Chapter 5

Outlook for Information and Communications Policies

Section 1

Promotion of a Comprehensive Strategy

1. Promotion of a national strategy

(1) Promotion of ICT strategy in Japan

The Japanese government set up the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (IT Strategic Headquarters) in January 2001. In May 2010, the New Strategy in Information and Communications Technology was established with the goal of forging a new society where sovereignty resides with the people. The strategy contained three priority areas (pillars): (i) developing a citizen-oriented e-government, (ii) reviving local community bonds, and (iii) creating new markets and driving international expansion. A set of roadmaps for the New Strategy in Information and Communications Technology were finalized in June 2010.

(2) Regulatory and system reform for ICT technology usage and application

An expert committee was set up in June 2010 to examine regulatory and system reform to promote the usage and application of ICT technology. After reviewing about 400 points given in regulatory and system revision proposals and new IT strategies solicited from the public, the committee narrowed these down to 46 items, which the committee examined and considered through a total of nine hearings, starting in October 2010, with stakeholders and related government ministries. The committee compiled and released its report in March 2011. The IT Strategic Headquarters plans to finalize a corresponding policy based on the committee's report.

(3) Introduction of a citizen ID system

The e-Government Task Force, under the IT Strategic Headquarters' Planning Committee, began in September 2010 examinations into a citizen ID system. Similarly, in November 2010, the Study Team on Practices Concerning the Number System Relating to Social Security and Taxes began examinations into a joint number system for social security and taxes. Through these examinations, the Government and Ruling Party Social Security Reform Headquarters finalized the Basic Policy on the Social Security and Tax Numbering System in January 2011, which set a timetable for a January 2015 launch of a single number system for social security and taxes.

2. ICT policy approaches to realize a knowledge information society

Among the circumstances surrounding ICT in recent years is the ongoing construction, on a global scale, of a "knowledge information society." A knowledge information society is one in which dynamic exchanges of knowledge and information take place in all social and economic aspects over high-speed, digital communication and broadcasting networks and in which the distribution, sharing, utilization, and storage of this knowledge and information generates new value.

(1) Realization of new businesses through ICT use and application

The New Business Creation Strategy Committee, set up under the Information and Communications Council's Information and Communications Policy Section, released in June 2011 New Business Creation Strategy: Rebuilding the Tohoku region and reviving Japan through realization of an information distribution and coordination platform, the committee's first report.

(2) Approaches to R&D in the ICT field

The R&D Strategy Committee, set up under the Information and Communications Council's Information and Communications Policy Section, released in July 2011 Report by the R&D Strategy Committee.

(3) Raising international competitiveness and assisting international expansion

The final report by the ICT Policy Task Force for a Global Era's Working Group on Strengthening International Competitiveness, compiled in December 2010, brought together recommendations for the basic direction of global expansion policies.

(4) Standardization policies in the ICT field

The Ministry of Internal Affairs and Communications submitted a new inquiry to the Information and Communications Council in February 2011 regarding a comprehensive standardization policy approach in the ICT field in response to the changing environment around standardization activities. The Information and Communications Council's Information and Communications Policy Section set up the Investigative Commission for

Standardization Policy in the Information and Communications Field to investigate and examine this issue.

(5) Promotion of regional stimulation through the use and application of ICT

The Ministry of Internal Affairs and Communications began meetings of the Regional ICT Activation Panel in February 2011 to examine approaches to regional stimulation through ICT. The panel looked at regional frameworks for promoting the use and application of ICT and policies for promoting user-oriented (i.e., regional residents) ICT usage in key fields such as farming, fishing, and forestry as well as medicine, nursing, and education. The panel compiled and released its recommendations in July 2011.

3. Promotion of reform in the communications and broadcasting fields

As a means of organizing and streamlining systems in response to the digital migration in the communications and broadcasting field, the Ministry of Internal Affairs and Communications overhauled the legal systems overseeing communications and broadcasting for the first time in 60 years, with the systems governing various types of broadcast formats integrated into a comprehensive system and the system governing radio station licensing and accreditation of other broadcasting services given increased flexibility. The revisions went into full force on June 30, 2011.

4. ICT productivity acceleration program

In addition to being a resource-starved country with a declining birth rate and an aging population, Japan faces the pressing challenge of stimulating economic growth. For this reason, we must take advantage of our world-leading broadband infrastructure and work actively to raise productivity through the application of ICT.

