Part 3

Chapter 8

ICT Policy Directions

Section 1 Comprehensive Strategy Promotions

The Japanese government put into force the Basic Act on the Formation of an Advanced Information and Telecommunications Network Society (Law No. 144 of 2000) and set up the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (IT Strategic Headquarters) in January 2001; these steps promoted the fast, high-priority implementation of policies on the formation of an advanced information and telecommunications network society.

In June 2013, the Cabinet decided a new IT strategy (Declaration to be the World's Most Advanced IT Nation), through the IT Strategic Headquarters, as a revamping of IT policy. This was followed by concrete debate, led by the Deputy Chief Cabinet Secretariat for information technology (Government CIO), on the implementation of a roadmap to clarify each ministry's role and attainment targets. It was decided to evaluate the state of initiatives and revise the roadmap.

Section 2 Developments in Telecommunications Business Policy

1. Developments in telecommunications business policy

(1) Initiatives to further develop and expand world-leading ICT infrastructure

a. Initiatives to further develop and expand world-leading ICT infrastructure

In February 2014, MIC made an inquiry to the Information and Communications Council entitled "The Ideal State of Information and Communications Policies toward the 2020s: For the Further Spread and Development of Information and Communications Infrastructure at the World's Highest Level" and set up the 2020 ICT Basic Policy Special Subcommittee. The goal of these moves was to study approaches for the telecommunications business that are in keeping with the times, with a focus on the directions of ICT developments leading up to the 2020s, and to stimulate the economy and improve the lives of citizens through the further development and expansion of world-leading ICT infrastructure.

The Information and Communications Council examined: (1) ICT prospects leading up to the 2020s; (2) approaches for the telecommunications business to boost the competitiveness of industries that use ICT infrastructure; and (3) approaches for the telecommunications business to ensure opportunities to use ICT infrastructure and protect the safety and security of ICT infrastructure. The Information and Communications Council made a report to MIC in December 2014. Based on the Council's report, MIC tabled a bill to partially amend the Telecommunications Business Act in the National Diet in April 2015. The bill was passed in May 2015.

b. Promoting mobile services

MIC put together and released the "Mobile Recreation Plan" in October 2014 to establish an environment in which users have access to faster mobile services with more flexibility, more convenience, and more familiarity. Under the Plan, MIC is endeavoring to revitalize the mobile sector with a four-point action plan: (1) promotion of selectable mobile services (such as unlocking SIM locks), (2) promotion of secure mobiles services that can used inexpensively (encourage the growth of MVNOs, create conditions in which young people can use services securely), (3) achievement of faster mobile speeds (4G allocation); and (4) creation of new mobile services (review regulations on carriers).

c. Increasing the use of optical networks

MIC finalized the "Guideline on the Application of the Telecommunications Business Act as It Pertains to NTT East and West FTTH Access Services and Other Wholesale Telecommunications Services" in February 2015 prior to the start of optical access network and other wholesale services by NTT East and NTT West. The Guideline, which was based on the Information and Communications Council's report described above, organizes and classifies acts potentially subject to business improvement orders under the Telecommunications Business Act in order to clarify the application of the current Telecommunications Business Act with respect to acts performed by carriers that provide wholesale services, carriers that receive wholesale services, and contracted agents that receive wholesale services.

d. Assessing the state of competition in the telecommunications sector

In order to correctly ascertain the state of competition in the increasingly complex telecommunications sector and reflect this understanding in government policy,

MIC has been conducting the Competition Assessment of the Telecommunications Industry every year since FY 2003.

For the 2014 Competition Assessment, MIC set out and released the "Implementation Items for 2014" in December 2014. Under this plan, MIC will adopt two themes for its strategic assessments in the interest of coordinating the assessments flexibly with the development of competition policy: (1) analysis of the competition environment impact of inter-carrier services in fixed-line ultra-high-speed broadband field, and (2) analysis of the competition environment impact of new fee policies in the mobile communications field.

e. Promoting wireless LAN usage

MIC's Wireless LAN Business Study Group, launched in March 2012, looked at the current state of wireless LAN and identified and organized issues with the dissemination and the safe and secure use of wireless LAN. The Study Group put together a report in July 2012. Based on recommendations in this report, MIC inaugurated the Wireless LAN Business Promotion Council in January 2013. In addition, the MIC's Study Group on Utilization of Telework and Wi-Fi to Bring out the Potential of Local Areas examined approaches to assisting local governments in tackling the establishment of free public LAN (Wi-Fi) services and published a report in May 2015.

Looking ahead to the 2020 Tokyo Olympic and Paralympic Games, MIC has decided to promote the establishment and raise the convenience of free public wireless LAN services, which are especially in demand from overseas visitors.

(2) Management of IP address domain names

MIC's Study Group on Advanced Internet Use with IPv6 investigated current issues affecting the adoption of IPv6 and corresponding policy measures. The Study Group then verified the progress on the various issues identified in the Third Report, released in December 2011, and sifted through basic ideas for future actions. From this work, it compiled and released the Third Progress Report in July 2012.

The means of managing and administrating domain names, which are fundamental to the way the Internet works, has become an extremely important issue. Consequently, MIC made an inquiry to the Information and Communications Council about information and communications policy approaching to domain names. Based on the Information and Communications Council's December 2014 report, MIC tabled a bill to partially amend the Telecommunications Business Act and other legislation on April 2015 to ensure the reliability and trustworthiness of domain name resolution services. The bill was passed in May 2015.

(3) Assigning three-digit phone numbers to phone support services provided by the government

The government is setting up various phone support services to handle inquiries about various administrative procedures or inquiries from citizens about various problems they face in their daily lives in order to help citizens lead safe, secure lives.

In view of the importance of the government's phone support services and the large role they play in helping citizens lead safe, secure lives, and in view of improving the convenience of citizens and making effective use 1XY phone numbers, MIC made an inquiry in August 2014 to the Information and Communications Council about approaches to using three-digit phone numbers to phone support services provided by the government. The Council's report, which was received in December 2014, laid out a basic policy on assigning 1XY phone numbers and arranged an order of priority for the use 1XY phone numbers. The basic policy consisted of two points: (1) 1XY phone numbers should be used to prevent accidents or incidents even in cases when the circumstances are not urgent enough to warrant an emergency call, and (2) 1XY phone numbers should be used to resolve infringements of citizens' rights that are hindering the smooth conduct of their daily lives.

(4) Ensuring the safety and reliability of telecommunication infrastructure

MIC submitted a bill to amend the Telecommunications Business Act to the 2014 Ordinary Session of the National Diet to arrange provisions to prevent telecommunication accidents, which have become more diverse and complicated with the diversification and sophistication of networks and services. The bill was passed in June 2014.

Given that the application scope of the obligation to maintain technical standards conformity now includes virtual network operators (paid and over a certain size), the IP Network Committee under the Information and Communications Technology Subcommittee, Information and Communications Council, met beginning in July 2014 to carry out a comprehensive revision of the ICT Network Safety and Reliability Standards, which are guidelines on safety and reliability measures for networks taken by telecommunications carriers and other operators. MIC received a partial reply from the Information and Communications Council in January 2015 and revised the standards.

