardization. Specific core elements of e-commerce technology are classified in detail in Section 4. Section 5 briefly explains the current status of standards and standardizations within a classification scheme and also presents some interesting results of the survey we performed. Finally, Section 6 provides the conclusion.

**THE ROADMAP PROJECT**

**Definitions and Objectives**

E-commerce represents online business transactions performed electronically by business subjects utilizing information and communication technology and the Internet. It also represents the related activities of business subjects to fulfill such transactions. Major business subjects can be categorized as individuals, corporations, and governments.
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