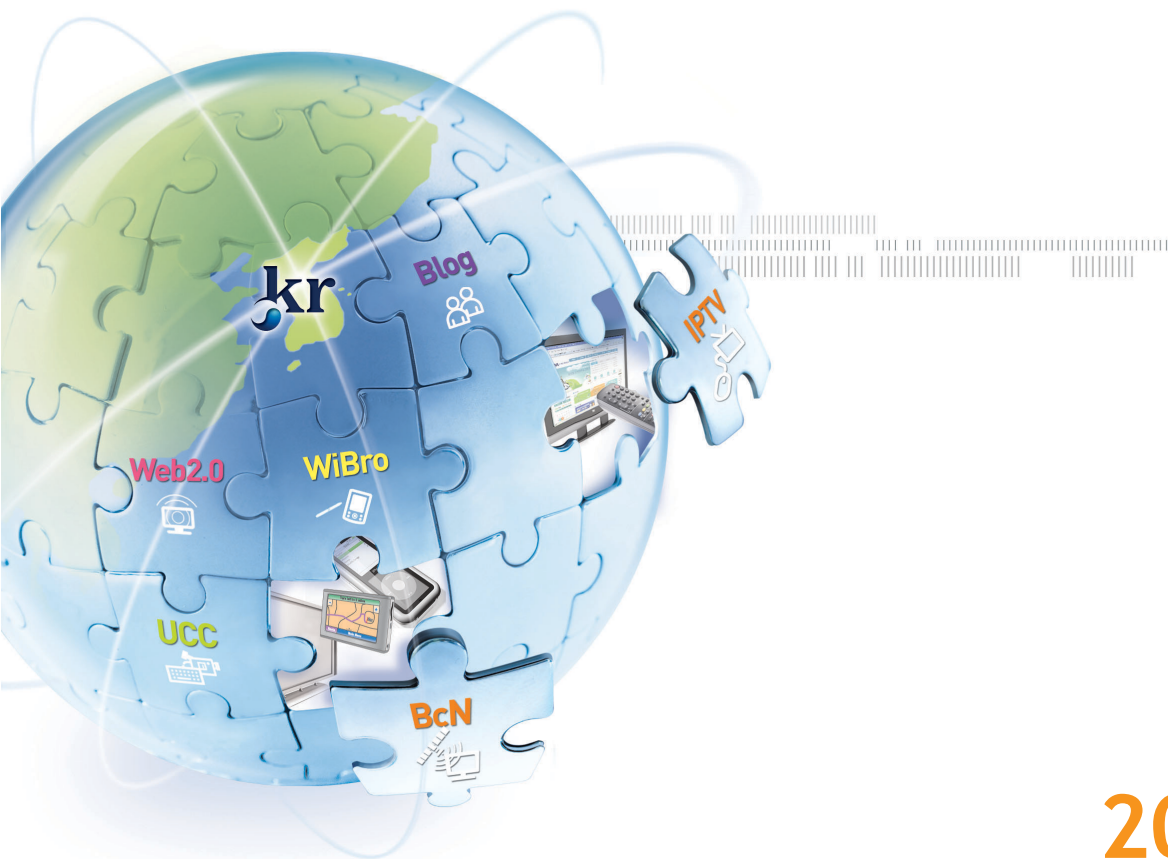




2008 Korea Internet White Paper

Remarks

- The Special Report and Top 10 Internet News of this White Paper has been selected from among notable local IT related news issues of 2007 by a 22 person editing committee comprised of experts from industry, academia, research and government.
- Government ministry names used in this White Paper are those prior to the revised 「Government Reorganization Plan and Civil Servants Act」 of February 29, 2008. The names of some ministries noted here have been changed following the revision.
- Part 3 'Policy' is current as of end December 2007 and does not include revisions of 2008.

Message from the Chairman of KCC



Even the word 'revolution' does not fully express the change to human civilization that the Internet has brought. Communication, openness, innovation, all of these common values that mankind has pursued are now being realized through the Internet. What is more, the Internet is presenting new opportunities and challenges by promoting convergence between different sectors, including broadcasting and telecommunications.

With strong government-driven policy, Korea has been able to build world leading Internet infrastructure in a short period of time. This foundation has enabled Korea to create new businesses and jobs, benefit from improved productivity on all fronts, and witness drastic changes in people's lifestyles.

In 2008, two very meaningful events stand out for Korea's Internet sector. The first is the launch of the Korea Communications Commission which is an embodiment of the national commitment to utilize the broadcasting and telecommunications convergence trend brought about by developments in Internet technology, with a view to advance the national economy as well as improve the well being of its people.

The second is the OECD Ministerial Meeting on the Future of the Internet Economy to be held in Korea, a first-ever for Asia. During the Ministerial, global IT leaders will discuss the direction of Internet development and various policy issues, from which a new blueprint that outlines the next decade for the Internet will be drawn up.

Taking opportunity of these two events, KCC will accelerate efforts to upgrade the Internet usage environment. The Commission will also work on stimulating convergence-related businesses as well as fostering a healthy Internet culture. The Internet not only evolves at a lightning pace but can also change society in a blink of an eye. As such, there is a pressing need for overall empirical data on Internet related trends to support rapid and accurate decision-making by governments or companies.

To fulfill such a need, the National Internet Development Agency has been annually publishing the 「Korea Internet White Paper」. This White Paper holds credible data and analysis compiled and edited by more than 60 leading experts to cover local and global Internet trends and categorized policies. I believe that it will be a valuable reference material for the academia and research society, not to mention for governments and businesses.

In closing, I sincerely hope this White Paper can be put to extensive use as a basic reference for policy making and Internet development, allowing Korea to rise as a leader in broadcasting and telecommunications. I would like to extend my heartfelt gratitude to all those who have participated in its preparation.

May 2008

Korea Communications Commission, Chairman, See Joong Choi

최시중

Publisher's Message



Today, the Digital Wave is shifting the world's economic paradigm, making the convergence of broadcasting and telecommunications an urgent national agenda and a trend of an era that does not allow further delay. With the establishment of the Korea Communications Commission, an integrated organization responsible for both policy-making and regulation for new media such as telecommunications and broadcasting, the importance of Internet has become greater than ever serving as the foundation for convergence.

As a critical infrastructure which the world depends on to attain economic growth and social development, Korea has become a nation that has the highest level of the Internet usage rate in the world with an astonishing figure of 76.3%. Widespread use of the Internet has brought along a change of scenery through Web2.0 and UCCs, as well as creation of new markets through convergence of industries and services.

In response to these changes, the Government has been working to establish a healthy online culture and user protection, and to promote online businesses in an effort to maintain the nation's status as a global Internet leader. The annual publication of the Korea Internet White Paper is in line with such efforts, providing a structured look into local and global Internet trends and related policies for use in discussing the future direction of the Internet and in referencing as fundamental data for related industries and research studies.

The 「2008 Korea Internet White Paper」 reflects the overall changes of the Internet through a Special Report and 3 main sections. The 'Special Report' covers the Web2.0's main hit product, UCC, and the rapidly evolving convergence service, mobile Internet. 'Part 1 Infrastructure' explores trends in the Internet industry and Internet users, Internet infrastructure, new technology, and Internet in other countries. 'Part 2 Service' goes over Internet service offerings and businesses, and Internet-based society and culture. 'Part 3 Policy' provides information on next-generation Internet policy, the policy for resolving side effect of IT revolution and the digital divide, and Internet related laws and regulations.

I hope that 「2008 Korea Internet White Paper」 will provide a valuable source of information, serving as a reference tool for the nation's Internet related policy development and researches. Finally, I would like to extend deep appreciation to the contributors and editorial staffs, who participated for the publication.

May 2008

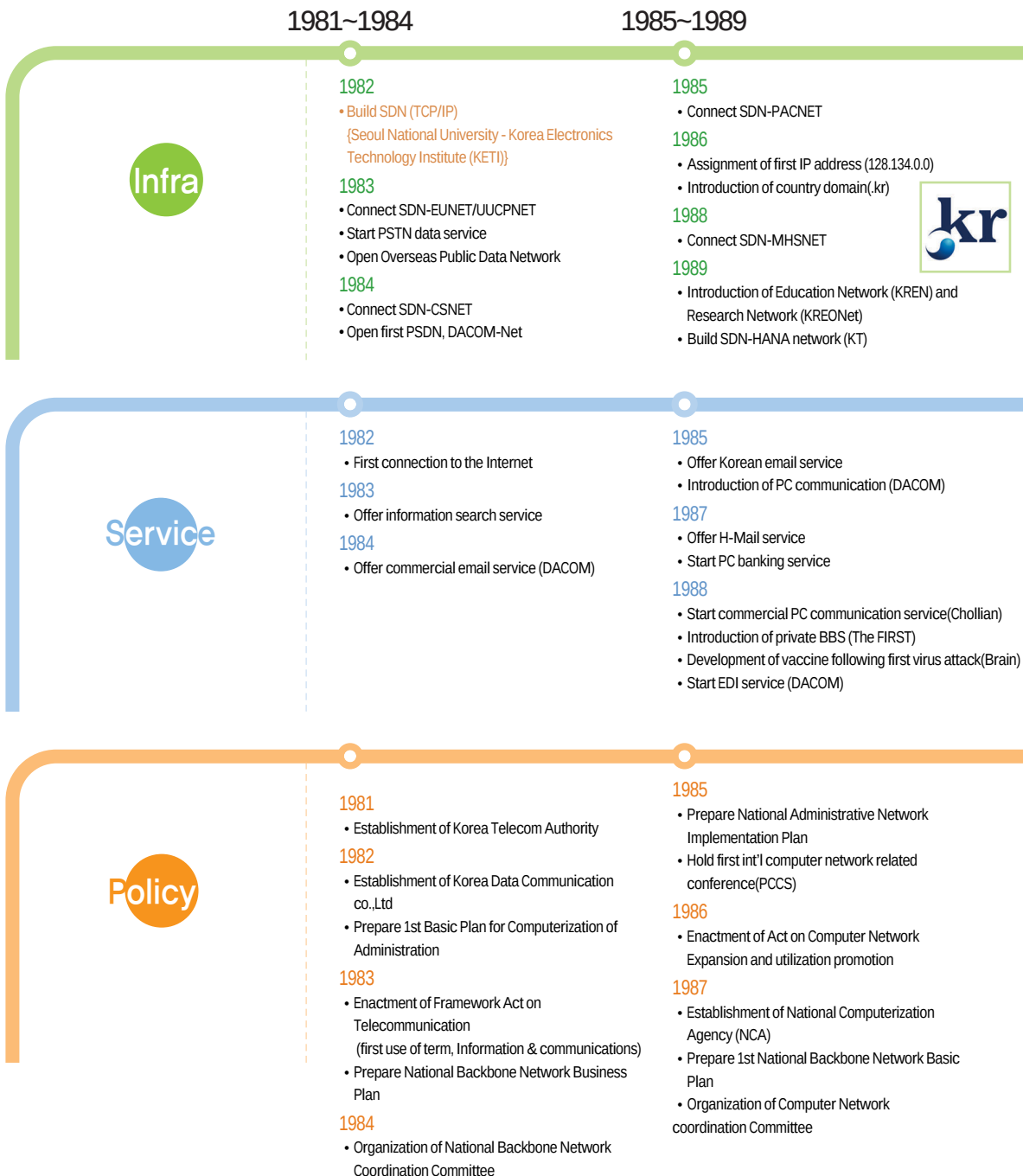
National Internet Development Agency of Korea, President, Syung Kyoo Park

A handwritten signature in black ink, consisting of stylized Korean characters, located at the bottom right of the page.

Korea's Internet History

The Internet made its debut in Korea with building the first Internet system, SDN in 1982. Following the introduction of commercial services in 1994, the speed of Internet growth has been anything but remarkable, and since 2000, Internet usage in Korea has entered into a stage of maturity and stability. With 76.3% of the population using the Internet, the service has indeed become a revolutionary force upon all sectors of society and is expected to expand its influence further.

1980's



1994

- Introduction of Commercial Internet Service
- Establishment of Ministry of Information and Communication

1998

- Introduction of commercial broadband Internet service

1999

- Internet users exceed 10 million

1990's

1990~1993

1990

- Connect SDN-HANA to US IP based Internet

1993

- Open administration information network (NATISNET)

1994~1996

1994

- Introduction of Commercial ISP (KT, Dacom, iNet)

1995

- Establishment of PC-Internet connection
- Implementation of KIX Service

1996

- Open ISDN public network

1997~1999

1997

- Start leased line service
- Start high speed national network Internet service
- PC communication subscribers exceeds 3 million

1999

- Internet users exceed 10 million
- First assignment of IPv6 address

1991

- Start online issue service of resident registration documents

1993

- Open first website(cair.kaist.ac.kr)

1994

- Introduction of commercial Internet service(KT)
- Start text based MUD game service
- Open government authorities websites (Blue House, etc.)

1995

- Start 'WWW' service
- Start Internet cafe(Netscape)
- Open Internet news & broadcasting sites(JOINS, KBS)

1996

- Start ISDN Internet service
- Start e-commerce and First webzine service
- Introduction of first graphic based MUG game
- Hold Information EXPO

1997

- Start online stock trading service
- First free Internet services for email and search, etc.
- Introduction of portal sites (Netsgo)

1998

- Introduction of commercial broadband Internet service (Thrunet)
- Offer e-government service

1999

- Start ADSL service (Hanaro Telecom)
- Start online banking service

1990

- Prepare Master plan Information Society

1992

- Prepare 2nd National Backbone Network Basic Plan
- Enactment of Act on Promotion of Information and Communications Network Utilization, etc.

1993

- Prepare National Information Super Highway Basic plan

1994

- Establishment of Ministry of Information and Communication (MIC)

1995

- Prepare National Information super highway master plan
- Enactment of Framework Act on Informatization Promotion
- Establishment of Korea Internet Safety Commission (KISCOM)



1996

- Prepare 1st Informatization Promotion Basic Plan
- Organization of Informatization Promotion Committee

1998

- Prepare Information and Communications Network Improvement Plan
- Prepare PC Communication and Internet Utilization Promotion Plan

1999

- Development of 'Cyber Korea 21'
- Enactment of Framework Act on Electronic Commerce, Digital Signature Act
- Establishment of KRNIC

2001

- No. 1 in world in broadband networks
- Enactment of Act on Promotion of Information and Communication Network Utilization and Information Protection, etc.

2002

- Broadband Internet subscription exceeds 10 million households
- Development of 'e-Korea Vision 2006'

2003

- Development of 'Broadband IT Korea Vision 2007'

2000's

2000

Infra

- Open commercial ATM exchange network
- Establishment of Korea ISP Association (KISPA)

2001

- No. 1 in world in broadband networks(OECD)
- Internet users exceed 20 million
- Sales of Wireless Internet devices exceed 20 million

2002

- Broadband Internet subscription exceeds 10 million households
- No. 1 in world in broadband Internet penetration



2003

- 1.25 Internet Security Incident

Service

- Start of Hangul.kr service

- Online banking subscribers exceed 10 million
- Introduction of Internet content rating service

- Game market exceeds 3 trillion won
- Open Korea online e-procurement service
- Start wireless LAN service (Nespot)

- Start VDSL (20Mbps) service
- e-Commerce market exceeds 200 trillion won
- Start mobile banking service

Policy

- Completion of 2nd Stage National Information Super Highway Project
- Enactment of Software Industry Promotion Act, Knowledge Information Resource Management Act
- Prepare Personal Information Protection Guidelines
- Implementation of 11 Initiatives for e-Government
- Establishment of Korea SW Industry Promotion Agency(KIPA)

- Enactment of Act on Promotion of Information and Communications Network Utilization and Information Protection, etc.
- Establishment of Korea Information Security Agency (KISA)
- Prepare National Information Super Highway Improvement Plan
- Organization of Special Committee on e-Government

- Development of 'e-Korea Vision 2006'
- Enactment of Online Digital Contents Industry Development Act
- Prepare IPv6 Promotion Plan
- Official launching of e-Government(egov.go.kr)
- Establishment of Internet Addiction Prevention Center

- Development of 'Broadband IT Korea Vision 2007'
- Implementation of 31 Initiatives for e-Government Road Map
- Enactment of Act on Bridging the Digital Divide
- Establishment of Korea Agency for Digital Opportunity and Promotion (KADO)
- Establishment of Korea Internet Security Center

2004

- Implementation of IT839 Strategy
- Internet users exceed 30 million

2005

- Introduction of commercial VoIP service

2006

- Introduction of world first WiBro, HSDPA service
- Development of 'u-Korea Basic Plan'

2007

- Implementation of Identify Verification
- Enactment of IPTV Business Act

2004

- Internet users exceed 30 million
- Start BcN pilot project



2005

- No. 1 in Digital Opportunity Index(ITU)
- Pilot Internet service on aircraft(Korean Air)
- International standardization of 'WiBro'(IEEE)

2006

- No. 1 in Digital Opportunity Index(ITU)
- Start FTTH service



2007

- No.1 in Digital Opportunity Index(ITU)
- International standardization of WiBro and T-DMB(ITU)

- Start home network services
- e-Commerce market exceeds 300 trillion won



- Introduction of commercial VoIP service
- Mobile banking users exceed 1 million
- Online game market exceeds 1 trillion won
- Start mobile e-bidding service

- Introduction of world first WiBro, HSDPA service
- Online shopping mall volume 13 trillion won
- Start mobile civil service

- Introduction of the 2nd level .kr domain(QuickDom)
- e-Commerce market exceeds 500 trillion won

- Enactment of Act on Internet Address Resources and e-Learning Industry Development Act
- Development of 'IT839 Strategy'
- Prepare BcN Implementation Plan
- Establishment of National Internet Development Agency of Korea(NIDA)

- Prepare IPv6 Distribution Promotion Basic Plan
- Implementation of Real-Name System for Internet Civil Service

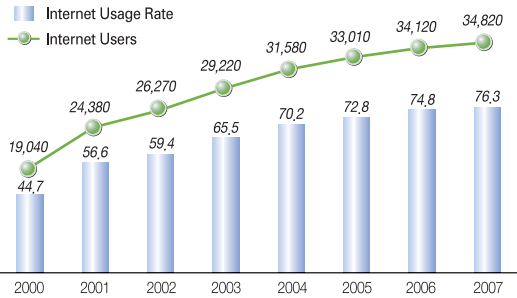
- Development of 'u-Korea Basic Plan'
- Prepare e-Learning Industry Development Basic Plan
- Prepare Online Game Identity Theft and Hacking Prevention Plan
- Development of 'u-IT839 Strategy'
- Hold 1st Korea Internet Award

- Implementation of Identify Verification
- Introduction of i-PIN, an alternative to resident registration number
- Enactment of IPTV Business Act

2008 Internet at a Glance

Internet Usage Rate & Users Trends (Ages 6 and over)

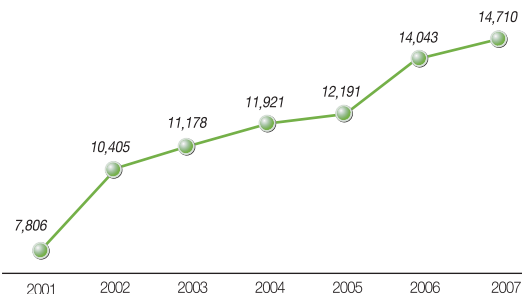
(Unit : %, thousand persons)



MIC, NIDA, Survey on the Computer and Internet Usage, February 2008

Broadband Internet Subscribers

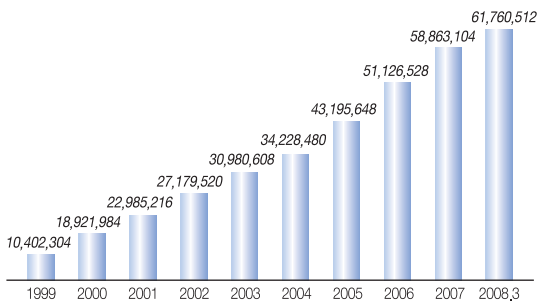
(Unit : thousand persons)



MIC, Broadband Internet Subscribers, January 2008

Number of IPv4 Addresses

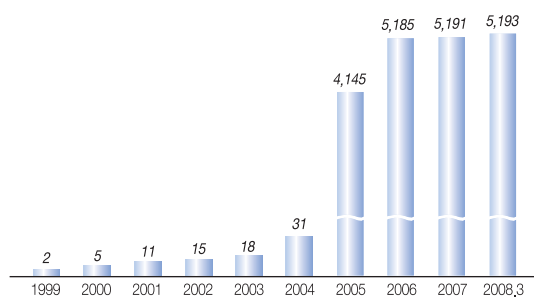
(Unit : each)



NIDA, Monthly Internet Statistics, March 2008

Number of IPv6 Addresses

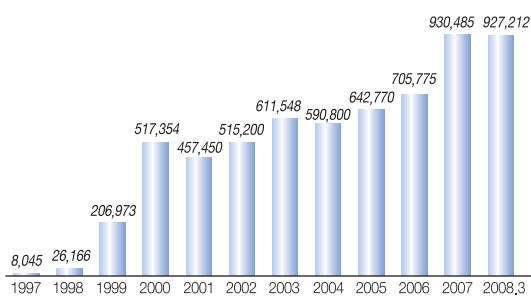
(Unit : /32)



NIDA, Monthly Internet Statistics, March 2008

Number of .kr Domains

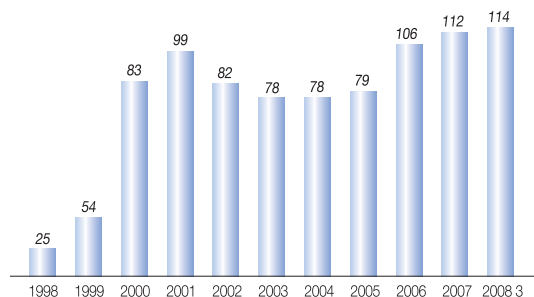
(Unit : each)



NIDA, Monthly Internet Statistics, March 2008

Number of ISPs

(Unit : each)



NIDA, Monthly Internet Statistics, March 2008

Internet Industry Market Volume

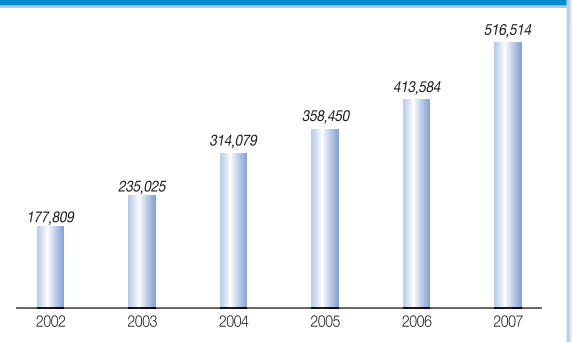
(Unit : billion won, %)

Type	2002	2003	2004	2005	2006	2007(E)	CAGR	Year-on-year Growth Rate
Infrastructure Industry	1,559	1,188	1,004	1,351	1,707	1,511	-0.6	-11.5
Support Industry	4,235	4,204	4,929	5,243	5,835	6,205	7.9	6.4
Application Industry	9,513	10,848	12,408	14,061	15,670	16,439	11.6	4.9
Total	15,307	16,240	18,341	20,655	23,212	24,155	9.6	4.1

※ CAGR : 2002~2007 Compounded Annual Growth Rate, (E):Provisional data, KAIT, IT Industry Report (Monthly/Yearly), March 2008

e-Commerce Market Volume

(Unit : billion won)



KNSO, 2007 e-Commerce Survey, March 2008

Online Banking Transaction(Daily Average)

(Unit : thousand cases, 100 million won, %)

Type	2004		2005		2006		2007	
	No. of cases	Amount	No. of cases	Amount	No. of cases	Amount	No. of cases	Amount
Account Inquiry	7,501 (83.4)	-	9,199 (82.7)	-	10,596 (82.8)	-	15,177 (84.7)	-
Fund Transfer	1,492 (16.6)	89,910	1,924 (17.3)	125,182	2,204 (17.2)	150,903	2,740 (15.2)	185,570
Loan Service	2.3 (0.0)	158	1.8 (0.0)	115	1.9 (0.0)	137	2.0 (0.0)	135
Total	8,995 (100.0)	-	11,125 (100.0)	-	12,802 (100.0)	-	17,919 (100.0)	-

※ () is out of total online banking service BOK, Online Banking Service Usage Report, February 2008

e-Learning Demand Market Volume

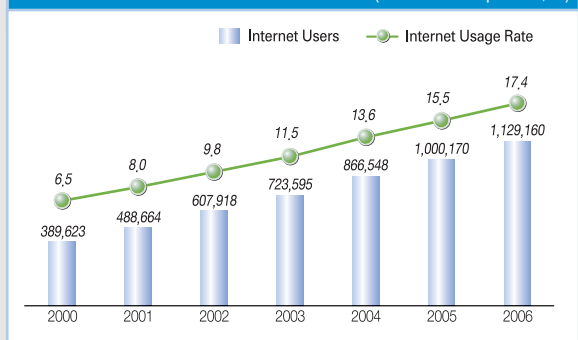
(Unit : million won, %)

Type	2004	2005	2006	2007	Year-on-year Growth Rate
Individual	668,996	671,509	697,227	735,108	5.4
Educational Institution	13,243	18,424	26,220	69,555	165.3
Government and Public Agency	83,105	94,418	137,574	163,366	18.7
Company	527,291	668,169	752,286	759,603	1.0
Total	1,292,635	1,452,520	1,613,307	1,727,632	7.1

KIEC, e-Learning Survey, March 2008

World Internet Users & Usage Rate Trends

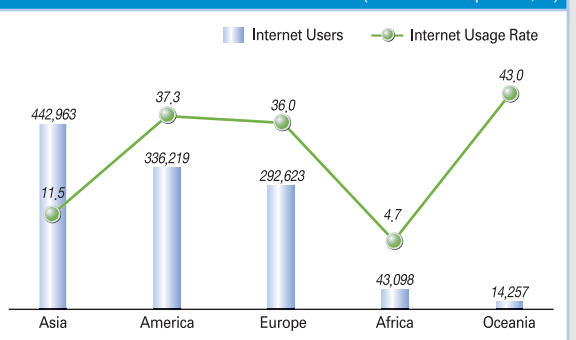
(Unit : thousand persons, %)



ITU, World Telecommunication ICT indicators, February 2008

Internet Users & Internet Usage Rate by Continent

(Unit : thousand persons, %)



ITU, World Telecommunication ICT indicators, February 2008

Top 10 Internet News

01

The Wave of IT Convergence Services Including IPTV



IT convergence has gone main-stream following the full throttled acceleration of the Digital Era, characterized by its liberal access to various services realized through an integrated network of Internet, telecommunications, and broadcasting.

The most notable one is the passing of the 「Internet Multimedia Broadcasting Business Act」 on Dec. 28, 2007 that will lay the foundation of IPTV commercialization.

Expected to be fully introduced to the public following the enactment of the enforcement ordinance scheduled for mid 2008, IPTV service is at the core of the convergence between broadcasting and communication. It uses the Internet to provide real-time broadcasting, as well as Internet search, shopping, messenger services, and gaming capabilities on the viewer's TV.

IPTV service is expected to create new convergence services and also power the growth of related contents and equipment businesses. Other convergence services include WiBro, Mobile IPTV, satellite and terrestrial DMB, and 3G.

02

Launching of Korea Communications Commission



There had been a discussion on the establishment of a new public agency to regulate new media policies on broadcasting, telecommunications, and the Internet since 2007. The Korea Communications Commission(KCC) was formally launched in February 29, 2008 as a result.

The passing of the 「Act on Establishment and Operation of the Communications Commission」 on Feb 26, 2008 put together the telecommunication policies and regulation functions of the Ministry of Information and Communication and the broadcasting policies and regulation functions of the Broadcasting Commission to establish a new organization in order to oversee convergence service policies.

The launching of the KCC is expected to resolve issues related to the overlapping regulations between the former Ministry of Information and Communication and the Broadcasting Commission, and clear up policy obstacles and uncertainty. Entry barriers to the media industry will be largely lowered, as exemplified by the expected conditional allowance on cross-ownership between newspaper and broadcasting businesses.

03

Web2.0 Services Expand in Full



The web2.0 trend, where a user participates in sharing information and creating new value through individual services such as UCC(User Created Contents) and blogs, has expanded its stage onto government and businesses.

The terms such as Mobile web2.0, Marketing2.0, Enterprise2.0, S/W2.0, and Silver Light Web2.0 have been coined, and Web2.0 has been welcomed and adapted in a variety of settings.

Blogs and videos have become ever more popular. Many Internet companies including Daum and NHN introduced widgets to provide a more personalized service to their users.

The SaaS(Software as a Service) model, developed under the concept that recognizes computer software as a service, was well accepted by the public, and local software companies such as Ahn Lab introduced open source software products.

Private business owners as well as public agencies also began to study how to introduce social networking services, blogs, and other web2.0 based services into their products and services.

04

Adoption of WiBro and Terrestrial DMB as an international standard



Korea was once again recognized as a world leader in IT technology with Wibro, the world's first commercialized mobile Internet, and terrestrial DMB (T-DMB) technology.

WiBro was adopted as the 6th 3G(3rd Generation) IMT-2000 standard at the Geneva ITU on Oct 19, 2007. This has led to an increase in WiBro acceptance among many countries, which in turn is expected to contribute export market growth for the equipment industry. WiBro gained further appeal with the

adoption of the 2.3GHz band as the frequency band for 4G.

In December 2007, terrestrial DMB was also adopted as an ITU international standard along with Qualcomm's North American standard(Media Flow), Nokia's European standard(DVB-H), and Japan's standard(One-Seg) following the circulation within 191 ITU member countries. Furthermore, a total of 8 recommendations raised by the Korean delegation on Internet technology, such as IPv6 structure and application technology, global roaming within the next generation telecommunications network, and the 'Mobility Management Framework' on location management and handover support technology, have been accepted as international standards.

Top 10 Internet News

05

Video UCC Popularity



In 2007, UCC continued its popularity as a flagship service of web2.0. It has been used from specialized purpose to public awareness campaigns, not just a source on information and entertainment.

Video UCC is the buzzword as such 5 out of 10 Internet users have produced UCC at least once. Video UCC featuring the 'Tell Me' dance became so popular that it was used in the public media and even for political campaigns. Video UCC has also gotten incorporated into sales and marketing strategies.

Some companies used video UCC for employment screening as well as for corporate promotional activity.

As a result, Internet businesses providing UCC platforms such as Pandora TV have thrived, and portals have reinforced their video services.

However, issues such as copyright infringement, defamation, circulation of explicit material, and privacy violation that might arise during the process of producing and using video UCC still need to be addressed.

06

Legal Enforcement on User Rights and Personal Information Protection



As events of personal information leakage and privacy violation increases with the rising Internet population, several action to protect user rights and interests have been taken.