As a means of boosting productivity levels with ICT, the Ministry of Internal Affairs and Communications is working in partnership with related organizations to promote the widespread uptake of ASP and SaaS and providing support so that venture businesses can accelerate the bringing of new ICT systems to market.

5. Support for creation and fostering of ICT venture businesses

ICT ventures that create new businesses through original, cutting-edge technology and business models are expected to be the prime movers of innovation that will drive our ICT industry's development in the midst of increasing global competition. The Ministry of Internal Affairs and Communications, in cooperation with other ministries and agencies, assists the creation and growth of ICT ventures in various ways, including financing, hiring and training of workers, and information provision.

Section 2 Development of Information and Communications Policies

1. Development of telecommunications policy

(1) Establishment of fair competition rules

A. Promotion of competition in the mobile communications market

The Ministry of Internal Affairs and Communications conducted hearings with mobile carriers in April 2010 on how to deal with SIM locks on mobile handsets. The parties reached a consensus on a policy that would see carriers unlocking handsets on a voluntary basis to address user demands. In June 2010, the Ministry drew up the Guideline for SIM Unlocking on the expectation that carriers will voluntarily unlock handsets in the interest of responding to user demands.

B. Review of the Universal Service System

Based on the May 2010 report, Realizing the New Broadband Super Highway (Hikari-no-michi) Plan: Basic directions, and other materials, the Ministry of Internal Affairs and Communications submitted an inquiry to the Information and Communications Council in July 2010 concerning how to deal with the Universal Service System during the transition period to universal broadband service availability. The Information and Communications Council gave its reply in December 2010. In receipt of the Council's report, the Ministry amended related ministerial ordinances (partial amendment of the Regulations for Enforcement of the Telecommunications Business Act and other ordinances) and put the amended ministerial ordinances into force in April 2011.

C. Assessment of competition in the telecommunications sector

In order to correctly ascertain the status of competition in the increasingly complex telecommunications sector and reflect this understanding in government policy, the Ministry of Internal Affairs and Communications has been issuing the annual Competition Assessment of the Telecommunications Industry since FY 2003. In January 2011, the Ministry issued Topics for the 2010 Competition Assessment of the Telecommunications Industry and is currently examining how best to make future market demarcations while assessing the status of competition in FY 2010.

(2) Increasing sophistication of networks

To address network advances, the Ministry of Internal Affairs and Communications commissioned the Study Group on Advanced use of Internet with IPv6 to look into policies for the smooth introduction of IPv6 and constructed the Task Force on IPv4 Address Exhaustion, a joint public-private body to promote IPv6 adoption in partnership with other organizations. The Task Force is working on drawing up action plans for various Internet operators, drafting and executing promotional strategies for Internet operators, and creating educational programs on IPv6 technology.

(3) Initiatives advancing the New Broadband Super Highway (Hikari-no-michi) Plan

By the end of FY 2010, the targets of the Strategy on Bridging the Digital Divide (formulated in June 2008) — eliminating broadband-zero areas and reducing the number of people outside of cellular phone service areas by 200,000 — were almost reached. The Ministry of Internal Affairs and Communications set a target of realizing broadband service availability at all households by around 2015 through further acceleration of infrastructure development and application, and it formulated and issued in December 2010 a basic policy and timetable that includes the required measures and implementation schedule to accomplish this target.

(4) Telecommunications Business Dispute Settlement Commission

The name of the commission was changed to the Telecommunications Business Dispute Settlement Commission with the addition of disputes in the broadcast sector to its purview with the June 30, 2011, enforcement of the Law for Partial Reform of the Broadcast Act, etc. (Act No. 65 of 2010), which had been completed and promulgated in 2010. The commission currently consists of five commissioners and seven special commissioners appointed by the Minister for Internal Affairs and Communications who work to resolve disputes.

2. Development of broadcast policy

(1) Advancement of digital broadcasting

The switchover to digital-only terrestrial broadcasts was completed nationwide on July 24, 2011, except in Iwate, Miyagi, and Fukushima prefectures, which sustained severe damages in the Great East Japan Earthquake. As of December 31, 2010, terrestrial digital broadcast signals reached approximately 98.0 percent of households and the household penetration rate of terrestrial digital broadcast receivers was 94.9 percent. And as of the same date, 25.41 million households could watch terrestrial digital broadcasts via cable TV (approximately 99.0 percent of all cable TV subscribing households) and nearly all cable TV facilities had migrated to digital.

