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For a leap toward being a smart advanced country

# **Core tasks in broadcasting and communications 2012**

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December 29, 2011



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## I. What we did well and not swell in the past 4 years

### □ What we did well...

- (20 million smartphones) As more than 20 million smartphones are in use, wireless Internet is now widely used.
  - ※ Smartphones subscribers: 810,000 (2009) → 7,200,000 (2010) → 21,340,000 (November 2011)
- (4G mobile communication) WiBro service goes nationwide (March 2011) and LTE commercial service is offered in Seoul (SKT/LGU+, July 2011).
- (IPTV subscribers exceed 4.5 million) IPTV, a typical broadcasting & communications convergence service, in just three years after service launch (November 2008) the number of subscribers exceeded 4.5 million, contributing to the growth of the pay TV market.
  - ※ Changes in the number of IPTV subscribers: 1.74 million (2009) → 3.09 million (2010) → 4.5 million (2011)
- (Larger contents market) The size of the contents market, the core element of competitiveness in the smart era, grew from \$20 billion in 2008 t\$25 billion in 2011 (an annual average rate of 5.6%), and is expected to reach \$31.2 billion in 2015.
- (IT industry exports increased) Exports of the IT industry, including broadcasting & communications, increased from \$131.2 billion in 2008 t\$153.9 billion in 2010 (accounting for 33% of all exports).
- (IT industry accounting for a larger portion of G D P) The weight of the IT industry in GDP rose from 8% in 2008 t8.6% in 2010, playing a pivotal role in economic development.
- (Media "big bang") general programming TV channels – As news channels, and home shopping channels exclusively for SMEs, began broadcasting (December 2011), the diversity of broadcasting increased, and support for SMEs was reinforced.
- (Broadcasting reduces private education expenses) EBS' broadcasting and Internet CSAT courses reduced private education expenses by KRW2,212.8 billion in the past 4 years (2008~2011).

## □ What we did not do so well...

- (Competition and conflict among broadcasters worsened) Tougher competition in the broadcasting market, and intensified conflict among broadcasters and media with regard to sports broadcasting rights and terrestrial broadcasting retransmission caused inconvenience to the general public.

※ Conflict over retransmission: MBC & SBS vs KT SkyLife in April 2011, and terrestrial vs cable broadcasting in November 2011

- (Personal information leaks) Despite policy efforts to prevent hacking and protect personal information, leakage of personal information continued.

- The personal information of 35 million SK Communications users was hacked (June 2011), and the personal information 13.2 million Nexon users was leaked (November 2011).

- (Citizens find communication expense reduction unsatisfactory) Thanks to constant efforts to reduce communication expenses, e.g. lower membership fees and monthly minimum, the enforcement of the per-second billing system, and reduction of wireless data charges, household expenditures on telecommunication services continued to decrease year after year, but public expectations were not met.

※ 2008: mobile phone charge discount (SMS charges, etc.), increased phone bill reduction for low-income groups, etc.

2009: reduction of membership fees, prepaid charges, and wireless data charges

2010: enforcement of the per-second billing system, free CID, unlimited data plans, etc.

2011: Lower monthly minimum, 50 free SMS messages, launching of optional smartphone calling plans, etc.

※ Proportion of household expenditure on telecommunication services: 6.00% (2008) → 5.89% (2009) → 5.85% (2010) → 5.72% (Q3 2011)

- (Delayed improvement of the broadcasting and communications selling system) The improvement of the broadcasting & communications selling system intended to enhance efficiency of the broadcasting & communications market is delayed due to conflicting opinions in the National Assembly about the scope of mandatory media representative consignment.

※ After the Constitutional Court of Korea ruled KOBACO's monopoly of controlling broadcasting & communications sales as unconstitutional in November 2008, a total of 7 bills related to media representatives have been pending and under discussion in the National Assembly since May 2009 (KOBACO's monopoly was expired on December 31, 2009.).

## <Broadcasting & communications - survey>

### □ Outline

- For 4 years after the foundation of the Korea Communications Commission, the survey will gather public opinions about broadcasting & communications policies, and use the results as basic data for future policy directions.
- A total of 1,000 adults age 20 or older participated in an online survey concerning the performance of major policies of the Korea Communications Commission during the past 4 years and the priority policies for 2012.
- Survey period: November 30, 2011~December 3, 2011

### □ Results

- Evaluation of the performance of major policies (out of 10 points).
  - With regard to policies enforced during the 4 years after establishing the Korea Communications Commission, respondents gave high scores to 'smartphone popularization' (6.1 points), 'early vitalization of 4G mobile communication' (5.7 points), and 'launching of commercial IPTV services' (5.4 points).
  - Meanwhile, they gave low scores to 'reduction of household expenditure on telecommunication services' (4.2 points), 'suppression of communication service providers' marketing expenses' and 'prevention of cyber attacks/reinforcement of response capabilities' (4.5 points respectively).
- Respondents expected that the policy priorities for 2012 would be 'expansion of networks' (26.2%) to respond the explosive demand for data in the smart era, 'creating an environment for fair broadcasting & communications market competition' (22.6%), and 'creating a safe Internet environment' (15.1%) in that order.