MIC held the Study Group on the Requirements for Quality of 0AB-J IP Phones, given that the Regulatory Reform Council under the Cabinet Office raised, as a topic for examination, revising the quality requirements for 0AB-J IP telephones (IP telephones whose phone numbers have area codes such as 03 or 06). The Study Group investigated (1) requirements demanded by users for 0AB-J IP telephones, (2) quality requirements from the user point of view based on the latest technological advances and other considerations, and (3) the best approach to 0AB-J IP telephone quality requirements given user needs and the latest technological developments that implement stable quality requirements. The Study Group put together a report in December 2014.

2. Consumer affairs administration in relation to telecommunication services

MIC launched the Study Group on the Safety and Security of ICT Services in February 2014 to study measures on issues that are expected to require mid-to-long term systematic measures, with a focus on issues being confronted in the enhancement of consumer protection rules. The Study Group looked specifically at (1) revisions and enhancements to consumer protection rules, (2) approaches to protecting and educating young people who will use ICT to create the 2020s, and (3) addressing issues affecting the development of ICT services (approaches to service fees and other service provision conditions). In response to (2), the Report from the Youth Internet Session Chairman was presented in July 2014 and regarding (1) and (3), the Study Group finalized a report in December 2014 that included recommendations for revisions to the Telecommunications Business Act and other related legislation and promotion of SIM unlocking by carriers. The Study Group is continuing to examine safe and secure usage environments for ICT services.

(1) Correcting sales and solicitation actions for telecommunications services, and revisions and enhancements to consumer protection rules

Study Group on the Safety and Security of ICT Services report recommended the institutionalizing of explanation and delivery of documentation obligations for telecommunications services based on the principle of suitability, the prohibition of misstatements concerning important matters, the introduction of a system for canceling contracts soon after they are made (This system does not apply to devices and other goods sold at stores. What services it will be applied to is still under study.), the prohibition of repeated solicitations, and the systemization of agency supervision. Based on these recommendations, MIC submitted a bill to partially amend the Telecommunications Business Act and other legislation to the 189th session of the National Diet. The bill was passed and promulgated in May 2015. MIC is now moving ahead with preparations for putting the amendments into force.

(2) Initiatives on advertising indications of communication speeds and other service specifications

With the rapid proliferation of smartphones and other devices, MIC has received a mounting number of complaints about service quality, especially about communication speeds where large gaps exist between actual speeds and advertised best effort speeds. Because of a need for reasonable indications of service specifications to allow users to make appropriate service choices, MIC launched the Study Group on Approaches to Internet Service Quality Measurements in November 2013 on the matter of measuring and indicating communication speeds. The Study Group finished its first report in April 2014.

(3) Establishing usage environments for youth

In view of the advancement of Internet use by youth on a global scale, MIC developed the Internet Literacy Assessment indicator for Students (ILAS) based on the opinions and recommendations from experts. ILAS accurately gauges the Internet literacy levels young people need while making adjustments for international developments and trends. The test was given to first-year high school students (approximately 3,700 students) throughout Japan between June and July 2014 and the results of the test were announced in September that year. Among the various Internet literacy skills, the test stresses the ability to cope with dangers and threats on the Internet and the skills needed to judge whether information is appropriate while keeping ethical considerations in mind.

Seeing the tremendous growth of smartphones among youth, and in consideration of the nature of security on smartphones, which is different from security on conventional mobile phones, it is increasingly important to not only raise the literacy of young people but also raise the literacy of their guardians and teachers.

MIC, with the Regional Bureaus of Telecommunications and the Okinawa Office of Telecommunications at the fore, is unfolding comprehensive public awareness activities, such as constructing promotion platforms to unify regional stakeholders and holding briefing sessions. The goal of these activities is to further the establishment of systems in which active stakeholders from all over each region can coordinate and carry out dissemination and public awareness activities to raise the literacy of young people, guardians, and teachers in their respective region.

(4) Handling personal and user information

a. Handling user information in the smartphone age

MIC announced the Smartphone Privacy Initiative II (SPI II) in September 2013, a series of recommendations aiming for the private-sector-led establishment of mechanisms by which third parties verify, on both the operational and technical sides, apps as a means of ensuring that apps handle user information appropriately.

Based on SPI II, MIC set up the Task Force to Promote the Usage and Verification of Smartphone App Privacy Policies in December 2013. The Task Force studied the current state of the creation and display of privacy policies for apps and examined the technical issues needed to be overcome in order to implement third-party verifications. MIC released the results of the Task Force's work as the Smartphone Privacy Outlook (SPO) for FY 2013 and beyond. In FY 2014, the Task Force continued to monitor the state of the creation and display of privacy policies for apps and ran verification tests ahead of building a third-party verification system. The results of this work were announced in April 2015 as the Smartphone Privacy Outlook II (SPO II).

b. Enhancing the handling of location data for public use and application, including business uses

The location data acquired by telecommunications carriers has a high privacy threshold. Therefore, a usage framework must be established to govern the handling of location data as personal information. MIC's Study Group on Handling Location Data During Emergencies has been making the necessary arrangements to promote the public use and application of location data, including business uses, while adequately protecting the confidentiality of communications, personal information, and privacy since November 2013. MIC released the Study Group's findings in July 2014 in the Location Data Privacy Report.

c. Handling personal and user information by ICT services

MIC set up the Working Group on Handling Personal and User Information under the previously mentioned Study Group on the Safety and Security of ICT Service. The purpose of the Working Group, which began its examinations in January 2015, is to look at approaches to handling personal, user, and other information used in conjunction with ICT services. The Working Group released a report in June 2015 summarizing its findings on the revision of the Guidelines for Protection of Personal Information in Telecommunications Business. MIC, based on the report's findings, revised the Guidelines.

Section 3 Developments in Radio Policy

1. Promoting effective radio spectrum use

(1) Studies on how to encourage effective radio spectrum use

MIC is looking to drastically overhaul radio policies to eliminate radio spectrum congestion. MIC held meetings of the Radio Policy Vision Panel starting in January 2014 to have more concrete debates about the desired form of new radio spectrum applications and other matters, and, thus, pave the way to realizing and maintaining the world's leading wireless (mobile) nation. The Panel studied (1) the desired form of new radio spectrum applications, (2) setting new targets and implementation policies for the realization of new radio spectrum applications, and (3) approaches to the industries that support radio spectrum applications. The Panel's final report was released in December 2014.

(2) Establishing digital ICT disaster-management systems

Disaster administration wireless communications and fire prevention, emergency wireless communications-play a critical role for municipalities in determining the extent of disasters and directing emergency aid and life-saving operations. MIC is moving these radio systems that currently use the 150 MHz band and 400 MHz band to digital formats on the 260 MHz band to enable these radio systems, which previously only carried analog voice communications, to communicate much more information, including data transmissions and low-frame-rate video.