Revisions on 「Act on the Promotion of Utilization of Information and Communications Network and Protection of Information」 as well as on its enforcement ordinance and enforcement regulations have been made, introducing the identity verification that checks the identity of an online comment poster from July 2007. Also, when there is a request for mediation by a victim of malicious comments, the service provider is liable to temporarily block(up to 30 days) the comments in question.

The 'UCC User Guidelines' that include action plans, for example, compliance of online ethics, was announced on June 29. In July, MSN, and in October, Naver, has introduced the i-PIN that can be used instead of the Resident Registration Number, and the defamation dispute mediation center at the Korea Internet Safety Commission has been opened to promptly support damaged victims.

07

Rising of Internet Companies' Social Responsibility



As concern over copyright infringement, distribution of pornographic material, click fraud and other negative effects of the Internet rise, laws are being enacted to protect the Internet users and also to clarify the boundaries of corporate social responsibility.

This is an effort to reinforce the social responsibilities of Internet companies such as portals and game sites, where the negative effects of the Internet on society and economy are rapidly rising.

The government has submitted to the National Assembly a revision to Act on the Information and Communication Network, to set the boundaries of social responsibility of high impact portals with certain size and over. This revision includes sections on banning illegal, information distribution, protecting small online advertisers, promoting mutual cooperation between large portals and small sized contents providers, establishing user protection schemes, and expanding voluntary regulation on illegal advertisements.

08

Domestic Market Entry by Global Internet Companies



Globally renowned Internet companies are entering into the Korean market. Also, existing foreign Internet companies with unsuccessful performance are strengthening up their marketing campaigns by making a visit and sharing their corporate strategy with Korean consumers. The global search engine company Google announced the new design for its Korean website, and MySpace and Linden Lab's Second Life, popular social Networking Service sites, also introduced customized Korean websites.

In addition, video UCC sites such as YouTube also began to offer Korean services. In step with a visit by U.S. head office management, Yahoo Korea launched Flickr the world's largest photo sharing site. However, since local Internet companies already taken the market, Flickr has yet to record meaningful results.

Top 10 Internet News

09

Blogging Nation



4 out of 10 Internet users have their own blogs. The growth of blog usage has been all but explosive. Behind this growth are plugins or add-on features that allow bloggers to make unique and creative expressions. The popularity of mini blogs like Playtalk and Me2Day with the simple features are on the rise. The Blogspheres, a network of bloggers are also popular.

Compared to non-bloggers, a blogger has a higher rate of information acquisition through the Internet as well as a higher tendency of on-offline social activities. As such, there has been bloggers famous for their knowledge among other bloggers and they are gaining financial earnings with their popularity. However, along with the growing media power of blogs, an array of issues need to be addressed, including accuracy of information, and abrupt discontinuation of blog services by the provider.

10

2nd Level kr Domain(QuickDom) Service



A faster and easier quick domain known as Quickdom, a second level kr domain service began to take on new registrants. It is a domain without the co, or, pe label that defines the domain's nature(e.g. nida.kr).

NIDA allowed early registration process to existing domain name holders to register a Quickdom. Registration service was formally started on April 19th, 2007 on a first come first served basis. The introduction of Quickdom has enhanced the usability of kr domains so that they have surpassed the number of new registrations of .com domains in Korea for the first time since the kr domain was first introduced in 1993.

Meanwhile, NIDA lowered the domain registration fee by 32.1% from 14,000 won to 9,500 won in February 2008. Furthermore, in December 2007, NIDA launched a dynamic DNS update service so that kr domain registrants can access their .kr domains immediately upon registration.



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Special Report

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2008 Korea Internet
White Paper



2008 KOREA INTERNET WHITE PAPER

Special Report



UCC



Mobile Internet

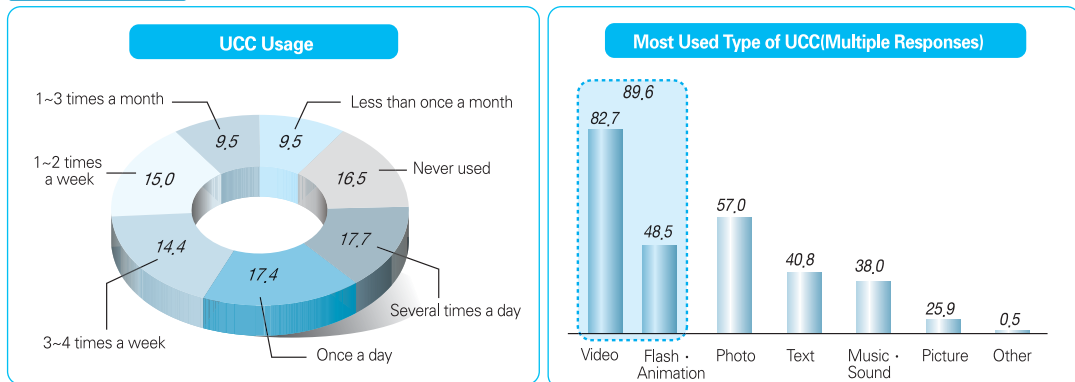
1. UCC

The rapid increase in broadband access, along with the rocketing sales of digital cameras and mobile phones with photo and video capabilities have made it easier for users to distribute the contents they have created out to online social networks and blogs. Also, with the expansion of Web2.0 service characterized by user participation, sharing, and open communication, the distribution of UCC(or User Created Contents) has become ever more active, increasingly impacting society and making magazine Time declare 'You' as the 'Person of the Year' in 2006, recognizing those directly involved in the making and sharing of UCC.

According to the 「Survey on the UCC Usage」 conducted by the National Internet Development Agency of Korea(NIDA), 83.5% of Internet users in Korea have seen or used UCC made by others. With 74.0% of which said to be using the media 'more than once a month', UCC has gained quite a large user base in the online world. 89.6% of UCC users went for Video(82.7%) and Flash · Animation(48.5%) as the main type of UCC, followed by Photo(57.0%), Text(40.8%), and Music · Sound(38.0%) (see Fig. Special-1-1).

Figure Special-1-1 UCC Usage Status and Main UCC Type

(Unit : %)

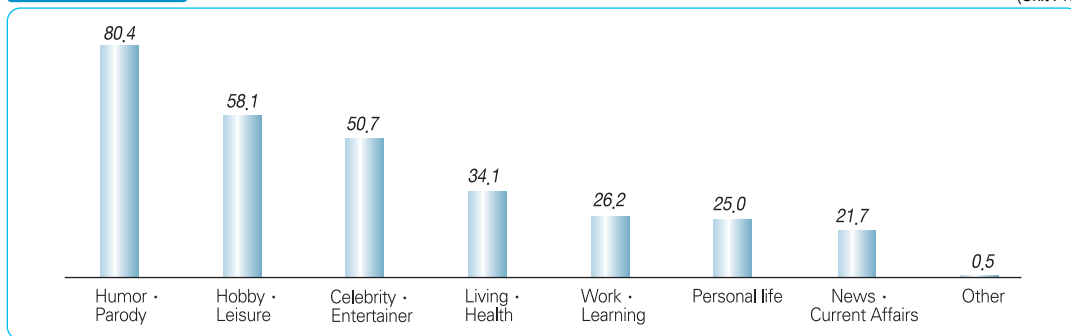


NIDA, Survey on the UCC Usage, June 2007

Amusing UCC such as Humor · Parody made up 80.4% of the UCC producers' subject material. Also, material dealing with common interests such as Hobby · Leisure(58.1%) and Celebrity · Entertainer (50.7%) was also used(see Fig. Special-1-2).

Figure Special-1-2 Most Used Subject of UCC(Multiple Responses)

(Unit : %)

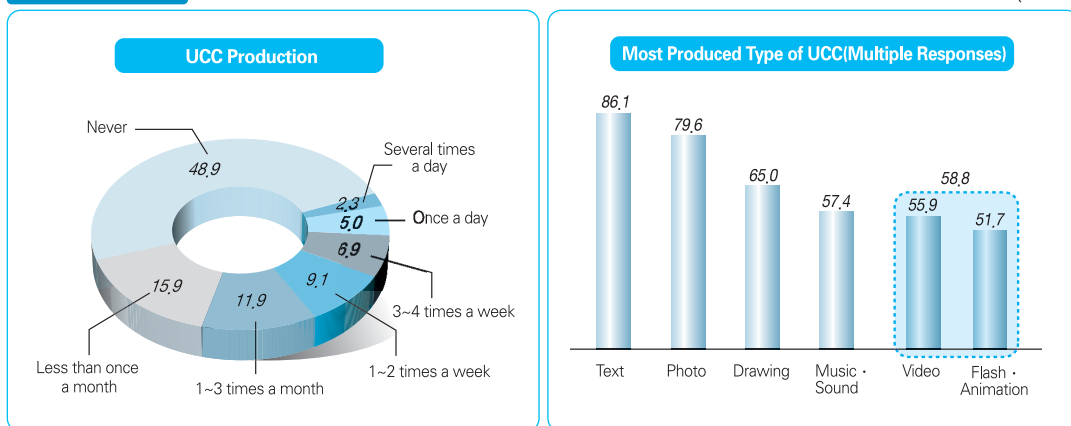


NIDA, Survey on the UCC Usage, June 2007

In aspect of UCC production by Internet users, 51.1% of those surveyed have experience in producing UCC, and 35.2% make UCC more than once a month. While most UCC producers make their UCC based on Text(86.1%) and Photo(79.6%), 58.8% also produce and post UCC in the form of Video(55.9%) and Flash · Animation(51.7%), the more popular types of UCC within the user circle(see Fig. Special-1-3).

Figure Special-1-3 UCC Production and Main Types of UCC Production

(Unit : %)

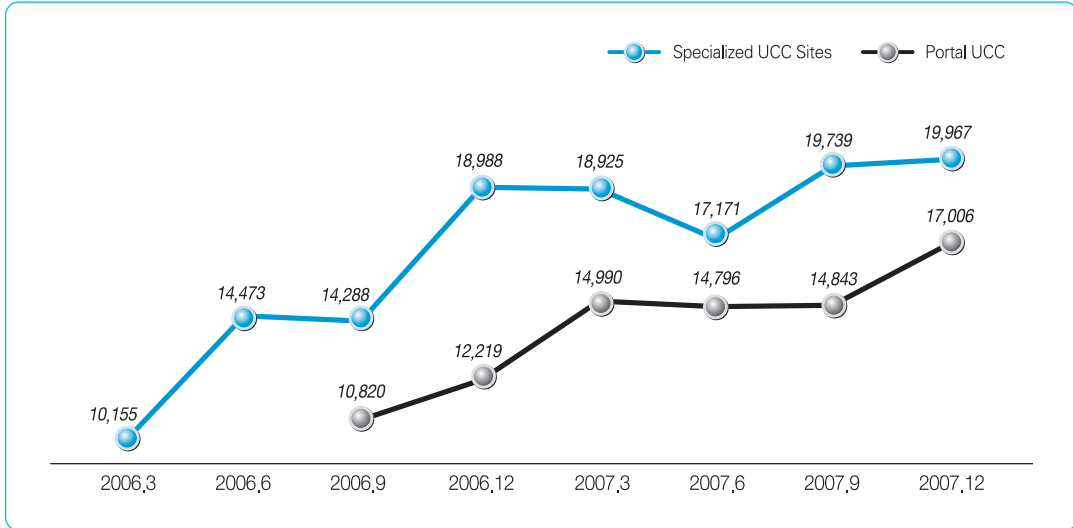


NIDA, Survey on the UCC Usage, June 2007

UCC is distributed mainly through specialized UCC sites and portal sites. Video UCC sites receive a total of 19,967 thousand visitors monthly as of December 2007, up from 10,155 thousand visitors of March 2006(see Fig. Special-1-4). The number of UCC production and usage by Internet users has greatly expanded in step with Web2.0 trend of participation and open communication, shedding promising light onto Web2.0 companies with UCC business focuses.

Figure Special-1-4 Portal UCC and Specialized UCC Sites Unique Visitors

(Unit : thousand persons)



Metrix, www.metrix.co.kr

UCC is at the forefront of a mind-shifting transformation. At the core of this change is the creation of value through user participation. This trend is paving the way for a new societal order where diversity is realized through active user participation and creativity is encouraged.

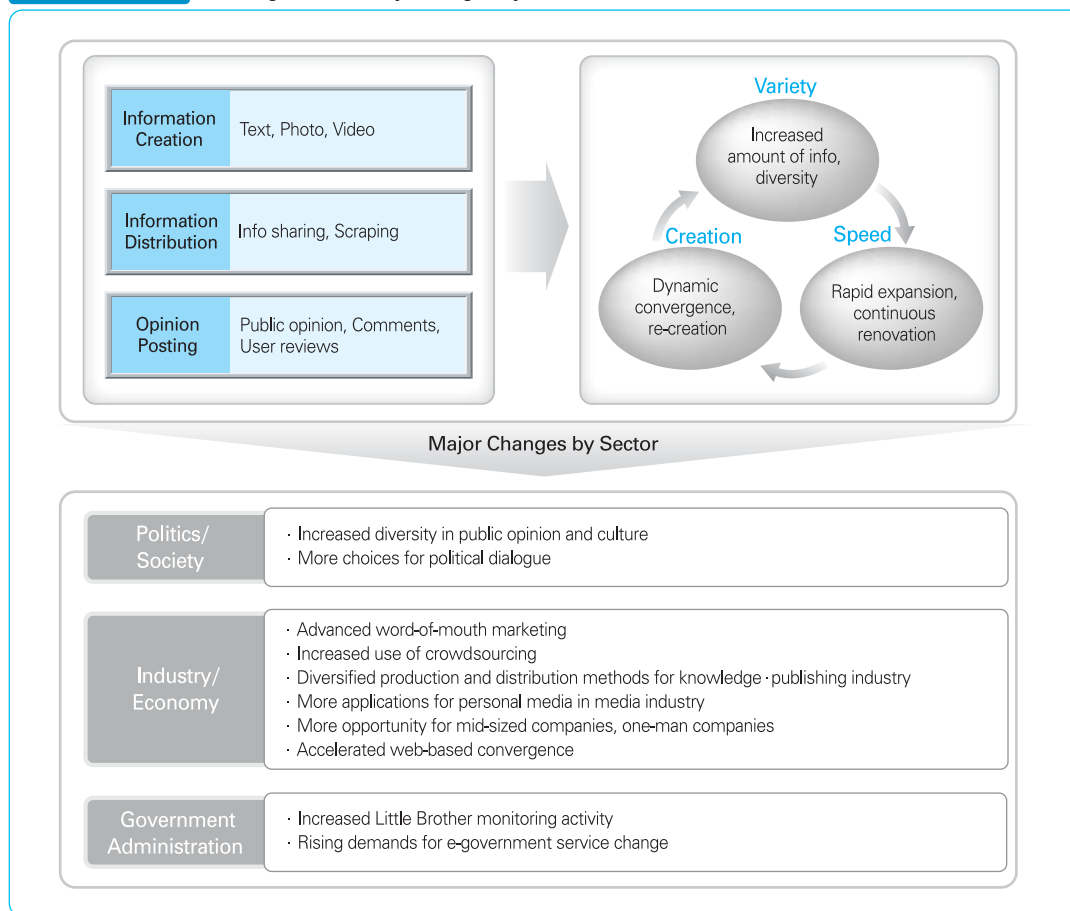
In other words, as the quantity and diversity of information produced by Internet users increase, the information is disseminated faster, and a virtuous circle is completed as the information goes through dynamic fusion once more(see Fig. Special-1-5).

The political and societal impact of UCC has already proven itself great. In the political arena, where dialogue tends to be closed, occurring between a few politicians and major media, the expansion of the high-speed Internet infrastructure brought an environment of openness in which numerous Internet users anywhere can engage in political dialogue real-time. UCC has been powering this change.

Video UCC especially has proved to have an enormous impact as a personal media tool that does not know physical boundaries, contributing to broadening the base for society and culture.

From an economic perspective, UCC has become a powerful word-of-mouth marketing tool within online social networks as Internet users are known to trust user recommendations and reviews more than product advertisements. And for the publishing industry where specialized knowledge from a selected few had been the norm, UCC has empowered knowledge by involving more people in its production.

Figure Special-1-5 Changes in Society Brought by UCC



SERI, Web2.0 Led Social and Corporate Change, January 2007

As the online culture of sharing and participation spreads, Internet UCC services and other related businesses are gaining greater momentum. UCC is supporting small and medium enterprises including one-man companies by offering itself up as a new marketing tool. New value is also being created within the telecommunication and home appliances sectors through the convergence of UCC information and existing services. The future of UCC looks ever bright.

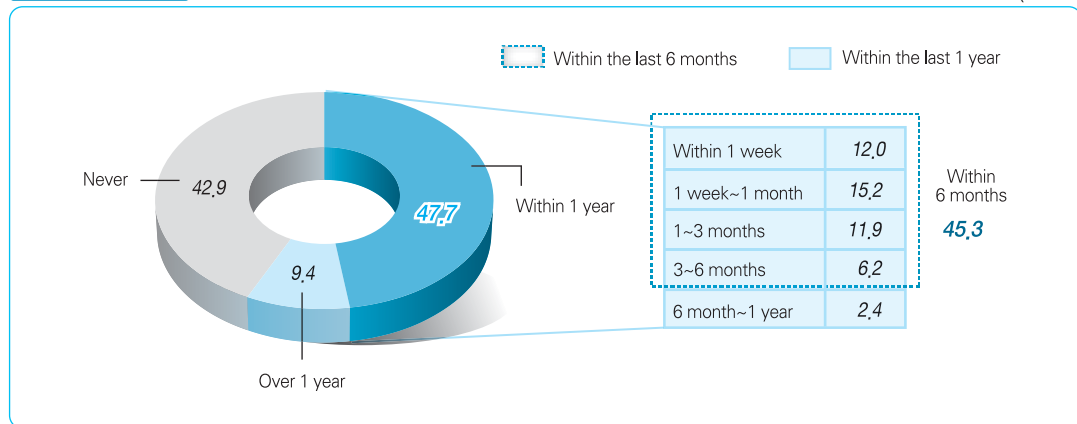
2. Mobile Internet

The mobile telecommunication network technology has been evolving from 2G to 2.5G and 3G, and with the introduction of 3.5G such as HSDPA(High Speed Downlink Packet Access), it is well on its way toward 4G. While wireless Internet was developed based on the merging of two technologies, existing wired Internet and mobile telecommunications, it goes beyond providing wired web-based Internet service through a wireless communication network.

According to the 「Survey on Wireless Internet Use」 by National Internet Development Agency of Korea(NIDA), as of September 2007, 47.7% of the national population between age 12~59 have accessed Internet service wirelessly through their mobile phone, wireless LAN, or Broadband wireless Internet such as WCDMA · HSDPA · WiBro within the last 1 year. 45.3% used mobile Internet within the last 6 months and 27.2% within the last 1 month(see Fig. Special-2-1).

Figure Special-2-1 Wireless Internet Usage Rate

(Unit : %)

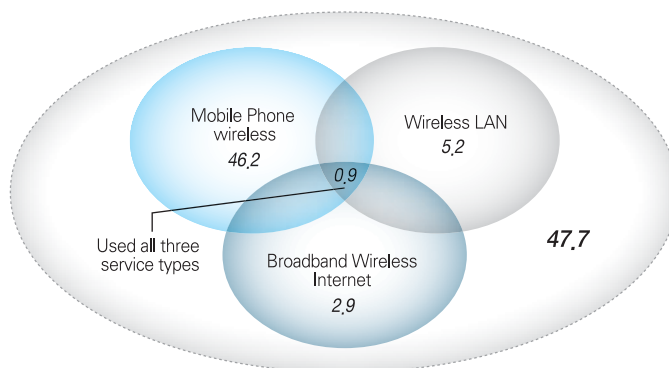


NIDA, Survey on the Wireless Internet Use, November 2007

Using the Internet through mobile phones topped the list of mobile Internet service type in the last 1 year with 46.2%, followed by 5.2% through wireless LAN and 2.9% through broadband wireless Internet(see Fig. Special-2-2).

Figure Special-2-2 Wireless Internet Usage Rate by Service Type(Within the Last 1 Year)

(Unit : %)

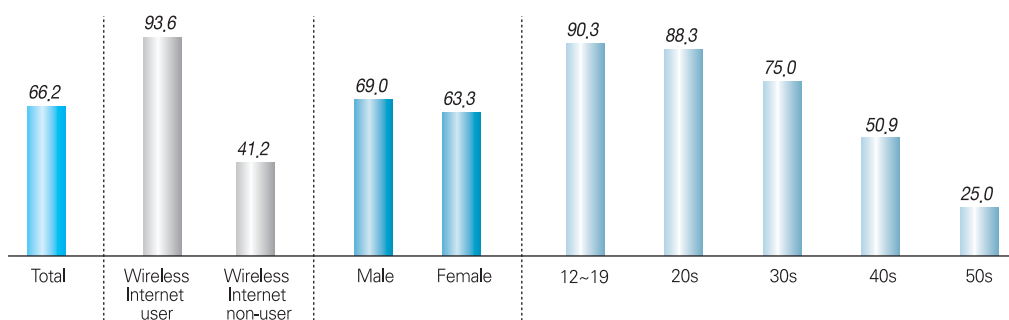


NIDA, Survey on the Wireless Internet Use, November 2007

Meanwhile, 66.2% of ages 12~59(or 93.6% of wireless Internet users within 1 year, and 41.2% of non-users) showed positive intent toward using wireless Internet in the future. More males(69.0%) than females(63.3%), and younger age groups had stronger intent to use wireless Internet in the future(see Fig. Special-2-3).

Figure Special-2-3 Future Intent on Wireless Internet(Multiple Responses)

(Unit : %)

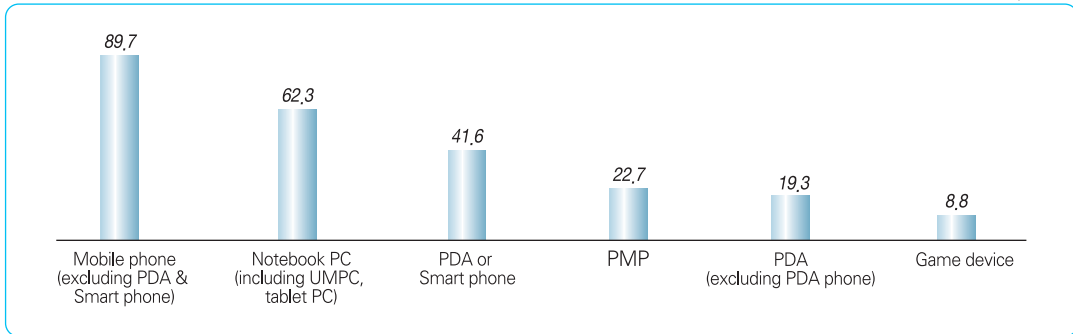


NIDA, Survey on the Wireless Internet Use, November 2007

Half of those who intend to use wireless Internet will use their mobile phones(89.7%) and notebook PC(62.3%) to access the Internet wirelessly. 41.6% will use PDA or smart phones, 22.7% PMP, and 19.3% PDA(see Fig. Special-2-4).

Figure Special-2-4 Furture Intent on Wireless Internet by Device(Multiple Responses)

(Unit : %)



NIDA, Survey on the Wireless Internet Use, November 2007

With stagnation of new subscription, slow-down of sales growth rate, and intense service price competition, all have eaten into profits and undermined 2G market, 3.5G service with super fast data transmission capability is expected to propel new profit models.

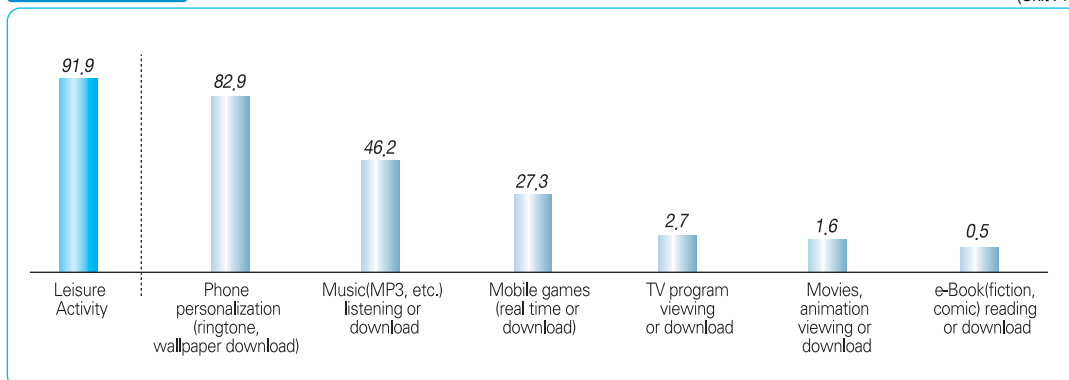
Since March 2007, service providers such as KTF and SK Telecom have been able to invest into building nationwide 3G networks and expanding commercial services, thanks mainly to the decreasing costs of HSDPA equipments from 2006. LG Telecom became the market variable when the MIC gave the provider the Ministry's first approval of providing EVDO Rev.A service, an upgraded version of EVDO. EVDO Rev.A has a maximum download speed of 3.1Mbps and uses existing spectrum bands, allowing the efficient use of the hardware upgrade cost.

Unlike HSDPA that provides high speed data transfer service through the mobile phone network, KT's WiBro achieves faster data transfers via a fixed wireless Internet network. The main downside, however, is that WiBro needs high costs of initial investment.

Mobile games have become a core business, recording sales similar to that of mobile music, which are mainly ring tones and ring backtones, traditionally known to be the cash cow of mobile phone Internet services. 「Survey on the Wireless Internet use」 by NIDA shows that, among the leisure activities carried out through mobile phone Internet, phone personalization services such as downloading ring tones and wallpapers ranks highest with 82.9%, followed by listening or download music(46.2%), and playing mobile games(27.3%)(see Fig. Special-2-5).

Figure Special-2-5 Leisure Activities on Mobile Phone Internet(Multiple Responses)

(Unit : %)



NIDA, Survey on the Wireless Internet Use, November 2007

The advancement of digital technology and the changes in consumer's needs are evolving the network from fixed to mobile, and also to a multimedia based data telecommunication network. Multiple technologies such as digital, broadband, compression and interactivity are being applied to the network realizing convergence between telecommunication and broadcasting networks. Such digital convergence is at the core of mobile telecommunications. A range of convergence services to wireless Internet users will become more readily available and eventually bring changes to our society and economy. Entertainment contents such as video, music and games, commerce contents such as mobile banking and m-commerce, information services such as location tracing, disaster prevention, and living info such as medical services will be the main services to propel the mobile Internet service market.



2008 Korea Internet
White Paper



2008
KOREA INTERNET
WHITE PAPER

Part I Infrastructure

- 1 Internet Industry and Users
- 2 Internet Infrastructure
- 3 New Internet Technology
- 4 Internet in the World

1. Internet Industry and Users

A. Internet Industry

As of end 2007, the number of Broadband Internet subscribers in Korea totaled 14,710 thousand. Of this, 44.3% or 6,516 thousand subscribed to KT and 24.9% or 3,658 thousand to Hanaro Telecom. LG Powercom is quickly growing its subscriber base through aggressive marketing efforts and CATV operators are also seeing growth in its base through TV and internet package products, and investment in equipment(see Table 1-1-1).

Table 1-1-1 Broadband Internet Subscribers

(Unit : thousand persons, %)

Provider	2003	2004	2005	2006	2007
KT	5,589(50.0)	6,078(51.0)	6,242(51.2)	6,353(45.2)	6,516(44.3)
Hanaro Telecom	2,726(24.4)	2,749(23.1)	2,773(22.2)	3,613(25.7)	3,658(24.9)
Thrunet	1,293(11.6)	1,288(10.8)	837(6.9)		
Onse Telecom	423(3.8)	391(3.3)	353(2.9)		
Dream Line	150(1.3)	134(1.1)	100(1.8)	28(0.2)	2(0.0)
LG Dacom	201(1.8)	206(1.7)	213(1.8)	112(0.8)	68(0.5)
LG Powercom	-	-	262(2.1)	1,204 (8.6)	1,721(11.7)
System Operator	619(5.5)	857(7.2)	1,155(9.5)	2,262(16.1)	2,507(17.0)
Relay Operator				15(0.1)	16(0.1)
Network Operator				55(0.4)	58(0.4)
Special Category Telecommunications Operator	177(1.6)	218(1.8)	257(2.1)	180(1.3)	164(1.1)
Total	11,178	11,921	12,191	14,043	14,710

※ () is yearly margin share(as of end of year)

MIC, Broadband Internet Subscribers, January 2008

The market volume of the Internet industry in 2007 was 24,155 billion won, up 4.1% from 23,212 billion won in 2006. In detail, the infrastructure industry volume was 1,511 billion won, down 11.5% compared to 2006 and recording an annual average of minus 0.6%. The support industry grew by 6.4% compared to 2006, recording 6,205 billion won and 7.9% in annual average growth. The application industry in 2007 grew 4.9% to 16,439 billion won and 11.6% in annual average growth(see Table 1-1-2).

Table 1-1-2 Internet Industry Market Volume

(Unit : billion won, %)

Type	2002	2003	2004	2005	2006	2007(P)	CAGR	Year-on-year Growth Rate
Infrastructure Industry	1,559	1,188	1,004	1,351	1,707	1,511	-0.6	-11.5
Support Industry	4,235	4,204	4,929	5,243	5,835	6,205	7.9	6.4
Application Industry	9,513	10,848	12,408	14,061	15,670	16,439	11.6	4.9
Total	15,307	16,240	18,341	20,655	23,212	24,155	9.6	4.1

※ CAGR: 2002~2007 Compounded Annual Growth Rate, (P): Preliminary

KAIT, Yearbook of Broadcasting and Communications Industry statistics, March 2008

Looking at the annual trend for the Internet industry, the application industry experienced the fastest growth. The application industry's portion of the total revenue pie of the Internet industry is on a gradual rise, recording 68.1% in 2007. Meanwhile, the infrastructure industry, mainly hardware and device businesses, saw an annual average slowdown of 11.5% and its revenue shrinking to 6.3% of the total industry revenue.

B. Individual and Household Internet Usage

1) Internet Usage Rate and Internet Users

As of December 2007, 34,820 thousand people ages 6 and over(or 76.3% of the population) are online and the numbers increase to 35,590 thousand(or 75.5%) when the user age is lowered to include the ages 3-5(see Table 1-1-3, Fig. 1-1-1).