(2) Development of satellite broadcast policy

Japan's satellite broadcasts provide a diverse range of specialty broadcast services and have served as a technically cutting-edge media, including advancing the resolution of television broadcasts. The cumulative shipments of special satellite receivers (capable of receiving BS and 110 CS digital broadcasts) reached approximately 104.85 million (as of March 31, 2011) and approximately 23.40 million households could watch special satellite broadcasts (as of March 31, 2010).

3. Development of radio policy

(1) Overview of radio policy

A. Promotion of effective radio spectrum usage

The Ministry of Internal Affairs and Communications is actively moving forward with efforts to take advantage of white spaces in the radio spectrum. In September 2010, the Ministry established the Meeting for White Space Promotion Panel with the aim of sharing white spaces nationwide through public-private partnerships to better use radio spectrum. Based on results obtained in the Special White Space Areas, the Panel is now examining groundwork preparations and rulemaking needed to implement white space sharing.

B. Wireless broadband initiatives

To realize the world's leading wireless broadband environment in Japan and to address the growing spectrum demands of mobile communication systems, the Ministry of Internal Affairs and Communications set up the Working Group for Study of Frequencies for Implementation of Wireless Broadband under the ICT Policy Task Force for a Global Era in May 2010. The Working Group examined means of ensuring sufficient frequencies to implement a wireless broadband environment and compiled and released its findings in November 2010.

C. Introduction of a frequency auction system

The Ministry of Internal Affairs and Communications set up the Panel Discussion concerning Frequency Auctions in March 2011 to analyze the current status of frequency auctions and examine challenges and specific measures ahead of introducing a frequency auction system to Japan. The Panel is currently in the midst of its investigation.

(2) Radio usage advancement and diversification initiatives

In times of natural calamities and other emergencies, it is critical to accurately ascertain the situation in the afflicted area in order to deploy relief work and restora-

tion measures quickly and fluidly. Collecting information from the air using highly maneuverable helicopters is a very effective means of doing this. The Satellite Communication Systems Committee, set up in July 2008 under the Telecommunications Technology Sub-Council of the Information and Communications Council, examined the technical requirements for a Ku-band helicopter satellite communication system and submitted a report in February 2011. The Ministry of Internal Affairs and Communications is now arranging the related regulations based on this report.

In parallel with this, the Ministry is engaged in efforts to achieve progress in 3G mobile communication systems and broadband mobile wireless access systems.

(3) Development of a radio usage environment

A. Impact of radio waves on humans and medical equipment

The Ministry of Internal Affairs and Communications has been studying the effect of radio waves on medical devices and equipment since FY 2000. Based on the findings of these studies, it has revised the Guidelines to Prevent Effects of Electromagnetic Waves from Various Types of Equipment on Implantable Medical Equipment (established in August 2005, revised in May 2011).

In order to ensure a safe environment for the use of radio waves, the Ministry has introduced regulations stipulating signal level tolerances up to 3 GHz (partial body absorption guidelines) with respect to the specific absorption rate in the head region of radio waves emitted by cellular phones and other radio devices. In the future, frequencies above 3 GHz are anticipated to be used with advances in wireless LAN and 4G cellular phones. Consequently, the Ministry revised its partial body absorption guidelines so that they apply to radio devices using frequencies up to 6 GHz.

B. Measures for protection from unwanted radio waves

As electrical and electronic equipment become more widespread, there are mounting concerns that wireless applications will be adversely affected by electromagnetic interference caused by unwanted radio waves emitted from various types of devices and equipment. The Ministry of Internal Affairs and Communications is engaged in international standardization discussions at CISPR while moving ahead with domestic standardization based on a report summarizing the findings of the Radio Wave Utilization Environment Committe, set up under the Telecommunications Technology Sub-Council of the Information and Communications Council.

C. Monitoring and supervision of radio wave usage and assurance of correct radio station operation

The Ministry of Internal Affairs and Communications investigates cases of radio interference caused by illegal radio stations at any hour to immediately eliminate the interference with respect to those radio communications deemed critical radio communications — specifically, radio communications for telecommunication businesses, broadcasting services, protection of lives or property, maintaining public order, meteorological services, electrical power businesses, and railroad businesses. The Ministry also investigates and prosecutes or takes other necessary measures against illegal radio stations that are set up and operated without a license.