2. Radio usage advancement and diversification initiatives

(1) Advancements in mobile communications systems

The Committee on Mobile Phone Advancement, under the Information and Communications Technology Subcommittee, Information and Communications Council, in April 2012 began studying the technical requirements for the introduction of a fourth-generation mobile communications system, given the directions of global technological progress and the requirement for more effective usage of the radio spectrum. MIC received a partial report from the Information and Communications Council in July 2013. Based on this report, MIC began in December 2013 practical system arrangements, such as revising the necessary radio equipment regulations to introduce technology for LTE-Advanced—a fourth-generation mobile communications system that can provide faster communication speeds than 3.9G mobile communications systems (LTE)—on existing mobile phone frequency bands.

MIC also received recommendations from the Radio Policy Vision Panel on combined industry-academic-government efforts to introduce fifth-generation (5G) mobile communications systems. In response, MIC set up the 5G Mobile Communications Advancement Forum in September 2014 to set the direction of 5G R&D and standardization and to promote 5G implementation. Four study groups are now delving into the promotion of international collaborations, R&D and standardization, applications, and 5G network architecture.

(2) Promoting Intelligent Transport Systems

To realize the safe and convenient movement of people and goods, MIC is pursuing initiatives to reduce traffic accidents and resolve traffic congestion with Intelligent Transport Systems (ITS).

From FY 2014 onward, MIC has been identifying and verifying the necessary examination issues for early implementation of driving-assistance systems using the 700 MHz band. The Ministry has also been running demonstration tests to establish the reliability of communications, interconnectivity, and security functionality so that actual applications will function properly. It also launched the Information Security Advisory Board ITS Security Study Group in February 2014 to obtain more specialized recommendations on information security for driving-assistance systems using the 700 MHz band.

(3) Advancements in disaster-management radio

Disaster administration wireless communications (Simultaneous Broadcast) are an important means of conveying information from disaster-management administration to evacuation sites, disaster-management bases, and homes. Digital formats that enable interactive communications and data communications are being introduced for these wireless systems to make it possible to address diverse information provision needs, such as collecting disaster information via images, exchanging information with evacuation sites, and notifying information from disaster-management administration via text displays. Digital formats are also being introduced for mobile disaster prevention unit, in addition to the previous analog format, that will make it possible to communicate data and images as well as voice.

3. Establishing radio usage environments

(1) Promoting policies to counter bioelectromagnetic environmental issues

MIC issued an inquiry to the Information and Communications Council in December 2013 on ways to fashion electromagnetic protection guidelines that are required as safety standards on the strength of electromagnetic signals in the Radio Act and ordinances. The Radio Wave Utilization Environment Committee studied approaches to electromagnetic protection guidelines for low frequencies (10 kHz to 10 MHz) from January 2014 to February 2015. The Information and Communications Council provided a partial report in March 2015.

There has been continued growth, in recent years, of implantable medical devices, such as artificial cardiac pacemakers, and medical devices that provide patients with the equivalent treatment of implantable medical devices, such as portable infusion pumps, that are always connected to the patient. Consequently, the Study Group on the Impact of Radio Signals on Medical Devices, set up in FY 2014, measured the impact of mobile phones (W-CDMA format) on these medical devices using actual devices.

(2) Promoting policies to counter electromagnetic interference

The Radio Wave Utilization Environment Committee, established under the Information and Communications Technology Subcommittee, Information and Communications Council, surveys and studies policies to counter electromagnetic interference caused by unnecessary radio waves. MIC contributes to debates on international standards at CISPR (Comité International Spécial des Perturbations Radioélectriques) and works, through the promotion of domestic standardization initiatives and other activities, to prevent unnecessary radio waves from interfering with radio communications systems and causing problems with electrical and electronic devices.

The need for wireless power transmission systems that rely on wireless technologies has been mounting in recent years with the move toward smart communities and a sustainable car culture that will address global energy issues. Wireless power transmission systems will make it possible to quickly and easily recharge home electronic devices and electric vehicles. However, its implementation requires due consideration of the impact on society when such systems interfere with other wireless devices and of ensuring the health and safety of people.

To this end, MIC set up the Wireless Power Transmission Working Party under the Radio Wave Utilization Environment Committee, which is part of the Information and Communications Technology Subcommittee, Information and Communications Council, in June 2013. Of the wireless power transmission systems it is reviewing, the Working Party produced a partial report in January 2015 on technical requirements for inductive-coupling wireless power transmission systems that use the 6 MHz band and capacitive-coupling wireless power transmission systems that use the 400 kHz band.

(3) Ensuring the reliability of radio devices

Modular and chip-based radio devices are increasingly available, driven by technological advances in recent years, and numerous products, such as robot vacuum cleaners, are manufactured and sold with embedded radio devices that have been certified to conform to technical standards. The issue is that the technical standards compliance mark, indicating the modular device has been certified to conform to technical standards, is affixed to the modular device and not to the product that contains the modular device. Therefore, users cannot directly verify the technical standards compliance mark.

In light of this situation, MIC submitted a bill to partially amend the Radio Act to the National Diet in February 2014. The bill included (1) provisions permitting the reprinting of technical standards compliance marks on products and (2) provisions pertaining to the repair of mobile phones and other wireless devices by third parties that permit repair businesses registered with the Minister for Internal Affairs and Communications to self-verify the correctness of repairs and display a mark indicating conformance with technical standards. The bill was passed in April 2014.

MIC arranged the relevant ministerial ordinances in February 2015, which went into force on April 1, 2015, for the introduction of a registered repair business system. Under the system, when it is verified that devices repaired following the applicable repair methods and repair system by a repair business remain in compliance with technical standards established by MIC ordinances, the repair business can be registered with the Minister for Internal Affairs and Communications.

(4) Preventing radio interference and obstruction

Amid the expanding use of the radio spectrum, it is an increasingly important task to maintain a favorable radio spectrum usage environment by eliminating radio inter-

ference and obstruction. Therefore, in addition to monitoring radio waves and eliminating radio interference and obstruction, MIC is strengthening efforts to deal with devices that could cause radio interference and obstruction.

Section 4 Developments in Broadcasting Policy

1. Encouraging distribution of broadcast content

(1) Encouraging overseas expansion of broadcast content

The overseas expansion of broadcast content goes beyond just exporting broadcast programs; Japanese broadcast content is expected to have large ripple effects in terms of creating a favorable impression of Japanese products and services and increasing overseas visitors to Japan.

The Broadcast Program Export Association of Japan (BEAJ) was established in August 2013. With a broad range of participating stakeholders, including broadcasters, rights organizations, trading companies, and ad agencies, BEAJ is a joint public-private cross-industry organization that supports the overseas expansion of broadcast content.

A critical issue for broadcast content is smoothly obtaining consent from the many rights holders involved with broadcast content to clear the way for overseas expansion. The Audiovisual Rights Management Association (aRma) was established as a centralized rights clearinghouse. aRma started managing copyrights and distributing usage fees in April 2015.