Table 1-1-3 Internet Usage Rate & Internet Users

(Unit : %, thousand persons)

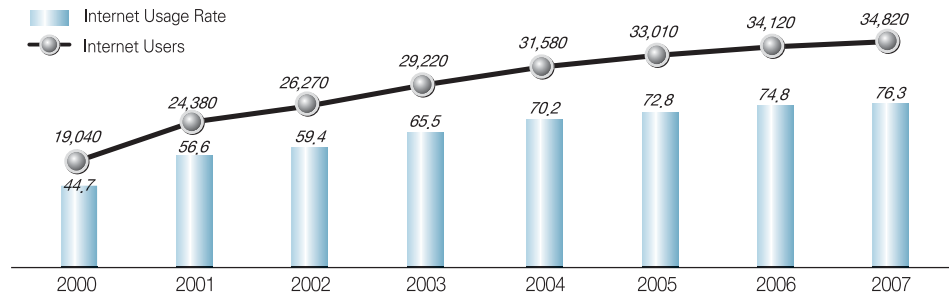
Type	ages 3 and over		
		ages 3 to 5	ages 6 and over
Internet Usage Rate	75.5	51.0	76.3
Internet Users	35,590	770	34,820

MIC · NIDA, Survey on the Computer and Internet Usage, February 2008

Figure 1-1-1

Internet Usage Rate & Users Trends(Ages 6 and over)

(Unit : %, thousand persons)



MIC · NIDA, Survey on the Computer and Internet Usage, February 2008

Details of Internet usage show 67.8% have used the Internet within the recent week. Males use the Internet more than females by 80.8%(19,100 thousand) to 70.3%(16,490 thousand). By age group, almost all in their teens(99.8%), 20s(99.3%), and 30s(96.5%) are online, while the usage rate for 3~9 year olds are 79.5%, and for those in their 40s 79.2%, 50s 46.5%, and over 60s is 17.6%. By occupational group, topping the list is students with a 99.7% usage rate, followed by 99.3% for white-collared office workers and 98.7% for professionals and managers.

2) Internet Usage Pattern

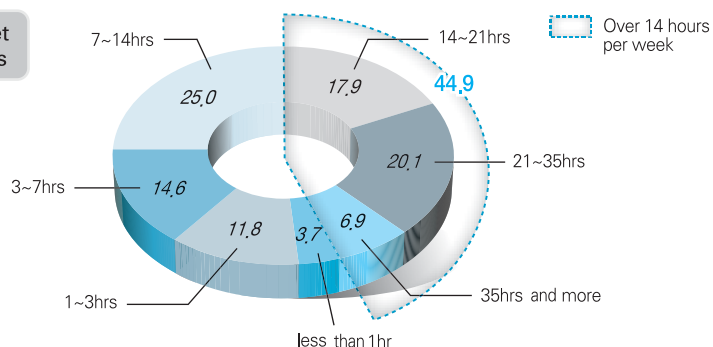
Korean Internet users go online a weekly average of 13.7 hours. Almost half, or 44.9%, access the Internet an average of 14 hours a week('14~21 hours' 17.9%, '21~35 hours' 20.1%, '35 hours and more' 6.9%), and 25.0% do so for '7~14 hours'(see Fig. 1-1-2).

Figure 1-1-2

Weekly Average Internet Access Hours

(Unit : %)

Weekly Average Internet Access Hours: 13.7 hours



MIC · NIDA, Survey on the Computer and Internet Usage, February 2008

96.3% of Internet users access the Internet at their home while more males than females use the Internet at the workplace or a commercial access facility. Regarding the purpose of Internet use, over 80% of Internet users go online to get Information(87.5%) or for leisure through music, games, videos(86.1%), and for communication through email, IM(83.0%)(See Table 1-1-4).

Table 1-1-4

Purpose of using Internet(Multiple Responses) - Internet Users

(Unit : %)

Type		Getting Info. or data	Leisure activities	Commu- nication	Internet shopping & selling	Education -Learning	Managing homepage	Online club - community	Financial transacti- on	Electronic Civil Affairs	SW Download -Upgrade	Job Search
Gender	Male	86,7	86,9	84,3	45,2	47,7	38,5	35,9	36,1	13,3	13,6	3,6
	Female	88,5	85,1	81,6	56,6	48,2	42,2	37,1	31,9	10,9	8,2	3,4
by Age Group	3~9	39,9	87,3	23,1	1,3	96,4	7,1	4,8	-	-	1,5	-
	10~19	81,0	98,3	95,8	44,4	63,4	59,4	45,1	7,0	1,7	9,3	1,4
	20s	98,4	97,8	97,2	82,5	54,7	70,4	61,1	54,4	18,6	20,1	9,1
	30s	95,9	90,2	91,4	69,0	43,6	40,2	41,1	54,1	21,0	14,8	4,3
	40s	93,3	73,9	80,2	39,2	27,1	19,6	23,3	36,4	12,4	7,4	1,6
	50s	90,3	60,8	76,3	25,2	16,2	14,3	15,9	28,6	10,2	3,7	1,2
	Age 60+	87,7	38,2	57,2	11,8	8,3	9,5	9,1	15,5	6,4	3,9	0,6
	Total	87,5	86,1	83,0	50,5	47,9	40,2	36,5	34,1	12,2	11,1	3,5

MIC · NIDA, Survey on the Computer and Internet Usage, February 2008

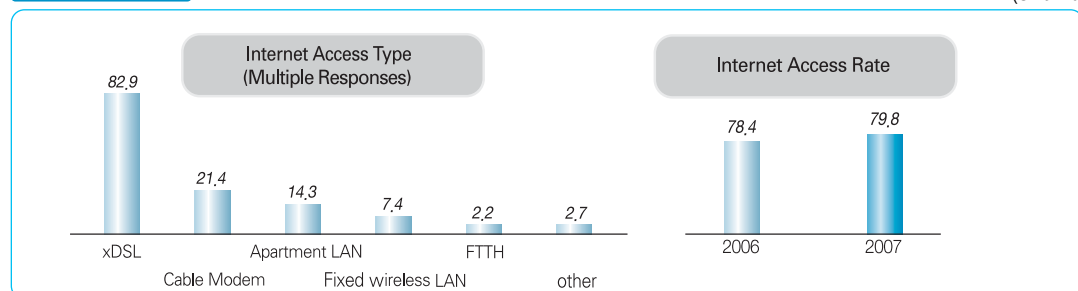
3) Internet Usage Environment

79.8% of households have access to the Internet. Most households go online by broadband, with 82.9% of households with Internet accessibility connecting to the Internet through xDSL, and others through cable modem(21.4%), Apartment LAN(14.3%), Fixed Wireless LAN(7.4%), and FTTH(2.2%)(see Fig.1-1-3).

Figure 1-1-3

Household Internet Access Rate and Access Type

(Unit : %)



MIC · NIDA, Survey on the Computer and Internet Usage, February 2008

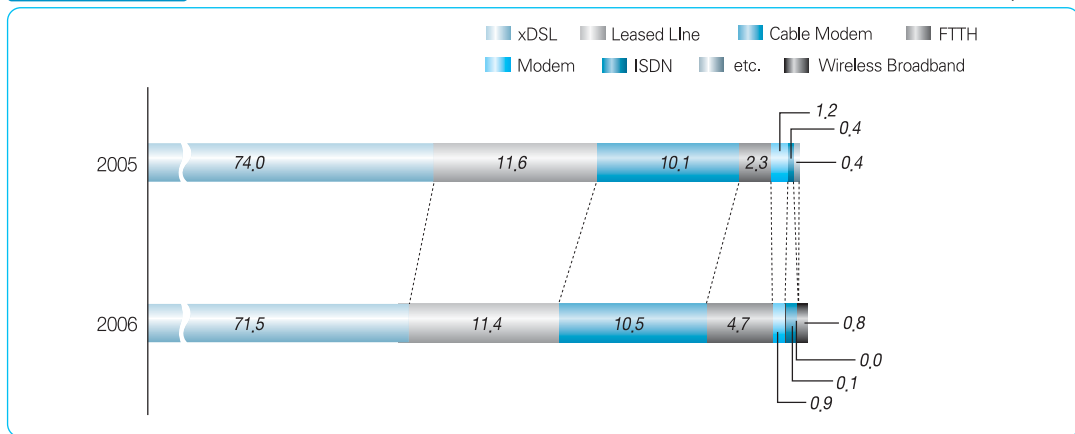
C. Internet Usage of Business Establishments

As of December 2006, 43.8% of all business establishments have Internet accessibility and 71.5% of these establishments go online through xDSL. Others access the Internet through leased line(11.4%), and cable modem(10.5%). There was a notable increase in the number of establishments accessing the Internet through FTTH, up 2.4%p from 2005(see Fig.1-1-4).

Figure 1-1-4

Main Internet Access Type

(Unit : %)



MIC · NIA, 2007 Information Statistics, October 2007

8.5% of establishments have official websites, a slight increase of 0.9%p compared to the end of 2005. Those with experience in using(buying or selling) products or services online from January through December of 2006 totaled 12.6%. 3.1% had offered online training to employees during this period and 21.5% collected personal information from visitors to their website.

D. Offshore Activities of Domestic Companies

1) e-Learning

According to the Korea Institute for Electronic Commerce(KIEC)'s 「2007 e-Learning Survey」, 8.4% of e-Learning providers have entered overseas markets as of 2007 and 2.0% have discontinued its overseas business. With the survey revealing 23.7% of providers planning to go overseas, a surge in

figures is expected in the near future. Broken down into products, solutions account for 15.2%, service 4.5% and contents 3.3%. While contents products is slow compared to other products, it should have a busier future as 34.3% of companies are planning overseas business for their contents line(See Table 1-1-5).

Table 1-1-5 Overseas Market Entry Trends of e-Learning by Product

(Unit : %)

Type	Current		Exited market	Entry in planning stages	No plans
		Start dealings			
Contents	3,3	1,4	4,0	34,3	58,4
Solutions	15,2	6,3	4,5	20,2	60,1
Service	4,5	1,9	0,4	19,5	75,6
Total	8,4	2,6	2,0	23,7	65,9

KIEC, 2007 e-Learning Survey, March 2008

2) Game

Game exports in 2006 totaled 671,994 thousand dollars, up 19.0% from 564,660 thousand dollars of 2005, while import amounted to 207,556 thousand dollars, down 10.9%. Export is growing at a steady rate of 20% while import is on a decline of 10%. Such a trend in export dominance has been continuing since 2003, and in 2006, export was 3 times the volume of import(See Table1-1-6).

Table 1-1-6 Game Industry Export-Import Status

(Unit : thousand dollars)

Year	2001	2002	2003	2004	2005	2006	2007(E)	2008(E)
Export	130,470	140,796	172,743	387,692	564,660	671,994	789,593	908,032
Import	65,340	160,962	166,454	205,108	232,923	207,556	249,067	286,427

※ (E): estimate

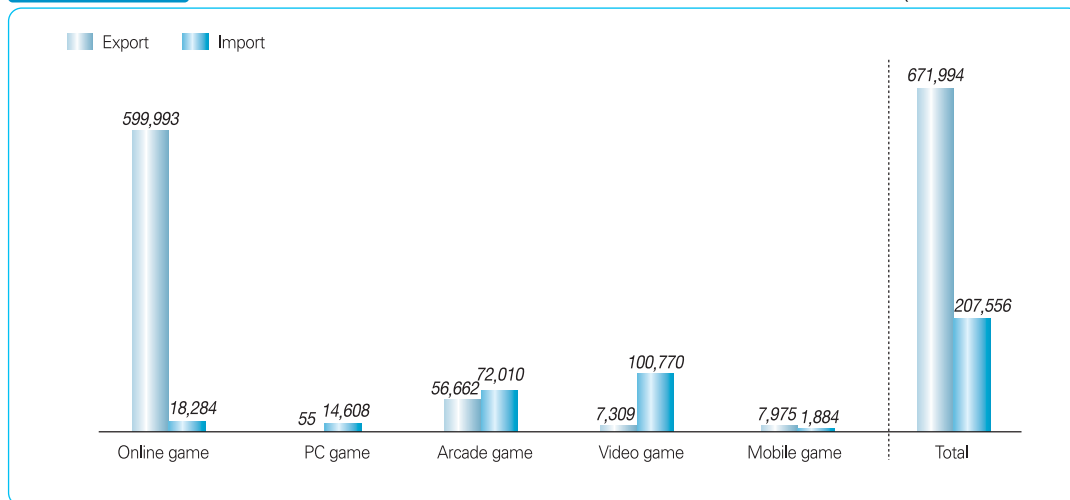
MCT · KOGIA, 2007 Korea Game White Paper, June 2007

The reason behind this record was the 30% increase in export sales of high gross online games, recording a volume of 599,993 thousand dollars for the year. Slowdown in imports is due to decreased import sales volume of arcade games and video games(see Fig. 1-1-5).

Figure 1-1-5

Game Industry Export-Import Volume Trend by Platform(2006)

(Unit : thousand dollars)



MCT · KOGIA, 2007 Korea Game White Paper, June 2007

3) Information Security

Local information security companies saw 53,197 million won in exports, a 52.0% increase from 2006. System and network security especially grew by 52.4% compared to the previous year, recording a total of 51,984 million won, while information security service saw a 36.0% increase, or 1,213 million won. Of the total export volume, system and network security products made up 97.7% while information security products stayed at 2.3%(See Table 1-1-7).

Table 1-1-7

Information Security Industry Export Trend

(Unit : million won, %)

Type	2006	2007	Growth Rate	Composition
Products of Information Security System & Network	34,105	51,984	52.4	97.7
Information Security Services	892	1,213	36.0	2.3
Total	34,997	53,197	52.0	100.0

KISA, 2007 Survey on Information Security Industry, November 2007

Korean information security companies began to diversify its market to overcome the limited local market in early 2000s and have started to see visibly positive results. Export to Japan, China and Southeast Asian countries is most active and North America, South America and Europe is also becoming export markets to localized security products. Middle Eastern countries have become new customers in respect to the new construction boom.

4) Software & Digital Contents

Cumulative export volume for software as of the 3rd quarter of 2007 was 1,071.0 million dollars, an amount equaling 79.8% of the total of 1,342.9 million won for 2006. Digital contents had a particularly strong year in exports, increasing 37.8% in volume compared to 2006(see Table 1-1-8).

Table 1-1-8

Software Export Trend by Type

(Unit : thousand dollars)

Type	2003	2004	2005	2006		2007
				Q3(Cumulative)	Annual	Q3(Cumulative)
Package SW	75,688	113,170	114,475	100,190	117,175	72,799
IT Services	399,041	432,035	477,991	392,035	609,873	442,059
Digital Contents	118,447	285,168	596,082	285,231	615,846	556,127
Total	593,176	830,373	1,188,548	777,456	1,342,894	1,070,985

KIPA, 2007 Q3 Software Export Statistics Report, November 2007

In the case of package software products, the export volume was sluggish, falling to 72.8 million dollars, a minus 27.3% from the previous year. Leading companies, Ahn Lab, Haansoft, and Tmax, however, continued their gradual growth in software export. The IT service segment saw an increase of 12.8% compared to the previous year, recording an export volume of 442.1 million dollars. This positive trend is seen to be due to the increased export sales of SI and maintenance services of major SI companies as well as the strong performance of mid-sized SI companies. The number of companies that export increased since the 3rd quarter of 2006 to 120, and average export sales volume per company recorded a slight decrease of 3.7 million dollars(See Table 1-1-9).

Table 1-1-9

No. of Exporting IT Service Companies and Averag ExPort Volume

(Unit : each, 10 thousand dollars)

Type	2006 (Q3 Cumulative)	2007(Q3 Cumulative)
Exporting Companies	104	120
Average Export Volume	377	368.4

KIPA, 2007 Q3 Software Export Statistics Report, November 2007

2. Internet Infrastructure

A. Internet Resource

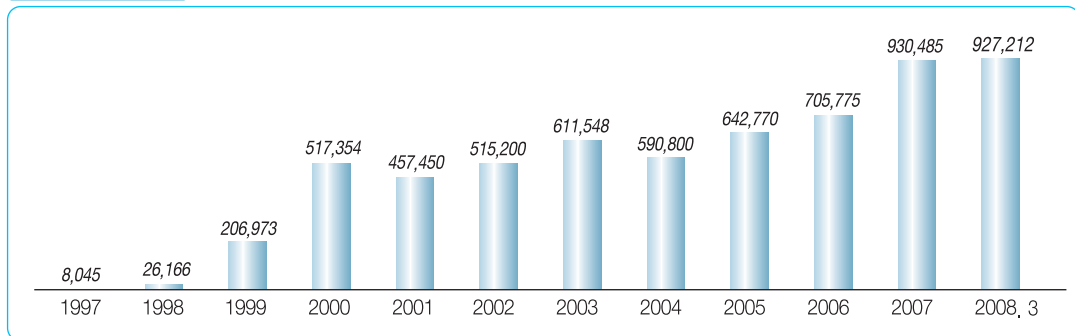
1) Domain

The number of registrations for Korea's top level domain name(.kr) has increased sharply ever since end of 1999 when registration services was formally open to the public, a time when Internet use also became full blown in Korea following the introduction of broadband Internet. Although registered .kr domains numbered only 61 in 1993, there was a 691% jump in domain registrations compared to the previous year in 1999 of which the total was over 200,000. The introductions of an international standard on IDN(Internationalized Domain Names)(Oct. 2002), Hangeul.kr service(Aug. 2003), and quick domain service(sep. 2006) propelled the increase in the number of domains. As of March 2008, the number of .kr domains are around 927,000(see Fig. 1-2-1).

Figure 1-2-1

Number of kr Domains

(Unit : each)



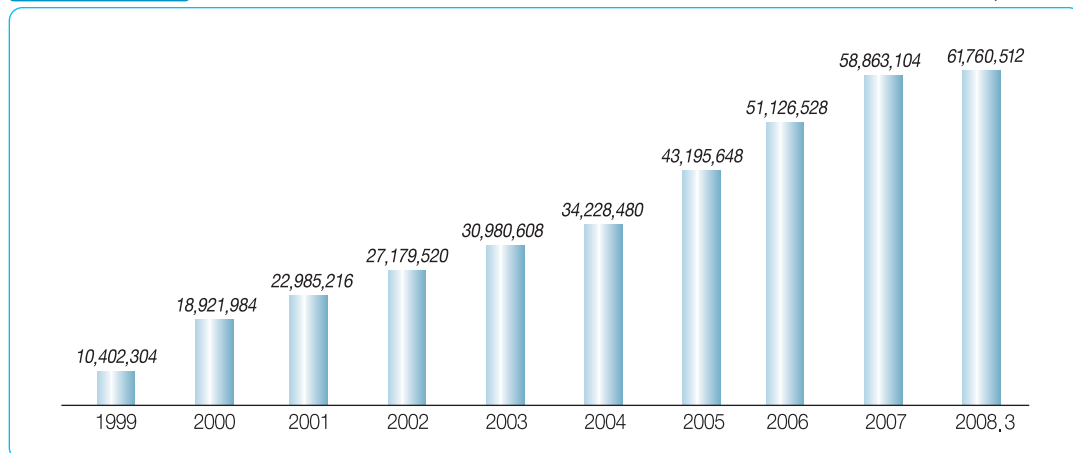
NIDA, Monthly Internet Statistics, March 2008

2) IP Address and AS Number

IP addresses are currently being additionally assigned by the APNIC on a regular basis as needed. Local IPv4 addresses are assigned to ISPs in blocks of /24. As of March 2008, Korea holds 61,760,512 IPv4 addresses, up by 2,897,408 from the previous year(see Fig. 1-2-2).

Figure 1-2-2 Number of IPv4 Addresses

(Unit : each)

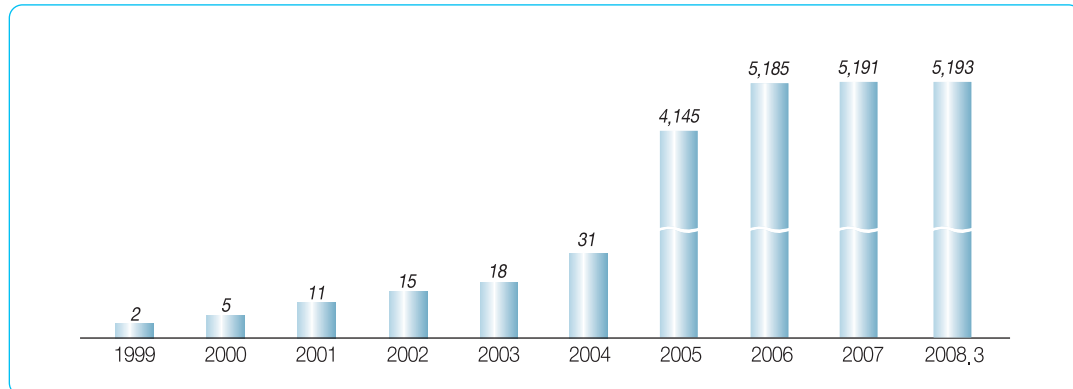


NIDA, Monthly Internet Statistics, March 2008

IPv6 address is a 128bit Internet address structure that was made standard by the IETF(Internet Engineering Task Force) by increasing the current 32bit IPv4 address four-fold. As of March 2008, Korea holds 5,193(/32) IPv6 addresses(see Fig. 1-2-3).

Figure 1-2-3 Number of IPv6 Addresses

(Unit : /32)



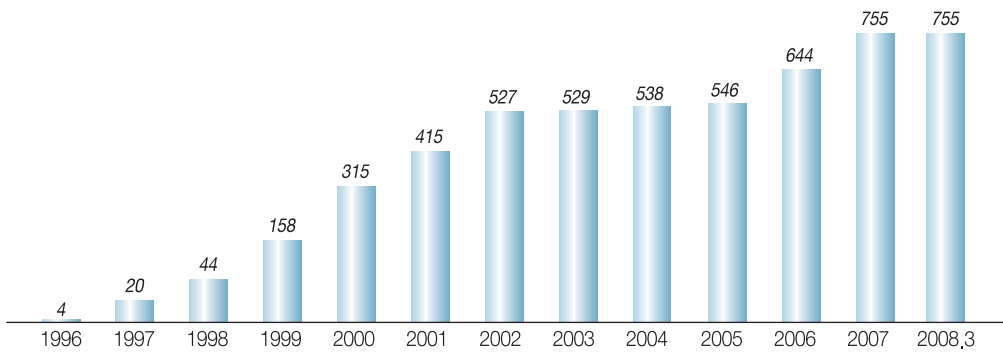
NIDA, Monthly Internet Statistics, March 2008

In terms of AS Numbers, it broke the 600 mark in July 2006 for the first time, recording 644 at the closing of 2006. As of March 2008, Korea holds 755 AS numbers(see Fig. 1-2-4).

Figure 1-2-4

AS Numbers

(Unit : each)



NIDA, Monthly Statistics, March 2008

B. Backbone Network

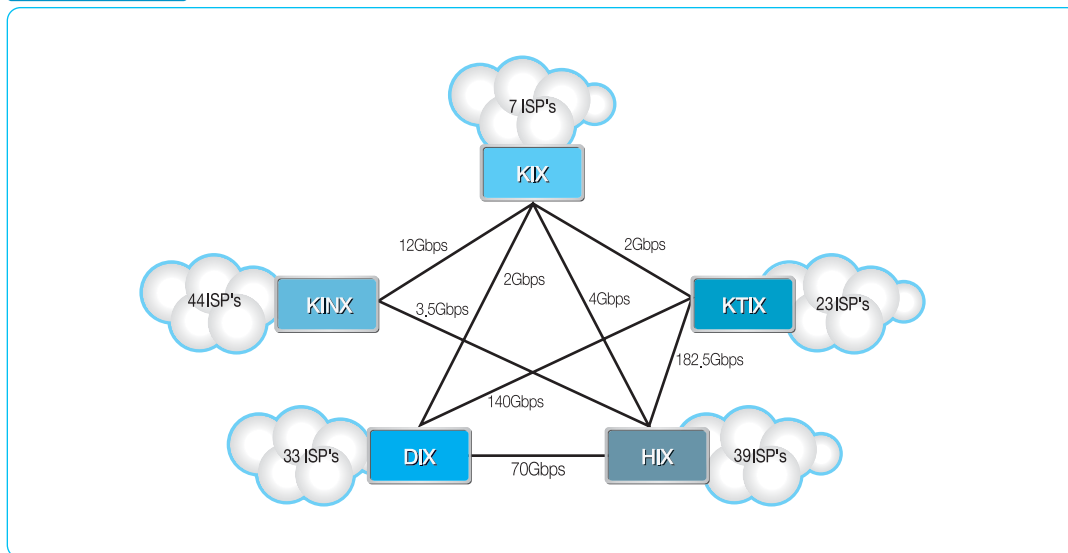
1) IX

Internet Exchanges currently in operation in Korea are the KIX(NIA, www.nia.or.kr), KTX(KT, www.kornet.net), DIX(LGDacom, www.bora.net), KINX(KINX, www.kinx.net), HIX(Hanaro Telecom, www.hanaro.com), and Busan IX(NIA, www.nia.or.kr).

Non-profit public networks are interconnected through NIA KIX while commercial ISPs are connected through KTX, DIX, KINX, and HIX. NIA's Busan IX was established to facilitate regional traffic arising with the Busan and South Gyeongnam Province. KTX and DIX is operated by KT and LG Dacom, both backbone operators in addition to being ISPs. KINX is operated by KINX, a local consortium of ISPs. Connection between ISPs and IX is done through SDH and fiber optics, achieving multiple IX interconnection at a speed of 155Mbps~1Gbps depending on the traffic. Depending of traffic volume, the interconnection between KTX and DIX is done at a bandwidth of 140Gbps, and KIX and KINX is interconnected at a speed of 12Gbps(see Fig. 1-2-5).

KIX is interconnected to 7 Internet networks including non-profit networks such as the e-Government Network, Korea Advanced Research Network(KOREN2), and Korea Research Environment Open Network(KREONET) as well as the other 4 IXs. It has a combined bandwidth of 36.5Gbps.

Figure 1-2-5 IX Connection Map



NIA, Internal Data(Compiled), 2007

KTIX interconnects a total of 23 ISPs and 4 IXs, and has a total capacity of 469Gbps. DIX supports interconnection for the 4 IXs as well as 33 ISPs, and a total capacity of 360Gbps. KINX interconnects to 44 ISPs and 2 IXs and has a total capacity of 162Gbps. The Busan IX with 10 ISPs has a total capacity of 8.4Gbps(See Table 1-2-1).

Table 1-2-1

Interconnection Status by IX

(Unit : each, Gbps)

Type	Internet Exchange	Operated by	Linked ISPs	Total Capacity
Public	KIX	NIA	7	36,5
Public-Commercial	BIX	NIA	10	8,4
Commercial	KTIX	KT	23	469
	DIX	LG Dacom	33	360
	KINX	KINX	44	162
	HIX	Hanaro Telecom	39	412,4

NIA, Internal Data, 2007

Interconnection is done through HSRP enabled backbone switches that connects to Gbe/FE routers that connect to ISP or WAN. Routing uses TCP/IP and BGP(Border Gateway Protocol) through AS numbers.

2) Commercial Internet Networks

112 companies, 6 more than the previous year of 2006, are providing Internet service to the local market. These include KORNET(KT), BORANET(LG Dacom), HANANET(Hanaro Telecom), SHINBIRO(Onse Telecom), ENTERPRISENET(Enterprise Networks), DREAMXX(DreamX), SKNETWORKS(SK Networks), XPEED(Powercom), and SAMSUNGNETWORKS(Samsung Networks).

KORNET, as KT's high-speed information network, has accommodated subscribers in 90 regions since June 1994 at high speed transfer rates of 2.5 ~ 10Gbps. KT has international lines of up to 54Gbps in 16 countries, including a 35Gbps line in the U.S, providing subscribers seamless high-speed Internet service. In 2007, KT launched 'MegaTV' an IPTV service just minus real-time broadcasting, and WiBro-terrestrial DMB interactive service that engages the viewer to participate real-time. KT's 100% FTTH high speed Internet service that links fiber cables straight to the home was also launched in full.

LG Telecom's BORANET began in December 1994 as a corporate leased line service and currently offers 70 nodes nationwide and 400 linked nodes on duplex trunk lines to users. It facilitates local traffic flow and provides stable overseas Internet connection quality based on strong peering with foreign ISPs.

Hanaro Telecom's HANANET started in April 1999 as a regional commercial ISP serving 4 main cities, Seoul, Busan, Incheon and Ulsan. It has now grown to provide high speed Internet service to 85 cities nationwide through a broadband based telecommunication network. Hanaro Telecom introduced the country's first TPS(Triple Play Service), Hana Set in 2007, developed a 100M FTTH technology for residential areas, and signed a government approved conditional merger agreement with SK Telecom in December.

3) Internal and External Submarine Fiber Optic Cable and Satellite Communication

Landing stations for domestic submarine fiber optic cables are located in 8 regions(International landing stations: Busan, Geoje, Taean; Domestic landing stations: Jeju, Goheung, Namhae, Hosan, Ullung). As of 2008, there are 10 international submarine fiber optic cables(APCN, APCN2, CUCN, C2C, EAC, FEA, FNAL, KJCN, RJK, SMW-3) with a total capacity of approximately 20Tbps landing in the country(see Table 1-2-2).

Table 1-2-2

Internal and External Submarine Fiber Optic Cables

(Unit : bps, km)

Type	Cable Name	Landing Points	System Capacity	Distance	Activation Year
Inter-national	RJK	Korea-Japan-Russia	560Mx2	1,762	1995
	APCN	Korea-Taiwan-Malaysia-Australia (total 10 countries)	10Gx2	11,839	1997
	FEA	Korea-Japan-HongKong-Middle East-Europe (total 13 countries)	5Gx2	27,943	1997
	SMW-3	Korea-NE Asia-SE Asia-Middle East-Europe (total 35 countries)	80G	38,000	1999
	CUCN	Korea-US-China-Japan-Taiwan-Guam	20Gx4	26,000	2000
	APCN2	Korea-Japan-China-Hong Kong-Taiwan-Singapore-Malaysia	2,56T	20,000	2001
	KJCN	Korea-Japan	2,88T	500	2002
	EAC	Korea-Japan-Taiwan-Hong Kong	2,56T	10,600	2001
	C2C	Korea-Japan-China-Hong Kong-Taiwan-Singapore-Malaysia	7,68T	17,000	2002
	FNAL	Korea-Japan-Taiwan-Hong Kong	2,4/3,8T	9,600	2002
	TPE	Korea-China-Taiwan-US	2,5T	18,000	Under construction
Domestic	Ulleung-Land	Ulleung-Hosan	2,5G	159	1993
	2Jeju-Land	Jeju-Goheung	2,5Gx4	191	1996
	3Jeju-Land	Jeju-Namhae	2,5Gx2	236	2000

※ IPE scheduled to open in September 2008

KT, International Switching Submarine Fiber Optic Cable Status, March 2008

C. Subscriber Network

1) Wired Network

As of December 2007, the total number of broadband Internet subscribers is 14.7 million. The access market is still dominated by HFC and xDSL, 4.6 million(31.3%) and 5.0 million(34.6%) respectively, but recent trend shows the xDSL share shrinking due to FTTH(844,722) and LAN(4.2 million) growth, both seeing increased subscribership(See Table 1-2-3).

