

## Section 2

### Development of Information and Communications Policies

#### 1. Development of telecommunications policy

##### (1) Establishment of fair competition rules

###### A. New competition promotion program 2010

In response to the change in the market environment along with the advancement of broadband and IP networks, the Ministry of Internal Affairs and Communications (MIC) formulated a New Competition Promotion Program 2010 in September 2006, which is a roadmap for the development of rules for fair competition to be implemented by the beginning of the 2010's in the telecommunication field and also a concrete implementation plan for the Process Program for the Reform of the Communications and Broadcasting Field (September 2006) in the ICT sector. The purposes of Program 2010 include promotion of further competition in the telecommunication market and protection of user benefits. Program 2010 was revised in October 2007 and again in June 2009, and MIC is presently committed to its steady promotion.

###### B. Promotion of competition in the mobile communications market

The MIC established the Mobile Business Study Group in January 2007, aiming for economic vitalization and for the improvement of user benefits through the growth of new mobile business and the final report was released in September 2007. Based on the final report, the MIC announced the Mobile Business Revitalization Plan in September 2007, which was formulated as a roadmap for programs to be implemented by the target year of 2011.

In addition to formulating the Guidelines for the Operation of the Type II Specified Telecommunications Equipment Systems in March 2010, the MIC held a public hearing in April 2010 with concerned parties on the state of the SIM lock for cellular phone units. Taking user demands into account, cellular phone enterprises came to a reasonable consensus on a policy of releasing SIM locks voluntarily, and the MIC is scheduled to draw up guidelines on the release of SIM locks in the near future.

###### C. Review of universal service system

Based on the report of the Study Group of the Future Visions on the Universal Services System compiled in December 2007, with regard to the review of universal systems responding to IP telephony, the MIC made inquiries to the Information and Communications Council in April 2008 and received a report in December 2008.

In order to respond to the issues that may arise with the advancement of IP telephony and in view of achieving stable operation of the system, the report introduced concepts of the institutional review during 2009 and 2011: (1) although it is appropriate to basically continue the operation of the existing systems, (2) cost accounting modification is desirable so as to add the number of lines which have been switched from subscription lines to optical IP phones to the number of subscription lines, while following the existing cost accounting method. Based on this report, the MIC revised government order concerning the modification of the cost accounting method (above (2)) in May 2009.

###### D. Consideration for enhancement of platform collaboration

The MIC set up the Study Group on Communications Platform in February 2008 with the aim of considering issues involved in developing a market environment and future visions to enhance collaboration of platform functions essential for smooth distribution of contents applications through the broadband network and to create new business, and a report was compiled in January 2009.

###### E. Assessment of competition in the telecommunications Sector

In order to ensure accurate tracking of the status of competition in the increasingly complex telecommunications sector, and reflect this status in policies, the MIC has been implementing the Competition Assessment of the Telecommunications Industry since fiscal 2003.

## **(2) Increasing sophistication of networks, etc.**

### **A. Promotion of increasing sophistication of networks**

In order to address the issue of “IPv4 address exhaustion” in the Internet infrastructure that supports Japan’s society and economy, in February 2009 the MIC opened the Study Group concerning the Improved Use of IPv6 on the Internet in order to secure the use environment for the Internet and for the purpose of studying concrete measures to help promote the spread of IPv6 from the viewpoint of further increasing the benefit of the Internet. A second interim report was compiled and released in March 2010.

### **B. Proper management of IP addresses / domain names**

Currently, the private nonprofit organization ICANN is in charge of the extremely important task of appropriate management and coordination of the IP addresses and domain names essential to Internet use on a worldwide scale, so as to prevent duplication and other problems. Starting in November 2009, ICANN has been accepting registration of internationalized top-level domain by country. In Japan, appropriate domain names were discussed by the Information and Communications Council, and in July 2009 the domain “.Japan” was agreed upon. It was also decided that the administrator and operator of this domain should be selected from among private enterprises, and further considerations are underway in the privately established Japan Internet Domain Name Council.

### **(3) Dispute settlement between telecommunications business operators**

The Telecommunication Business Dispute Settlement Commission is endowed with the following four functions: (1) to implement procedures for mediation and arbitration among telecommunications business operators, (2) to implement procedures for mediation and arbitration regarding radio station establishment, etc. (3) to conduct investigation and submit reports on orders and awards made by the prime minister when consulted, and (4) to make the necessary recommendations to the MIC on the development of rules, etc. concerning the items within its vested powers. Besides these functions, the Commission has set up a consultation desk for telecommunication business operators to offer advice and answer questions on connections and issues among telecommunication business operators.

## **2. Development of broadcast policy**

### **(1) Promoting the transfer of broadcasting from analog to digital format**

Terrestrial analog broadcasting will end and be completely replaced by a terrestrial digital service by July 24, 2011. Terrestrial digital TV broadcasting was launched in the three largest metropolitan areas, Tokyo, Osaka and Nagoya, in December 2003, and in December 2006, the service was started in all prefectural capitals. As of the end of March 2010, about 48.35 million households (about 97.5% of all households) have access to digital services, and as of the end of April 2010, the number of shipments of terrestrial digital receivers constitutes about 75.90 million sets. The number of households with cable TV connections capable of receiving terrestrial digital broadcasts is 24.06 million (as of the end of March 2010.)

In addition, branches of “Digi-Support” (the MIC Television Recipient Support Center), which offers support and consultations to television viewers regarding the transition to digital broadcasting, have been opened in every prefecture, and are helping promote the transition to an all-digital terrestrial broadcasting system.