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## II. Broadcasting and communications policy environment

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### □ The smart era is here.

- As most people are using smartphones and smart services are gradually expanding to tablet PCs and smart TVs, drastic changes will take place across society.

- Broadcasting & communications service will evolve beyond communication means into a comprehensive cultural service that will enable us to enjoy various socio-cultural benefits.

※ Smartphones' share of the market (Gartner 2011 estimate): Korea 79.8%, UK 66.2%, and US 50.3%

### □ Migrating to “smart economy” society

- As the smart technology platform is spreading to not only broadcasting & communications but also all other industries including medicine and automotive, society is migrating to soft service-oriented economy.

### □ Smart life

- Always connected networks allow us to start our day with smart services, e.g. education, travel and shopping, and end it with smart services, spreading a rich smart life.

### □ Contents and services are competing for the ecosystem.

- In the broadcasting area, as new operators are entering the market, competition for channels is becoming ever intensified, and in the communications area, competition among traditional services and smart services is becoming fiercer, engendering competition between contents and services.
- Away from the conventional independent struggle for survival, contents, platforms, networks and devices are increasingly being interconnected, co-evolving and cooperating with each other. Global ICT companies are the major players in the competition for the ecosystem.

### III. 3 core tasks

[1] Create jobs in broadcasting & communications and enhance the competitiveness of networks and contents.

- In the smart era, to foster the smart industry as a growth engine, to develop venture companies, and provide for the explosive demand of mobile traffic, KCC will try and secure new frequencies, and also invigorate the advertising contents market.

⇒ Secure competitiveness and create new jobs by fostering 7 new smart industries, Support Internet business startups, Enforce the Mobile Gwanggaeto Plan, Relax advertising regulations, Lay foundation for invigorating contents production.

[2] Successful completion of digital conversion and creating a win-win broadcasting & communications market.

- Successfully complete the digitalization of broadcasting, and improve the legal system so that large corporations and SMEs can coexist and cooperate with one another in the broadcasting and communications market.

⇒ Successfully complete digital conversion by providing customized support for low-income groups, Create a win-win cooperative broadcasting and communications market by enhancing the public functions of broadcasting, Improve unfair practices in contents trading.

[3] Building of a safe cyber environment and being considerate of the underprivileged in society.

- Building of a cyber environment where people are free to express their opinions, can be secure in the knowledge that their privacy and personal information is protected, that is considerate of the underprivileged, and fosters responsible communication.

⇒ Create an environment for sound communication by reviewing the Internet identification system, Implement step-by-step prohibition of the use of resident registration numbers on the Internet, Support for the socially vulnerable in accessing and using broadcasting & communications, Enhance users' "right to know."

# 1.

## Creating jobs in broadcasting & communications and enhancing the competitiveness of networks and contents

### 1-1. Invigoration of new industries and venture companies

- ◆ [2012 plan] Creating 10,000 new jobs for the younger generation by fostering 7 new industries, such as smart TV, cloud services, and near-field communication (NFC), – all of which have great growth potential, synergies with other industries, spawn venture companies, and bring big changes to the lives of people.

#### □ 7 new smart industries to be developed

- (Smart TV) A cooperative ecosystem will be created in which manufacturers, broadcasters, contents producers, and communication service providers cooperate with each other to vitalize smart TV services.
  - Set-top boxes will be enhanced tenable uninterrupted viewing of video, and UI (user interface) technologies developed such as voice/motion recognition functions.
  - Applications will be made for TV that can be jointly used for digital cable TV, IPTV and smart TV.

<Forecast for the global and domestic Smart TV market>

Classification		2010	2011	2012 (e)	2013 (e)
Global (unit: 1 million)	Smart TVs	38(17.2%)	56(22.9%)	72(26.7%)	100(33.3%)
	Flat-panel TVs	182(82.8%)	189(77.1%)	198(73.3%)	200(66.7%)
	Total	220	245	270	300
Domestic (unit: 10,000)	Smart TVs	29(12.8%)	54(22.7%)	80(32%)	131(50%)
	Flat-panel TVs	197(87.2%)	184(77.3%)	170(68%)	131(50%)
	Total	226	238	250	262

<Source: Display Search & iSuppli, Digieco(first half of 2011)>

- (Cloud services) The obligation to purchase computing equipment, which makes it difficult to introduce cloud services, will be relaxed, and ways to revise the Cloud Act will be sought to protect users from service failures and information leaks.
  - To lead the current IDC in to the cloud, a 'Korean cloud data center roadmap' will be drawn and reduction of local taxes considered (after consultation with related agencies).

- (Internet of Things) Services will be developed so that everyone will be able to use welfare services without restriction of time, space and terminals by using M2M communication to connect various devices in everyday life via the Internet.