Table 1-2-3

Broadband Internet Subscribers

(Unit : persons, %)

Type	xDSL	HFC	LAN	FTTH	Satellite	Total	Rate
KT	4,102,718	-	1,809,269	603,173	381	6,515,541	44.3
Hanaro Telecom	410,865	1,883,636	1,122,065	241,549	-	3,658,115	24.9
Dream line	303	895	314	-	-	1,512	0.0
LG Dacom	1,220	17,202	49,371	-	-	67,793	0.5
LG Powercom	-	803,479	917,849	-	-	1,721,328	11.7
System Operator	54,428	2,332,252	120,530	-	-	2,507,210	17.0
Relay Operator	1,807	7,561	6,640	-	-	16,008	0.1
Network Operator	5,722	45,766	6,573	-	-	58,061	0.4
Special Category Telecommunications Operator	26,362	275	137,793	-	-	164,430	1.1
Total	4,603,425	5,091,066	4,170,404	844,722	381	14,709,998	100.0
Rate	31.3	34.6	28.4	5.7	0.0	100.0	

MIC, Broadband Internet Subscription Report, 2007

KT is planning to upgrade more than 90% of their equipment to allow FTTH or LAN based 100Mbps service by 2010. Hanaro Telecom is working to provide a selection of services from FTTH, LAN, to HFC DOCSIS 3.0, and LG Powercom, while focusing on LAN service, is planning to also offer HFC DOCSIS 3.0. Cable operators will also step up efforts in developing HFC DOCSIS 3.0 from 2008.

2) Mobile Network

As of January 2008, mobile phone, pager, TRS(Trunked Radio System) and wireless data communication make up Korea's mobile telecommunication service segment. There are approximately 44.0 million mobile customers as of December 2007. Of the total, 43.5 million are mobile phone subscribers, accounting for 98.9% of the market. Most of the Korean economic population owns and uses a mobile phone(see Table 1-2-4).

Korea's mobile phone network supports both CDMA and W-CDMA technology as of end 2007. Regarding W-CDMA, R4 technology was commercialized for the first time in Korea in December 2003,

Table 1-2-4

Mobile Telecommunication Subscribers and Major Providers

(Unit : persons, %)

Type	Mobile Phone	Pager	TRS	Wireless Data Communication	Total
Subscribers	43,497,541	39,328	332,747	100,354	43,969,970
Market Share	98.9	0.1	0.8	0.2	100.0
Major Providers	SK Telecom, KTF, LG Telecom	Real Telecom, Seoul Mobile Telecom	KT Powertel and 5 others	Air Media and 2 others	-

MIC, Fixed-Mobile Subscription Report, January 2008

and HSDPA R5 technology was applied to phone services in June 2006. In March 2007, subscribers to HSDPA increased rapidly following the service launch of a nationwide network, and as of December 2007, 3G mobile subscribers are 5.0 million and growing. EV-DO Rev.A service was also commercialized recently to provide 3G mobile service through the synchronous network.

Mobile Internet service was developed in answer to the rising needs of subscribers for more services that took advantage of the advancements in IT and wireless device technology. There are two main technologies for Korea's mobile Internet access using a mobile phone network, the WAP/ME and ISMS. Due to the higher penetration of WAP/ME enabled devices in the market, WAP/ME accounts for 99.2% of mobile access(see Table 1-2-5).

Table 1-2-5

Wireless Internet Subscribers(No. of devices)

(Unit : persons)

Type		SK Telecom	KTF	LG Telecom	Total
Type of Method	WAP/ME	21,284,414	12,689,245	7,316,144	41,289,803
	ISMS	25,935	123,418	158,921	308,274
	Total	21,310,349	12,812,663	7,475,065	41,598,077
CDMA2000-1X Subscribers		18,656,698	10,283,359	7,213,138	36,153,195

MIC, Fixed-Mobile Subscription Report, January 2008

WiBro combines the words 'Wireless' and 'Broadband' and offers high speed mobile Internet service regardless of place, even to a moving user. Selected providers, KT and SK Telecom have launched commercial services in June 2006. Globally recognized for its stability, WiBro was accepted as an international standard for 3G in October 2007 and its bandwidth(2.3GHz) also as the common bandwidth for 4G. In addition to offering telecommunication services, WiBro also allows its subscribers affordable access to IP-based Internet media services such as mobile TV and VOD(See Table 1-2-6).

Table 1-2-6 Comparison of WiBro and Other Telecom Service

(Unit : bps)

Type		WiBro(Wave 1)	HSDPA	1x EV-DO Rev.A
Comments		IP based system allowing high speed Internet even while on the go	Asynchronous W-CDMA system, advanced cellular system	Upgraded system of existing synchronous EV-DO service
Method of transfer		OFDMA/TDD	CDMA/FDD	CDMA/FDD
Max transfer rate	Up	5.2M	1.4M	1.8M
	Down	24.8M	14.4M	3.1M
Mobility		More 60km/h	250km/h	250km/h
Commercialization period		2006. 6	2006. 5	2007. 9

ETRI, 4G Trends, November 2007

D. Next Generation Internet Research & Development Network

1) KOREN

KOREN(KOREa advanced REsearch Network) provides a broadband-based high quality research testing and international research network to corporate, academia, and research centers in support of testing future network related technology and R&D of advanced application technology. It is a non-profit research network intended to promote research and development efforts and to establish a foundation for global cooperation in research.

KOREN began as a testbed for conducting network tests of ATM and application technology under the banner of the Government's 「National Information Super Highway Master Plan」 in 1995. It was upgraded to test BcN related technology and other advanced application technology in 2004. Since, KOREN has operated as a network open to all corporate and research users.

From 2007, the K-TEC(Koren-Technical Evaluation Center) becomes central in testing corporate equipment and application technology. Its previous testing orientation on wired technology research was also expanded to allow evaluations of mobile, wireless mesh, sensor and other various network technology, to become a true network testbed for realizing a future network environment.

2) KREONET · GLORIAD

KREONET(Korea Research Environment Open NETwork), supported by the Ministry of Science and Technology and managed and operated by KISTI(Korea Institute of Science and Technology Information), is a research network that provides networking infrastructure and technology to support

application research of national science and technology.

Domestically, it links 14 major cities starting from Seoul and Daejeon to Busan, Gwangju and Daegu through a high capacity fiber network. The GLORIAD(GLObal RIng network for Advanced Application Development) enables a global networking with the U.S and China, providing scientists and researchers nationwide an efficient environment for international cooperation on advanced research.

GLORIAD is a 10Gbps fiber networking based global science and technology co-research network developed in partnership with the U.S, China, Russia, Canada, the Netherlands, and 5 northern European nations to facilitate the transfers of massive amounts of data traffic that arise among countries involved in global advanced technology research projects.

More than 270 researchers from higher learning institutes and research centers use KREONET for supercomputing assets, News/FTP server, and the Science and Technology Research Information DB Server. Researchers at more than 50 some research centers studying core national technology such as grid, e-Science and other next generation cyber research based technology as well as those involved in researching advanced application science such as high energy physics, astronomy and space, meteorology and climatology, and life science are also provided with 1~10Gbps user networks that can effectively link to other research centers involved in 6T(BT, ET, IT, NT, ST, CT) research(See Table 1-2-7).

Table 1-2-7 High Speed Research Network Users

(Unit : each)

Gov. Funded Research Center	Gov. Public	Educational Institution	Corporate Research Center	Academic Org	Super-computer	SuperSIRen	Total
56	11	43	3	54	104	7	278

KISTI, Internal data(Compiled), 2007

3) APII · TEIN

Following the upgrade to the 10Gbps Korea-Japan APII in December 2006, the APII Workshop was held in Seoul on March 22~23, 2007, at which the two organizations that manage the APII, the NICT(National Institute of Information & Communications Technology) of Japan and KISDI(Korea Information Society Development Institute) of Korea held a Korea-Japan APII 10Gbps opening ceremony after signing a 'Mutual Commitment on Korea-Japan Cooperation of APII and 10Gbps Line'.

The Korea-Japan APII testbed closed on September 2007 after 3 years of operation when connection with China's CERNET(China Education and Research Network) and Korea-Hong Kong GLORIAD, and KREONET2 became possible.

In regards to TEIN(Trans-Eurasia Information Network), the management of the TEIN3 project will be transferred over from DANTE to Asia's TEIN management body during the project. The establishment of a management body will be carried out in two stages, with the first stage implemented during 2008~2009 and the second during 2010~2011 to conclude the transfer of TEIN3 management. A general assembly of current TEIN2 member countries will be established during the preparation period for Stage 1 and in Stage 2, an official independent entity will take over management responsibility.

E. Web Based Software Service(ASP, SaaS)

Web based software is software that is available to the user on the web whenever there is a need, instead of it being installed onto the user's PC. More and more of these software products are becoming available to individuals and company customers recently. It has been categorized as SaaS(Software as a Service), meaning using software as one would use a service.

The SaaS market has been growing rapidly due to several government led initiatives, the small business networking program and the ASP promotion program that the Ministry of Information and Communication had been leading since 2001, and the small and mid-sized business informatization support program that started in 2005. As of end 2007, the SaaS market volume exceeded 310.1 billion won, and it is expected to grow to 335.2 billion won in 2008(See Table 1-2-8).

Table 1-2-8

ASP, SaaS Market Volume Trend

(Unit : 100 million won)

Type	Current Status						Forecast
	2002	2003	2004	2005	2006	2007	2008
Market Volume	1,071	1,360	1,750	1,891	2,366	3,101	3,352

NIA, 2007 Survey on ASP Industry, February 2008

As the market grows, the entryway of the SaaS market has become quite busy, signally a future of intense competition among market participants. Companies that started at a total number of 128 in the end of 2005 grew to 160 in 2006 and exploded to 213 in 2007(see Table 1-2-9).

Table 1-2-9 Number of ASP, SaaS Service Providers(as of 4Q 2007)

(Unit : each, %)

Type	Business Type				2007
	Pure ASP	ISV	SI Company	Telecommunication operator	
No. of companies (composition rate)	67(31.4)	99(46.5)	43(20.2)	3(1.9)	213

NIA, 2007 Survey on ASP Industry, February 2008

In terms of revenue, the 3 telecommunication operators were found to be leading the market by raking in 171.6 billion won, or 55% of the total market share(see Table1-2-10).

Table 1-2-10 Revenue by the Type of Company

(Unit : million won)

Type of company	1Q	2Q	3Q	4Q	Total
Pure ASP	5,213	5,740	9,684	10,967	31,604
ISV	5,639	11,764	14,210	16,106	47,719
SI Company	13,210	15,126	14,777	16,097	59,210
Telecommunication operator	46,413	41,402	38,430	45,307	171,552
Total	70,475	74,032	77,101	88,477	310,085

NIA, 2007 Survey on ASP Industry, February 2008

The corporate customers SaaS broke the 900,000 mark in 2007 and is expected to exceed 1 million in 2008. This increase is largely due to the government's small and mid-sized business informatization support program(see Table 1-2-11).

Table 1-2-11 Number of Companies Using ASP, SaaS Service

(Unit : companies)

Type	Current Status						Forecast
	2002	2003	2004	2005	2006	2007	2008
Market Volume	146,658	166,225	372,694	577,946	732,354	936,707	1,051,283

NIA, 2007 Survey on ASP Industry, February 2008

3. New Internet Technology

A. Internet Infrastructure Technology

1) Existing Protocol Expanded with Introduction of IPv6

The ip6.arpa. domain has been added following the introduction of IPv6 to domain names, while domain names that had been used in IPv4 will continue to be used as it is. New resource record type AAAA for allocating IPv6 addresses was defined at the resource record level. Research on efficient zone data transfer and active change, notification mechanism, in addition to research on DNSSEC, to build security of DNS are being carried out.

Expanding works for DHCP is essential due to emergence of IPv6. DHCPv6 was defined at RFC3315, and thereafter addition of option and expansion of function in being worked on. Protocols on multicast are continuing its evolution. IGMPv3 for IPv4 and MLDv2 for IPv6 are also in the works as of current.

2) Mobility and MultiHome Function Support Research

The two types of multihome structures currently being discussed is the host multihome and the site multihome. In the case of the host multihome, the host has more than 2 global IP addresses that can all be assigned to one ISP or have more than 2 addresses assigned to one interface or have multiple interfaces, each with a unique address. As for site multihome where there are more than 2 connections with a public Internet network, there can be multiple connections to a common ISP or a separate connection to a multiple of ISPs.

HIP is the concept that provides mobility and multi-home function at the same time with a new protocol layer, the HIP layer, between the network layer and transport layer, enabling active address allocation, providing anonymity and authentication to overcome the limits of IP addresses and domain names used on the Internet.

MEXT(Mobility EXTensions for IPv6) enables the user to maintain the current session with the user's home address even when the IPv6 host is mobile.

There is an opinion that the management that divides localized mobility and global mobility is more

efficient when one manages mobility of IP nodes. In this case, localized mobility is taken place within a manageable set of consecutive partial networks while global mobility is mobility that crosses such boundaries. Such localized mobility (NETLMM, NETWORK-based Localized Mobility Management) related research is led by FMIPv6(Fast-Handovers for Mobile IPv6) and HMIPv6(Hierarchical Mobile IPv6).

B. Applied Internet Technology

1) Internet Multimedia Broadcast Technology

IPTV provides Internet Protocol based digital television service, using a TCP/IP network instead of the conventional broadcasting or cable network. Its working structure is based on a combination of 4 entities; the contents provider, the platform provider, the network provider and the user. The contents provider provides relevant contents that the platform provider streams to the network provider who relays it to the end user, who finally uses a set-top box that decodes the digitized contents prior to viewing.

2) Ultra Wide Band Technology

Developed for low energy, short-range WPAN(Wireless Personal Area Network), UWB(Ultra Wide Band) is a technology that enables wireless transfer of massive amounts of data such as video and audio. It is seen as an answer to some of the restrictions of the narrowband telecommunication system such as the existing WIPI or WiMax, and cellular telecommunication networks. UWB uses a broad range of GHz bands to transfer data at a maximum rate of 100Mbps per second while using only double digit MW of energy. This figure is approximately 1/10 or 1/100 that of cellular phones or wireless LAN.

3) Mobile Internet Technology

Mobile Internet is a service that allows seamless high-speed wireless Internet access, even to a user who is on the move. It has been commercialized under WiBro in Korea. WiBro guarantees a mobility of over 120km/h in urban areas and a high transfer rate(up 1Mbps, down 3Mbps) for effective multimedia access.

4) USN

In an age of ubiquitous computing, applications such as u-City call for networking between human and machine, and machine and machine. USN(Ubiquitous Sensor Network) technology has been hailed as a core technological solution to this call. USN is a sensor-based network that can sense the status of the living environment and its objects. Its core technology and applications are being developed for use in numerous areas.

C. Future Internet

The research on the future of the country's Internet began in earnest with the establishment of the 'Future Internet Forum(FIF)' in 2006. The FIF is comprised of members from academia including Seoul National University, Korea University, Korea Advanced Institute of Science and Technology(KAIST), Information and Communications University(ICU), Chungnam National University, Pohang University of Science and Technology, and Gwangju Institute of Science and Technology, as well as corporate members including Samsung Advanced Institute of Technology, LG Electronics Institute of Technology, Electronics and Telecommunications Research Institute(ETRI), and KT, as well as government agencies including National Information Society Agency(NIA).

The Forum convenes at a monthly basis that provides a venue for presenting and discussing network and communication technology. It has 5 working groups for architecture, wireless, service, testbed, and policy that meet separately to discuss related issues.

On a regional scale, Korea has led the establishment of AsiaFI(Asia Future Internet, asiafi.net), a regional partnership for researching the future of the Internet with China and Japan.

AsiaFI had its first official conference in July 2007 in Seoul, paving the way for future Internet related research activity among member countries. Working level meetings were held thereafter in China and Korea. Also in the works is a future Internet testbed project for Asia that can be linked to GENI of the U.S.

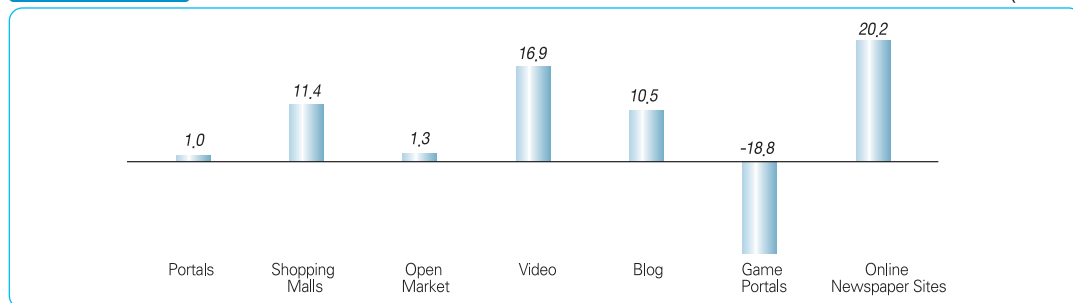
D. Web2.0

Web2.0 has become mainstream as an easy to use, no learning required service that promote user participation and sharing. 2005 was a year of finding out about the concept of Web2.0, 2006 was a year

of disseminating the concept. 2007 was a year when Web2.0 began to grow, a year when the concept began to be realized. The most prominent growth among websites was blog and UCC video sites, where users produce the information as they post. Especially, they were the professional blog sites such as Tistory and Egloos in comparison to blog services by portals(see Fig.1-3-1, Fig. 1-3-2).

Figure 1-3-1 Growth Rate of Major Internet Services

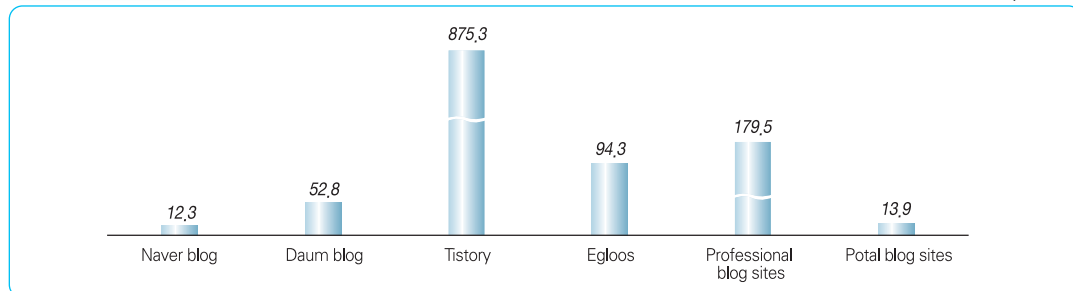
(Unit : %)



Metrix, www.metrix.co.kr

Figure 1-3-2 Growth Rate of Visitors by Blog Service

(Unit : %)



Metrix, www.metrix.co.kr

In terms of quantity, the fastest growing service among Web2.0 services in 2007 was widgets, a distribution service with a rapidly increasing following of users. There are widgets for desktops, for mobile phones, and for the web, the last of which is being the most highlighted.

Under the principle, 'the web as platform', Web2.0 has numerous open source developer interfaces. The increase in open API and open sources for liberal use by external developers has become the foundation for expediting the development of a diverse selection of mashup services.

Video UCC service provided from 2006 has become established as a new culture, as 83.5% of respondents answering to having already experienced UCC, according to the first half 「2007 NIDA Internet Issue Analysis Report」(UCC Usage Trend Survey). Also, the open market, another Web2.0 service with strong user participation, gave rise to social shopping.

4. Internet in the World

A. The World

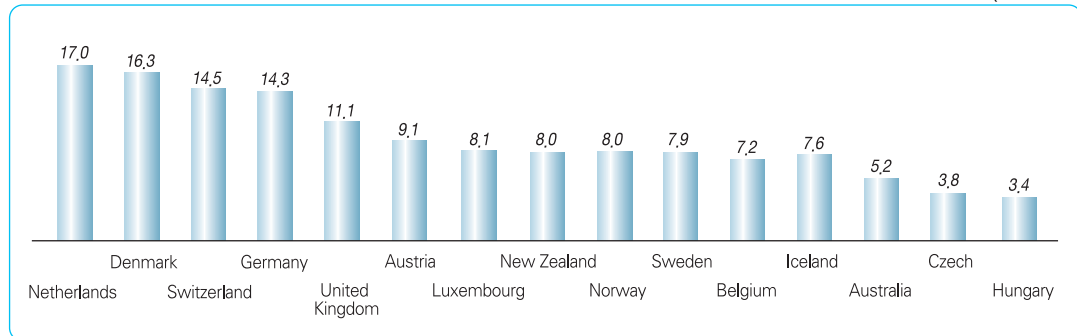
1) Internet address resource

As of the 4th quarter of 2007, the total number of registered ccTLDs of OECD countries was approximately 37.3 million. The ccTLD registration per 100 people was highest in the Netherlands(NL) and Denmark(DK) with 17.0 and 16.3 respectively. Although with the highest gross total of registrations among member countries, Germany was 4th with 14.3, Switzerland(CH) was 14.5, United Kingdom(UK) 11.1, Austria(AT) 9.1 and Luxembourg(LU) 8.1(see Fig. 1-4-1).

Figure 1-4-1

ccTLD Registration per 100 inhabitants(Top 15 OECD Countries)

(Unit : each)



NIDA, Trend Report on World Domain Name Market, March 2008

Total major gTLD registrations as of the 4th quarter of 2007 was 96,880 thousand, with .com registrations accounting for 75.1% of all registered gTLDs, or 72,720 thousand. The number for .net is 10,777 thousand(11.1%), .org 6,478 thousand(1.7%), .info 4,982 thousand(5.1%), and .biz 1,921 thousand(2.0%)(See Table 1-4-1).

Table 1-4-1 gTLD Registration

(Unit : each, %)

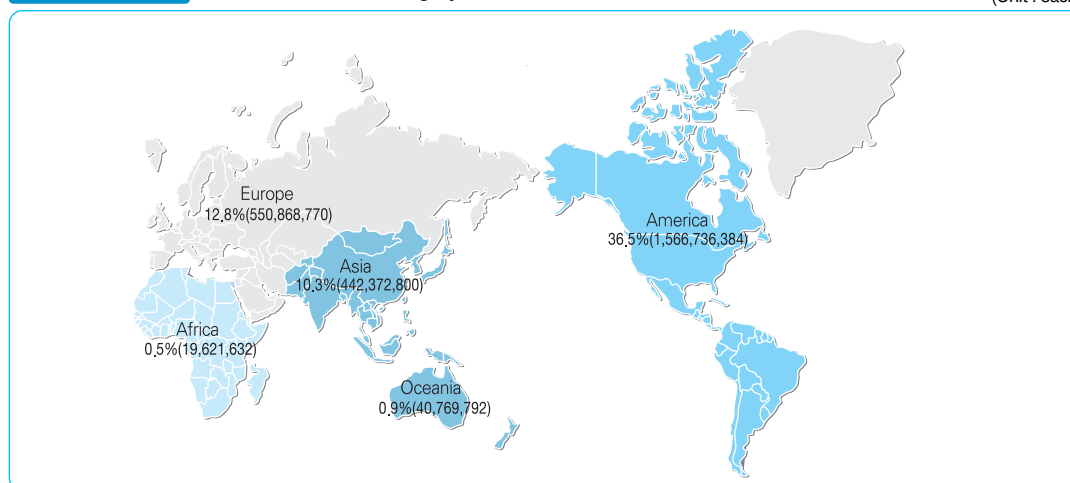
gTLD	No. of Registrations	Rate	Category	Agency
.com	72,720,500	75.1	Profit	VeriSign
.net	10,777,024	11.1	Network	VeriSign
.org	6,478,542	6.7	Non-profit	Public Internet Registry
.info	4,982,217	5.1	Information	Afilias
.biz	1,921,733	2.0	Business	Neulevel
Total		96,880,016		

NIDA, Trend Report on World Domain Name Market, March 2008

A look at the status of IP address holding by continent show that for IPv4 addresses, 36.5%(or around 1.6 billion) is allocated to the America, 12.8%(or around 0.5 billion) to Europe, and 10.3%(or around 0.4 billion) to Asia. Oceania(0.9%) and Africa(0.5%) has less than 1% of the world's total number of IPv4 addresses(see Fig. 1-4-2).

Figure 1-4-2 IPv4 Address Holding by Continent

(Unit : each)

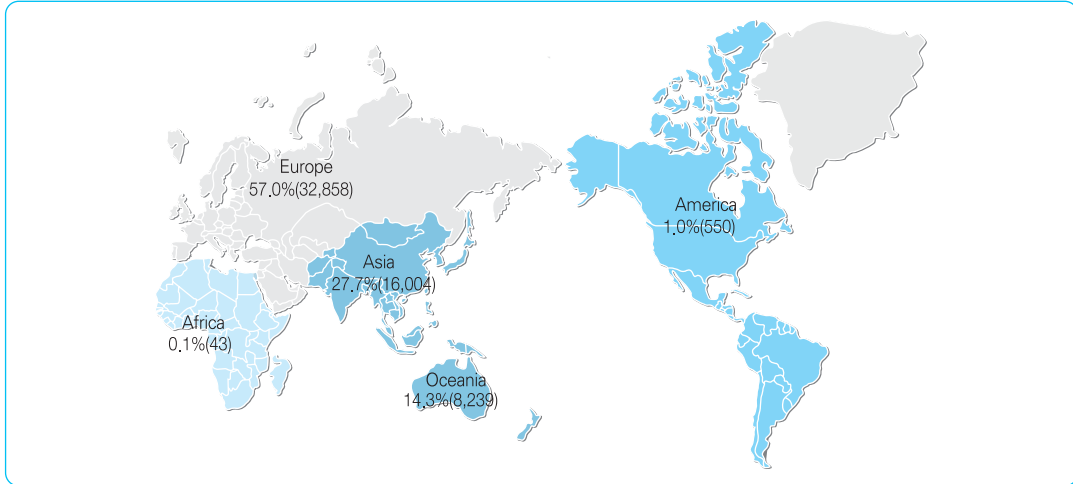


NIDA · APNIC · ARIN · RIPE NCC · LACNIC · AfriNIC, April 2008

On the other hand, in terms of IPv6 addresses, the America only has 1.0% while Europe and Asia has 57.0% and 27.7%, Oceania has 14.3%, and Africa has 0.1% allocated IPv6 addresses(see Fig. 1-4-3).

Figure 1-4-3 IPv6 Address Holding by Continent

(Unit : /32)



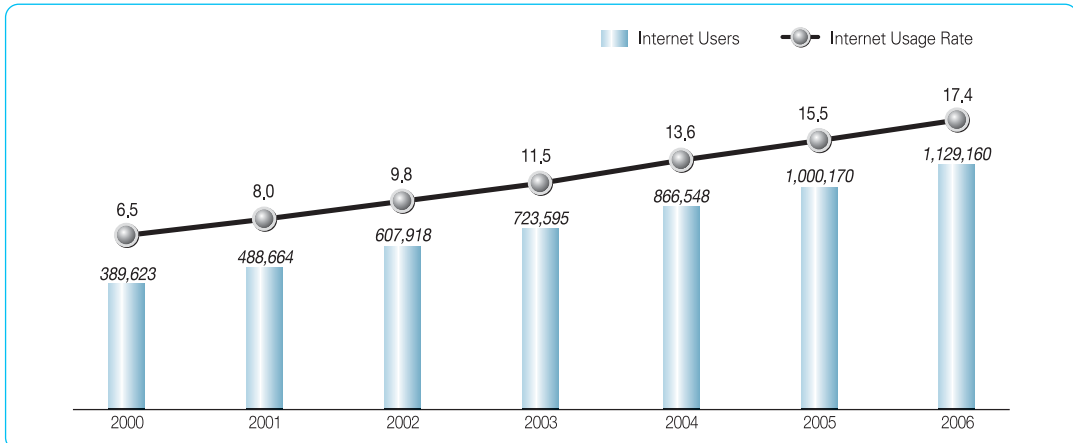
NIDA · APNIC · ARIN · RIPE NCC · LACNIC · AfriNIC, April 2008

2) Internet Usage

The number of Internet users is on a continuous rise all over the world. According to ITU(International Telecommunication Union), the global total number of users is 1,129 million(17.4%) as of end 2006. This is a 128,990 thousand(1.9%p) increase from the previous year and when compared to 488 million(8.0%) of 2001, an explosive number of 640 million new users(9.4%p) joined the user population during the past 5 years(see Fig. 1-4-4).

Figure 1-4-4 World Internet Users and Usage Rate

(Unit : thousand persons, %)



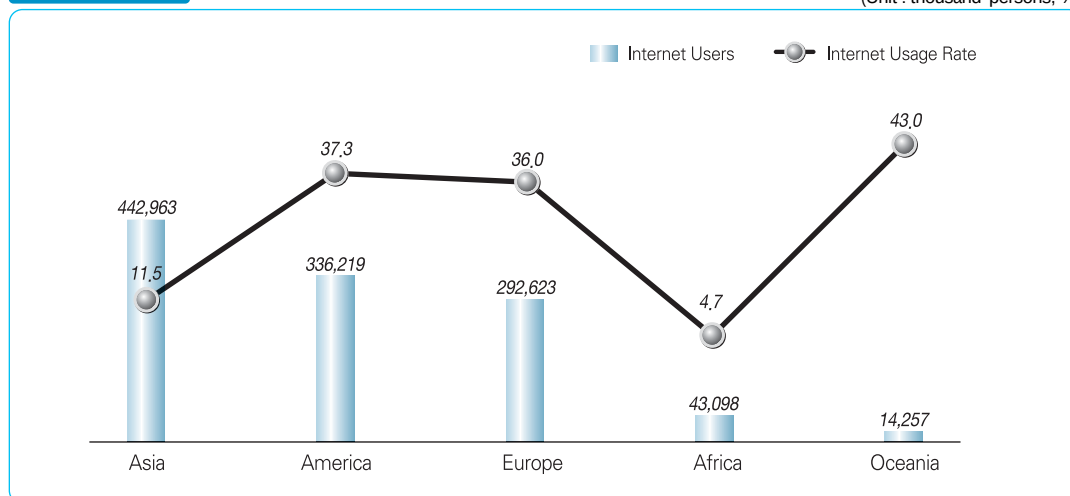
ITU, World Telecommunication / ICT Indicators, February 2008

No. of Internet Users and Internet Usage Rate by continent, Asia has the most Internet users with 442,963 thousand, followed by 336,219 thousand and 292,623 thousand in America and Europe. Africa(43,098 thousand) and Oceania(14,257 thousand) has comparatively lesser number of users. Meanwhile, the usage rate is highest in Oceania with 43.0%, followed by Europe 36.0%, America 37.3%, Asia 11.5%, and Africa 4.7%(see Fig. 1-4-5).

