

Chapter XIV

Digital Convergence and Home Network Services in Korea: Part 1 – Recent Progress and Policy Implications¹

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ABSTRACT

In South Korea, the home network industry has been the object of great expectations among the government and business community. Thus far, however, it has proved unable to fulfill these expectations. In this study, we categorized three classes of typical services and five industrial participants with regard to Korean home network industry. We first reviewed the government plans on home network services in the early stage of evolution. Second, consumer value expectations and current home network service levels were examined to understand the issues regarding weak diffusion of home network services. Next, we investigated business interests of the industrial participants comprising convergent home network services, and explored the causes of conflicts among them. On the base of the analyses, we offered policy suggestions from digital convergence perspective to help removing the obstacles that hinder business cooperation among industrial participants of the home network industry. Managerial implications for the participating firms were discussed in Part II adopting business model framework.

HOME NETWORK SERVICE EVOLUTION

Home network service is a digital convergence service on the base of integrated computer information technologies, telecom services, and home appliances in residential areas. In the early stage of home network evolution, the main issue was the technology itself to enable the networking of the appliances by means of wire or wireless telecom technologies. Recently, the scope of home network services is extended to include more comprehensive industry convergence applications such as home broadcasting & entertainment, and integrated communication & information services (National Information Society Agency, 2003). In our study, we classified the home network services into three types: home control & automation service, home broadcasting & entertainment service, and home communication & information service. The definitions of each home network service and particular applications are illustrated in Table 1.

It was expected that Korean home network industry would develop into a representative Korean industry that should lead the world market as well as usher in the age of the 30,000 dollar national per capita income (Kim, 2005). Based on this forecast, many major companies, to dominate the related industry beyond 2010, heavily invested on the technology development

to secure standardization in its inception stage that should lead strong positioning in the home network industry. Industrial participants of home network services were diverse due to inherent nature of convergence from many industrial sectors. The companies participating in home network services were from various industrial sectors such as telecom, broadcasting, home appliances, construction, and digital contents. In early stage of home network service evolution, the home network services had been initiated mainly by the equipment manufacturers including home appliances and the telecom service providers. Equipment manufacturers laid emphasis on digital home appliances, computer servers, telecom gateways, and integrated networking of different devices, whereas the telecom service industry focused on back-bone high-speed Internet infrastructure, information provision, home entertainment, and integrated services.

Each industrial participant had strategic motivations to go into the home network service industry. Construction companies, as an opportunity to exploit their experiences cultivated through constructing digital enhanced buildings, apartments, and condominiums in the late 1990's, provided provisional home network services that focused on home automation through cooperation with ISPs (Internet Service Providers). Electronic home appliance manufacturers intended to over-

Table 1. Types of home network services

| Type | Definition | Items |
|--|--|---|
| Home control/ automation service | A service that monitors and controls devices like electronic home appliances, sensors, and lighting as well as the physical status of the house, using a fixed or mobile handset. | Remote control, home security, crime and disaster prevention, and energy management, etc. |
| Home broadcasting/ entertainment service | A service that enables the user to play high quality multimedia data transmitted from the outside of home, such as movies, MP3 (MPEG Audio Layer-3), or HDTV (High-Definition TV) on the audio/video devices in home - which is connected via wire or wireless home network, and also enables the user to retrieve the contents inside home from outside, or play games. | HDTV broadcasting, wire/wireless streaming, VoD (Video service on Demand), games, etc. |
| Home communication/ information service | A service that supports data exchange, the Internet browsing or remote information processing by connecting computers to other computers and printers. | e-mail, Internet search, home shopping, e-government, remote medical treatment, silver care, file sharing, etc. |

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