(2) Proper production and trade of broadcast content

MIC established the Guidelines for Proper Production and trade of Broadcast Content in February 2009. The aim of the Guidelines is to improve business practices that discourage creativity, imagination, and incentives among program production houses involved in the production of broadcast content and, thereby, better the entire industry involved in program production.

2. Advancements in broadcast services

MIC held meetings of the Study Group on the Advancement of Broadcast Services to study specific policies on further technical advances in broadcast services. The Study Group examined three areas—4K and 8K ultra-high-definition television smart TVs, and cable platforms—and finalized a report in June 2013.

(1) 4K and 8K

The Study Group published a roadmap aiming to start experimental 4K broadcasts by 2014 and experimental 8K broadcasts by 2016. The Next-Generation Broadcasting Promotion Forum, consisting of broadcasters, receiver manufacturers, carriers, and other stakeholders, was established in May 2013 in line with this roadmap and has been the central player in promoting verifications of transmission technologies and examinations of content production technologies for the early rollout of 4K and 8K broadcast services. In view of the changing conditions since the roadmap's publication, MIC launched the Follow-up Meeting on the 4K/8K Roadmap in February 2014, which aims to further examinations of specific policy measures to further realize and accelerate the roadmap and to resolve issues with the roadmap. The Follow-up Meeting released an interim report (new roadmap) in September 2014.

(2) Smart TVs

It was pointed out that a promotional framework was needed to protect the safety and security of viewers and to establish conditions for open development in order to promote next-generation smart TVs, which are differentiated from smart TVs to date in that they enable new broadcast and communications-linked services. A promotional framework is also needed to generate new business models and stimulate the market. In July 2013, the IPTV Forum set up the Advanced Smart Television Promotion Center to act as this promotional framework.

(3) Cable platforms

Cable television is a key general-purpose ICT media for local regions with subscribers surpassing a majority (about 28 million) of the nation's households. Nevertheless, more advanced and efficient cable television services are required amid the increasing competition, both domestically and abroad, in the video distribution and related fields. Based on the conclusions of a study group, the Japan Cable and Telecommunications Association has, since FY 2013, led efforts to implement and expand shared cable platforms for cable television.

3. Strengthening the disaster resilience of broadcast networks

In the wake of the Great East Japan Earthquake, radio broadcasts were recognized as being particularly useful during disasters. At the same time, it was also clear that better disaster-protection measures were required for medium-frequency (AM radio) transmission stations located in low-lying lands and coastal areas.

In light of this situation, MIC held meetings of the Study Group on the Enhancement of Broadcasting Networks starting in February 2013 to study how to make broadcast networks more resilient to disasters so that

they can provide proper information about disasters to citizens. The Study Group put together and released an interim report in July 2013.

To support the efforts of broadcasters and local governments aiming to strengthen the disaster resilience of broadcast networks, MIC established the Tax Program for Promoting Disaster-Resilience Measures for Broadcast Networks in FY 2014 and continued the Assistance Program for Broadcast Network Establishment under the FY 2013 supplementary budget. MIC also implemented the Assistance Program to Eliminate Poor Reception Areas for Commercial Radio, making use of funds from radio spectrum usage fees.

4. Developing new broadcast media in empty frequency bands

With the switchover from analog to digital terrestrial TV broadcasts, several frequency bands became available after the termination of analog terrestrial TV broadcasts and the reorganization of digital broadcast channels. MIC is looking to make effective use of these frequencies, such as assigning mobile phones and other devices to the empty frequency bands.

5. Ensuring the safety and reliability of broadcast infrastructure

MIC has developed rules concerning technical standards, major incidents subject to reporting, and other matters based on a partial response from the Information and Communications Council, in keeping with the enforcement of the June 2011 revised Broadcast Act. Based on these rules, MIC is now taking proactive measures, such as mandating broadcasters to maintain broadcasting equipment correctly and requiring them to thoroughly investigate the causes of any serious accidents and take effective steps to prevent reoccurrence.

6. Various issues concerning broadcasting policy

MIC held meetings of the Study Group on Enhancing the Overseas Distribution of Information by NHK starting in August 2014. The Study Group examined how to enhance the distribution of information about Japan overseas coupled with implementation frameworks to further enhance international TV broadcasts (NHK World TV) for people overseas, funding sources, and overseas expansion efforts for broadcast content, in the interest of increasing Japan's presence and further broaden understanding of Japan's attractions and philosophy. The Study Group put together an interim report in January 2015.

Another issue is eliminating areas where households cannot view digital broadcasts, which has emerged with the switchover from analog to digital terrestrial TV broadcasts. The Association for Promotion of Digital Broadcasting, consisting of MIC and broadcasters, has implemented various measures led by MIC's TV Reception Support Center (DigiSupo), such as erecting high-performance antennas and installing community reception facilities. It also started satellite broadcasts in March 2010 to cover areas of poor digital reception as a temporary measure until measures to eliminate areas of poor digital reception have been completed. Since the measures to eliminate areas of poor digital reception were finally completed on March 31, 2015, the satellite broadcasts to cover areas of poor digital reception were terminated on the same date.

Section 5 Handling Disputes between Businesses in the Information and Communications Field

(1) Overview of the Telecommunications Dispute Settlement Commission

The Telecommunications Dispute Settlement Commission is a specialized organization for quickly and fairly handling increasingly diverse conflicts in the telecom field. The Commission has three functions: (1) performing mediation and arbitration to resolve conflicts between carriers and other businesses; (2) deliberating on and issuing reports in response to inquiries from the Minister for Internal Affairs and Communications when an order or ruling is to be issued; (3) giving recommendations to the Minister for Internal Affairs and Communications on improvements to competition rules or other matters as part of its mediation, arbitration, and inquiry responses.

(2) Negotiation orders and rulings by the Minister for Internal Affairs and Communications

In the telecom field, when negotiations between telecom businesses fall apart on matters such as interconnection of telecommunications equipment, a telecom business, based on the provisions of the Telecommunications Business Act, may apply to the Minister for Internal Affairs and Communications to issue an order to start or resume negotiations or to make a ruling on the matter. Also, in the broadcast field, if negotiations between terrestrial TV broadcasters and cable TV operators or other businesses fall apart on matters such as rebroadcast agreements, the cable TV operator or other business may apply to the Minister for Internal Affairs and Communications to make a ruling on the matter.

Section 6 Promoting ICT Use and Application

1. Promoting ICT applications in education, medicine, and other fields

(1) Promoting ICT use and application in the education field

MIC ran the Future School Promotion Project from FY 2010 to FY 2013 to promote ICT use and application in the education field and identify and analyze issues centered on information and communications technology.

The Project identified and analyzed issues centered on information and communications technology in cooperation with the Ministry of Education, Culture, Sports, Science and Technology's Learning Innovation Project. At the conclusion of the Project, MIC put together and announced, in April 2014, the 2014 Guidelines (Guidebook) on Information and Communications Technology to Promote Use and Application of ICT in the Field of Education.