<Examples of Internet of Things >

u-Healthcare services	Provision of remote health management services linked to smartphones and smart TVs for patients suffering from chronic diseases like high blood pressure, diabetes and pulmonary diseases
Intelligent traffic	Combined with outside networks like 3G/4G/WiFi provide Internet search and traffic information, and building of a driver-oriented intelligent mobile service environment such as a location tracking travel information emergency service
Smart disaster warning service	In case of natural disasters like earthquakes, tsunamis and floods, the disaster is automatically detected and assessed, critical information quickly shared among emergency response organizations, and a warning service provided for the general public.

- (Near field communication: NFC) Increasing pilot project locations like airports and cafeterias, identifying new application models like the paperless 'green receipt' and demonstrating it at international events like the 'Yeosu World EXPO'
  - Commercializing the mobile post-paid transportation card at 7 strategically affiliated outlets like convenience stores and gas stations, and buses, subways and taxis
  - Standards for issuing and using discount coupons through mobile electronic wallets, green receipt standards, and standards for NFC content cards
- (T-commerce) Providing pilot TV e-commerce services capable of advertising, purchasing and payment by interfacing with real-time broadcast programs like dramas and entertainment shows
  - Developing pilot services, i.e. delivering TV e-commerce information to personal devices by connecting TVs and personal devices (smartphones, tablet PCs, etc.)
    - ※ T-commerce is projected to be used by about 1.93~2.72 million households in 2013, and sales for 2015 are expected to amount to KRW7.8 trillion.
- (3DTV) Commercializing high-definition 3D broadcasting by using the frequencies of regular broadcasters to transmit a pilot broadcast in the technical verification stage for experimental purposes.

<Comparison between HD 3D experimental broadcasting and pilot broadcasting >

Classification	Experimental broadcasting(2010~2011)	Pilot broadcasting(2012~ )
Channel in use	Experimental channel(CH.66)	General broadcasting channel(during off hours)
Service	Metropolitan	Nationwide

- Standardizing Korea's 3D technology(ATSC, etc.) and preparing contents production guidelines (v2.0) for producing high-quality 3D contents

※ ATSC standardization schedule: Planning to start screening (January 2012) and finalize the standard (first half of 2013)

\* ATSC(Advanced Television Systems Committee)

**<Rapid growth of the 3DTV market >**

- (Global market) expected to quintuple from 21.64 million in 2011 ⇒ t100 million in 2014 (source: Display search)
- (Domestic market) 100,000 in 2010 ⇒ 900,000 in 2011(estimated)
- Exports of domestic 3DTVs: 2.2 million in 2010 ⇒ 15 million in 2011 (estimated)

- (Location-based service) Legal systems will be improved, e.g. entry regulations relaxed, and location information utilization notification and consent procedures will be simplified
  - Outstanding LBS ideas will be screened for, the entire process from development to starting a business and commercialization will be supported, and an 'LBS App&web idea competition' will be held.
- (New industry R&D) broadcasting & communications technology will be developed with a focus on emotional technology like UI/UX and holograms, intelligent technology like massive data processing and context-awareness, as well as related technologies like N-screen and cloud computing.
  - Developing technologies, e.g. UI/UX including voice and motion recognition for development of new industries, massive data processing, and "Internet of Things" platform (KRW 152.7 billion in 2012).
  - The R&D management system will be improved by establishing an R&D model for shared growth involving universities and SMEs, and an intellectual property right management system will be emplaced.

□ **Fostering small and medium-sized venture companies**

- (Global K-startup) This is a support program designed to find viable Internet startup companies in Korea. K-startup sponsors idea competitions to find ideas with potential and helps with development and launching of selected startups (March 2012~September 2012).

- Startup support will be expanded and opportunities provided to enter the global market in connection with portals like Google and Naver.
- Business bases and local information networks will be supported (tentatively called 'IT Business Designer Team') to prepare for advances into foreign markets in connection with KOTRA.
- (Supporting investments in small and medium-sized venture companies) Using funds from the Korea IT Fund (KIF) to invest in promising small and medium-sized IT ventures (necessary due to capital shortages of venture companies).
  - ※ KIF (about KRW370 billion) had 10 baby funds in 2010, and 10 baby funds in 2011.
- (Helping small and medium-sized venture firms to secure workforces) Operating of the smart mobile app center (SMAC) for mobile app developers, and support for test environments and education
  - ※ Korea Communications Commission (education program), common carriers (terminals and communication expenses), universities and institutions (space and operations)
  - ※ SMAC: Seoul (5), Southeast, Honam, Chungcheong, Daegyeong and Gangwon
- Holding of mobile job fairs for university students in 7 regions of the country, and introducing a "young developer" intern program for small and medium-sized venture companies.
- Creating a global open mobile platform ecosystem and supporting education to develop a professional workforce in UI/UX design
- (Technical support for small and medium-sized venture companies) Building a technical infrastructure for creating an ecosystem for the continuous growth of small and medium-sized venture companies in broadcasting & communications
  - Developing technology specialized for SMEs like femtocell, and supporting commercialization of creative mobile services like location-based service (LBS)
  - Building of test-beds for mobile devices based on near-field communication (NFC) and Wi-Fi, and supporting commercialization of technology, e.g. technical consulting

## 1-2. Building the smart network

- ◆ [Plan for 2012] Expand LTE service across the country, induce increased investments by reducing the spectrum fee, and maintain world-best network competitiveness by securing new frequencies to provide for the explosive expansion of mobile traffic.