### **(2) Other broadcasting policies**

Japan’s satellite broadcasting has acted as a pioneering technologically advanced medium, providing various special broadcasting services and high-definition TV programs. The cumulative total of shipments of special satellite receivers (for both BS and 110 CS digital broadcast) came to about 65.35 million sets (as of the end of March 2010), and the number of households connected to special satellite broadcasting is about 21.98 million (as of end of March 2009).

### 3. Development of radio policy

#### (1) Summary of radio policy

##### A. Promotion of effective frequency usage

As frequencies are a limited resource, it will be necessary to promote newly effective frequency usages such as the white space usage to ensure that this resource serves to increase people's benefit. Since December 2009, the MIC has held a Round-Table Conference, titled "Examination Team for New Radio Usage Vision," for initiating studies on new and more effective frequency usages.

##### B. Efforts for transfer and reallocation of spectrum and development of the radio usage environment

Since October 2008, the MIC has held a Spectrum Policy Round-Table Conference for studies on the future vision and possible uses of radio communication systems and services in the 2010s and published the results as the Spectrum Policy Round-Table Conference Report: Strategy for Generation of Spectrum Business. Possible new applications harnessing wireless communication technology include systems and services such as non-colliding vehicles and comfortable, fully cordless living environments. It is estimated that the market for new spectrum-related services and systems could be worth 50 trillion yen by 2020.

#### (2) Efforts toward sophistication and diversification of radio usage

##### A. Advancement of mobile communication system and wireless access system

As of the end of March 2010, the number of cellular and PHS cellular phone units in Japan had reached 116.29 million, of which 3G (third-generation) "IMT-2000" mobile communication systems accounted for 95.4%. Currently, progress is being made toward standard adoption of the "3.9G" mobile communication system, more sophisticated than the 3G system, and throughout the world enterprises, etc. are moving toward the realization of full-scale adoption in 2010 or thereafter. Meanwhile, the International Telecommunication Union (ITU) is moving forward with standardization ahead of the adoption of the 4G system (IMT-Advanced), which achieves 100 Mbps when moving at high speeds and 1 Gbps at low speeds, around 2011, and the MIC is actively promoting efforts for research and development and international standardization with industry-academia-government cooperation.

With regard to broadband wireless access (BWA) systems, UQ Communications Co., Ltd. has been using mobile WiMAX to offer service in the 23 wards of Tokyo and Yokohama and Kawasaki cities since February 2009, with service expanding to the Tokyo-Nagoya-Osaka corridor in July 2009. The MIC began accepting applications for licenses to conduct regional WiMAX businesses at a municipal level in March 2008, and as of March 2010 has granted wireless station licenses to around 40 businesses, primarily cable TV operators, around one quarter of which have already begun commercial service.

##### B. Promotion of ITS

The MIC established the Study Group on Advancement of ITS Wireless Systems in October 2008 to further the advancement of wireless systems used in ITS (Intelligent Transportation Systems) and to deliberate its vision for the utilization of the Wireless ITS Safe Driving Support System, its functions and required specifications and technological issues and promotional measures for its realization, and compiled a report in June 2009. As exemplified by VICS (Vehicle Information and Communication System) and ETC (electronic toll collection), ITS has become a vital part of Japan's infrastructure, offering solutions to issues in a wide range of sectors, and efforts are underway to promote its increased sophistication.

#### (3) Development of radio usage environment

##### A. Efforts concerning effects of radio waves on the human body and medical equipment

The MIC has conducted research on the effect of the radio spectrum on the human body to protect the human body from the effect of the radio spectrum. Using the research results and international guidelines as a reference, the MIC has established safety standards (Safety Guidelines for Use of Radio Waves) to be applied in Japan. The MIC also evaluates and analyzes domestic and international research on the effects of the radio spectrum on the human body, promotes studies by extracting research themes to be addressed by Japan, and has held meetings of the Committee on Bioelectromagnetic Environment since June 2008, with the aim of creating a society where people can use radio spectrum safely.

Furthermore, since concerns about the effects of cellular phones and other devices on implantable medical devices, such as cardiac pacemakers, have increased in recent years, the MIC has conducted studies on the effect of radio waves on medical equipment since FY 2000, and has amended the Guidelines to Prevent Effects of Electromagnetic Waves from Various Types of Equipment on Implantable Medical Devices (established in August 2005, revised in May 2009).


#### **B. Measures for unnecessary radio waves**

As electrical and electronic equipment become more widespread, there are growing concerns that the use of wireless is affected by electromagnetic interference from unnecessary radio waves emitted by various types of equipment and facilities.

The MIC has set up CISPR (*Comité International Spécial des Perturbations Radioélectriques*) within the Information and Communications Council, and in addition to contributing to discussions on international standards, has worked to promote the development of domestic standards.

#### **C. Appropriate surveillance and supervision of radio waves and correct management of wireless stations**

The MIC conducts investigations to immediately remove spectrum interference caused by illegal wireless stations that is affecting wireless communication designated as critical wireless communication, including communication related to telecommunications activities, broadcasting activities, the protection of life and property, the maintenance of order, meteorological activities, electricity supply and rail transport. Also, in cases where illegal wireless stations have been set up and have been conducting unlicensed operations, the MIC investigates, presses charges and takes corrective measures against stations that have committed violations.

Since FY 2006, the MIC has been implementing publicity and enlightenment campaigns to promote Radio Act and regulations concerning the utilization of radio waves for electronics retail stores and retailers of electromagnetic equipment and at the same time, has been implementing publicity and enlightenment campaigns to create awareness of the fact that the use of radio waves requires a license and that wireless equipment is required to bear an appropriate technology mark, .