The ICT Dream School Council, first launched in June 2014, has examined approaches to future education and learning environments that use and apply ICT, as a direction for ICT use and application in the education field, methods of popularizing the environments, and the development of new businesses. The Council issued an interim report in April 2015 that became the MIC's policy on promotional measures for ICT use and application in the education field.

(2) Promoting ICT use and application in medical, nursing, and health fields

a. Nationwide expansion of medical and nursing information coordination networks

Medical information coordination networks make it possible to safely and smoothly record, store, and view medical and health information on patients and citizens held by medical institutions. Medical information coordination networks will reduce the workloads of patients and medical institutions as well as contribute to the stable provision of regional medical care, better quality of medical care, and fairness in medical expenses.

MIC conducted demonstrations of information coordination using cloud and other technologies at medical institutions, including the home healthcare and nursing fields, to realize high-quality inexpensive medical care and nursing services.

b. Establishment of ICT health models

As Japan faces a super-aged society, we need to realize a society in which citizens can obtain the services they need when they need them at appropriate costs, while responding to the aging population, the changes in the types of illnesses, and the increase in medical care and nursing needs. At the same time, we must ensure sustainability of our social security system.

MIC, in FY 2014, demonstrated health promotion models that use ICT and verified that it raised people's consciousness about health using incentives.

c. Tohoku Regional Medical Information Coordination Platform Construction Project

The importance of medical information coordination networks gained prominence in the wake of the Great East Japan Earthquake. In view of this, MIC has taken steps since FY 2011 to provide financial assistance for the construction medical information coordination networks in medical zones in the areas affected by the Great East Japan Earthquake.

2. Regional development using information and communications infrastructure

(1) Promoting the widespread adoption of ICT best practices that help resolve regional issues

Individual regions are making various efforts to resolve the many issues Japan faces (such as a declining population, a falling birthrate and aging population, insufficient health practitioners, disaster preparedness, and decaying regional economies). MIC has decided to award prizes to cutting-edge examples of ICT use and application submitted by local regions that contribute to the revitalization of local economies. The goal of the awards is to promote the widespread adoption of ICT best practices that help resolve regional issues.

MIC received a total of 94 entries during October and November 2014. A committee of experts selected entries that contribute to revitalize local economies for the Local Computerization Awards.

(2) Establishing support systems through the deployment of ICT experts directed at regional stimulation

MIC has been conducting initiatives to build up local economies and communities by making use of ICT since 2007. Activities include sending Regional ICT Advisors—experts with knowledge and insight into regional ICT development—to regions motivated to tackle regional stimulation through ICT, providing assistance to build success models, and propagating the results of these efforts nationwide.

3. Promoting the use of open data

(1) Establishing conditions for open data distribution

There has been a recent trend toward open government to increase transparency and promote citizen participation and cooperation with citizens. As part of this, there is increasing interest in open data—i.e., the promotion of the use of public data.

The Japanese government has been beefing up open data measures, such as beginning full-fledged operations of the government's data catalog site, data. go. jp, in October 2014. MIC, for its part, is taking a three-pronged approach: (1) open data demonstration experiments; (2) collaborating with the Vitalizing Local Economy Organization by Open Data & Big Data; and (3) conversion of MIC-owned data to open data.

(2) Conversion of MIC-owned data to open data

MIC released the Information and Communications in Japan White Paper/Information and Communications Statistics databases as open data in April 2013 as a test case of converting information held by administration bodies to open data. And MIC's Statistics Bureau, a core government statistics organization, in partnership with the National Statistics Center, is updating its provision methods of enormous and diverse statistical data records for the next generation, making efforts to enable sophisticated data usage, and spearheading government initiatives promoting open data.

4. Promoting cyber security policy

(1) Examinations of plans for cyber security policy

MIC set up the Information Security Advisory Board, composed of security experts, in February 2013 to effectively address cyber security issues in the interest of ensuring safe and secure ICT networks. Based on the Act on Basic Cyber Security, established in November 2014, the Board examined issues MIC and other agencies should tackle. The Board, in May 2015, issued Recommendations on the Advancement of Cyber Security Policy, which called for the education of pragmatic security personnel through bolstering information-sharing frameworks and implementing exercises in view of the coming full-fledged IoT society.

(2) Strengthening cyber security policy

New cyber threats, such as attacks targeting specific government administration offices or large enterprises, are quickly growing in sophistication and complexity. The damages and losses from these attacks, such as disclosures of confidential information, have mushroomed.

Since FY 2013, MIC has run CYDER (the CYber Defense Exercise with Recurrence), a hands-on cyber defense exercise that uses a large computer environment to simulate networks in an organization with thousands of employees. CYDER's purpose is to improve the cyber attack response skills of LAN administrators at government administration offices and large enterprises.

With the dissemination of ICT into all areas of citizen's social and economic activities, attacks targeting these cyber spaces have become a huge public threat. To address the current state of affairs where it is difficult for users to detect and correct malware infections on their own, MIC, in partnership with the Telecom Information Sharing and Analysis Center Japan (Telecom-ISAC Japan), which is composed of Internet service providers (ISPs), and security vendors, has been involved with ACTIVE (the Advanced Cyber Threats response InitiatiVE) since FY 2013. ACTIVE is a joint public-private project that prevents and eradicates Internet users' malware infections.

Machine-to-machine (M2M) communications are predicted to multiple rapidly in the coming years, due to the IoT society, in which all kinds of devices are connected to networks, becoming mainstream. Consequently, ensuring the security of M2M communications is a pressing issue. MIC, in response, has been developing and testing cyber security technologies that ensure the security of M2M communications since FY 2015.

At the same time, since cyber space is global in nature, cooperation with other countries is essential to establish meaningful cyber security. MIC is advancing ties with a number of countries based on specific research projects. One of these projects is PRACTICE (the Proactive Response Against Cyber-attacks Through International Collaborative Exchange), a research project into technologies that provide early detection of signs of a cyber attack and initiate responses. The project is an international collaboration, involving Western countries and ASEAN nations.

5. Establishing barrier-free information environments

MIC is moving forward with several initiatives that aim to establish barrier-free information environments so that everyone, including older people and people with physical and mental challenges, can make use of ICT and enjoy its benefits. Some of the initiatives include promoting ICT use and application by people with challenges, encouraging more broadcasts for visually and aurally challenged people, and advocating for universal usage environments.

6. ICT contributions to resolving global environmental problems

In the areas of Green of ICT and Green by ICT, MIC is surveying and analyzing the latest technological developments worldwide, establishing best-practice models for CO_2 emissions reductions and methods of evaluating the effects of emissions reductions, and pushing for international standardization on ICT and climate change.

In May 2013, proposals submitted by Japan were incorporated in the deliverables of working groups belonging to the ITU-T's Focus Group on Smart Sustainable Cities (FG-SSC). Japan will continue to press for

international standardization based on outcomes from leading domestic initiatives as well as strive to extend these international standards at home.