### □ Maintain topnotch network competitiveness

- (National LTE service) LTE service, which was first offered in Seoul in July 2011, will go national in 2012.
  - Preparing for the rapid increase of mobile traffic, and trying to preempt the communication service market of the future
- (Giga Internet commercial service) Currently, the pilot Giga Internet service project, which is 10 times faster than the 100Mbps BcN, is completed, and commercial service has begun.
  - The size of the pilot service has more than doubled (2,000 or so households → 4,000 or so households), and other operators are trying to expand their commercial service following CJ Hello Vision (began to provide commercial service in September 2011)
  - Identifying special services in connection with global enterprises, developing Giga Internet quality standards, and supporting related standardization to lay the foundation for invigorating service.
- (Reducing the spectrum usage fee) To reduce the burden following the introduction of the frequency auction system and promote investments in new services, the spectrum use fee for mobile communication services was reduced.
  - ※ Common carriers paid 97% (KRW279.1 billion) of the spectrum usage fee (KRW288 billion) in 2010 (quarterly unit price per subscriber: KRW2,000)
  - Lowering the spectrum usage fee for M2M communication (machine-to-machine) to invigorate related industries
    - ※ M2M service is a service for small data, but the same spectrum usage fee as for mobile communication is applied.

- (Making a traffic map) To provide against explosive increases of traffic, domestic wire and wireless network resources and traffic were investigated and a traffic map was made.
  - Building of a traffic database by wireless network type (2G/3G/LTE/WiBro, etc.), and loads on metropolitan wireless base stations
  - Building of a database covering wire communication facilities (ducts, utility poles, optical cables, etc.) and idle facilities owned by operators, as well as equipment capacity and traffic by region.
- (Network neutrality) The guideline, the basic principle for sustainable development of the ICT ecosystem, went into force (January 2012)
  - Follow-up measures including detailed standards were established in consideration of the outcomes of the guideline.
  - Monitoring of the market for new communication services like M-VoIP and providing additional public policy consultation

#### □ Mobile Gwanggaeto plan

- (Securing a broadband mobile communication frequency) Frequencies will be secured for mobile broadband (up to 650MHz) by 2020 to prepare for the rapid increase of mobile traffic.
  - Planning to allocate new frequencies between 170MHz and 220MHz in 2012

<Mobile traffic expected to increase>



※ Mobile traffic is expected to increase about 11~13 times by 2020 as compared to 2011 (Korean Institute of Electromagnetic Engineering and Science)

- (Increased sharing of frequencies) Identify bandwidth infrequently used and try to share it in terms of time and re- n in order to promote efficient use of frequency

## 1-3. Reinforcing the competitiveness of contents

- ◆ [Plan for 2012] Increasing the size of the advertising market by deregulation, creating a new smart advertising market, and enhancing global competitiveness by reinforcing the infrastructure for contents production and distribution.

### □ Invigorating the advertising market

- (Deregulating advertising) Improving regulations (while maintaining the asymmetrical regulations of different media), i.e. simplify complicated advertising regulations to enhance market efficiency
  - Considering the integration and simplification of individual programming regulations of terrestrial broadcasting by advertising type, and introduction of the terrestrial advertising gross volume system

<Terrestrial and pay TV advertising programming regulations >

Terrestrial wave	Pay TV
<ul style="list-style-type: none"> <li>• Individual regulations by advertising type (10 minutes per hour): programming (6 minutes), spot (3 minutes), subtitles (40 seconds), time signal (20 seconds)</li> </ul>	<ul style="list-style-type: none"> <li>• Time-based gross volume system (10 minutes on average, up t10 minutes)</li> </ul>

- Considering the unification and simplification of indirect advertising and production sponsorship, e.g. excluding indirect advertising sales from mandatory consignment to media representative.
- (Introduction of competition to the broadcasting & communications sales market) Introducing media representative competition after removal of the unconstitutional monopoly that KOBACO held on terrestrial broadcasting & communications sales, and also streamline the market.
  - Turning KOBAC into a government-invested corporation (re-establishing its roles and functions, reshuffling the organization, restructuring the workforce, etc.) and allowing private advertising sale companies.
  - Providing institutional support for small and medium-sized broadcasters to guarantee the current level of advertising sales.
    - ※ If the Media Representative Act is enacted, conditions will be imposed on media representatives in the licensing process (regional network broadcasting) and support provided for small and medium-sized broadcasters through combined sales (non-network small and medium-sized broadcasting).

- (Vitalizing smart advertising) Developing the advertising industry in response to the smart media environment, fostering of the digital advertising industry, and building a smart advertising ecosystem to create a modern advertising market.
  - Carrying out pilot projects to invigorate smart advertising (customized advertising, T-Commerce, etc.), and supporting standardization, technology development, digital advertising production facilities and workforce development.