Since FY 2006, the Ministry has publicized the Radio Law and radio usage rules to consumer electronics retailers and other retailers of radio devices. It has also raised public awareness that licenses are needed to use radio waves and that wireless devices must have a technical standards compliance label through a variety of measures including Internet banner ads.

Section 3

Ensuring Citizen's Lives are Safe and Secure

1. Consumer administration in relation to telecommunications services

(1) Promotion of user-centric ICT services

The emergence of new ICT-related services and the distribution of information using new technologies have prompted the need to arrange their relationships with various rights including intellectual property rights. In light of this necessity, the Ministry of Internal Affairs and Communications established in April 2009 the Study Group on examining issues around ICT services from the user perspective. The Study Group compiled and released its first proposal in August 2009 and its second proposal in May 2010.

Since September 2010 and since the establishment of the second proposal, four working groups — the Working Group on the Internet for Young People, the Working Group on Verifying the Act on Restrictions on the Liability for Damages of Specified Telecommunications Service Providers, the Working Group on Telecommunications Service Users, and the Working Group on Approaches to Anti-Spam Measures — under the umbrella of the Study Group have been examining four respective issues: (1) establishing an Internet usage environment for young people, (2) verifying the outcomes of the Act on Restrictions on the Liability for Damages of Specified Telecommunications Service Providers, (3) approaches for initiatives to ensure the rights of different users, and (4) anti-spam measures.

(2) Measures against illegal and harmful material on the Internet

With its remarkable growth, the Internet in Japan is

now an essential part of citizen's lives because it is used as a platform (a public infrastructure) for social, cultural, economic, and other citizen activities. At the same time, the rapid growth of the Internet has magnified its negative aspects, such as the circulation of illegal and harmful material.

The Ministry of Internal Affairs and Communications has undertaken several initiatives to deal with these problems and will continue to promote them.

(3) Anti-spam measures

The Ministry of Internal Affairs and Communications has taken comprehensive measures against spam, including enforcing laws based on the Act on Regulation of the Transmission of Specified Electronic Mail, promoting voluntary anti-spam efforts by telecoms, making the public aware of anti-spam measures, and promoting international cooperation on the spam issue. In September 2010, the Ministry established the Working Group on Approaches to Anti-Spam Measures. The Working Group is conducting examinations on a broad scale based on the current status of spam in Japan, hearings with anti-spam stakeholders, and conditions in other countries.

(4) Protection of personal information in the ICT field

In the telecommunications field, the Ministry of Internal Affairs and Communications amended its guidelines and commentary in July 2010 based on the second proposal of the Study Group on examining issues around ICT services from the user perspective, released in May 2010. In the broadcast field, the Ministry established in August 2004 the Guidelines concerning the Protection of Personal Information of Broadcast Receivers (Ministry of Internal Affairs and Communications Bulletin No. 696 of 2004), which went into effect in April 2005, and revised the Guidelines in July 2007 based on developments after the Guidelines went into effect. In September 2009, the Ministry also made amendments to the Basic Policy to be Established by Businesses Handling Receiver Information (privacy policies, etc.), after a partial revision to the Basic Policy on the Protection of Personal Information (an April 2, 2004 Cabinet decision). The policy amendments included the addition of provisions that broadcasters should aim to implement (such as clearly stating the reasons, etc. for obtaining personal information and making any third-party consignment processes transparent) and stipulated that broadcasters have an obligation to endeavor to report any security breaches or losses of personal information to a certified personal information protection organization.

2. Promotion of information security policy

(1) Government information security measures

Japan has fortified its efforts against information security problems with the establishment of the National Information Security Center (NISC) under the Cabinet Office in April 2005 and the establishment of the Information Security Policy Council under the IT Strategic Headquarters in May 2005.

In May 2010, the Information Security Policy Council established the Information Security Strategy for Protecting the Nation to respond appropriately to changes in the environment surrounding information security that is diversifying and becoming increasing sophisticated and complex. Under this strategy, the government will over the four-year period from 2010 to 2013 pursue a total of 196 specific initiatives and measures based on Information Security 2010 (July 2010), which supersedes the annual Secure Japan 2010 plan, in addition to the measures stipulated in the Second Basic Plan on Information Security.