7. Developing ICT personnel

(1) Developing highly skilled ICT personnel

MIC ran the Advanced ICT Human Resources Training Program Development Project for three years from FY 2011. The Project promoted the training and development of personnel with the skills and knowledge to use and apply ICT at advanced levels and to plan and implement corporate and organization ICT strategies.

(2) Raising ICT literacy

MIC is taking actions for the safe and secure use of the Internet by children. The Ministry runs e-Net Caravans, a series of rotating lectures given across the country to guardians, teachers, and juvenile students. Additionally, it develops and disseminates teaching materials and other resources tailored to the characteristics of different media formats to encourage the sound use of media by children.

8. Developing cloud services

(1) Activities of the Japan Cloud Consortium

The Japan Cloud Consortium, a private organization, was established in December 2010 in order for industry, academia, and government to cooperate effectively and harness their collective capabilities in promoting the growth of cloud services. The Consortium, consisting of more than 350 companies and organizations as of May 2015, is involved in sharing information and putting out information on cloud services centered on the FY 2015 keywords of "regions," "SMEs," and "user enterprises."

(2) Boosting productivity with ICT

In addition to being a resource-starved country with a declining birth rate and an aging population, Japan faces the urgent challenge of stimulating economic growth. For these reasons, we need to leverage our world-leading broadband infrastructure and work actively to raise productivity through the application of ICT. To this end, MIC, in cooperation with related ministries, agencies, municipalities, and other bodies, is implementing initiatives to support the business activities of SMEs, venture companies, and other firms in the ICT field.

Section 7 Promoting ICT Research and Development

1. Promoting research and development strategies

MIC is working to promote research and development following the Fourth Science and Technology Basic Plan (decided by the Cabinet in August 2011), which is Japan's basic policy for science and technology.

The National Institute of Information and Communications Technology (NICT) is promoting efficient and effective research and development in four priority fields—base network technology, base technologies for universal communications, future base ICT technologies, and base electromagnetic sensing technology—during the third mid-term target period over five years starting in FY 2011. The priorities were selected in consideration of the government's overall science and technology and the current circumstances surrounding the information and communications field.

2. Enhancing and enriching research and development that will drive the next generation

(1) Research and development into multilingual communications technology

With the announcement of the Global Communications Plan in April 2014, MIC is aiming to make practical global exchanges free of the world's language barriers by implementing multilingual voice-based translation systems. To this end, MIC has started R&D to expand the application scope and languages of the multilingual voice-based translation technology developed by NICT as well as demonstrate various applications at hospitals, commercial establishments, sightseeing spots, and other public locations through industry-academic-government partnerships.

(2) Establishing base network technologies for the big data age

MIC has started research and development into network virtualization technology that has sufficient functional and performance levels to meet the demands of telecom carrier networks, as a move toward realizing fast, efficient network controls that can handle future service diversification and widespread cloud development.

(3) Ongoing construction and operation of the Japan Gigabit Network eXtreme (JGN-X), a new-generation communication network testbed

NICT is currently conducting numerous research and

development projects using JGN-X with the aim of establishing base system technologies for new-generation networks through testing and evaluations. NICT will encourage the use of JGN-X as a technology proving ground for new-generation network and other technologies.

(4) Boosting competitive funding

Competitive funding refers to research and development funds allocated to researchers under a competitive system that solicits a wide range of research and development proposals. Proposals that should be implemented are selected based on assessments by experts and other evaluators.

The Strategic Information and Communications R&D Promotion Programme (SCOPE) is a competitive funding program for research and development projects in the ICT field that MIC implements. Under SCOPE, research and development themes with originality and novelty are undertaken in order to attain the strategic, priority research and development targets set by MIC.

(5) ICT policy for generating and sustaining innovation

a. ICT Innovation Creation Challenge Program

The ICT Innovation Creation Challenge Program (I-Challenge!) was launched in FY 2014 to stimulate made-in-Japan innovation in the ICT field. I-Challenge! is a research and development program, which accepts submissions anytime, that supports new business domain ventures by unifying research and development support and venture incubation support, making use of the private sector's commercialization expertise and know-how.

MIC has also instituted the Innovation Program, which aims to discover creative talent in the ICT field where existing value and accepted practices do not necessary apply. The Program provides assistance to creative people who are taking on risky challenges with great potential and sets ambitious targets. Under the Program, challenges using revolutionary approaches and productive failures that clarify the path to eventual success are highly regarded.

3. Contributing to green innovation and life innovation

(1) ICT research and development and standardization for smart grids

MIC is engaged in research and development and standardization for smart grids from the standpoint of ICT toward the realization of energy management at the regional level. MIC is involved specifically with ICT and other research and development to enable highly accurate, highly reliable optimized control of energy usage in individual buildings. MIC is also active in standardization proposals for smart grid communications architecture at the ITU-U based on the outcomes of this research.

(2) Research and development into photonic network technology

NICT is researching and developing the base technologies to make possible fast, high-capacity, low-power networks (all-optical networks) with all signal transmissions and conversions done optically.

(3) Research and development creating innovation using brain mechanisms

MIC and NICT are researching and developing technology that, using brain mechanisms, will communicate, via networks, people's thoughts about the simple movements and emotions needed to perform actions and communicate intentions in daily life to devices that assist mobility and communications. At the same time, MIC and NICT are running social studies on the ethics and safety of this technology.

4. Research and development programs promoting international collaborations in the ICT field

(1) Strategic international joint research in cooperation with foreign governments

MIC, in partnership with the European Commission, supports R&D funding for joint research proposals from universities, private corporations, and other research institutions in Japan and Europe. Since FY 2013, MIC has been sponsoring international joint research in three areas: optical communications, wireless communications, and information security. And since FY 2014, MIC has been sponsoring international joint research in two further areas: big data and optical communications.

(2) Promoting international research with JGN-X

JGN-X is connected with overseas research institutions in the United States, Asia, and elsewhere to promote global collaborations. JGN-X is also used to promote collaborations in strategic joint international research and demonstration projects.

(3) Promoting international exchanges between researchers

NICT runs the International Exchange Program, which facilitates exchanges between researchers in different countries working in advanced communications and broadcasting fields. The Program promotes the sharing of the latest technology and research information, elevating technology levels, and developing human resources as well as contributes to furthering research and development and international cooperation.

5. Contributing to more resilient public infrastructure

(1) Strengthening the disaster resilience of communications and broadcast infrastructure

Based on experiences from the Great East Japan Earthquake, MIC has been pursuing research and development policies toward realizing highly disaster-tolerant ICT since FY 2011. In addition the Ministry has been promoting the dissemination of these R&D outcomes through industry-academic-government collaborative platforms, such as the Resilient ICT Research Council, which includes MIC and private corporations, and the NICT's Resilient ICT Research Center.