## □ Reinforcing contents production and distribution infrastructure

- (Invigoration of domestic animation production) Expanding the targets of new mandatory domestic animation programming from terrestrial broadcasting to general programming and animation PPs.
  - Expanding the mandatory programming channels to include PPs that program animation more than general programming and the proportion stipulated by the Presidential Decree to create demand for domestic animation.
    - ※ If 0.3% programming becomes mandatory, demands for about 315 new programs are expected to be created annually.
- (Invigoration of regional contents production) Providing support so that diverse regional cultures can be used as materials for contents production, and regionally produced contents can be efficiently distributed.
  - A hub & spoke system connected with regions will be built so that the digital sources (sound sources, video sources, etc.) owned by the digital broadcasting contents support center (Hub) will be utilized for production of regional contents and education, and online distribution of regionally produced contents will be supported.
  - As contents-related agencies like the Korea Communications Agency and the Korea Creative Contents Agency are scheduled to be relocated to the “innovation city” in Naju, (Southern Jeolla Province), a collaborative system between related agencies and the local government will be built, and the region will be developed into a hub for regional contents.
- (Establishing a distribution company) Establishing a contents sales company in which terrestrial broadcasters, PPs and independent producers jointly invest, and helping this company play the role of online service provider, the core business in the smart era.
  - Supporting the transactions between market participants so that contents aired by terrestrial broadcasters and PPs can be distributed to pay TV and smart media.

- (Promoting exports of contents) Finding new broadcasting contents markets in promising areas like the Middle East, Eastern Europe and the CIS to promote the spread of a “new Hallyu.”

<Showcases>

Classification	2008	2009	2010	2011
Nof showcases	4	6	5	5
Country	France, Hungary, Vietnam, UAE	Thailand, France, USA, Hungary, China, the Philippines	USA, France, Hungary, Ecuador, Uruguay, Malaysia, Indonesia	USA, Kazakhstan, Uzbekistan, Brazil, Peru, Colombia, Turkey, Egypt, UAE, Rumania, Poland

<Exports of broadcast programs >

(Unit: \$1,000)

Classification	2003	2004	2005	2006	2007	2008	2009	2010
Amount	35,559	70,306	121,763	133,917	150,953	160,120	170,228	214,942

※ Exports of broadcasting programs in 2010 by country: Japan 53.9%, Taiwan 13.2%, China 8.8%, and South America 7.0% (Korea Foundation for International Culture Exchange, overseas Hallyu trends 2010)

- (Expansion of integrated app store services) Expanding the scope of integrated application services from domestic free applications to domestic and overseas charged and free applications.
  - Helping outstanding Korean applications enter global markets by interlinking integrated applications with the app markets of overseas mobile communication service providers.
  - Localizing Korean applications by having them translated, and supporting the settlement of sales revenues in the markets of overseas communication service providers.

## 2.

# Successfully completing digital conversion and creating a broadcasting & communications market of shared growth and cooperation

### 2-1. Successful digital conversion

- ◆ [Plan for 2012] Opening the age of digital broadcasting by guaranteeing universal access rights, and successfully ending terrestrial analog TV broadcasting on December 31.

#### □ Guaranteeing access right to TV broadcasting

- (Who will receive the support) Households not subscribing to pay TV, i.e. watching only traditional terrestrial analog TV broadcasting delivered to their TV antenna (975,000 households according to the Korea Statistics survey as of the end of October 2011)
- (Details of support) Customized support in consideration of income level

<Details of support by income level>

- (Low-income group) Assistance with purchase of DTV (KRW100,000) or free digital converter
  - (General households) Renting of digital converters (rental fee KRW20,000), part of antenna installation cost (KRW30,000 deductible)
  - (Senior citizens and disabled) Renting of digital converters (rental fee KRW20,000), free installation of converters and antennas
- 
- (Improving reception) Improving the reception environment for expansion of digital broadcasting coverage by digitalizing the substations of terrestrial broadcasters and installing low-power repeaters.
    - Digitalizing substations (68% at the end of 2011→ 100% in June 2012), installing low-power repeaters (144 by 2012), and digitalizing the master antenna in farming and fishing villages (382 by 2012).
      - ※ Making installation of digital substations by June 2012 as a condition for re-licensing (2010).
    - Digitalizing the master antenna of Public Rental Apartments (804 complexes by 2012), and inducing the digitalization of the master antenna of private apartments through PR (7,885 complexes by 2012).
    - Free rental of satellite broadcasting receivers to households in fringe areas with regard to digital broadcasting.

□ Identifying and supporting targets of government support through PR

- (Customized PR) To encourage citizens to switch to digital voluntarily, and apply for government support, customized PR will be conducted for the entire population and households directly receiving analog broadcasting.
  - Forming social consensus by publicizing the benefits of digital broadcasting, and induce households directly receiving analog broadcasting to apply for the support by transmitting a notification during broadcasting.
  - Conducting face-to-face PR, e.g. operating “experience vehicles” for the underprivileged and farming and fishing villages.
- (Broadcast PA notification) Transmitting of a public announcement (PA) notification everyday to households still using analog TV as of January 2012, and gradually expand the support in consideration of Government support.