(2) Realization of a safe and secure Internet usage environment

Based on the Second Basic Plan on Information Security and other strategies and in view of its position as the supervising authority in the ICT field, a critical infrastructure for the nation, the Ministry of Internal Affairs and Communications is engaged in many different initiatives — such as strengthening networks, assuring reliability, addressing the diversification of network-enabled devices, and improving human and organizational proficiencies — with the objective of developing an environment in which citizens can use ICT networks with confidence.

(3) Assurance of the safety and reliability of telecommunications services

A. Assurance of safety and reliability

To assure the safety and reliability of telecommunication services, the Ministry of Internal Affairs and Communications sets technical standards for telecommunication equipment and devices through laws and ordinances, obliges telecoms to appoint chief telecommunications engineers and to report maintenance procedures to guarantee these technical standards are followed, and promotes the utilization of guidelines (Safety and Reliability Guidelines for Info-Communication Networks (Ministry of Posts and Telecommunications Bulletin No. 73 of 1987)).

Based on a February 2010 report, the Ministry of Internal Affairs and Communications amended the Regulations for Chief Telecommunications Engineers (Ministry of Posts and Telecommunications Ordinance No. 27 of 1985) in order to revise the conditions imposed on

telecommunication businesses regarding the appointment of chief telecommunications engineers who supervise telecommunication equipment and devices used to provide telecommunications services and, in cases where the service area covers more than one prefecture, to make it compulsory to appoint, as a rule, a chief telecommunications engineer for each prefecture in which telecommunication equipment is located as well as assigning a chief telecommunications engineer to the workplace that directly oversees the telecommunication equipment. Furthermore, as the report indicated it was necessary to organize and publish in a specific and systematic fashion the skills required of chief telecommunications engineers to address the move to IP platforms and to apply this knowledge in personnel training and recruitment, the Ministry released in October 2010 the Standards for Skills of Chief Telecommunications Engineers.

B. Promotion of a public broadband mobile communication system

Most of our current public communication systems for police, firefighting, and search and rescue used on the sites of disasters are voice-based. To share accurate information about afflicted areas, a means of flexibly and reliably delivering video information is needed.

The Ministry of Internal Affairs and Communications submitted an inquiry to the Information and Communications Council in April 2009 concerning technical requirements for a public broadband mobile communication system. Based on the Council's March 2010 report, the Ministry established in August 2010 the necessary regulations in advance of adopting a public broadband mobile communication system.

(4) Assessments of cryptographic technology security and promotion of stronger ciphers

Use of secure, readily implementable cryptographic technology is imperative to guarantee the security of information, which is essential to network-based social and economic activities. CRYPTREC, a cryptography assessment project, requested submissions of cryptographic technology, which it evaluated objectively, and then created the e-Government Recommended Ciphers List, which was released in February 2003 and lists cryptographic technologies that were found to be sufficiently secure and implementable.

The CRYPTREC Advisory Committee, which assesses cryptographic technology that will contribute to e-government applications, in FY 2009 requested submissions of cryptographic technology to update the e-Government Recommended Ciphers List. Over FY 2010 and FY 2011, the Committee will be evaluating the submitted ciphers.

3. Assurance of electronic data authenticity

(1) Promotion of electronic signatures and certification services

The Act on Electronic Signatures and Certification Business (Law No. 102 of 2000) went into force in April 2001 to ensure a fluid usage environment for electronic signatures attached to electronic data with the objective of further developing e-commerce and other network-based social and economic activities. The Act stipulated that electronic documents signed with a personal electronic signature have the same legal validity as paper documents signed with a written signature or stamped with a seal and introduced a voluntary accreditation system for designated certification services. As of April 30, 2011, 18 designated certification services had been accredited.

(2) Promotion of the use of time businesses

The importance of time businesses (time delivery services and time validation services) is rising because they are services that affix timestamps to electronic data to increase the credibility of creation dates, etc. of electronic data that are distributed or stored in e-commerce and similar fields. The Ministry of Internal Affairs and Communications has been working actively to promote the use of time businesses, such as establishing and releasing the Time Business Guidelines in November 2004 to permit citizens to use time businesses provided by private operators with confidence. In April 2010, the SG7 recognized a revised draft (submitted by Japan) of the ITR-R recommendation on time traceability guarantees. In response, the Ministry is now working on a revision (for FY 2012) of the technical standards for the time business accreditation system in order to clarify approaches to time deliveries and audits and to address vulnerabilities in the encryption algorithms used in timestamps.