Figure 1-4-5

Internet Users and Usage Rate by Continent

(Unit : thousand persons, %)



ITU, World Telecommunication / ICT Indicators, February 2008

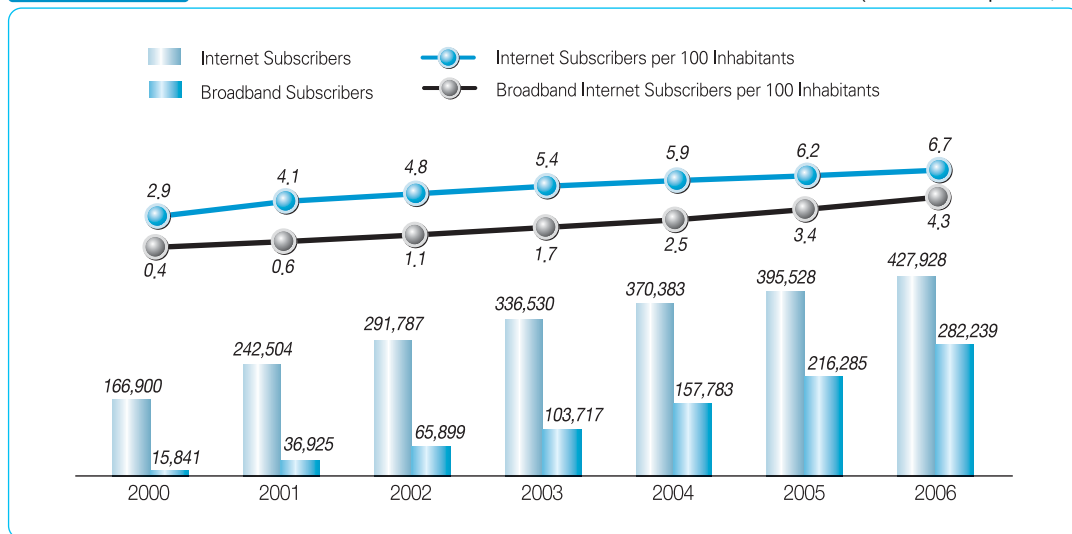
3) Internet Subscriber

According to ITU, as of end 2006, the global total number of Internet subscribers is 427.9 million(6.7%). Compared to 2001 when the number of subscribers was 242.5 million, 185.4 million new users signed up for services, resulting in a subscription rate increase of 2.6%p to 4.1%(see Fig. 1-4-6).

Figure 1-4-6

Internet Subscribers and Subscription Rate

(Unit : thousand persons, %)



ITU, World Telecommunication / ICT Indicators, February 2008

B. Trends in International Internet Standard Organizations

The NEMO, MONAMI6 and the MIP6 working groups that all had been working independently until the 69th IETF Conference in July 2007 was integrated into one MEXT(Mobility Extension) working group since the 70th IETF Conference. It will be having ongoing email correspondence on future direction and initiatives.

The W3C has taken on a reinvigorated focus on realizing its 3 main existing objectives, 'Universal Access, Semantic Web, Web of Trust', aligning them more with reality. Also in line with this change, it has encouraged the participation from lower income countries, smaller sized companies and non-profit agencies, strengthening the body's visions on public interest. In terms of technology affairs, the W3C has begun working on the mobile sector, working closely with standard developments of Korea's Mobile Web2.0 Forum on international standardization.

The ITU's FG IPTV, formed in July 2006, was disorganized in December 2007. In January 2008, the first conference of the IPTV-GSI was held in Seoul whereby 21 action plans of the FG IPTV were assigned to the standardization research team. As a result, the SG13 will be responsible for studying the outstanding issues and structure of IPTV services, while IPTV devices will be studied by the SG16 and IPTV security issues by SG17.

C. Internet Governance

The 2nd IGF(Internet Governance Forum) was held in November 2007 in Brazil's Rio de Janeiro to discuss over 80 sessions held among a team of 47 advisers selected from government, international agencies, private sector, civil society, academia, and technology committees, and 1,700 participants from 109 countries, a total of 5 major themes ranging from the 4 major themes of the 1st Forum to the newly added 5th theme on Critical Internet Resources.

For emerging countries, restrictions in national finance have made it difficult to actively participate in international policy decisions. They also lack in human resources capable of efficiently utilizing ICT(Information Communication Technology), which lead to further difficulty in realizing an information society and in relieving the digital gap among their population. A need for global cooperation was recognized to support the efficient human resource development of emerging countries as well as to offer training and financial support that enable these countries to meaningfully participate in global Internet governance. At the 3rd IGF is scheduled to be held in December 2008 in India, the 'Internet Charter' will be the new main issue. The 4th Forum is going to be held in Egypt in 2009.



2008 Korea Internet
White Paper



2008 KOREA INTERNET WHITE PAPER

Part II Service

- 1 Internet Service
- 2 Internet Business
- 3 Internet Society and Culture

1. Internet Service

A. Web Portal

Web portals have high social impact through search and news services and have achieved competitiveness through specialized services and M&As.

The Web portal market in 2007 was led by Naver, with competition staying in the game through specialized service offerings and corporate mergers & acquisitions(see Table 2-1-1).

Table 2-1-1

Market Share of Portal Sites(As of December 2007)

(Unit : thousand persons, %)

Rank	Site	Unique Visitors	Reaching Rate
1	Naver	31,962	95.4
2	Daum	30,966	92.5
3	Nate	25,871	77.2
4	Cyworld	24,604	73.5
5	Yahoo	20,767	62.0
6	Paran	19,277	57.6
7	Empas	19,099	57.0
8	Freechal	9,864	29.5
9	Hanafos	7,753	23.2
10	Sayclub	6,325	18.9

Metrix, www.metrix.co.kr

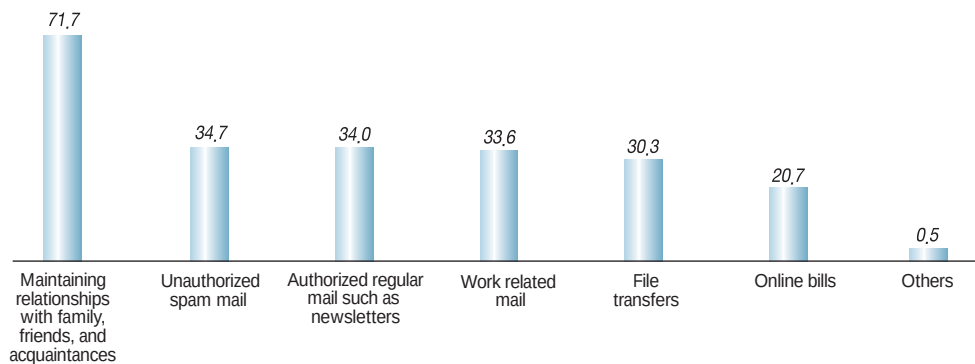
B. Communication

E-mails mostly contained subjects related to 'Maintaining relationships with family, friends, and acquaintances(71.7%)' followed by 'Unauthorized spam mail(34.7%)', 'Authorized regular mail such as newsletters(34.0%)', and 'Work related mail(33.6%)'(See Fig. 2-1-1).

Figure 2-1-1

Contents of e-mail Sent/Received(Multiple Responses)-e-mail user

(Unit : %)



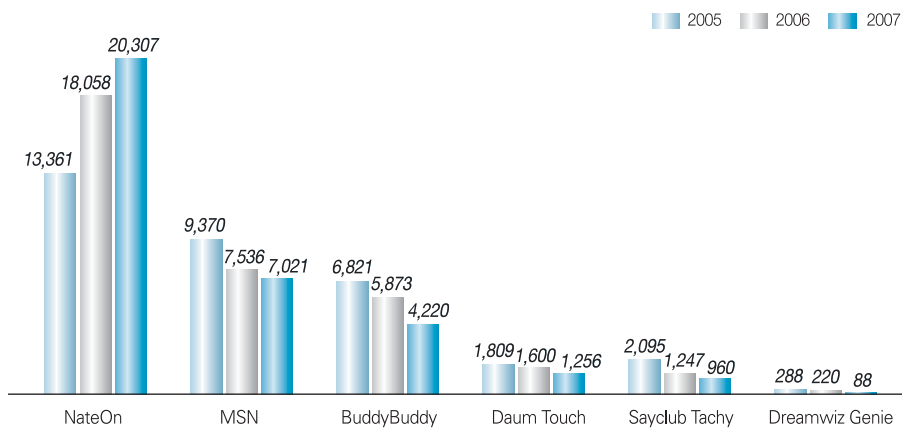
Metrix, www.metrix.co.kr

The users of the market leading NateOn have increased but as the users of other IMs went down. So the total number of users in the market went into a decline(See Fig. 2-1-2).

Figure 2-1-2

Instant Messenger Users by Provider

(Unit : thousand persons)



Metrix, www.metrix.co.kr

C. Game and Music

1) Game

According to the Korea Game Industry Agency(KOGIA)'s 「2007 Korea Game White Paper」, the online game market is worth 1,776.8 billion won, achieving the highest growth in the game industry at a growth rate of 23.4% compared to 2005(see Table 2-1-2).

Table 2-1-2

Game Industry Volume and Growth Rate

(Unit : 100 million won, %)

Type		Online Game	Mobile Game	Video Game	PC Game	Arcade Game	Internet Cafe (PC bang)	Arcade Gaming Center	Video Gaming Center	Total
2005	Volume	14,397	1,939	2,183	377	9,655	19,923	37,966	358	86,798
2006	Volume	17,768	2,390	1,365	264	7,009	18,647	26,770	276	74,489
	Growth Rate	23.4	23.3	-37.5	-30.0	-27.4	-6.4	-29.5	-22.9	-14.2

MCT · KOGIA, 2007 Korea Game White Paper, June 2007

The growth momentum of online games has been mainly fueled by the market participation in the game divisions of major local conglomerates as well as the growth of game portal sites. The growth of online game volume can be explained by diversified game market with an increased selection of games, and an enlarged export volume(see Table 2-1-3).

Table 2-1-3

Online Game Market Volume Trend

(Unit : 100 million won, %)

Type	2002	2003	2004	2005	2006	2007(E)
Market Volume	4,522	7,541	10,186	14,397	17,768	21,144
Growth Rate	-	66.8	35.1	41.3	23.4	19.0

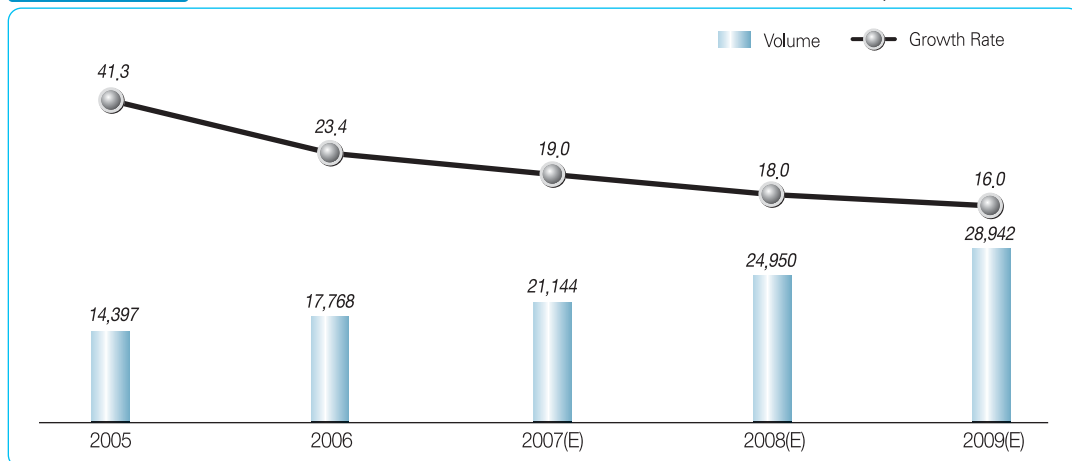
※ Based on production · distribution market, (E): Provisional Data

MCT · KOGIA 2007 Korea Game White Paper, June 2007

The average annual growth rate of online games is 19.1%. In 2007, its annual revenue broke the 2,000 billion won mark, recording 2,114.4 billion won. Revenue is expected to rise further to 2,495 billion won in 2008 and 2,894.2 billion won in 2009(See Fig. 2-1-3).

Figure 2-1-3 Online Game Market Volume and Forecast

(Unit : %, 100 million won)



※ (E): Estimate

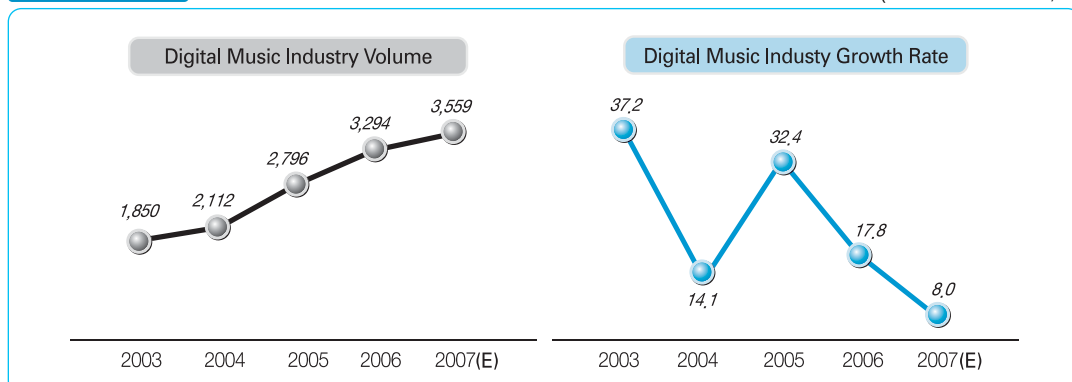
KIPA, Study on Overseas Digital Contents Market Direct Service Promotion Strategy, 2006

2) Music

The digital music market made up a volume of 355.9 billion won in 2007, repeating the sluggishness in growth of the previous two years. As the traditionally strong ringtone and ring back tone market went into a decline, the whole digital music market followed along(See Fig. 2-1-4).

Figure 2-1-4 Digital Music Industry Market Volume and Growth Trend

(Unit : 100 million won, %)



※ (E): Estimate

KIPA, 2007 Survey on Domestic Digital Contents Market, January 2008

By product, the ring tone and ring back tone takes up the biggest portion of the sales volume but figures show a decline from the previous year of 2006. This trend is a reflection of the slowdown of

wireless data sales of mobile carriers. While the ringtone market seems to have hit the ceiling, full track and BGM market is showing high growth rates, above that of the industry total(see Table 2-1-4).

Table 2-1-4 Digital Music Industry Sales Volume

(Unit : 100 million won, %)

Type	2006	2007	Growth Rate
Ring tone · Ring back tone	1,862	1,703	- 8,5
BGM	289	336	16,3
Full Track	1,143	1,520	33,0
Total	3,294	3,559	8,0

KIPA, 2007 Survey on Domestic Digital Contents Market, January 2008

D. UCC

As the Internet evolves into an environment based on user participation, production and distribution of quality Internet media contents have become a critical factor in the Internet experience as well as for online businesses. The sensational popularity of UCC in 2006 continued onto 2007. Growth in visitor numbers to the top 5 video UCC specialized sites and 3 portal UCC services all showed a similar level of growth(See Table 2-1-5).

Table 2-1-5 Number of UCC Site Visitors(2007)

(Unit : thousand persons)

Month	Top 5 Video UCC Specialized Sites					Top 3 Portal UCC Sites		
	Pandora TV	mncast	Gom TV	Mgoon	Afreeca	Naver Video	Cyworld Video	Daum tvPot
1	9,354	9,501	242	6,291	1,870	6,179	3,160	8,260
2	8,258	7,606	99	4,561	1,268	5,431	2,886	8,258
3	10,337	7,324	139	5,931	1,799	5,993	4,021	12,777
4	9,804	7,152	149	6,714	1,704	7,471	3,678	12,299
5	10,778	8,812	927	8,812	1,583	6,852	5,789	10,095
6	9,219	8,084	6,576	7,893	1,964	7,502	3,647	9,317
7	10,541	9,258	7,396	8,654	2,532	6,895	5,359	10,004
8	11,148	7,520	6,723	7,503	1,770	5,372	4,925	10,087
9	11,425	8,304	7,466	7,545	1,748	6,197	4,086	9,747
10	11,351	7,932	6,992	7,932	1,764	8,229	5,882	10,758
11	12,439	8,287	9,325	7,361	1,616	9,330	5,407	11,754
12	12,382	8,505	8,505	7,378	1,836	8,094	5,335	10,326

Metrix, www.metrix.co.kr

Portals such as Naver and Daum as well as video UCC Specialized sites such as Pandora TV, mncast, Afreeca and Mgoon made up the competitive marketplace(See Table 2-1-6).

Table 2-1-6 Services in UCC Sites

Site	Service	Site	Service
Naver	KnowledgeiN, Boom, Toon, Nemo, Video	Aura	Best, Hot Clip, Magazine, VOD
Daum	tvPot, SegyeN, Televizone, Others	Mgoon	Category, Ranking, Station
Pandora TV	Program, Channel, Live	Diodeo	Video, Audio, Entertainment TV, Game TV, Fun
mncast	Hit Video, Category, Story, Channel UP	GomTV	Open Channel
Afreeca	BJ Ranking, Hit Program, Open TV	Tag Story	View video

KBI, Korea Portals' UCC Service Strategies, February 2007

E. e-Learning

In 2007, the market volume of e-Learning customers, or the total spending by formal educational institutes, government and public offices, and corporate and individuals was 1,727.6 billion won. This is a 7.1% increase from 1,613.3 billion won of 2006. Corporate customers made up the largest portion of the volume, with 759.6 billion won, or 44.0%. Individuals spent 735.1 billion won, or 42.6% of the total revenue(see Table 2-1-7).

Table 2-1-7 e-Learning Demand Market Volume

(Unit : million won, %)

Type	2004	2005	2006	2007	Growth Rate
Individual	668,996	671,509	697,227	735,108	5.4
Formal educational institutes	13,243	18,424	26,220	69,555	165.3
Government and public offices	83,105	94,418	137,574	163,366	18.7
Corporate	527,291	668,169	752,286	759,603	1.0
Total	1,292,635	1,452,520	1,613,307	1,727,632	7.1

KIEC, 2007 Survey on e-Learning Industry Trend, March 2008

In terms of the provider market, in 2007, the market volume by business was 1,727.6 billion won in sales, 6.8% increase from 1,617.8 billion won in 2006. Services grew 11.5%, and contents 4.3% while revenue for the solutions businesses dropped by 8.7%. e-Learning services took up the largest portion of the total market with 63.8%(1,102.6 billion won). This share has been increasing each year(see Table 2-1-8).

Table 2-1-8

e-Learning Supply Market Volume

(Unit : million won, %)

by Main Product	2006		2007		Growth Rate
	Sales Volume	Ratio	Sales Volume	Ratio	
Contents	389,452	24.1	406,022	23.5	4.3
Solution	239,091	14.8	218,389	12.6	-8.7
Service	989,254	61.1	1,102,645	63.8	11.5
Total	1,617,797	100.0	1,727,057	100.0	6.8

KIEC, 2007 Survey on e-Learning Industry Trend, March 2008

F. Media and Advertisement

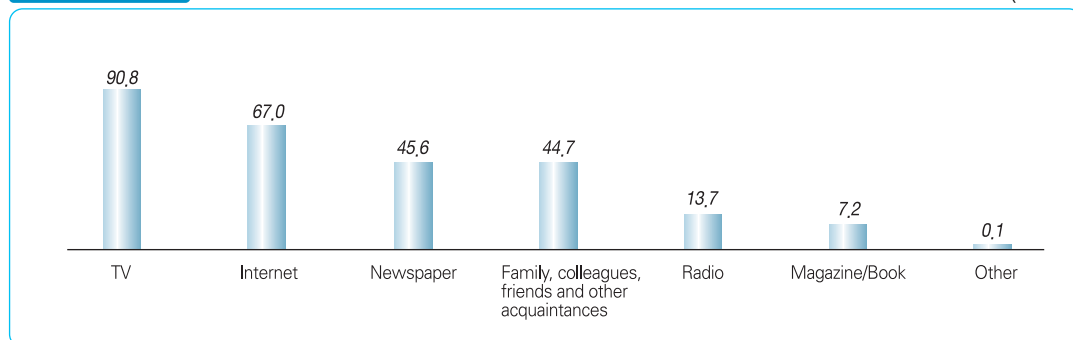
1) Online Media

As of August 2007, Internet users over the age of 18 get their news and information on current issues through the TV(90.8%), followed by the Internet(67.0%)(See Fig. 2-1-5).

Figure 2-1-5

Information Channels for Social Issues(Multiple Responses)

(Unit : %)



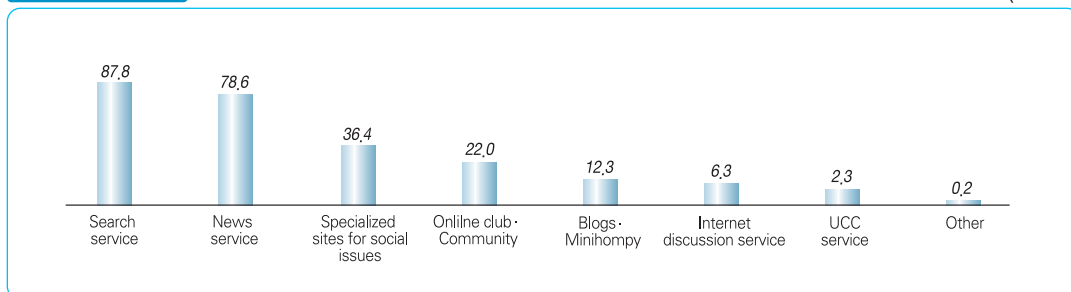
MIC · NIDA, Survey on Computer and Internet Usage, August 2007

In the case where the Internet user gets his/her information on social issues through the Internet, over 70% use search service(87.8%), news service(78.6%), specialized sites for social issues(36.4%), and online club · Community sites(22.0%)(See Fig. 2-1-6).

Figure 2-1-6

Online Information Channels for Social Issues(Multiple Responses)

(Unit : %)



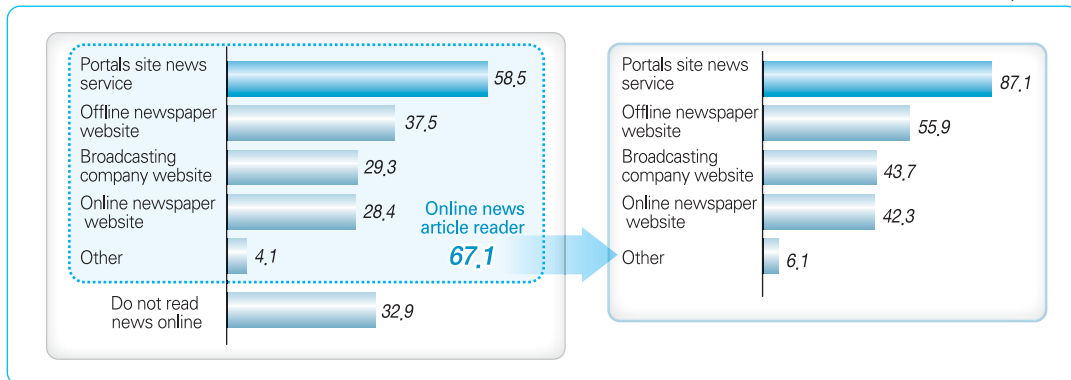
MIC · NIDA, Survey on Computer and Internet Usage, August 2007

According to 「Survey on Computer and Internet Usage」, 67.1% of Internet users over the age of 6 use the Internet to see or read news articles. Of which, 87.1% use portal site news service, followed by 'offline newspaper websites(55.9%)' and 'broadcasting company site(43.7%)'. As such, Internet portal sites have become central to distributing online news articles, and have been key to reinforcing the media functions of the Internet(See Fig. 2-1-7).

Figure 2-1-7

Internet News Usage Channels(Multiple Responses)

(Unit : %)



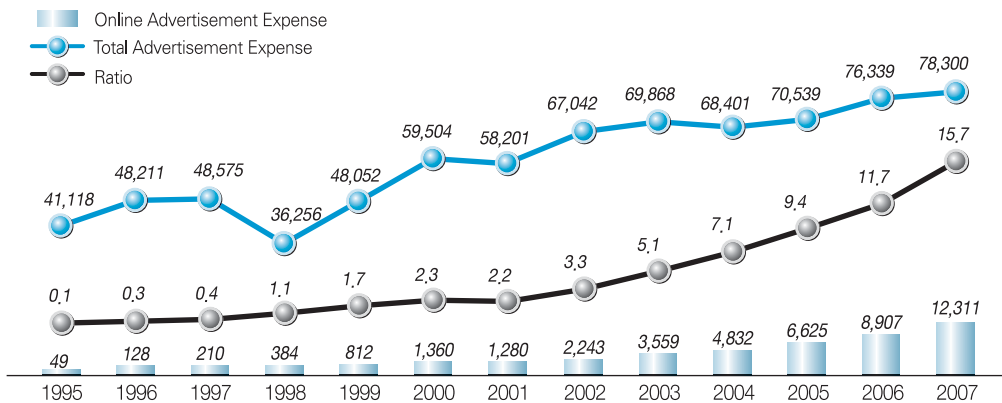
MIC · NIDA, Survey on Computer and Internet Usage, August 2007

2) Online Advertisement

The online advertisement market has been recording an average growth rate of 40.8% for the past 5 years and that of 2007 was no exception. While the total advertisement market grew just 2.57% from 7,634 billion won in 2006 to 7,830 billion won in 2007, online ads grew by 38.2%, from 891 billion won in 2006 to 1,231 billion won in 2007(See Fig. 2-1-8).

Figure 2-1-8 Online Advertisement Market Volume

(Unit : 100 million won, %)

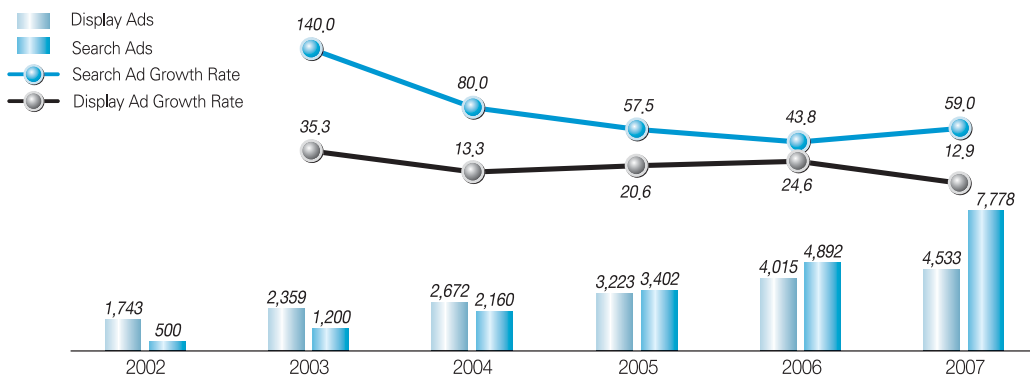


IMCK, Report on Advertisement Standard Development for Advertisement Pricing, 2007

In detail, display ads(banner, e-mail, sponsorship ads) have increased by 12.9% to 453 billion won in 2007, up from 402 billion won of 2006. But the rate of increase has slowed down somewhat as the rates were 20.6% in 2005 and 24.6% in 2006. Search ads, on the other hand, jumped by 59.0% compared to the previous year, recording a volume of 778 billion won in 2007 when 2006 was 489 billion won(See Fig. 2-1-9).

Figure 2-1-9 Online Advertisement Market Growth Rate by Business

(Unit : 100 million won, %)



KFAA · IMCK, 2007 KNP Internet User Research Seminar Data(Compiled), 2007

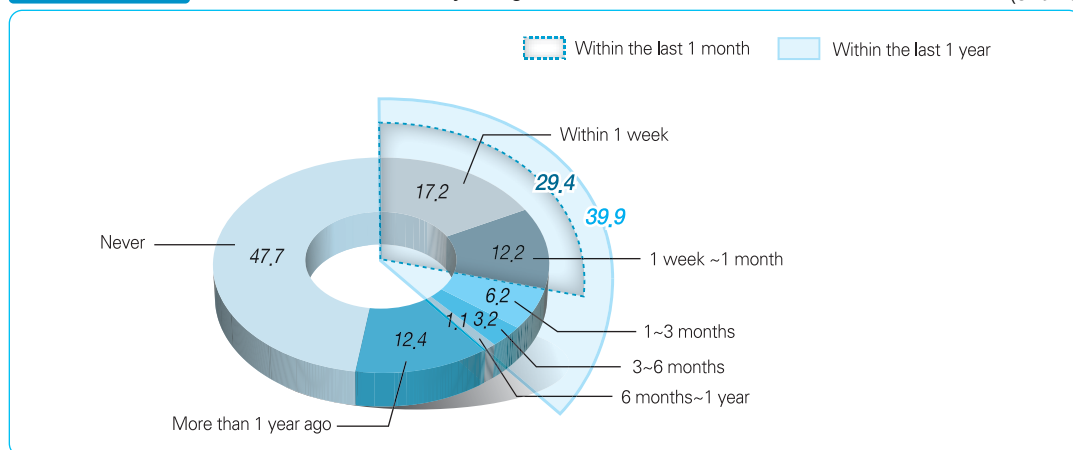
G. Communities and Blogs

According to the 「Survey on Computer and Internet Usage」, 39.9% of Internet users have used the social networking sites, such as communities, that they had joined 'Within the last 1 year', and 29.4% did so 'Within the last 1 month'(See Fig. 2-1-10).

Figure 2-1-10

Online Club · Community Usage - Internet Users

(Unit : %)



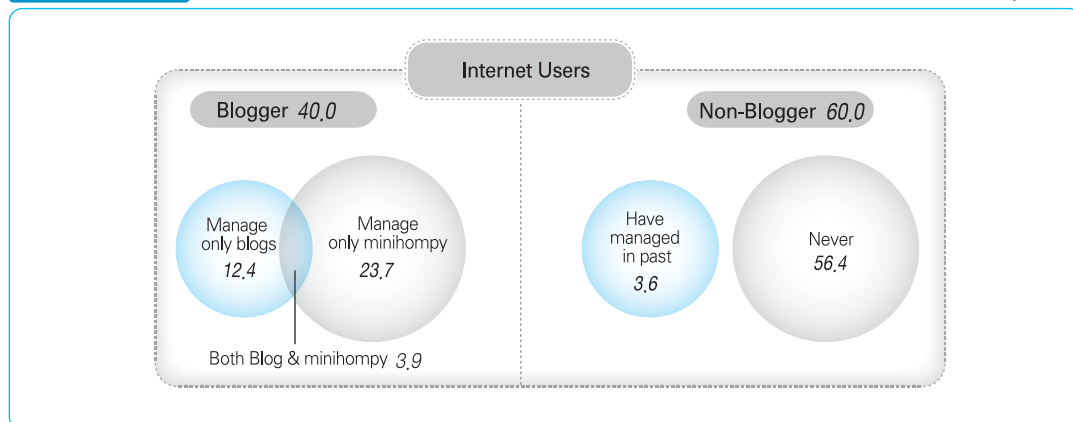
MIC · NIDA, Survey on Computer and Internet Usage, August 2007

Meanwhile, 4 out of 10 Internet users (40%) are bloggers who manage a blog or a minihompy. 12.4% only manage a blog 23.7% only a minihompy, and 3.9% both a blog and a minihompy(see Fig. 2-1-11).