※ All channels in the same area, i.e. KBS1-2, MBC, EBS and public broadcasters, will show the same PA notification during the same time slots.

<Gradual enlargement of PA notices >

January ~February 20 12	March~June 2012	July~December 20 12
Less than 30% of the screen	Up to 50%	50% or more
		

- (Virtual termination) Government support in 9 areas (KBS headquarters) starting in July 2012, and virtual termination (PA notice covering the entire screen) planned for areas in the final stage (more than 98% have digital broadcasting receivers).

<Virtual termination by region >

[areas 98% or less converted]	[98% or more converted]
	

※ Digital conversion rate % of households owning devices for viewing terrestrial digital broadcasting (DTV, digital converter, pay TV set-top box, etc.)

□ Minimizing the inconvenience of viewers as analog broadcasting is terminated

- (Terminating analog broadcasting) All 1,191 analog broadcasting stations across the country will stop operating on December 31, 2012, (64 broadcasting stations, and 1,127 substations).
- (Minimizing inconvenience of viewers) To minimize the inconvenience of the general public caused by the termination of analog broadcasting, the call center workforce will be reinforced, and the support center will go into emergency mode.
  - The digital broadcasting conversion support center will maintain emergency status (December 2012 ~January 2013).
    - ※ A call center for those failing to convert to digital after termination of analog broadcasting will be operated until June 2013.

## 2-2. Invigoration of competition in the broadcasting & communications market

- ◆ [Plan for 2012] Ensuring harmony between the industrial and public nature of broadcasting, and laying the foundation for increasing diversity of public opinions, and promoting sound competition in the broadcasting market by opening the communications market and increasing competition.

### □ Invigoration of the broadcasting market and enhancing its public utility

- (Increasing the competitiveness of broadcasting) Improving broadcasting laws to adapt to the new broadcasting environment, and ensure diversity and fairness of public opinions.
  - Invigorating the broadcasting market by creating sound competition between new and old broadcasters
- (Enhancing the public utility of broadcasting) As the introduction of new broadcasting media and media representatives leads to tougher competition in the broadcasting market, measures to revitalize regional broadcasting and community radio will be taken.
  - Helping EBS better supplement public education with SAT courses, etc., and improving systems related to public channels.
- (Laying the foundation for increasing the diversity of public opinions) Establishing an organization for studying and verifying the share of audiences to professionally apply regulations related to audience share.
  - Developing a cross-media aggregate impact index that can comprehensively measure the impact of broadcasters.

### □ Opening the communications market and increasing competition

- (Vitalization of MVNOs) Promoting competition in communications rates and service quality to invigorate wireless resellers (MVNOs).
  - Disclosing the specifications of mobile communication terminals of existing communication service providers so that MVNOs can efficiently make and supply terminals.
  - Introducing the number portability system between existing communication service providers and MVNO.

- (Introduction of the open terminal distribution system) Regardless of whether the International Mobile Equipment Identity (IMEI) is registered with common carriers, calls will be allowed, however, calls from lost or stolen terminals will be blocked. This is called the open terminal distribution system.
  - The terminal distribution structure focused on existing mobile communication service providers will be expanded to include manufacturers, marts and convenience stores, and encouraged to spread the use of low-priced smartphones.
  - Rates will be discounted even if a used terminal is used to join mobile communication service.
    - ※ To immediately enforce the open terminal distribution system, the Government and a preparation checkup team, consisting of research centers and operators, will be operated.
- (Expanding the opening of communication) Alleviating the equipment burden of SMEs by expanding the scope of essential equipment and facilities, such as optical cables and pipes.

## 2-3. Creating a win-win and cooperative market environment

- ◆ [Plan for 2012] Ensuring that home shopping channels will increase support for SMEs, and creating a market environment for mutual prosperity and cooperation between large corporations and SMEs by improving the fair trade environment between large platform operators like portals and small and medium-sized contents providers.

### □ Creating an environment for mutual prosperity and cooperation

- (Integrated broadcasting and communications dispute resolution system) Improving the system, e.g. installing a 'Broadcasting & Communications Dispute Resolution Committee' for integrated management communication dispute resolution.
  - Considering introduction of a collective dispute mediation system regarding disputes involving many persons with the same issue.
- (Increasing home shopping channels' support for SMEs) Increasing the sale of products of excellent SMEs through home shopping channels and supporting their advance into overseas markets.
- (Portals' support for small and medium-sized contents providers) Naver and Daum will support open API and developer education for map and search technology.

※ Open API (Open Application Programmer Interface): Opening portals' search and map-related data to everyone for development of application programs and services.

### □ Revitalizing fair contents trading

- (Creating an infrastructure for mutual prosperity and cooperation in an open market) Creating an ecosystem of mutual prosperity and cooperation by establishing a foundation for fair trade among communication service providers, manufacturers and contents developers.
  - Extending the targets for mutual prosperity and cooperation in the mobile contents open market beyond the open market of mobile communication service providers to include manufacturers.
  - Investigating new types of unfair practices and supplementing the guidelines.
- (Reinforcing the prohibition of unfair profit sharing) Extending the current regulation on prohibition of unfair profit sharing between mobile communication service providers and CPs to include wire communication service providers like portals.