(2) Managing and maintaining public infrastructure with ICT

MIC is pushing research and development and international standardization in the area of highly reliable, low-power communications technology that will gather and transmit data on seismic strains, vibrations, and other phenomena measured with sensors in order to make it possible to manage and maintain public infrastructure efficiently and effectively using sensors and other forms of ICT.

6. Other research and development programs

(1) Base technologies for universal communications

NICT researching and developing multilingual communications technology, base technology for content and services, and super realistic communications technology in order to create communications technologies that truly work in harmony with people, to improve the convenience of citizens' lives, and to help construct an affluent and reassuring society.

(2) Future base ICT technologies

MIC and NICT are researching and developing base ICT technologies that apply new principles and functions with the aim of increasing the capacity and improving the safety of communications networks. NICT is researching and developing quantum ICT technology, nano ICT technology, and base electromagnetic sensing technology. MIC and NICT together are researching and developing ultra-high-frequency ICT technologies.

Section 8 Promoting International Strategies for ICT

1. Priority promotion themes for international policy

(1) Promoting overseas deployment of Japanese ICT

In the broadcasting field, the government and private sector are working together to further adoption of the Japanese ISDB-T standard for terrestrial digital TV in other countries in partnership with Brazil, which adopted the standard in 2006. As of May 2015, a total of 17 countries in Central and South America, Asia, and Africa have decided to adopt the Japanese standard.

In countries around the world, there is growing interest in disaster preparedness, as the occurrence of natural disasters globally have risen significantly in the last 30 years. MIC is promoting the international expansion of Japan's disaster-response and disaster-preparedness ICT systems, which collect, analyze, and distribute information on disasters using ICT and, thereby, make it possible to implement efficient and effective disaster responses. The Ministry has produced results in Asia and in Central and South America through policy dialogs in discussing collaborative plans and projects with partner countries, feasibility studies and pilot projects that verify the adaptability of disaster-preparedness ICT solutions in the local regions, and HR development seminars to train disaster-preparedness ICT officials in each country.

(2) Developing an environment for ICT overseas deployment and developing an environment for smooth distribution of information

MIC stresses two points in constructing international rules for cyber space: (1) the maximum regard must be given to the freedom to distribute information not only to sustain democracy but also because information is the engine of economic growth and the source of innovation, and (2) the participation of the private sector, including private enterprises and civil society who actually use the Internet in their activities and manage networks, (multistakeholder framework) is essential to ensure adequate cyber security. From this perspective, MIC actively participates in debates at bilateral and multilateral meetings.

MIC received a final report from the Information and Communications Council in July 2012 on international standardization. The report recommended that standardization be made a priority field and laid out a strategic standardization roadmap that explained the necessity for standardization in each field and set out specific achievement targets. The map indicated that the most pressing standardization needs were in the smart grid, digital signage, and next-generation browser areas and that mid-to-long terms needs were in new-generation networks (including new-generation wireless networks). Following the recommendations in the final report, MIC is advancing strategic international standardization activities in order to improve convenience for consumers and users and to strengthen the international competitiveness of industry.

2. Initiatives in international frameworks

(1) Promoting international policy under multilateral frameworks

a. Asia-Pacific Economic Cooperation (APEC)

At APEC, MIC has served as the chair of the Liberalisation Steering Group beginning from the 48th APEC-TEL meeting in September 2013. While serving and contributing as the chair, MIC has been presenting Japan's ICT policies and actively pushing forward ICT-related activities at APEC, such as advocating that universal broadband access be set as a shared goal for APEC member economies.

b. Asia-Pacific Telecommunity (APT)

The APT promotes human resources development through training courses and seminars and coordinates regional policies on standardization and wireless communications in order to develop information and telecommunications infrastructure in the Asia-Pacific region in a balanced manner.

MIC, using Japan's Extra budgetary Contributions, has accepted trainees in the ICT fields that are Japan's forte and assisted exchanges between ICT engineers and researchers. MIC will continue to make contributions on behalf of Japan in view of the importance of APT's activities.

c. Association of Southeast Asian Nations (ASEAN)

Japan, as a dialogue partner country of ASEAN, promotes cooperation through Japan-ASEAN Summit Meetings, Japan-ASEAN Telecommunications and Information Technology (IT) Ministers Meetings, and other venues.

d. International Telecommunication Union (ITU)

The ITU carries out many activities including allocating frequencies, standardizing telecommunications technology, and aiding development in the telecommunications field in developing countries. Japan is an active contributor to ITU, obtaining chair and vice-chair positions in study groups in many different fields, taking leadership posts for various research topics, and making recommendations and proposals.

e. United Nations

The United Nations generally holds discussions pertaining to the Internet at the UN General Assembly First Committee, the UN General Assembly Second Committee, and the Economic and Social Council.

f. World Trade Organization's Doha Round of negotiations

The telecommunications field is one of the most important trade-in-services fields at the Doha Round of negotiations at the World Trade Organization (WTO). Active negotiations are ongoing on further deregulation in the telecommunications field. Japan's telecommunications sector is one of the most deregulated in the WTO. As such, Japan is pushing other countries to eliminate or relax foreign capital regulations and other restrictions in the telecommunications sector.

g. Organisation for Economic Co-operation and Development (OECD)

Japan made a proposal that became The Protection of Children Online project, and the OECD recommendation on this project was adopted in February 2012. A revised edition of the OECD Privacy Guidelines was adopted in July 2013, and revisions are currently being made to the OECD Security Guidelines. Furthermore, MIC, in partnership with the OECD, held the Global Forum on the Knowledge Economy in Tokyo in October 2014. The Forum's themes included promoting a data-driven economy and innovation in order to realize resilient societies.

(2) International policy developments in bilateral relations

Japan seeks to exchange thoughts and ideas on a broad range of policy issues related to the Internet economy and to promote reaching a common understanding of development in the ICT field and form concrete collaborations on global issues. In this regard, Japan has been exchanging opinions with the United States about a broad range of policy issues through the "U.S.-Japan Policy Cooperation Dialogue on the Internet Economy" since the first session of the dialogue in November 2010. Japan also holds policy consultations on information and communications with European ministries and agencies in charge of information and communications and cooperates in the ICT field with Asian ministries and agencies in charge of information and communications.

Section 9 Promoting ICT Applications in Government Services, Firefighting, and Disaster Preparedness

1. Promoting e-government

To advance information collaborations at the local government level, MIC is promoting the widespread adoption of regional information platforms. The Ministry is establishing and organizing reference operational flows for local governments in rural areas when they begin using information platforms to collaborate with other local administrative bodies once the social security and taxation number system is in place.

2. Promoting e-local government

MIC announced the Ten Guidelines to Accelerate E-Local Government Initiatives in March 2014. The Guide-

lines called for: (1) taking the opportunity presented by the social security and taxation number system's introduction to make information systems more efficient, starting with deploying cloud-based local government services; (2) working to improve the convenience for residents through the use and application of open data and other new forms of ICT; and (3) establishing systems to promote e-local government, such as ensuring the security of systems and constructing PDCA cycles. In November 2014, MIC launched the Follow-up Study Group on the Ten Guidelines to Accelerate E-Local Government Initiatives, consisting of experts in the field and officials from local governments.