Figure 2-1-11

Blogger

(Unit : %)



NIDA, Analyzed Report on Bloggers, 2007

H. IPTV

Hanaro Telecom was the first to offer a product, Hana TV that combined high speed Internet, telephone, and TV services in July 2006. It is a VOD(Video On Demand) based service that offers various contents from movies, drama, to educational programs on the subscriber's TV connected to a high speed Internet network and an IP set-top box. As of end 2007, Hana TV has more than 800,000 customers. With the enactment of the IPTV Business Act that will allow real-time broadcasting, as well as with the development of contents and new profit models, the company plans to increase its subscriber base to 2.2 million by 2010.

KT has launched its own IPTV service without realtime broadcasting in July 2007 in the name of 'MegaTV', a successor to the HomeN, a rudimentary TV portal launched in June 2004. KT plans to provide complete IPTV service by 2008, and to differentiate its service with existing interactive DCATV through development of uniquely specialized contents ranging from multi angle viewing and video calling, to portal services.

LG Dacom launched 'myLGtv' in December 2007, and has been selling their TPS(Triple Player Service) product packaged together with high speed Internet and Internet phone. LG Dacom is planning to expand their fiber LAN subscriber network to accommodate a realtime broadcasting and also plans to introduce DOCSIS(Data Over Cable Service Interface Specification) 3.0 in order to provide Internet other data services through the HFC network.

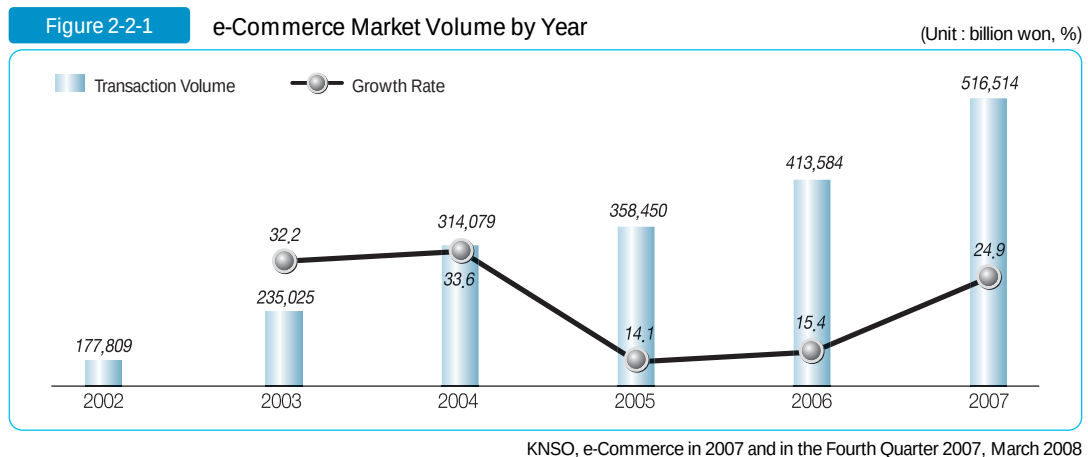
Daum Communication is planning to become the sole IPTV operator among Internet portal companies. The company plans to provide terrestrial broadcasting, VOD such as film, sports, and animation, news, search, social networking, messenger and other major services in partnership with Microsoft Korea and Celrun. It is also working on an open portal service named '365°C' through the Digital TV Portal Forum, formed among major home appliance companies, telecommunication companies, and contents providers.

2. Internet Business

A. e-Business

1) B2C

Due to the explosive growth and expansion of the Internet, Korea's e-business market has been on a continual incline, breaking the 500 trillion won in volume mark for the first time in history in 2007. According to the Korea National Statistical Office, the total transaction volume for domestic e-business totaled 516,514 billion won in 2007, growing 24.9% from 102,930 billion won of 2006(See Fig. 2-2-1).



In a look into the volume and composition ratio by business type, B2B accounts for 89.9% of the market with 464,456 billion won while B2C accounts for 2.0%, or 10,226 billion won. These growth rates are an increase from 2006, when they were 26.8% and 12.0% respectively(see Table 2-2-1).

Table 2-2-1 e-Commerce Market Volume by Business Type

(Unit : billion won, %)

Type	2006		2007		Year on Year	
		Rate		Rate	Growth Rate	Growth Amount
B2B	366,191	88.5	464,456	89.9	98,264	26.8
B2G	34,435	8.3	36,801	7.1	2,366	6.9
B2C	9,132	2.2	10,226	2.0	1,094	12.0
C2C	3,826	0.9	5,032	1.0	1,206	31.5
Total Transaction Amount	413,584	100.0	516,514	100.0	102,930	24.9

KNSO, e-Commerce in 2007 and in the Fourth Quarter 2007, March 2008

Total transaction volume of online shopping malls in the year 2007 alone was 15,765.6 billion won, up 17.1% by 2,306.0 billion won from 2006 when the volume recorded 13,459.6 billion won. B2C volume was 64.9% of the total(see Table 2-2-2).

Table 2-2-2 Online Shopping Mall Transaction Volume

(Unit : billion won, %)

Type	2006		2007		Year on Year	
		Rate		Rate	Growth Rate	Growth Amount
B2C	9,131.5	67.8	10,225.8	64.9	1,094.3	12.0
B2B	502.1	3.7	508.0	3.2	5.9	1.2
C2C	3,826.0	28.4	5,031.8	31.9	1,205.8	31.5
Total Transaction Amount	13,459.6	100.0	15,765.6	100.0	2,306.0	17.1

KNSO, e-Commerce in 2007 and in the Fourth Quarter 2007, March 2008

2) B2B

B2B volume for 2007 rose 26.8%(or 98,264 billion won) from the previous year's 366,191 billion won to total 464,456 billion won(see Table 2-2-3).

Table 2-2-3 B2B e-Commerce Market Volume

(Unit : billion won, %)

Type	2002	2003	2004	2005	2006	2007	Year on Year	
							Growth Rate	Growth Amount
Total Transaction Amount	155,707	206,854	279,399	319,202	366,191	464,456	98,264	26.8

KNSO, e-Commerce in 2007 and in the Fourth Quarter 2007, March 2008

Looking at volumes by business models showed the buyer led B2B market totalling 321,058 billion won, increasing by 21.9% from the previous year. The seller led market totaled 119,246.0 billion won, rising by 38.3%, and the broker market raked in 24,152 billion won, increasing by 45.2%. When broken down, the seller led market accounts for 25.7%, up 2.2%p from previous year, while the broker led market takes up 5.2%, up 0.7%p, and the buyer led market was 69.1%, down 2.8%p from 71.9% of 2006(see Table 2-2-4).

Table 2-2-4

B2B e-Commerce Market Volume by Transaction Type

(Unit : billion won, %)

Type	2006		2007		Year on Year	
		Rate		Rate	Growth Amount	Growth Rate
Buyer-led	263,318	71.9	321,058	69.1	57,739	21.9
Seller-led	86,238	23.5	119,246	25.7	33,008	38.3
Broker-led	16,635	4.5	24,152	5.2	7,517	45.2
Total Transaction Amount	366,191	100.0	464,456	100.0	98,264	26.8

KNSO, e-Commerce in 2007 and in the Fourth Quarter 2007, March 2008

3) Financial Transaction Service

The number of online banking service customers registered to 19 financial institutions(17 local banks, HSBC, and Korea Post's ePostBank), including customers registered to more than 2 sites, totaled 44,698 thousand as of December 2007, up 24.5% compared to 35,912 thousand of 2006(see Table 2-2-5).

Table 2-2-5

Online Banking Registered Customers

(Unit : thousand persons, thousand companies, %)

Type	2003	2004	2005	2006	2007
Individual	21,752 <27.8>	23,094 <6.2>	25,303 <9.6>	34,123 <34.9>	42,396 <24.2>
Company	1,002 <44.2>	1,177 <17.5>	1,434 <21.8>	1,789 <24.8>	2,302 <28.7>
Total	22,754 <28.5>	24,271 <6.7>	26,737 <10.2>	35,912 <34.3>	44,698 <24.5>

※ < > is Year on year growth rate

BOK, Online Banking Usage Statistics, February 2008

On a daily average, account inquiry, fund transfer, and loan services were used approximately 1,792.0 billion counts in 2007, up 40.0% from 2006(approximately 1,280.2 billion cases). Account inquiry was

served 15,177 thousand cases, growing by 43.2% compared to 2006(10,596 thousand), and also accounting for 84.7% of the total online banking service usage, a slight increase from the previous year.

Fund transfer was serviced a daily average of 2,740 thousand cases, totaling 18,557 billion won. Compared to the previous year(2,204 thousand cases and 15,090 billion won), this was a 24.3% increase in terms of quantity and 23.0% increase in terms of total amount(see Table 2-2-6).

Table 2-2-6

Online Banking Service Usage(Daily Average)

(Unit : thousand cases, 100 million won, %)

Type	2004		2005		2006		2007	
	No. of Cases	Amount	No. of Cases	Amount	No. of Cases	Amount	No. of Cases	Amount
Account Inquiry	7,501 (83.4) <21.8>	-	9,199 (82.7) <22.6>	-	10,596 (82.8) <15.2>	-	15,177 (84.7) <43.2>	-
Fund Transfer	1,492 (16.6) <41.4>	89,910 <15.4>	1,924 (17.3) <29.0>	125,182 <39.2>	2,204 (17.2) <14.6>	150,903 <20.5>	2,740 (15.2) <24.3>	185,570 <23.0>
Loan Service	2.3 (0.0) <- 54.0>	158 <- 57.4>	1.8 (0.0) <- 21.7>	115 <- 27.2>	1.9 (0.0) <5.6>	137 <19.1>	2.0 (0.0) <5.3>	135 <- 1.5>
Total	8,995 (100.0) <24.6>	-	11,125 (100.0) <23.7>	-	12,802 (100.0) <15.1>	-	17,919 (100.0) <40.0>	-

※ () is out of total online banking services, < > is Year on year growth rate

BOK, Online Banking Usage Statistics, February 2008

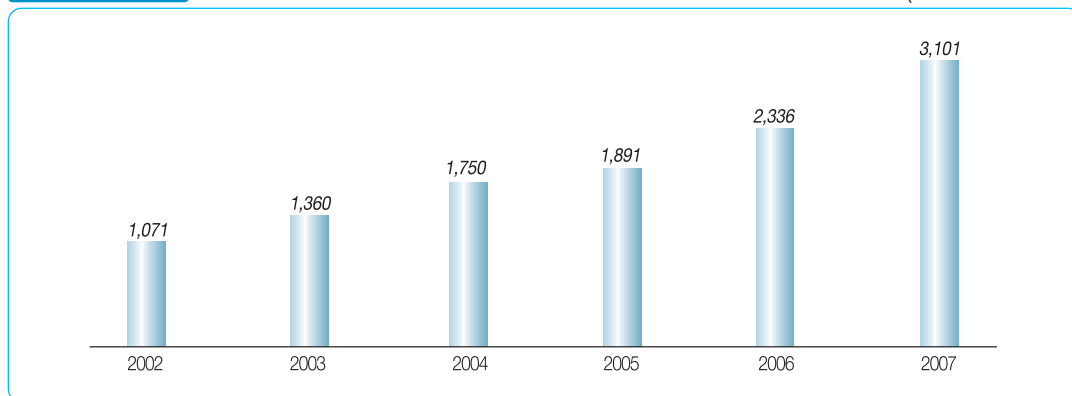
4) ASP

The ASP market volume in Korea for 2002 when the market was just being established was 107.1 billion won. In end 2007, ASP firms reached an annual sales volume of 310.1 billion won, a 190% growth rate from 2002. The industry size grew 23.5% in 2006 and 32.7% in 2007(See Fig. 2-2-2).

Figure 2-2-2

ASP Industry Volume

(Unit : 100 million won)



NIA, ASP Industry Survey, 2007

5) IDC Service

The local IDC market gained its true market value as high speed Internet service took root in Korea in the late 1990s. Moving beyond being an IT center for companies, IDC services has seen consistent market growth by providing efficient network management and meeting the needs of the growing Internet traffic volumes.

The market volume which had been less than 100 billion won in 2000 jumped to almost 300 billion by 2006. The 2007 volume was 500 billion, growing by 30%. 700 billion won is expected for 2008.

B. m-Business

1) m-Contents

The m-contents market in 2007 witnessed amazing changes and development despite the slowdown of the local economy due to notable technological advancements and service evolution amidst a wave of convergence. Major market keywords for the year were as follows; wired/wireless portal convergence, wired/wireless contents convergence, stronger user-led contents, takeover of records market by telcos' music sites, entry into offline contents by telcos, drop in packet user fees due to W-CDMA(Wideband Code Division Multiple Access), and slow-down of m-contents sales growth since 2006.

45% of SMS sales occurred from mobile data services in 2007. Mobile data service excluding SMS for 2007 was approximately 2,210 billion won(see Table 2-2-7).

Table 2-2-7

Mobile Internet Market Volume

(Unit : billion won, %)

Type	2006	2007	Growth Rate
Mobile Internet	3,724	3,886	4,35
SMS	1,485	1,676	12,8
Mobile internet Sales(excl. SMS Sales)	2,239	2,210	- 1,3
Information Use Fee	646	602	- 6,8
Total Sales	21,101	23,164	9,77

Mobile Communication Service Provider, 2007 Report for Investor Relations, January 2008

2) m-Commerce

According to Bank of Korea(BOK) , the number of registered customers of IC chip based mobile banking increased by 48.1% compared to end 2006. The total count of mobile banking usage was a daily average of 716,000, a rise of 60.5% compared to 446,000 counts of 2006. In relation to total online banking volume, although mobile banking takes up just 3.8% of the total, this figure is 9.2% increase from 3.5% of 2006. In terms of services, account inquiry recorded 598,000 counts on average per day, a 63.4% increase compared to the previous year, and fund transfers recorded an average of 118,000 counts, rising 47.5% from 2006(see Table 2-2-8).

Table 2-2-8

Mobile Banking Service Usage(2006~2007)

(Unit : thousand case, %)

Type	2006	2007	Growth Rate
Mobile Banking Use Cases(Daily Average)	446	716	60,5
Account Inquiry	366	598	63,4
Fund Transfer	80	118	47,5
Out of Total Online Banking	3,5	3,8	9,2

BOK · KRX, Domestic Online Banking Service(Compiled), January 2008

3) m-Communication

SMS is a major income source of mobile service. This trend is due to the fact that SMS costs little, giving users the burden-free gift of texting. Also, while it is a basic feature on every mobile phone, the feature itself has not changed much in the middle of all the developments in mobile phone devices and networks. Total sales have grown despite saturated mobile subscriber market due to constant SMS traffic and diversified wireless data service offerings.

MMS is a service for sending and receiving multimedia messages such as text, color photo, music, animation, and video on the user mobile phone. There had been industry effort on preparing the network environment to make it more favorable to MMS services. In 2003, 3 local telcos partnered to make MMS sharing possible among subscribers of different providers, and in July 2004, web-to-phone MMS service became available. As all mobile phones launched from 2004 have MMS features, the penetration rate of MMS-enabled phones exploded to almost 100% in end 2006 when in end 2004, only 50% of phones were MMS-enabled, resulting in high MMS traffic growth.

4) Wired/Wireless Integrated Service

In the Internet business evolving toward open environment, user-centric services instead of corporate services have become the main competitiveness factor. Such companies are creating personal media based services with customization features, such as blogs and minihompys. Cyworld is leading the industry through its Koreanized personal media service.

Instant messaging service realizes interactive communication on the web by allowing users to check who is online, chat 1-to-1, chat many-to-1, and even form social networks. It offers more than interpersonal communication, with companies competitively adding new features such as realtime file transfer, shared folders, emoticon chats, minihompy linking, and SMS sending/receiving.

Mobile games have recently been moving toward network games, such as Gamevil's '2007 Pro Baseball' have a much longer life cycle compared to packaged games with 3~4 months. Also, games like Imo by Com2us, the world's first wireless MMORPG can only be played online, unlike some other semi network games.

C. t-Business

Cable TV has started full-blown marketing in 2007 based on stabilized services that came from 3 years of digital broadcasting experience. They have carried out aggressive marketing, sending out brand advertisements for 'DV' to terrestrial TV in an effort to overcome their weakness of being regional providers. 850,000 households converted to digital subscriptions as a result as of end December 2007.

In 2007, Hanaro Telecom and KT introduced a VOD-based Pre-IPTV. They have secured 810,000 households and 320,000 households each as of end 2007. In the case of MegaTV, a conference call confirmed an internal target of 1.5 million households by 2008. Meanwhile, from 2008, LG Telecom has

joined the market with 'myLGtv' and portal operators such as Daum Communications have also entered the market asking for open access network. The '365°C' open platform, led by home electronics companies, mainly Samsung Electronics and LG Electronics, will open up a new paradigm for t-business in their December launch.

In the case of terrestrial DMB, although device penetration has broken the 10 million unit mark as of end 2007, there is still uncertainty in its profitability since the service is free. The future is also not bright for TU Media provider of satellite DMB service, for they have went into downsizing. Launched as a paid service, it has been difficult for satellite DMB to expand its subscriber base of 1 million mainly due to not being able to broadcast terrestrial channels and their killer contents.

3. Internet Society and Culture

A. Politics

The impact of the Internet on Korean politics cannot be described without bringing up the 16th Presidential Election in 2002, during which the political power of the Internet was proven through the 'candlelight rally' and 'Roh, Moo-Hyun support group(Nosamo)'. These events showed that the Internet can be used as a tool for efficient and explosive political consensus to form and communicate. Immediately following the 2002 Campaign, the U.K's 「The Guardian」 featured the election results under the headline, the World's first Internet president logs on'. The paper was remarking on how the Internet played a definitive role in the Korean presidential election.

Online politics in 2007 17th Presidential Election began with online campaigns among potential presidential candidates. Most characteristic of the year's campaign politics on the web was the application of various Web2.0 related technology such as UCC into politics. Thanks to the evolution of new web technology and its wide use, political contents made with Web2.0 based UCC was thought to be able to have a huge impact on the election as well as overall politics.

However, despite the anticipation of a 'UCC Election', UCC did not become an important variable in the 2007 election campaign. The voluntary participation of Internet users, characteristic of Web2.0 and UCC, did not happen. Rather than the active online political participation of 2002 Presidential Election and the 2004 General Election, the 2007 Election came to be known as a provider-led campaign, led by political parties and politicians themselves.

B. Economy

The continuous growth of the online shopping malls stalled in 2007. According to the KNSO, the number of online shopping malls as of November 2007 is 4,481, increasing for 2 consecutive months. However, the increase is small in comparison to that of 2006, when 43 more new companies joined the market. The increase during the 2 months stems from seasonality, with 61.3% of the total increase individual owned and 35.3% corporate owned. While the number of businesses decreased, the

transaction volume went up consistently. The online shopping mall volume as of November 2007 is 1,448.8 billion won, increase of 16.3% compared to the same period of 2006. By business type, B2C recorded 898.1 billion won, up 9.6% from November 2006. C2C had strong growth in 2007. Total transaction volume for C2C as of November 2007 is 550.7 billion won, up 29.2% from November 2006(see Table 2-3-1).

Table 2-3-1 Transaction Volume Trend by Business

(Unit : billion won, %)

Type	2006	2007				
	November	July	August	September	October	November
B2C	819.1 (17.7)	857.6 (8.8)	858.3 (11.1)	835.6 (2.4)	858.2 (17.4)	898.1 (9.6)
C2C, etc	426.2 (34.4)	464.8 (28.5)	435.5 (30.0)	434.1 (14.1)	522.0 (48.2)	550.7 (29.2)
Total	1,245.3 (22.9)	1,322.4 (15.0)	1,293.8 (16.8)	1,269.8 (6.1)	1,380.2 (27.4)	1,448.8 (16.3)

※ Includes partially B2B, B2G. () is ratio of same month the previous year

KNSO, 2007 Online Shopping Mall Statistics, January 2008

C. Society

The Internet society is an expanded concept of the knowledge based society where added value is created with knowledge. It is a society where information and knowledge that is digitized and networked through the Internet creates value to bring new wealth and new paradigms. Likewise, as society evolves into an Internet based society dependent on IT technology on all fronts as well as on digitized information, traditional societal order is being replaced by new values, such as those shared in cyber society.

More than a simple information technology, the Internet has become a critical factor that impacts every facet of society, whether on or offline. Cyber society where the Internet rules, is more than a society where real societies of the physical world is replanted in. A true cyber society, for it to be able to present a new paradigm for future society must have its growth based on continuous research and established policies regarding disputes and regulations, in addition to quantitative growth. This is the reason why nationwide cooperation of all responsible members of society from government to corporations is critical now more than ever.

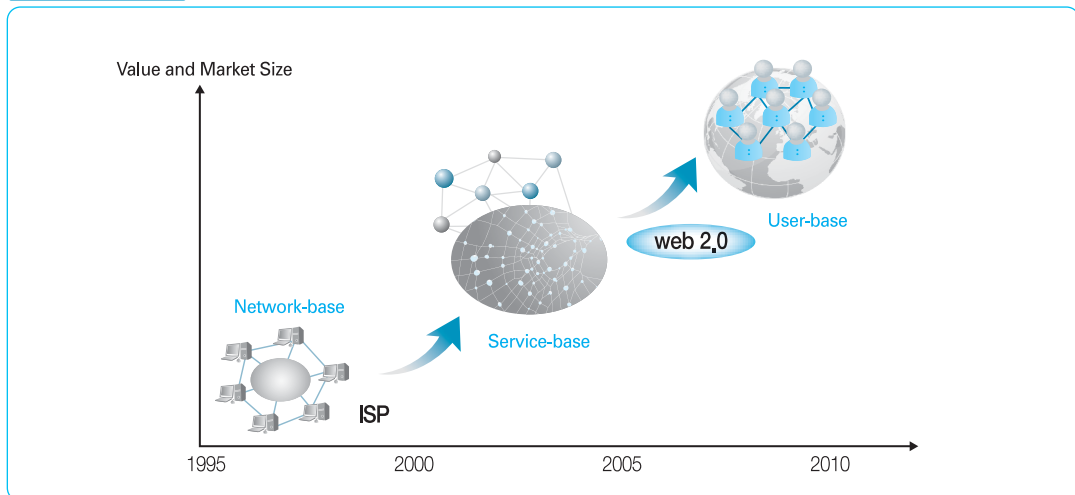
D. Culture

The Internet used by 76.3% of the national population over the age of 6 as of 2007 has become an established space for communication for modern society. Internet culture can be defined to include everything involved with our way of life that occurs online.

The anonymity and facelessness of the Internet at first provided users with atmosphere to participate participation. Internet service providers used this aspect to achieve profit and lead the online usage pattern. However, as the Internet and digital technology developed, a new culture of 'active participation and expression' where users get involved directly with making, processing and distributing information became the new digital culture.

Such culture of active participation and expression led to a paradigm shift into Internet society that is user-led instead of service-led. This change brought about greater change to all sectors from politics, economy to society when traditional power shifted over to the individual user, changes such as diversification of ways to reach a consensus, development of word-of-mouth marketing, and establishment of Little Brother watch systems(see Fig. 2-3-1).

Figure 2-3-1 Change in Internet Paradigm



NIDA, Internal Data, 2007

E. Ethics

User participation in making contents has greatly increased in 2007 with the advent of Web2.0, paving the way for the establishment of various governing bodies and regulatory vehicles to regulate unethical acts and protect users from being victims. Increased demand on online companies for social responsibility has led these companies to voluntarily engage in business ethics, and the government has also introduced self-regulatory policies including the UCC Guideline.

Intense interest on Internet ethics, mind change on user rights, and establishment of complaint and damage handling policies and other changes can be proven through numerous Internet ethics related statistics. According to the annual review and correction requests received by Korea Internet Safety Commission(now, Korea Communications Standards Commission) on illegal and harmful information, 216,224 cases were reviewed in 2007, an increase by 59,490 cases compared to 156,734 of 2006. The number of correction requests also increased greatly from 44,289 in 2006 to 15,343 in 2007(see Table 2-3-2).

Table 2-3-2

Annual Review and Correction Requests for Illegal, Harmful Information

(Unit : each)

Type	1995 ~2004	2005	2006	2007	2008. 2	Total
Review Request	297,752	119,184	156,734	216,224	20,452	810,346
Correction Request	141,533	42,643	44,289	112,220	15,343	356,028

KISCOM, Internet Safety related Statistics, March 2008



2008 KOREA INTERNET WHITE PAPER

PartⅢ Policy

- 1 Next Generation Internet Policy
- 2 Policy Side Effects of Informatization and Bridging the Digital Divide
- 3 Internet Related Law & Regulation

1. Next Generation Internet Policy

A. Internet infrastructure Policy

1) BcN

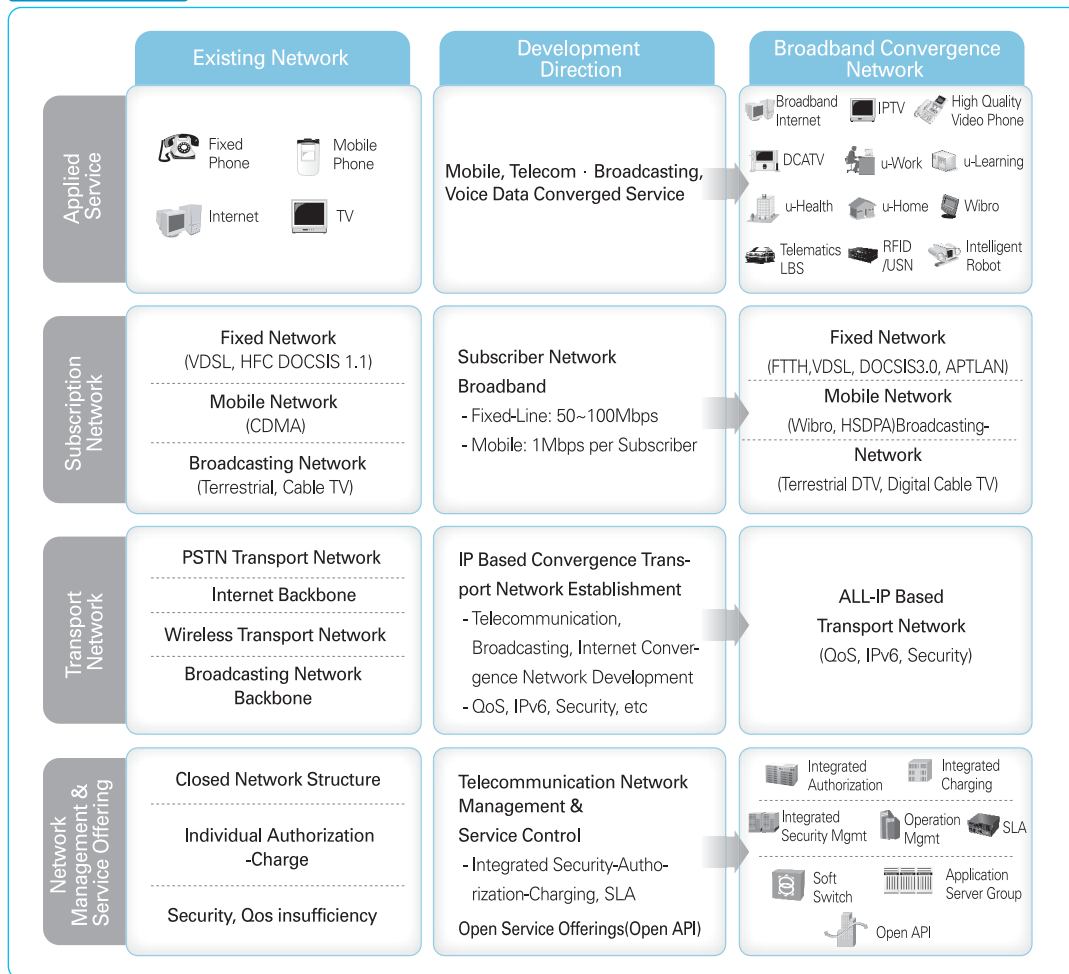
Since 2004, the Ministry of Information and Communication is in the process of rolling out a BcN Implementation Plan for a next generation integrated network that can provide seamless and secured QPS(Quadruple Play Service) of convergence products such as voice & data, wired & wireless, and telecommunication & broadcasting.

As of December 2007, upon completion of Phase 2, the initial target for subscribers has been met, with 12.64 million subscribers(Fixed 7.01 million households, Wireless 5.63 million households) getting high quality broadband convergence services. The previous target for 2010 of reaching 10 million subscriber households each for wired and wireless has been revised to provide broadband multimedia service to 12 million fixed subscribers and 23 million wireless subscribers to build a world leading BcN subscriber network.

Regarding BcN related broadcasting and telecommunication equipment, production target has been set to 65 trillion won and export target to 20.8 billion dollars. Support in line with the Plan's three phases - Phase 1(2004~2005, Infrastructure Formation), Phase 2(2006~2007, Full-Scale Establishment), Phase 3(2008~2010, Completion) - will be on new service model development and commercialization, core technology development and promotion, R&D network establishment and management, domestic and international standardization, and legal framework establishment.

Policy direction for BcN implementation is mainly focused on accomplishing broadband of the subscription network, developing the telecom-broadcasting-Internet convergence transport network, managing the integrated network and deploying service control networks, and developing and providing a series of converged BcN based services(See Fig. 3-1-1).