- (Dispute resolution for outsourced production) Creating an environment for fair trade in the outsourced production market by allowing outsourced production companies to be included for arbitration by the Broadcasting & Communications Dispute Resolution Committee.
  - If there is a dispute between outsourced production companies and broadcasters, it will be resolved quickly.
- (Improving the retransmission system) To prevent damages to viewers due to a dispute between terrestrial broadcasters and pay TV companies, a bill to improve the terrestrial wave retransmission system will be submitted for legislation.
  - Modifying the scope of mandatory terrestrial broadcasting retransmission, and introducing a mandatory arbitration by committee system to resolve disputes between broadcasters over retransmission.
- (Assessing the market impacts of combination products) Creating an environment for fair competition by assessing the impacts of broadcasting & communications combination products on competition in the broadcasting market.
- (Extending the scope of communications market evaluation) Extending the scope of communication market competition evaluation in response to the expanding ICT ecosystem and convergence of communication services.
  - Changing the competition evaluation focused on common carriers to cover the entire ICT ecosystem.

### 3.

## Building a safe cyber environment and consideration for the underprivileged

### 3-1. Realizing a community of productive communication

- ◆ [Plan for 2012] Realizing a community of productive communication by improving Internet regulations, reinforcing ethics education and PR, and building a system for cooperation with Internet service providers

#### □ Re-considering the Internet identity verification system

- (Changing the Internet communication environment) To prevent harmful effects on society due to malicious comments, the identity verification system was introduced and enforced with a focus on Internet BBS of domestic portals (July 2007), but,
  - as overseas SNS services like Twitter began to spread rapidly in 2010, and the Internet communication environment changed, the voice for improving the system is being raised, while,
    - ※ Exceptions to SNS, and the appearance of detour reply service (social replies)
  - There is a concern over the reverse discrimination of domestic companies and injury to the image as an IT powerhouse.
- (Reviewing improvements) A joint TFT consisting of related agencies was formed to comprehensively analyze the advantages and disadvantages of the identity verification system, changes in the Internet environment, and technological advances; and examine the direction of future improvements and ways to supplement the system.
  - The opinions of operators and users were gathered through public hearings, meetings, surveys and research groups, and public debates were held to arrive at a broad consensus.

#### □ Spreading the culture of sound communication and Internet ethics

- (Preventing SNS' violation of human rights and using SNS for productive purposes) To prevent slander and defamation through SNS and promote the productive utilization thereof,
  - campaigns for establishing a sound SNS communication culture were reinforced by producing educational contents and programs about the ethical use of SNS and appointing honorary ambassadors.

- the environment for researching ways to use SNS technology for enhancing productivity, e.g. life-saving in disasters and improving the competitiveness of education and enterprises and diffusing such technology was created.
- (Reinforcing Internet ethics education in school) Reinforcing Internet ethics education in elementary, middle and high schools to enhance teenagers' awareness of Internet ethics.
  - Consulting with related agencies like the Ministry of Education, Science and Technology, and appointing Internet ethics teachers in schools.
  - Providing writers with reference materials to reinforce Internet ethics contents in new textbooks, propagating educational contents online (), and encouraging utilization.
- (Increasing the self-cleaning role of companies) Encouraging Internet service providers to autonomously regulate contents, educate users and engage in campaigns; and rewarding of exemplary companies.
  - Building a cooperative system for autonomous screening of illegal harmful information between the Korea Communications Standards Commission and Internet service providers so that operators can take immediate measures against clearly illegal obscene and speculative behavior and such information through self-deliberation.
    - ※ Self-deliberation and cooperation system implementation and operation plan: Major portals (implementation in 2011 → operation in 2012), and major P2P and webhard companies (implementation in 2012 → operation in 2013)
  - Selecting exemplary companies in Internet ethics education, PR and self-regulation as clean Internet companies, rewarding them and giving a recognition award to them.

## 3-2. Building a safe cyber environment

- ◆ [Plan for 2012] Reinforcing personal information protection to build a cyber environment in which everyone is safe, preventing DDoS and hacking incidents, and strengthening global leadership in information security.

### □ Reinforcing personal information protection

- (Prohibition of the use of resident registration numbers) Prohibiting the collection and use of resident registration numbers on the Internet to prevent damages due to leaks of personal information except for legal obligations.

- To this end, the “Act on Protection of Information and Communications Network Utilization and Information Protection, Etc.” will be revised to restrict the collection and use of resident registration numbers on the Internet in phases starting 2012.

- ※ 2012: Applied to websites with more than 10,000 visitors per day
- ※ 2013: Applied tall websites
- ※ 2014: Administrative measures taken in case resident registration numbers are collected and used

- A ‘support center for resident registration number cleanup’ will be installed to provide SMEs with technical support and consulting on cleanup methods and procedures.