Section 4

Improving the Quality of Citizen's Lives and the Natural Environment through the Application of ICT

1. Regional stimulation using ICT infrastructure

In regional societies facing multiple challenges, such as depopulation, an aging population, and dwindling employment opportunities, we need comprehensive pro-

motion of a regional-autonomous model for revitalization centered on ICT that regions themselves conceive and execute and that respects regional independence and autonomy. Therefore, the Ministry of Internal Affairs and Communications is moving forward with the following regional stimulation policies through the application of ICT.

(1) Establishment of a comprehensive support system for ICT regional stimulation

The Ministry of Internal Affairs and Communications has been dispatching regional IT advisors since FY 2007. And starting in FY 2008, the Ministry opened the Portal Site for Community Revitalization through ICT, which aims to collect and share with a broad audience successful cases of regional stimulation using ICT.

(2) Promotion of ICT usage and application in local regions

The Ministry of Internal Affairs and Communications is conducting and promoting initiatives that make use of ICT applications to help resolve regional issues (a lack of doctors, a decreasing birthrate and aging population, a deterioration in regional law and order, disaster-management measures, revitalization of regional economies, revival of local communities, etc.) and is implementing various measures with the objective of encouraging ICT usage and application in local regions and contributing to the revitalization of regional societies and problem resolution in regional societies.

2. Establishment of a barrier-free information environment

The Ministry of Internal Affairs and Communications is moving forward with the following initiatives toward establishing a barrier-free information environment in order to realize a world in which everyone, including older people and people with physical and mental challenges, can make use of ICT and enjoy its benefits.

(1) Promotion of and assistance for ICT usage by challenged people

The Ministry of Internal Affairs and Communications grants subsidies under the Subsidy Program to Assist the Development and Provision of Communications and Broadcasting for the Challenged to help businesses that develop or provide communication or broadcasting services for the physically challenged who have problems with regular communications or broadcasts (such as a telephone-relay service for people who are aurally challenged). The subsidies are based on the Act on Promoting Businesses that Assist the Communication and Broadcast Utilization by Challenged People to Contribute to the Improved Convenience of Challenged People and have the objective of eliminating digital divides caused by physical conditions.

(2) Promotion of broadcasts for visually and aurally challenged people

The Ministry of Internal Affairs and Communications is engaged in promoting the widespread adoption of broadcasts for visually and aurally challenged people to enable visually and aurally challenged people to smoothly obtain information through broadcasts. As part of these efforts, the Ministry provides assistance to people creating close-captioned programs and programs with spoken descriptions of the content.

(3) Promotion of a universal usage environment

The Ministry of Internal Affairs and Communications established in December 2005 the Operational Models for Government Websites for Everyone, which aims to maintain and improve the Web accessibility of local governments so that everyone, including older people and challenged people, can make use of government and public sector Websites. In FY 2010, the Ministry revised and released the Updated Edition of Operational Models for Government Websites for Everyone, which is based on recent standardization developments.

3. Promotion of Content Distribution

As a means of expanding the Japanese economy and bolstering our international competitiveness, expanding the content market is one of our country's basic policies. The New Growth Strategy (a June 2010 Cabinet decision) set intellectual property and standardization strategies and the international expansion of Cool Japan as national strategic projects. The Intellectual Property Strategic Program 2011 (adopted by the Intellectual Property Strategy Headquarters in June 2011) set out four priority strategies, including cutting-edge digital network strategies and Cool Japan strategies, and promotes joint public-private initiatives.

In its interim report (July 2011), the Panel on Strengthening Innovative Digital Content Resources, led by the Vice Cabinet Minister for Internal Affairs and Communications, set out five priority promotion areas — strengthening the capability to deliver content overseas, strengthening content creation capabilities, revitalization through content usage, establishing a content delivery environment, and strengthening personnel training — and recommended specific initiatives and future promotion measures. Based on this report, the Ministry of Internal Affairs and Communications is moving ahead with various initiatives in this area.