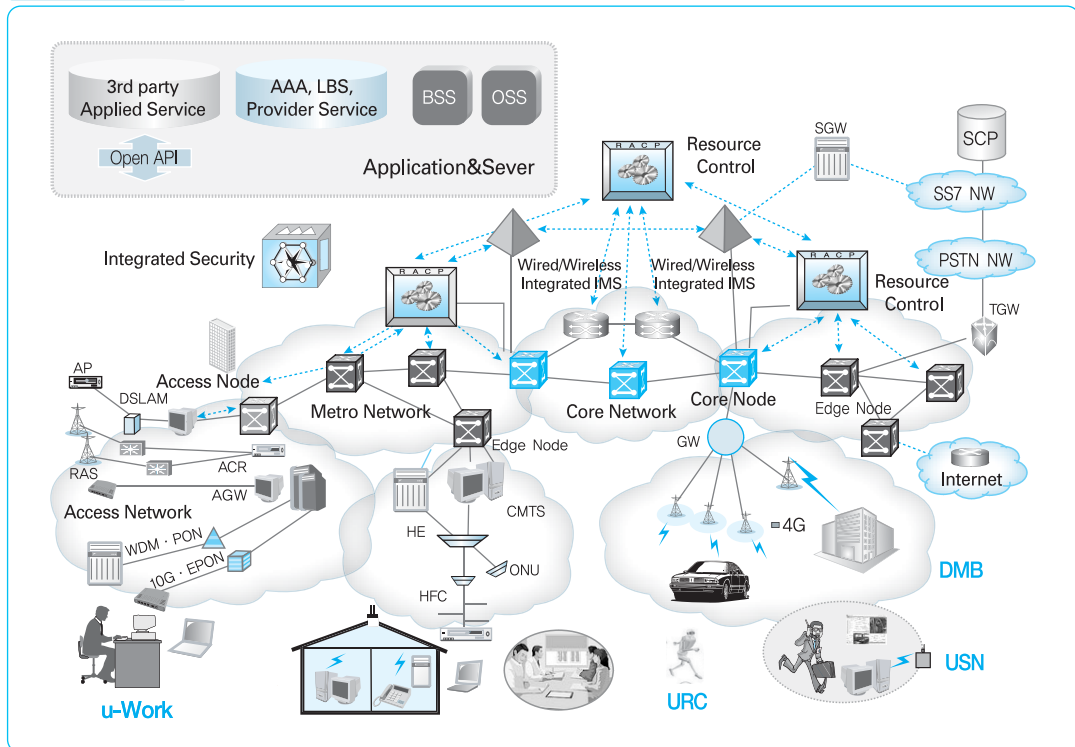
Figure 3-1-1 BcN Establishment Direction



MIC, BcN Project Status Report, July 2007

In 2008, in step with 「BcN Implementation Plan III」, 21.40 million subscription networks will be upgraded to build an IT environment realizing seamless and easy to use QPS. To this end, the BcN pilot project will work to promote commercialization of new service models, secure compatibility of services among providers, and establish quality management systems and provide testbed environment for Open API services. It will also engage in developing and promoting core technology and in establishing a BcN ready environment which an effort to stimulate BcN establishment and promote service usage(See Fig. 3-1-2).

Figure 3-1-2 BcN Establishment Concept



ETRI, BcN Standard Model, 2007

2) RFID/USN

RFID(Radio Frequency Identification System) and USN(Ubiquitous Sensor Network) are future strategic technologies that use intelligent chips attached to objects and numerous sensors to collect and transmit information anytime, anywhere.

Many developed nations have understood the importance of RFID/USN and have since been implementing various policies for its promotion and development. Korea, also has been spearheading pilot projects and technology developments as well as nurturing research and administrative resources especially important in the initial stages of a technology. More recently, a government-wide comprehensive plan has been prepared to promote RFID/USN based on the pilots and research development results.

The RFID/USN market is in the early stages, building itself up with the support of pilot programs in the public sector. While the current market volume, as of 2007, is 680 billion won, however, the future volume for this market is expected to reach 4.85 trillion won(see Table 3-1-1).

Table 3-1-1 RFID/USN Industry Forecast

(Unit : 100 billion won)

Type	2006	2007	2008	2009	2010	2011	2012
RFID Hardware	1,2	2,9	4,5	6,4	8,6	10,7	13,0
USN Hardware	0,7	1,5	2,7	4,9	8,0	11,5	19,0
RFID/USN Service	0,9	2,4	3,3	4,7	7,0	10,6	16,5
Total	2,8	6,8	10,5	16,0	23,6	32,8	48,5

ETRI, RFID/USN Market Forecast, 2007

However, the RFID/USN user market is still in development, with RFID customers limited to a few public agencies of military, maritime and environment, served through government led pilot projects. While the public market base is continuously expanding, the private market still needs to be tapped.

In terms of demand diffusion, the Ministry of Information and Communication and the Ministry of Industry, Commerce and Energy has initiated many pilot projects that resulted in the lowering of tag prices and improving the localization rate of parts as of 2007. A few leading private corporate are also introducing RFID into their businesses and seeing success in building new markets, witch including foreign markets(see Table 3-1-2).

Table 3-1-2 RFID/USN Demand Diffusion Result

Type	2004	2006
RFID/USN Product Sales Growth	120 billion won	327 billion won
RFID Equipment Localization Rate (for Pilot Programs)	26%	96%
RFID Tag Price	around 2,000 won	300 won

MIC, Internal Data, 2007

In terms of legal regulations, there has been partial preparation to prevent negative impacts such as through the mandatory RFID attachment and privacy protection. The government has also focused on expanding RFID usage in foods and pharmaceuticals, sectors closer to daily life of its people and by actively promoting the results of project, therefore public awareness of the technology has increased.

The development and standardization of RFID related source technology, such as international standard compliant RFID tag and reader and mobile phone embedded RFID reader, is also part of the works. Furthermore, sensor tag and sensor node development(MIC), RFID business support center(MCIE) and 13 other technology development and infrastructure building projects are currently in the planning process.

3) IPv6

IPv6 is a new IP addressing system developed to resolve the weaknesses of IPv4. The current IPv4 is 32bit, capable of 4.3 billion addresses. Korea has 58,844,672 addresses as of December 2007 but 83.3% or 49 million of them have been registered, leaving a need for more addresses in step with the expanding of the Internet and increasing in hosts.

The MIC had announced the 'IPv6 Distribution Promotion Basic Plan II' on December 28, 2006 that reflects the results of the 'IPv6 Distribution Promotion Basic Plan' implemented since 2004(2004~2006) as well as the trends in local and global markets and technology.

The new 'IPv6 Distribution Promotion Basic Plan II' outlines plans that complete IPv6 introduction of government and public offices, and improve various systems to support the introduction to secure 10 billion IPv6 users, to expand supply agencies of IPv6 support programs for existing Windows(Windows 2000, 2003, XP) users, to provide IPv6 pilot network as testbed to related businesses needing product testing.

The KOREAv6, title for the '2007 IPv6 Pilot', received 3.85 billion worth of investment(1.6 billion public and 2.25 billion private funding) from 13 agencies and businesses including the National Police Agency, local municipal governments, telecommunication operators and equipment manufacturers. The program aims to secure 200,000 IPv6 users and 176 user organizations by end 2007. Developing popular IPv6 service is expected to contribute to create demands for IPv6 equipment and to advance a ubiquitous society through offering common users, commercializing the service to expand IPv6 usage, and promoting leadership of using IPv6 in public agencies.

4) Domain

Korea's ccTLD(country code Top Level Domain), the kr domain began service as a third level English kr domain. Since, in August 2003 the Hangeul kr domain was introduced, offering users the option of using third level English kr domain and the second level Hangeul kr domain. However, there has been criticism that for what in the case of English kr domains, where the user can only make a custom selection at the 3rd level, this may act as a restriction for users of kr domains.

As such, in an effort toward deregulation of kr domain policy as well as to improve the public awareness of kr domains and also to increase the usability, the MIC decided to introduce a new second level English kr domain. In March 2006, the revision to the 'Domain Name Management Regulations' was approved and deliberated by IAPC, the second level English kr domain introduction policy was

drafted and implemented from September 2006.

The second level English kr domain received 152,646 registrations during the 3 early registration periods and since April 2007 upon general registration, 218,478 addresses were registered(as of end 2007)(see Table 3-1-3).

Table 3-1-3 2nd Level English kr Domain Registration

(Unit : each)

Type	Early Registration			General Registration(from April 19, 2007)								
	1st Phase	2nd Phase	3rd Phase	April	May	June	July	August	September	October	November	December
No. of Registrations (Accumulated)	117	79,143	73,386	161,647	174,347	182,506	189,652	196,322	201,566	208,281	213,844	218,478

NIDA, domain.nida.or.kr

The MIC and NIDA had devised plans to reduce the registration fees of kr domain from 14,000 won to 9,500 won(by 32.1%) upon review of the expected number of kr domain registrations as of end 2008 and estimated expenses in an effort to shoulder the cost burden of the domain registrar.

The MIC discussed the fee drop to 9,500 won with the government and the Ministry of Finance and Economy, and IAPC went into a review of the 'Revised Plan on Domain Name Management Regulations' that concerned the lowering of the kr domain name registration fees. A final approval by the Minister of the Ministry of Information and Communication enabled the drop in February 27, 2007.

B. Next Generation Internet Address Development

Korea's National Internet Development Agency(NIDA) has led efforts in introducing ENUM into the country. Starting with the establishment of the URI Standardization Forum in July 2001 to analyze the international trends in ENUM and to set up national standards, NIDA went on to establish an ENUM testing system to offer ENUM testing services in 2003. The ITU assigned 82 as the country code for Korea in May 2005, and in 2006~2007, an ENUM pilot was rolled out to study the implementation of ENUM.

The 2007 ENUM pre-commercial was limited to ENUM infrastructure, and tested the technological possibility of inter-connect ability of different VoIP subscribers, VoIP number mobility, and international call test. Pilot operators included the KINX, Dream line, SK Networks, SK Tellink consortium(see Table 3-1-4).

Table 3-1-4 Comparison of ENUM Pre-commercial Programs(2006~2007)

Type	2006 Pre-commercial	2007 Pre-commercial
Participating Provider	KINX, Dreamline, SK Networks	KINX, Dreamline, SK Networks, SK Tellink
Objective	ENUM technology for VoIP call test	Technology verification of VoIP commercial subscriber call test using ENUM, VoIP number mobility International call test
Major Comments	Call test among 100 pilot subscribers	· Call test among 200 commercial users · VoIP number mobility test among Dreamline, SK Networks, and SK Tellink · International call test with China Internet Network Information Center(CNNIC)

NIDA, www.enum.kr

Since 2003, NIDA has worked on a program for .kr IPv6 DNS deployment. In October 2003, the IPv6 DNS pilot system was built to test interoperability of IPv4/IPv6, and to analyze its operation in various.

DNS softwares, Operating Systems and application programs. Upon completion of the testing and pilot, the kr IPv6 DNS began official service in July 2004. Local and global IPv6 DNS expansion followed in earnest in 2005. In June 2005, the IPv4 based kr DNS located at the Korea Institute of Science and Technology Information(KISTI) in Daejeon was upgraded to IPv6 DNS and in November, the Busan IX operated by the National Information Society Agency(NIA) was installed a IPv6 DNS to offer a stable IPv6 DNS service infrastructure. In August and October 2006, a kr IPv6 DNS was deployed in Germany and in China, resulting in 5 IPv6 DNSs out of a total of 10 kr DNSs.

C. Establishment of Efficient Application Foundations for Computing Resources

1) National Grid Infrastructure Establishment Program

The objective of the Ministry of Information and Communication led 17.763 billion won-to-date(2002 ~ 2007) project , the National Grid Infrastructure Establishment Program(K*Grid) that began in January 2002 is to establish an advanced integrated high performance national grid infrastructure and related industry researchers can utilize anytime safely and easily.

The Grid Forum Korea established in October 2001 drafted the basic plan and implementation began in January 2002. Research and development, divided largely into 3 sub-projects - Grid Infrastructure

Establishment, Grid Applications Research, and Middleware Development, is supported by a partnership among local industry, academia and research experts, as well as aided through international cooperative efforts, all of which combined, have allowed Korea to be a leader in grid technology.

The ultimate vision for the Program is set at 'establishing a grid infrastructure to realize u-Korea'. Phase 1(2002~2004) prepares advanced science and technology research environment through IT technology convergence, then Phase 2(2005~2007) prepares business grid infrastructure through linkage with IT839, and finally, Phase 3(2008~2010) establishes the necessary grid infrastructure for realizing a true u-Korea.

2) Korea@Home Project

The objective of the Korea@Home project is to maximize the use of existing IT infrastructure such as PCs and high speed Internet networks to create low cost and high efficiency computing power and eventually, to establish a technical and social environment that can support advanced application technology development. Korea@Home seeks to service researchers, developers, and industries that need computing resources through the Project's 'Internet-based distributed computing environment'.

Since beginning service in November 2003, Korea@Home has obtained 85,513 PC resources from 40,042 members as of December 2007, securing a max performance of 6.52TFlops(Tera-Flops) and average of 1.85TFlops, as well as CPU contributed time of 1,435 years.

D. Digital Convergence Policy

1) VoIP

According to article 5 and 19 of the IT Business Act, VoIP service providers must be authorized as a backbone telecommunication provider or be registered as a telecommunications reseller as Internet telephony became designated as a backbone telecommunication affair in 2004. The VoIP backbone telecommunication provider is defined as an operator that installs electric communication lines and facilities and uses them to provide their services. They process the Internet network as well as VoIP facilities(see Table 3-1-5).

Table 3-1-5 VoIP Provider

Type	Common Carriers	Special Category Telecommunications Operator	
		Type 1	Type 2
Provider	KT, Hanaro Telecom, LG Dacom, Sejong Telecom, Dreamline, SK Networks, SK Tellink, Onse Telecom, Korea Cable Telecom	Samsung Networks, Moohannet Korea, Anyusemet, CNM, Hanwha S&C, Solborn, Serom Leaders, CCM Plaza, Krtnet etc	Posdata, Qurix, SK C&C, KOIS, Singapore Korea Telecom, LG Powercom, Auction, SK Communications, Tbroad etc
No. of Providers	9	32	209

MIC, Common Carriers Status, 2007

Due to the government's continuous VoIP promotion policies and the telco's market participation, the local VoIP market has gradually increased its presence, growing in subscriber base as well as market size. The number of subscribers to VoIP in Korea is 880,000 as of end 2006, out of which 070 number subscribers are 100,564 and call-only 780,033(see Table 3-1-6).

Table 3-1-6 VoIP Subscribers

(Unit : Persons)

Type	Service			Provider Type	
	070	Call-only	Sub-total	Common Carrier	Special Category Telecommunications Operator
IP Phone	87,887	83,223	171,110	68,662	811,935
Soft phone	12,677	696,810	709,487		
Total	100,564	780,033	880,597	68,662	811,935

KISDI, KISDI Issue Report(Compiled), November 2007

2) Telematics

Telematics is a service that uses geographic information and the mobile communication network to provide various services through an information device to a limited spacial area, the vehicle. The telematics industry refers to businesses that provide telematics services using an information device through an LBS and interactive communication enabled system. Automobile manufacturers, telecommunications companies, TSP(Telematics Service Provider), device manufacturers, contents providers are all linked within an organic value chain.

The telematics industry can be categorized into the after market(AM) and the before market(BM). The BM offers telematics service is available through a pre-installed device on a vehicle. This market is mainly led by auto makers, such as Hyundai and Kia because of characteristics of this market. The AM is

when telematics service is made available after the vehicle has been delivered to the customer through a separately installed device, either fixed or non-fixed. This market is led by SK Telecom, KTF, LG Telecom and other mobile telecommunications companies. The AM and BM combined number of telematics service customers areas of end 2007 approximately 1.2 million, which is a 50% growth of about 400,000 from 2006(see Table 3-1-7).

Table 3-1-7 Telematics Service Subscribers

(Unit : Persons)

Type	2004	2005	2006	2007
Subscribers	295,200	552,000	807,856	1,193,048

KOTBA, Telematics Subscribers, January 2008

The indoor/outdoor telematics testbed has been completed as a necessary basic infrastructure to spread telematics service. Numerous telematics related technology developed by all sectors of economy will be able to be tested in a cost effective environment through the technology transfer by the leading IT technology agency, Telecommunication Technology Association(TTA). The development of indoor/outdoor seamless positioning technology will enable accurate positioning information anytime anywhere, and will realize high quality telematics service as well as become a growth factor for the whole industry.

3) Home Network

The home network is an IT environment in which a home's devices and systems can be controlled remotely through networks that connect its home appliances and systems together and/or an online device or external network. The total volume for this market is expected to grow at a rate of almost 50%, from 1,519.9 billion won in 2005 to 11,507.9 billion in 2010(see Table 3-1-8).

Table 3-1-8 Home Network Market Volume

(Unit : 100 million won, %)

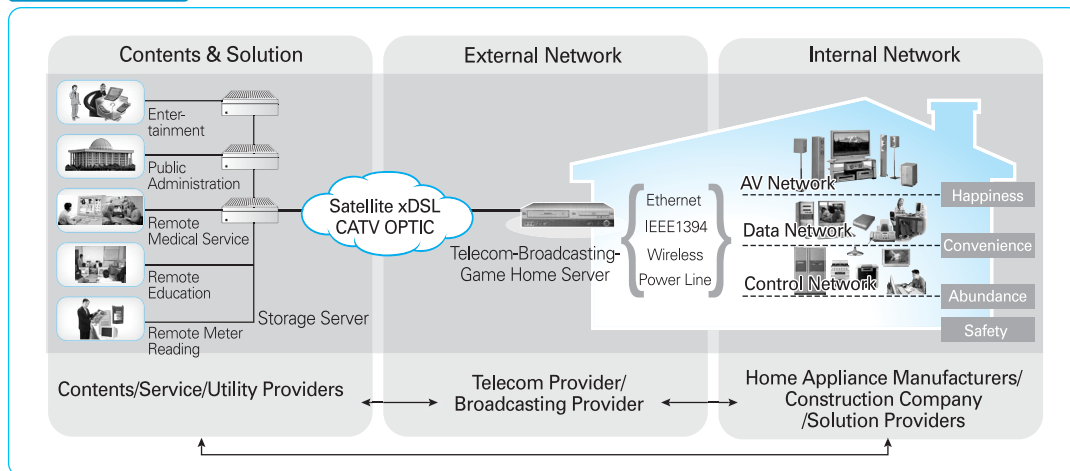
Type	2005	2006	2007	2008	2009	2010	Annual Average (CAGR)
Market Volume	15,199	20,644	37,869	58,645	75,789	115,079	50

※ CAGR : 2005~2010 Compounded Annual Growth Rate

HNA, Future Strategy for Home Network Industries, May, 2007

The government has been supporting market stimulation of the technology through various ways including continuous development of technology and standardization, certification programs, and promotion. Other support initiatives in planning include deployment to constructed buildings and intelligent home services for the less fortunate(See Fig. 3-1-3).

Figure 3-1-3 Home Network Map



MIC, Intelligent Home Network Promotion Plan, 2005

4) WiBro

In June 2006, KT and SK Telecom became the first in the world to provide WiBro service. The number of subscribers to WiBro is 107,096(KT 106,101, SK Telecom 995) as of end 2007. The number was only 2,048 in end 2006(KT 1,601, SK Telecom 447)(see Table 3-1-9).

Table 3-1-9 Wibro Subscribers

(Unit : persons)

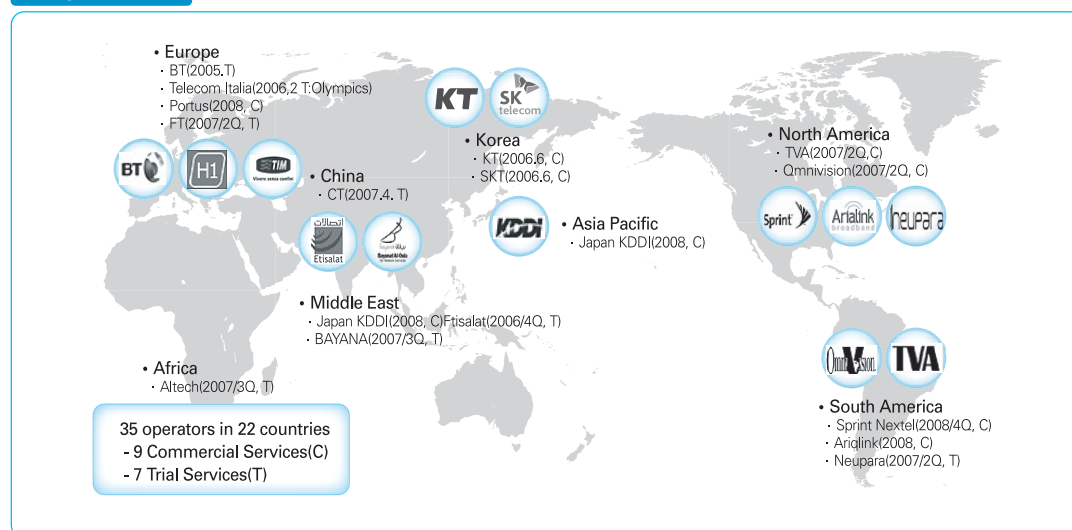
Type	2006	2007
KT	1,601	106,101
SK Telecom	447	995
Total	2,048	107,096

MIC, Internal data, January 2008

In order to make WiBro as an international standard, the TTA formed a WiBro standardization project group in June 2003, and in October 2007, WiMax that includes WiBro became the 6th technology standard for IMT-2000 at the ITU-R Assembly(RA-07)(ITU-R Recommendation M.1457).

The government has continuously worked to expand WiBro onto the global market, and as a result, one of the three largest mobile carriers in the U.S, Sprint-Nextel decided to use Mobile WiMax, or WiBro in August 2006, resulting in a entry into the U.S market of a local technology. As a result, Samsung Electronics supplied Wimax network building equipment for the east coast including Washington D.C in 2007, and are planning to supply to the north eastern part of the country including New York in 2008. In August 2007, Taiwan selected 6 providers for WiBro and Japan has finalized their providers by December 2007 thanks to the International WiBro Forum previously held in Tokyo. As such, the international recognition of WiBro is becoming clearly visible. Currently, local manufacturers are working on WiBro business agreements with 35 telcos from 22 countries(See Fig. 3-1-4).

Figure 3-1-4 International Market Entry of WiBro



IITA, Next Generation Mobile Telecom 4G & Wibro Trend, January 2008

E. e-Government

1) Civil Services

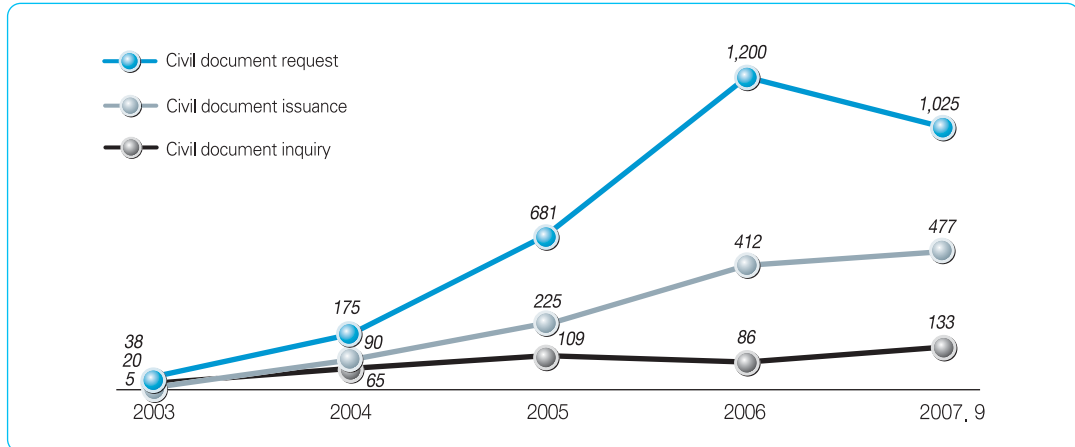
As of end 2007, G4C services provide 5,300 types of information services, 650 request services, 29 inquiry services, and 33 issuance services. Meanwhile starting from June 2007, users of online civil document service have been expanded to include corporate as well and the service usage channel has been diversified to mobile phones and PDAs. The usage rate of G4C services show that civil document

requests totaled 10.25 million, issuance 4.77 million and inquiries 1.33 million, all up greatly compared to 2003(See Fig. 3-1-6).

Figure 3-1-6

G4C Service Usage(September 2007)

(Unit : 10 thousand each)



NTS, Hometax System Operation Statistics, 2007

The Home Tax service(www.hometax.go.kr) allows electronic filing of 10 types of tax including corporate, income, value added and withholding tax, 108 types of civil document request services including business registration certification, tax payment certification, and 33 types of issuance services including business registration certification and standard financial statements certification. Also the civil affairs open service that allows to track of the process through the web of resident certification, license request(manufacturer) and 39 other items. The number of visits to its site has been on a rapid increase after having broken the 10 million mark for monthly visits on November 2003, to record 170 million in December 2007. System members also increased by a ten-fold from 610,000 in 2003 to 5.92 million or 59.8% of the total providers.

The national welfare service(www.ewelfare.co.kr) provides welfare information and services to the welfare recipient broken down into categories. For welfare information, there are 12 sub-categories ranging from facilities, social participation, consulting, civic participation, consulting, law, social life, health, disease to offer to the customer. Welfare service provides 70 services in 18 areas including diagnosis, medical rehabilitation, vocational rehabilitation, retirement living, vocational training, and nursery that can all be requested and inquired online.

2) Business Services

The Korea On-line e-Procurement System(www.g2b.go.kr) is an online system to process the complete government procurement system from business registration, bidding info posting, purchase ordering, evaluation, bidding participation, winner selection, contracting, verification to payment. The implementation of the G2B service in October 2002 made transaction between the contracting agency and the supplying company possible, resulting in increased transparency and efficiency in the procurement process. Starting From December 2006, all contracting affairs of the central government must be processed through the online system, and they must post the results to the National Digital Budget/Accounting System to manage national funds in a transparent and efficient manner.

The One-Stop Support Service(www.g4b.go.kr) is a hub portal knowing no time or space boundaries that provides business support regarding administration, industry information and other services that cover the complete lifecycle of the business from establishment to closing. It realizes a one stop service for business customers to the end of strengthening the competitiveness of the nation's businesses.

The national logistics information service seeks to establish seamless advance logistics system, to provide customer oriented one-stop logistics service, to be utilized as info sharing hub for government agencies and logistics companies, and to realize the building of the 'Hub of Northeast Asia' through automation and informatization of logistics hubs. To this end, MOMAF and Fisheries and the Korea Customs Office has implemented projects on informatizing the import/export logistics process, building up logistics information databases, and expanding the logistics information sharing platform. In 2007, a project on sharing the inspection information of export and import cargo as well as on providing one-stop service of customs related processes has begun and is in the works as of current(2008).

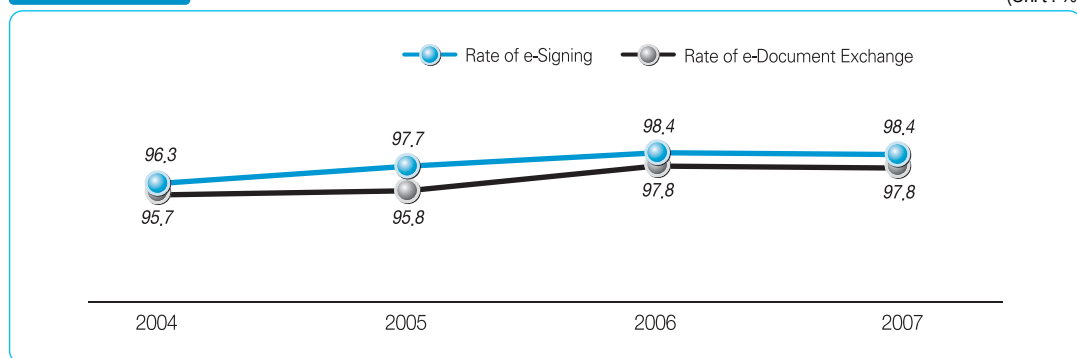
The electronic trade service(www.utrade.or.kr) is a project to build a uTrade Platform that will enable one-stop seamless processing of trade affairs from cargo loading, logistics, customs to foreign exchange payment using the most recent IT technology. The uTrade platform will allow electronic trade documents to be electronic & shared, and will speed up the trade process and achieve drastic cost reductions.

3) G2G Service

Among some of the major G2G services of the electronic government include electronization of the document handling process, the On-Nara system, sharing of administrative information, informatization of national finances, and the integrated law enforcement and judiciary info exchange system. Government

documents are processed electronically from the beginning of the document's lifecycle, from preparation to management, transfer, storage. The electronic processing was made mandatory in December 2002. By 2003, the electronic document system was introduced to 58 national administrative agencies and all local municipal bodies, and from 2004, electronic signoff and document circulation has been fully implemented. As of 2007, the average rate of e-signing is 98.4%, and the rate of e-Document exchange is 97.8%, displaying an e-document handling process that has taken firm root in the system (See Fig. 3-1-6). Starting 2005 agencies included in the electronic document circulation circle has been expanded to include 809 government agencies and its affiliated organizations as of end 2007.

Figure 3-1-6 Trend in rate of e-Signing & e-Document Exchange (among Administrative Agencies) (Unit : %)



MOGAHA, e-Government Project Annual Report, February, 2008

2. Policy on Side Effect of Informatization and Bridging the Digital Divide

A. Information Security Policy

The number of hacking incidents in the form of spam relays, phishing shost, and web defacement reported to the Korea Information Security Agency(KISA) dropped 18.9% from 26,808 in 2006 to 21,732 in 2007. By type of damage, spam relay, phishing host, other hacking, and web defacement dropped 17.0%, 13.5%, 48.4%, and 28.5% each compared to 2006, and intrusion attempts grew 16.3% from 2006(see Table 3-2-1).

Table 3-2-1 Private Sector Hacking Incidents

(Unit : each)

Type	2006	2007												Total
		1	2	3	4	5	6	7	8	9	10	11	12	
Spam Relay	14,055	1,225	1,473	1,477	1,310	972	477	851	1,248	677	598	573	787	11,668
Phishing Host	1,266	90	178	96	73	90	68	79	78	92	78	75	98	1,095
Intrusion Attempt	3,711	327	184	414	536	522	478	315	317	243	370	332	278	4,316
Other Hacking	4,570	229	206	197	212	217	213	201	182	197	214	152	140	2,360
web Defacement	3,206	287	148	63	89	145	305	485	125	236	116	177	117	2,293
Total	26,808	2,158	2,189	2,247	2,220	1,946	1,541	1,931	1,950	1,445	1,376	1,309	1,420	21,732

KISA, Korea Internet Incident Trend Report, 2007

In September 2007, a PC infected with a Virut virus was involved in a DDos(Distribute Denial of Service attack) of a certain foreign website. The MIC along with the KISA worked with major local ISPs to block locally originated attack traffic to stop damages and also analyzed the malicious codes causing DDos to block the attacking control server.

The MIC and the Korea Internet security at KISA manages a DNS Sinkhole that allows zombie PCs that are infected with a malicious bot to become severed from the hacker's control server.