- (Preventing damages due to leakage and exposure of personal information) Checking the personal information protection status of 100 websites in Korea, and building personal information exposure response centers in foreign countries like China.

- Enhancing the level of information security by checking whether the technical and administrative measures for personal information protection are taken and providing consulting services; and reinforcing protection of users’ personal information by disclosing vulnerable sites (thewebsiteoftheKoreaCommunicationsCommission,etc.).

- Building a personal information protection center in Greater China to promptly detect and delete personal information leaks through foreign websites like those in China and reinforce international cooperation.

- ※ Actively exchange personal information protection policies and technology with China and Southeast Asian countries

## □ Proactive responses to hacking incidents

- (Building a preventive system) Preventing DDoS and hacking incidents by blocking malicious codes, expanding response facilities, and developing state-of-the-art security technologies.
  - Detecting and deleting hidden malicious codes by building a preventive monitoring system for zombie PC diffusion pathways including web-based storage sites.
  - Continuously reinforcing the DDoS response system by expanding DDoS response facilities, operating cyber shelters, and monitoring security threats to important national events.
  - Supporting development of state-of-the-art technology for tracking hacking and passwords (KRW12.4 billion in 2012).
- (Improving the information protection infrastructure of corporations) Inducing investments in security workforce and reinforcing information protection competence by improving the legal system, e.g. reinforcement of security management standards.
  - Revising the law that will change the information security safety check system checking 48 security management items into a personal information management authentication system, and increase the number of security management items to 137.
  - Reinforcing corporate responsibility for information protection by making it mandatory to appoint a Chief Information Security Officer (CISO), and strengthening the standards for recommendation of information protection measures to enhance awareness.
- (Strengthening global leadership in IT security policy) Proposing a global standard for personal information protection management systems to international standardization organizations like the ITU and ISO.
  - Taking an active part in the agenda setting for the Third International Ministerial Conference for Discussion of Global Standards in Cyber Security (2013).

※ The first conference was held in London in 2011, the second conference was held in Hungary in 2012, and the third conference is scheduled to be held in Korea in 2013.

### 3-3. Enhancing users' rights

- ◆ [Plan for 2012] Reducing smartphone and VoIP rates for the underprivileged, exempting the value added tax on broadcasting & communications expenses, income tax deduction, and reinforcing the provision of information about communication expenses and electromagnetic waves for users

#### □ More consideration for the socially vulnerable

- (Improving the rate reduction program) Reducing smartphone and Internet phone (VoIP) rates to alleviate the communication expenses of the underprivileged.
  - As smartphones became popular, the smartphone rate reduction structure will be improved so that the benefits of rate reduction can be increased.
  - As Internet phones are replacing home phones at an accelerating pace (10.63 million households are using Internet phones as of November 2011), Internet phone bills will be reduced.
    - ※ Phone bills for the disabled and people of national merit will be reduced by 50%, membership fees and the monthly minimum will be exempted, and 450 free calls a month will be provided for welfare recipients.
- (Media education for the underprivileged) Reinforcing smart media education for the underprivileged like the disabled and elderly.
  - Providing media utilization education at community media centers and on-site media education.
- (Spreading broadcasting receivers to the disabled) Spreading broadcasting receivers to the disabled in line with the digital conversion support project for the underprivileged.
- (Making broadcasting programming for the disabled mandatory) Making it mandatory for broadcasters like terrestrial broadcasters, SOs and PPs to provide programs for the disabled (subtitle, sign language, and descriptive video service) in phases.
- (Improving the broadcasting & communications rate tax system) Trying to exempt value added taxes on pay TV(cable, IPTV, etc.) rates and communication expenses, and instituting income tax deductions for broadcasting & communications expenses (consulting with related agencies like the Ministry of Finance and Strategy).

- (Telecommunication relay service) Launching a telecommunication relay service addressing the needs of people with disabilities such as hearing impairments and speech disorders.
  - Transferring the telecommunication relay service center, operated by the Ministry of Public Administration and Security for this service, to the Korea Communications Commission.



#### □ Enhancing user s’ “right to know”

- (Building a smart choice information portal) Building a smart choice information portal that provides comprehensive information on new services
  - Building a one-stop information system that compares and analyzes calling plans, recommends best calling plans, compares terminals, and provides information on the latest technology trends related to the use of telecommunication services.
- (Improving phone bills) Making existing phone bills, which are difficult and complicated, easy to understand and simple by using standardized terminology.

#### □ Alleviating concerns over electromagnetic waves

- (Electromagnetic wave grade system) Grading electromagnetic waves emitted by various wireless devices, and creating a regulation system whereby operators will mark the grade on the devices.
- (Guideline on the use of cell phones) Making and distributing a guideline on the safe use of cell phones to protect children and adolescents who are especially vulnerable to electromagnetic waves.
  - ※ The World Health Organization (WHO) announced that electromagnetic waves emitted by cell phones may cause cancer (May 2011)
- (Establishing the Korea Electromagnetic Culture Foundation) Reinforcing objective research, education and PR about the impacts of electromagnetic waves on the human body through a dedicated organization.