(1) Constructing local government ICT infrastructure that is resilient against disasters and accidents

a. Promoting the Local Government Cloud

The Local Government Cloud is an initiative that enables local governments in rural areas to make use, via networks, of system hardware, software, and data that are managed and operated at an external data center. This saves local governments in rural areas from having to manage and operate system hardware, software, and data at their own offices. MIC has several initiatives to help deploy the Local Government Cloud nationwide, including regional financial measures and research and studies on the introduction of the Local Government Cloud.

b. Promoting business continuity and ensuring information security

Considering the lessons of the Great East Japan Earthquake, MIC released an initial version sample of the Business Continuity Plans for ICT Units in Local Governments (ICT-BCP) in order to ensure the fluid execution of emergency response operations by preparing ICT units for crises. The plans focus on initial-response operations during the first 72 hours or so after the occurrence of a disaster.

In FY 2014, the Ministry revised and released the Guidelines on Information Security Policies for Local Governments, given the changing social landscape including the increasing sophistication and diversity of information security threats, the advancement of cloud technology, and the proliferation of social media.

(2) Enhancing infrastructure to achieve citizen-centered e-government and more efficient administrative procedures

a. Application of the Basic Resident Registration Network System

The Basic Resident Registration Network System is a local government system that networks basic resident registries. The system enables the provision of personal identification records (name, address, date of birth, gender, resident register code, and update information) to government institutions and the administrative processing of basic resident registers between municipal boundaries.

The number of personal identification records provided from the Resident Registration Network System to government institutions has been increasing year by year, reaching approximately 559 million items in FY 2013. This growth is due to the start in FY 2011 of the provision of personal identification records to allow the elimination of change of address and other notifications by pensioners.

b. Public Certification Service for Individuals provided by local governments

Applications and procedures that can be done with the Public Certification Service for Individuals include filing tax returns and property registrations. As of April 1, 2015, the Public Certification System for Individuals was being used for procedures from 10 government ministries and agencies, 47 prefectural governments, and some municipalities. It is necessary to promote the early and voluntary adoption of the Public Certification System for Individuals and to develop and entrench it as the authentication platform for many other online procedures.

3. Promoting online national census

The national census is the country's most fundamental statistical study that covers all people residing in Japan. It has been performed every five years since 1920. For the 2015 national census, given the advances in ICT, an online version of the census is being rolled out nationwide in the interest of reducing the burden on citizens and improving the convenience of the census as well as producing accurate statistics more efficiently. To promote usage of the online census, a period will be set for answering the census on the Internet before distributing the paper census. After this period, the paper census will be distributed to only those households that did not reply online. (Thereby, putting priority on the online census). A smartphone version of the online census will also be constructed.

4. Promoting ICT applications in the fire, safety, and disaster preparedness field

(1) Establishing resilient fire, safety, and disaster preparedness communication networks

Currently, five major communications networks that will make up the fire, safety, and disaster preparedness communication networks connecting the national government, the Fire and Disaster Management Agency, local governments, and residents have been constructed. The five networks are: (1) a central disaster administration wireless network for collecting and transmitting information within government; (2) a fire-prevention and disaster wireless network that connects the Fire and Disaster Management Agency and prefectural governments; (3) prefectural disaster administration wireless networks that connect prefectures with municipalities;

(4) municipal disaster administration wireless networks that connect municipalities with residents; and (5) a satellite communications network that connects the national government with municipalities and municipalities with each other.

(2) Deploying mobile communications equipment for disaster responses

MIC has lent out mobile communication equipment for disaster responses (300 satellite phones, 280 MCA radios, and 1,500 convenience radios have been deployed to Regional Bureaus of Telecommunications nationwide) in response to requests from local governments and other agencies to ensure they have communications in disaster-affected zones even when mobile phones and other forms of communication are lost.

(3) Establishing national early-warning system (J-ALERT)

MIC's Fire and Disaster Management Agency is establishing J-ALERT, a national early-warning system that instantly communicates emergency information to residents. Using J-ALERT satellites, the national government (from the Cabinet Secretariat or Meteorological Agency via the Fire and Disaster Management Agency) communicates tsunami warnings, earthquake early warnings, ballistic missile launch notices, and other information that requires immediate action. J-ALERT also automatically activates municipal (broadcast) disaster-management administration radio systems.

(4) Deploying mobile communication equipment for disaster responses

MIC started the G-Space City Construction Project to encourage the use and application of geospatial information (G-Space information) though ICT and to bolster disaster-response abilities and stimulate local regions. In July 2014, MIC selected 10 pilot projects as world-leading G-space disaster-response models.

MIC is also tackling the nationwide expansion of L Alert (a disaster-information sharing system) as a shared platform connecting local governments and lifeline operators that publish public information with broadcasters and communications carriers that transmit public information. L Alert is hoped to be a shared platform both during times of disasters and during the reconstruction period.

Section 10 Developments in Postal Service Administration

1. Promoting postal service administration

The Act for Partial Revision of the Postal Service Privatization Act (Law No. 30 of 2012), which was promulgated on May 8, 2012, has expanded the scope of universal service, which had been limited to postal mail service, to cover basic savings and insurance services. The revision also mandated that the three postal businesses (postal mail service, savings, and insurance services) all be made available at post offices to improve user convenience. MIC, while ensuring the universality of the postal business, is progressing steadily with Japan Post privatization in a way that citizens can appreciate the benefits of privatization.

2. Promoting postal service administration in the international field

(1) Relations with the Universal Postal Union (UPU)

The 25th UPU Congress held in Doha, Qatar, in September and October 2012, adopted several documents stipulating rules for international post and other matters (UPU Constitution and General Regulations and Postal Payment Services). The Doha Postal Strategy, a roadmap for the next four years, incorporated a proposal from Japan on the promotion of disaster-response policies. Japan makes personnel and financial contributions to the UPU disaster-response policy project and provides information to the world's countries.

(2) Deploying Japan's postal infrastructure systems abroad

As emerging and developing countries tackle modernizing and advancing their postal operations, MIC is working to deploy Japanese-style postal infrastructure systems to these countries. By providing Japan's superb knowledge and technology in the area of postal operations, we hope to further social and economic development in partner countries and strengthen bilateral ties.

3. Promoting the correspondence delivery business

The Act on Correspondence Delivery by Private-Business Operators (Law No. 99 of 2002) paved the way for private enterprises to enter the correspondence delivery business, which had been monopolized by the state.

Correspondence delivery falls into two categories: general correspondence delivery businesses, which provide general correspondence services nationwide, and specified correspondence delivery businesses, which offer limited correspondence delivery services that do not undermine the provision of universal postal mail services. As of March 2015, 436 operators had entered the specified correspondence delivery business.