Since December 2005, KISA has developed a malicious code finder program and has used it on more and more sites to check hidden codes. Currently 100,000 local websites are under surveillance and in 2007 alone, over 5,000 sites with hidden malicious codes were access blocked and/or deleted.

In an effort to prevent damage of websites belonging to non-profit agencies and smaller sized

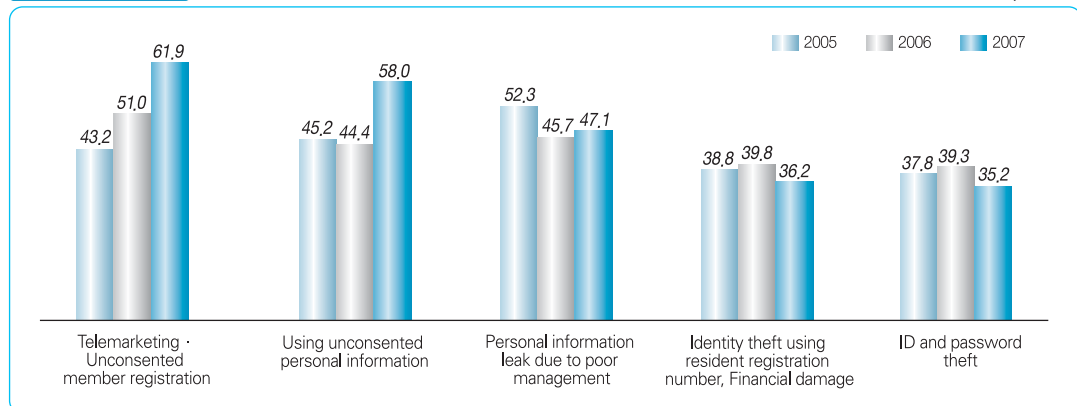
companies with little information protection budget or resources, a free website weakness test service is being offered. Phishing incidents that use local web servers with weak security for impersonating foreign financial institutions have been occurring on an ongoing basis since the second half of 2005. In January 2007 there was an incident impersonating a local bank. This led to a heightened awareness on phishing and strengthened up phishing related promotion campaigns and education programs. In detail, local cases of phishing was introduced and a flash animation on what to do in case of phishing accidents were produced and distributed to major banks, portals and gaming sites.

The 「Information and Communications infrastructure protection ACT」 was revised by the MIC and the National Intelligence Service following a collection of opinions from numerous sectors to include the following ideas on December 2007 and a revision of enforcement ordinances and enforcement regulations will enable more effective management of major IT infrastructure facilities in 2008.

B. Personal Information Protection Policy

According to a 2007 survey by the Korea Information Security Agency, 16.4% of all Internet users have experience in personal information or privacy violations. The main type of violation was 'Using personal information for unconsented telemarketing or on other websites(61.9%)'. This was followed by 'Using personal information in activities without consent'(58.0%), 'Personal information leakage due to poor management'(47.1%), 'Unable to register on website, or suffered financial damage due to identity theft of Resident Registration Number'(36.2%), and 'ID and password theft'(35.2%)(See Fig. 3-2-1).

Figure 3-2-1 Personal Information - Privacy Violation Experience by Type(Multiple Answers) (Unit : %)



KISA, 2007 Information Security Survey, November 2007

In 2007, there were 25,965 counts of reports on privacy violations to the Korea Information Security Agency. This is an 11% increase from the 23,333 reports received in 2006.

Upon analysis of these complaints and reports, privacy violation related incidents excluding credit information infringements that comes under the 「Information and Communications Network Act」 was 48.1%(12,497 counts) of the total and misuse, violation of personal information such as the national registration number was 35% or 9,086 counts of the total, combined, the two took up 83.1% of the total.

Especially compared to 2006, when excluding those applicable under the 「Information and Communications Network Act」, The number of reports related to the personal information violation has increased by 96% to 12,497. This is due to the rise in voice phishing incidents impersonating public agencies and financial institutions that occurred frequently since the second half of 2006.

As a result, the 「Act on Promotion of Information and Communications Network Utilization and Information Protection, etc」 that governs personal information of the private IT sector was revised on December 22, 2006 and was promulgated on January 26, 2007(in effect on July 11, 2007). The revised law contains regulations on 'improving disclosure and consensus agreement regarding personal information collection, use and sharing', 'requirement on consent agreement and disclosure covering purpose of personal info collection and usage, info items collected, withholding and usage period, information sharing with a third party', and 'openly disclosing personal information related guidelines for users to access anytime'.

Along with revision of the law in 2007, a task force team was formed to study legal framework improvement initiatives that will better protect personal information in this rapidly changing IT environment. The current legal system for personal information protection is divided into the 「Act on the protection of personal information maintained by Public Agencies」 for the public sector and the 「Act on Promotion of Information and Communications Network Utilization and Information Protection, etc」 for the private sector.

C. Internet Usage Environment Improvement Policy

A rise in baseless defamation and malicious comments became a social issue that involved an increasing amount of social cost to resolve, leading to discussion of a real name system on the anonymous cyberspace.

Building on discussions among and between government, national assembly, civic groups and Internet

users, the Act on Promotion of Information and Communications Network Utilization and Information Protection, etc was amended on December 2006 to allow the checking of identification when using web boards. This was promulgated on January 27, 2007 and put into effect on July 27, 2007.

Since the implementation of the limited identification system, a number of large-scale social issues, the Taliban hostage incident, The War, and false diploma scandal exploded almost at once. After these incidents, the total number of comments was increased from 10,924 to 13,472. Although these incidents would have normally stirred up a bout of malicious comment postings, the amount of malicious comments out of total number of comments was decreased by 1.9% (Decrease rate: 12.1%) from 15.8% to 13.9%, and serious malicious comments dropped 2.2%(Decrease rate: 25.4%) from 8.9% to 6.7%. The Identity verification seems to have played a positive role in this drop(see Table 3-2-2).

Table 3-2-2 Comparison of Malicious Comments Post Implementation of Identity verification (Unit : each, %)

Type	Before Implementation		After Implementation		Reporting Agency
	No.	Rate	No.	Rate	
Malicious Comments	1,722	15.8	1,867	13.9	- 12.1
Maliciousness(Serious)	974	8.9	896	6.7	- 25.4
Maliciousness(Light)	748	6.8	971	7.2	5.3
Normal Comments	9,202	84.2	11,605	86.1	2.3
Total	10,924	100.0	13,472	100.0	-

MIC, Press Release on Identity verification, October 2007

The culture of Web 2.0 service that began to sprout in 2005 blossomed in full in 2006. 2007 was a year that prepared the foundation for widespread use of UCC and also a year of development for the UCC production environment. Internet users who were once passive consumers of information became active producers and distributors of information and contents, leading society to tackle issues of copyright protection, privacy and adolescent protection.

In other words, a large amount of UCC also involves possibilities for copyright violation and defamation. The percentage of UCC that the user actually produced is only 16.25%, making more than 80% of video UCCs to be edits of existing broadcasting and advertising contents, and at a high risk of violating copyrights.

Many users use the Internet to produce and distribute their contents but are at risk of being disadvantaged due to a lack of understanding about related laws and regulations. As such, it is important to provide users with the philosophical basis of their responsibilities and rights as well as related legal information. Thus lay the meaning of the 'UCC Guideline', proclaimed on June 29, 2007.

D. Policy on Bridging the Digital Divide

The informatization of those at the weaker spectrum of society was 65.9% in 2007, up 3.9%p from 2006 and 12.6%p up from 2005, displaying a closing of the digital divide year by year(see Table 3-2-3).

Table 3-2-3

Digital Divide Index Trend

(Unit : points, %)

Type	2005		2006		2007		Drop in Digital Divide Compared to Previous Year
	Digital Divide Index	Compared to Total Population	Digital Divide Index	Compared to Total Population	Digital Divide Index	Compared to Total Population	
Handicapped	34,8	65,2	26,1	73,9	24,0	76,0	2,1 ↓
Lower Income	35,8	64,2	27,0	73,0	24,5	75,5	2,5 ↓
Famers and Fishermen	58,3	41,7	50,2	49,8	45,4	54,6	4,8 ↓
Seniors	50,7	49,3	41,6	58,4	37,4	62,6	4,2 ↓
Average	46,7	53,3	38,0	62,0	34,1	65,9	3,9 ↓

KADO, Digital Divid Index Survey, February, 2008

Looking at the digital divide of the socially weak in 2007, the information access index is 86.5 points compared to the total populations, resulting in a gap of only 13.5, but the gap indices for information usage ability and information utilization is still less than half the national average.

While in terms of information access, such as in computer ownership and high speed information network access, the divide has closed up quite a bit, there is still work to be done in the field of information utilization and information usage ability.

As such, in 2007, many government organizations such as the Ministry of Information(MIC) and Communication, and the Ministry of Public Administration(MOGAHA) participated in providing the handicapped and senior citizens IT education opportunities. During the year, 7 agencies participated in providing IT education to 2.6 million handicapped, seniors and famers and fishermen, out of which the MIC provided training to 100,000 people.

3. Internet Related Law & Regulation

A. Framework Act on Informatization Promotion

The national informatization policy that began in the early 1980s became broader in scope and meaning along with the development and integration of computer and telecommunication technology. The 'electric communication policy' that was restricted to telegraphic communication and telephony changed to the 'telecommunication policy' that included to computers and softwares as well as the existing communication network. In early 1990s, it was again expanded to 'information policy' that related to building infra including with the transmission, distribution and application of information. The 'informatization policy' that seeks to achieve informatization of all sectors of the nation has been promoted with on August 4, 1995 the promulgation of the Framework Act on Informatization Promotion.

The Act is structured into 7 articles and 47 sections; Article 1 General Provisions, Article 2 Planning and Implementation structure for Informatization Promotion, Article 2-2 informatization Promotion of national Society, Article 3 Establishment of IT Industry Foundation, Article 4 improvement of IT Infrastructure, Article 5 IT Development Fund, Article 6 Supplementary Provisions; and stipulates informatization policy implementation principles and structure, as well as regulating the informatization of each social sector, fostering of industries and advancement of infrastructure.

B. Digital Signature Act

The Digital Signature Act had been revised in December 2001 after its enactment in February 1999 to accommodate new digital signature technology. It was again revised in December 2005 upon demand for establishment of a fair competition environment within the certificate authority market, as well as demand on certificate user rights protection and security improvements.

The revised Act accommodates digital signature technology on a broad scale. Based on its distinguishment of general digital signatures and official digital signatures, it assigns legal effect only to official digital signatures. In an effort to secure the security and credibility of digital signatures, the Act also prepared a framework for promoting digital signature use by having the government establish

related policies. It also prescribed the certification of digital signatures in international transactions.

Despite such legal groundwork, the presence of many different types of certification authorities has led to instances of unfair market practices and the rapid increase of certificate users called for a need for strengthening the security of certification affairs. The revision of the Act on December 2005 was a result of such needs, and attempts to establish a fair competitive environment and to strengthen user protection. The Act has been in effect since July 2006.

Through the enactment of the Act, an digital signature that is officially certificated received the legal effect identical to that of written signatures and stamps, and could be used for identification purposes and as proof that the transaction is not counterfeit or false in any way.

The Act also stipulates that in case of an incident related to a certificate, unless the certificate authority proves itself free from responsibility to damages, the authority must compensate the certificate owner for any damage caused. The certificate agency must also be insured and user rights are further protected in this way. Based on such a firm legal framework, the digital signature policy has been able to develop more rapidly and in December 2007, the number of users of certificates reached 17.16 million, an increase of 570 times that of 30,000 early users.

The certificate's widespread use has made it a convenient tool in e-commerce activities ranging from online banking(of fund transfer service for 3rd quarter of 2007 totalling 18.6439 trillion won, 96.1% was online banking using PCs), online trading, to electronic bidding, as well as an everyday personal identification tool in electronic civil services, Internet Housing Plan applications, the Ministry of Education's national education information system, and tax reporting.

C. Act on Promotion of Information and Communications Network Utilization and Information Protection, etc

The 「Act on Promotion of Information and Communications Network Utilization and Information Protection, etc」 can be traced back to the Act on Computer Network Expansion and utilization promotion that was enacted in 1986. This was revised to the Act on Promotion of Information and Communication Network Utilization, etc in 1999, and revised again to the present form, Act on Promotion of Information and Communications Network Utilization and Information Protection, etc in 2001. During the years in between, there had been a total of 21 revisions to the Act.

The reason for the frequent revision is to reflect the changing environment caused by the rapid development of the Internet. From a legal and regulatory standpoint, the Information and

Communication Network Act has played an important role alongside the Basic Act on Information Promotion.

The Act is meaningful in that it regulates issues concerning the negative aspects of recent digital development including Internet violations, personal information infringement, spam, and dissemination of harmful information.

It is relatively large in scale, with a total of 10 articles and 76 sections, most of which dealing with practical matters of Internet use, differentiating the Act from others that are more about the responsibility ownership of policies and regulations on its promotion.

D. Information and Communications Infrastructure Protection Act

The advancement into a highly developed information society has made our lives more closely linked to networks of IT, energy, logistics, and finance. The IT infrastructure is consist of the Internet, communication networks, and broadcasting networks. And it has become the core factor that composes and manages other structures like a central digital nerve system. As such, the Korean government has enacted the 「Information and Communications Infrastructure Protection Act」 in January 26, 2001 and established a national organization and structure for effective administration of information protection strategies upon the understanding that Information and Communication infrastructure protection is a core factor for social and economic stability and development. More facilities have been added to the watch list and enforcement ordinances have been developed as well. The 「Information and Communications Infrastructure Protection Act」 is composed of 7 Articles and its sections.

E. Framework Act on Electronic Commerce

The wide-spread use of electronic commerce has led to numerous issues that did not arise during traditional transactions, leading to limitations in applying existing transaction methods, practices and standards. In order to assign the same level of legality of existing transactions, and to allow users to engage in electronic commerce in a trustworthy and safe manner, the government enacted 「Framework Act on Electronic Commerce」 in January 1999. It prescribed legal relationship of electronic documents, safety of electronic commerce, promotion of electronic commerce, and consumer

protection in electronic commerce.

The Act was revised a total of 3 times. In 2002, at the 1st revision, an Electronic Commerce Mediation Committee was established to secure trust in e-commerce in light of the increasing number of disputes over e-commerce. At the 2nd revision on 2005, policies on official electronic document filing centers were introduced in an effort to manage the ever-increasing amount of e-documents in a secure and accurate manner, and it also gave legal effect to e-documents so that they can be used to service legal document requirements of recording, storing and filing. At the 3rd revision in May 2005, legal storage requirements on e-documents were amended for electronic storage of paper documents.

Framework Act on Electronic Commerce provides the legal framework to regulate the legal relationships of electronic commerce and to secure safe electronic commerce activity, to the end of contributing to the stimulation of e-commerce and establishment of its infrastructure, and of preparing a legal ground for international exchange of technical and human resources, and for international cooperation such as global research and development projects.

F. Copyright Act

Since its enactment in 1957, the Copyright Act has been used to protect the rights of creative work in the field of publishing, broadcasting and performance as well as its creators, and also to promote related industries. The Act, revised a number of times in line with the changing ages, has come into the current form on December 28, 2006 with a total of 11 articles and 142 sections.

The Copyright Act covers not only creative works but also neighboring rights, the distribution of creative works and related industries such as online service providers and copyright management companies. The Act has now become closely related to the things we deal with on a daily basis, for all digital things, to the Internet, and to computer programs (softwares).

G. Internet Address Resources Act

Article 2-1 of the Internet Address Resources Act defines the Internet address as 'an information system that is comprised of numbers, letters, or special characters or their combination according to a certain communication protocol set by an international standard on the Internet'. Also in the following section, the Internet address resources is defined as 'an Internet address and resources needed for the

use of Internet addresses such as Internet address related information, facilities and technology'. In terms of Internet use on a daily basis, the Internet address is to be recognized as an intangible asset of the nation and as such need to be managed and fostered by the country according to its laws and regulations.

H. Act on Bridging the Digital Divide

The 「Act on Bridging the Digital Divide」 was proposed and enacted in November 2000 at the National Assembly. The reason behind the law enactment was to provide an equal opportunity to those who were in a weaker position in using information due to economic, physical or social reasons such as lower income, physical handicap, or old age. It is also to provide an information using environment to improve the quality of life and to promote balanced development of the national economy.

The Act was promulgated on January 16, 2001 after some revision. The revised version includes the following; the government is to devise master plan for Bridging the Digital divide every 5 years; a Digital Divide Bridging Committee is to be set up to deliberate on digital divide relief issues; the national government or municipalities is to support handicapped persons or basic welfare recipients by providing information communication devices either free of charge or at a fee; the government is to provide information(computer) training and to build and operate a computer facility for usage of information devices. The Act has been revised 4 times prior to its current state.



2008 KOREA INTERNET WHITE PAPER

Appendix

- ① List of ISPs
- ② Organizaion Abbreviations

List of ISPs(As of March 2008 basis)

NO	Network Operator	Service Name	Help Desk	URL
1	Hangaram Networks	BITSRO	+82-042-334-6600	www.hangaram.co.kr
2	Bittell	Bittell	+82-02-338-7942	www.bittell.net
3	LG Dacom Corporation	BORANET	+82-1544-0001	www.dacom.net
4	Korea Cable TV Jeju Broadcasting	CABLENET	+82-064-741-7777	www.kctvjeju.com
5	CDNETWORKS	CDNETWORKS	+82-02-3441-0401	www.cdnetworks.co.kr
6	Tbroad(Jungbu)	CHUNGBUJITSSSEN	+82-1544-0202	www.tbroad.com
7	CJ CABLENET	CJ-CABLENET	+82-02-2600-2754	cjyc.net
8	CMB Central Multi Broadcasting (Daegu Dongbu)	CMBDONGBU	+82-02-218-2000	cmbtg.tv
9	CMB Central Multi Broadcasting (Jeonnam)	CMBI-NET	+82-062-461-9592	www.cmbjn.tv
10	CMB Central Multi Broadcasting (Daejeon)	CMBI-NETDJ	+82-042-288-7238	www.icmb.tv
11	CMB Central Multi Broadcasting (Hangang)	CMBI-NETHK	+82-02-2165-9346	
12	CMB Central Multi Broadcasting (Gwangju Dongbu)	CMBIPLUS	+82-062-461-9501	www.cmbhn.tv
13	Korea Cable TV Chungcheong Broadcasting	CMBMUTINET	+82-041-858-0110	www.cmbtv.com
14	CMB Central Multi Broadcasting (DongSeo)	CMBPLUSONE	+82-02-923-4257	cmbds.tv
15	CMB Central Multi Broadcasting (Daegu Suseong)	CMBUSUNG	+82-053-218-2000	cmbtg.tv
16	Korea Cable TV chungnam Broadcasting	CNBTv	+82-041-359-6040	www.cnbtv.co.kr
17	C&M	CNM	+82-1644-1100	www.cnm.co.kr
18	Tbroad (Dongnam)	Digitalbusanet	+82-051-620-5099	www.digitalbusan.net
19	C&M (Gyeonggi)	DigitalSystem	+82-+82-1644-1100	kyoungki.cnm.co.kr
20	Areum Broadcasting Network Corp.	DITIZONE	+82-031-710-8952	www.abn.co.kr
21	Tbroad Dongdaemun Cable Network	DONGDAEMUNC- ABLEINTERNET	+82-02-2215-0114	www.dcnatv.co.kr
22	Dotname Korea Corp.	DOTNAME	+82-02-566-0046	www.dotname.co.kr
23	Dreamcity Media	DREAMPLUS	+82-1566-1234	www.dreamcity.co.kr
24	DREAMLINE Corporation	DREAMX	+82-1566-0606	www.dreamline.co.kr
25	Korea Education & Research Information Service	EDUNET	+82-02-2118-1471	www.keris.or.kr
26	EGIOS	eGIOSNET	+82-02-2116-8014	www.egios.com
27	ELIMNET	ELIMNET	+82-02-3149-4900	www.elim.net
28	ESOCOM	ESONET	+82-02-3281-1007	www.esocom.com
29	SK Telecom	FWINet	+82-02-3709-1466	www.skwin.com
30	GANGWON BROADCASTING NETWORK	GANGWONNET	+82-033-251-4433	www.igbn.co.kr

NO	Network Operator	Service Name	Help Desk	URL
31	Gyeonggidongbu Cable Network	GCNCATV	+82-031-791-8075	www.gcncatv.com
32	GREEN CABLE TELEVISION STATION	GCS	+82-053-551-2000	www.gcs.co.kr
33	CJ CABLENET (Yeongnam)	GIGAPASS	+82-054-840-7001	www.iycn.net
34	NTT Communication	GIN	+82-02-2016-5006	www.ntt.com/kr
35	Tbroad (Ginam)	GINAMHANVITNET	+82-031-654-7700	www.tbroad.com
36	Tbroad (GSD)	GSD	+82-02-2085-0555	www.gstv.co.kr
37	GS Ulsan Broadcasting	GSUB	+82-052-979-0200	www.gsub.co.kr
38	HAIONNET	HAIONNET	+82-02-3474-4890	www.haion.net
39	Hanaro Telecom	HANANET	+82-106	www.hanaro.com
40	han internetworks	HANINTERNET	+82-860-8000	haninternet.co.kr
41	HCLC	HCLC	+82-02-831-0510	www.hclc.co.kr
42	HCN	HCN	+82-02-837-0057	www.kcnet5.com
43	Daejeon Telecom	HIPASS	+82-042-633-5181	www.daejeon.com
44	Incheon International Airport Corporation	IIAC	+82-032-1577-2600	www.airport.or.kr
45	I Link Korea	INDICLUB	+82-02-2109-6566	www.ilinkkorea.co.kr
46	INET HOSTING	INET	+82-02-2103-7500	www.inet.co.kr
47	PRISM Communication (Nonhyeon)	INTELLICENTER	+82-02-310-400	www.intellicenter.co.kr
48	IP4 Networks Consulting Group	IP4NET	+82-02-3452-6546	www.ip4.co.kr
49	INNOSOFT	ISKRA	+82-063-229-9595	www.innosoft.co.kr
50	BUCHON NETWORK	IZONE	+82-032-673-3000	www.pcntv.net
51	Jungwoo ComNet	JCNETWORK	+82-031-221-7722	www.jungwoocom.net
52	Tbroad (Jeonju)	JEONJU-HANVITNET	+82-063-250-6500	www.tbroad.com
53	I.O.SYSTEM	JIGUNET	+82-02-413-9005	www.iosystem.co.kr
54	Keumgang Cable Network	KCNNET	+82-063-850-8500	www.kcn.tv
55	Korea Cable TV Gwangju Broadcasting	KCTVNET	+82-062-417-5000	www.kctv.co.kr
56	LG Dacom	KIDC	+82-02-2086-2900	www.kidc.net
57	KINX	KINXINC	+82-02-2187-6377	www.kinx.net
58	KTNetworks	KITINET	+82-080-2580-410	www.ktn.co.kr
59	GS Gangnam Broadcasting Corporation	KNCTV	+82-02-2056-7777	www.knctv.co.kr
60	Koscom Corporation	KOINS	+82-02-767-7146	www.kosocm.co.kr
61	KTHSolutions Corporation	KOLNET	+82-02-3289-4000	www.kol.net, www.nhitel.net
62	KOREA COMPUTER INC.	KOREACOMP- UTERIDC	+82-02-829-3063	www.korea- computer.co.kr
63	KTH Solutions	KOREAONLINE	+82-02-890-3330	www.kths.co.kr
64	KOREN (Korean Advanced Research Network)	KOREN	+82-02-2131-0757	www.ngix.ne.kr
65	KT Corporation	KORNET	+82-080-14-1414	www.kornet.net
66	INET Technologies	KPIN	+82-02-2272-0001	www.kpin.net
67	KREN (Korean Education Network)	KREN	+82-02-880-5364	www.kren.ne.kr

NO	Network Operator	Service Name	Help Desk	URL
68	Korea Institute of Science and Technology Information	KREONet	+82-042-869-707	www.kreonet.re.kr
69	KrLine	KrLine	+82-02-3461-3282	www.krline.net
70	KTF	KTFWING	+82-02-2010-9018	www.ktf.com
71	KTNET (Korean Trade Network)	KTNET	+82-02-6000-2119	www.ktnet.co.kr
72	KOREN	KTV6NET	+82-02-526-5469	www.koren21.net
73	LOTTE DATA COMMUNICATION COMPANY	LDCC-SAFEGUARD	+82-02-2626-4001	www.ldcc.co.kr
74	LG Telecom	LGTELECOM	+82-1544-0010	www.lgtelecom.com
75	Tbroad (Nam-dong)	NAMDONGNET	+82-032-1544-4001	www.namdongnet.com
76	Nara Broadcasting	NARA-CABLE-TV	+82-031-840-9090	www.naraspeed.net
77	RPK	Netropy	+82-02-852-8778	www.rpknet.com
78	NIB	NIBDIGITAL	+82-032-875-307	www.nibtv.co.kr
79	NOA Technology	NOA-TECHNOLOGY	+82-02-6207-0911	www.noat.co.kr
80	NOWCOM	NOWCOM	+82-02-590-3800	www.nowcom.co.kr
81	OKNET	OK-NET	+82-02-2108-5656	www.ok-net.net
82	PBS	PBSNet	+82-051-542-7777	www.pbsnet.co.kr
83	Korea Cable TV Pohang Broadcasting	PCBNET	+82-054-278-5555	www.pcbtv.net
84	KT Networks	PUBNET	+82-031-260-2387	www.pubnet.ne.kr
85	LG DACOM CORPORATION	PUBNETPLUS	+82-02-2089-6695	www.pubnetplus.ne.kr
86	Qrix-Daegu Corporation	QRIXINTERNET	+82-053-263-7000	dg.qrix.com
87	Qrix Communications	QRIXNET	+82-02-999-5555	www.qrix.com
88	GORayNet	RayNet	+82-02-2109-5000	www.raynet.co.kr
89	Tbroad (SAEROM)	SAEROMNET	+82-032-580-7000	www.saeromnet.com
90	SAERONET BROADCASTING	SAERONET	+82-054-458-1234	www.saeronet.com
91	Samsung Networks	SAMSUNGNETWORKS	+82-02-1577-0300	www.samsung-networks.co.kr
92	Seokyeong Cable TV Networks System	SCSNET	+82-055-740-3001	www.iscs.co.kr
93	SEJONG TELECOM	SEJONGNET	+82-1588-2464	www.sejongtelecom.net
94	Seodaegu Cable TV	SEODAEGUCLEANNET	+82-053-567-8000	www.scs5.co.kr
95	ONSE TELECOM	SHINBIRO	+82-1688-2000	www.shinbiro.com
96	Korea Information Certificate Authority	SINGGATE	+82-02-360-3118	www.signgate.com
97	SK C&C	SK-NET	+82-02-6400-4283	www.sk-net.com
98	SK Networks	SKNETWORKS	+82-1588-7555	www.skline.co.kr
99	SK Telecom	SK-TELECOM-NET	+82-02-6100-4544	sktelecom.com
100	SK Telink	SKTelink	+82-02-829-2968	www.sktelink.net
101	KCTV DBS	SPEEDON	+82-061-724-0100	www.ondb.co.kr
102	Donggu Cable TV	SPEEDONDCTV	+82-053-770-8860	www.catv-net.net
103	Suseong Cable TV	SPEEDONSTV	+82-053-768-8888	www.catv-net.net
104	Tbroad (Suwon)	TBROAD	+82-1566-1166	www.tbroad.com

NO	Network Operator	Service Name	Help Desk	URL
105	Tbroad (Hanvit)	TBROAD-HANVIT	+82-031-414-4000	www.tbroad.com
106	Tbroad (Nak-dong)	TBROADNAKDONG	+82-051-320-1000	www.digitalbusan.net
107	Tbroad (BukBusan)	TBROADNOTHBUSAN	+82-051-320-0915	busan.catv-net.net
108	TCN	TCNHINET	+82-053-243-3500	www.tcnhinet.com
109	TODAY & TOMORROW	TTNet	+82-02-6334-0777	www.tt.co.kr
110	Korea Cable TV Seonam Broadcasting	UPASS	+82-061-270-1500	www.hbc24.co.kr
111	UTILUS	UTILUS	+82-02-868-2981	www.utilus.net
112	NexG	VAAN	+82-02-561-0218	www.nexg.net
113	Tbroad (ABC)	VITSEN	+82-031-1566-6500	www.tbroad.com
114	VTOPIA	VTOPIA	+82-02- 563-2245	www.vtopia.co.kr
115	Dawit Information Telecom	WEBURO	+82-061-284-4650	www.weburo.net
116	LG POWERCOM	Xpeed	+82-02-2086-5000	www.powercomm.com
117	KCTV YBS	YBS	+82-033-650-3310	www.onybs.co.kr

Organizaion Abbreviations

A

AfriNIC	Africa Network Information Center
APNIC	Asia Pacific Network Information Center
ARIN	American Registry for Internet Numbers

B

BOK	The Bank of Korea
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E

ETRI	Electronics and Telecommunication Research Institute
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H

HNA	Korea Home Network Industries Association
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I

IAPC	Internet Address Policy Committee
IITA	Institute for Information Technology Advancement
IMCK	Internet Marketing Council of Korea
ITU	International Telecommunication Union

K

KADO	Korea Agency for Digital Opportunity and Promotion
KAIT	Korea Association of Information and Telecommunication
KBI	Korean Broadcasting Institute
KCC	Korea Communications Commission
KCS	Korea Customs Service
KFAA	Korean Federation of Advertising Associations
KIEC	Korea Institute for Electronic Commerce
KIPA	korea SW Industry Promotion Agency
KISA	Korea Information Security Agency

KISCOM	Korea Internet Safety Commission
KISDI	Korea Information Society Development Institute
KISTI	Korea Institute of Science and Technology Information
KNSO	Korea National Statistical Office
KOGIA	Korea Game Industry Agency
KOTBA	Korea Telematics Business Association
KrCERT/CC	Korea Internet Security Center
KRX	Korea Exchange

L

LACNIC	Latin American Caribbean Network Information Center
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M

MCIE	Ministry of Commerce, Industry and Energy
MCT	Ministry of Culture and Tourism
MIC	Ministry of Information and Communication
MOE	Ministry of Education
MOGAHA	Ministry of Government Administration and Home Affairs
MOMAF	Ministry of Maritime Affairs and Fisheries
MSCT	Ministry of Culture, Sports and Tourism

N

NIA	National Information Society Agency
NIDA	National Internet Development Agency of Korea
NIS	National Intelligence Service
NTS	National Tax Service

R

RIPENCC	Reseaux IP Europeans Network Coordination Center
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T

TTA	Telecommunications Technology Association
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2008 Korea Internet White Paper

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Published by

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<http://www.nida.or.kr>

Printed by

Myung-Jin C&P Co., Ltd

Tel : +82-2-2164-3000

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