4. Development of ICT personnel

(1) Fostering advanced ICT personnel

To encourage the development of experts at higher education institutions in a wide range of fields requiring ICT technology, the Ministry of Internal Affairs and Communications is developing a distance-learning system using advanced network technology over the period from FY 2009 to FY 2011 and, once the system is completed, plans to promote the system's adoption by higher education institutions in partnership with NGOs and other private organizations. From FY 2011, the Ministry will develop a personnel training curriculum for advanced ICT applications (including course outlines, teaching guidelines, and teaching material development guidelines) while using knowledge from related organizations with the objective of raising ICT application skill levels in cloud environments.

(2) Improving ICT literacy

Familiarizing children, who will lead Japan's next generation, with ICT at an early age and raising their information application skills is extremely important to the construction of a society that is able to create new intellectual value and cultural value. The Ministry of Internal Affairs and Communications is taking steps in this area, including promoting e-Net Caravans and improving media literacy.

5. Promotion of telework

Telework is a flexible working arrangement independent of time or location that makes use of ICT. Telework is expected to help resolve a number of challenges, such as a declining birthrate and aging population and regional stimulation, and boost work efficiencies and productivities while improving work-life balance. It is also expected to be an effective means of implementing business continuity plans in the event of large-scale disaster or pandemic, conserving energy, and reducing the impact on the environment.

After the recent Great East Japan Earthquake, there were many examples seen in the Kanto Region of people who could not make it to work because of public transit disruptions continuing their assignments by telework. And an increasing number of corporations are planning or considering adopting telework as means of conserving energy this summer.

6. Promotion of ICT application in the healthcare field

Our healthcare field faces numerous challenges, from the burgeoning patient numbers and national healthcare expenditures caused by a rapidly declining birthrate and aging population and the collapse of regional medicine due to a lack or uneven distribution of doctors to the changes in lifestyles and disease patterns and the changes in patient needs. The expectations are high for ICT applications to resolve these challenges and assist the provision of healthcare services that make effective use of limited resources to handle increasing patient numbers and changing needs.

It is important to effectively promote the application of ICT in the healthcare field, including addressing challenges at the system level, while validating the effectiveness and safety of ICT in partnership with related ministries and agencies. Examples of ICT's benefits in this field can be found in the wake of March 2011's Great East Japan Earthquake. For example, one hospital that had lost all its paper clinical records in the tsunami and whose electronic clinical records server was down was still able to restore its patients' medical records quickly because it had shared its clinical record information with a hospital in another prefecture. Thus, it is necessary to give full regard to initiatives that combine reconstruction measures and earthquake measures, such as promoting electronic health record (EHR) platforms in disaster-struck areas.

7. ICT contributions to combating global warming

As the severity of global warming has intensified in the past few years, ICT is expected to contribute to initiatives to curb global warming by making business operations more efficient along with making large contributions to the establishment of a safe and secure society, to improved convenience, and to the revitalization of regional economies. At the same time, the increase in ICT device numbers and the greater power consumption by more powerful ICT device features must be balanced against global warming considerations.

The Ministry of Internal Affairs and Communications, in the aftermath of the March 13, 2011, Great East Japan Earthquake, is now examining the proactive application of smart grids and other green ICT to push ahead regional energy-conservation measures in view of power shortages and reconstruction measures for the afflicted areas.

Section 5

Promotion of Informatization Administrative Services

1. Realization of e-government

Plans (optimization plans) have been formulated to optimize government departments' administrative tasks and information systems as a way of reducing the operating costs of information systems and cutting the time to complete administrative tasks. The role the Ministry of Internal Affairs and Communications has taken to further these optimization efforts is to review the optimization plans formulated by government departments, make necessary adjustments to the plans, and monitor the status of the implementation and evaluation of information system optimization.

(1) Establishing and strengthening IT governance in government

The New Strategy in Information and Communications Technology (a May 2010 IT Strategic Headquarters decision) placed the promotion of e-government as one of its three priority strategies (three pillars) and directed that, after exhaustive reform of business processes, government information systems are to be constructed and upgraded based on cost-effectiveness ratios.

In the interest of efficiently and effectively constructing and operating government information systems based on cost-effectiveness ratios, the Ministry of Internal Affairs and Communications set up the Study Group on Reforming Government Information Systems in September 2010 to investigate specialized and technical reform policies. The Study Group arranged points for discussion in December 2010 and, in March 2011, released its recommendations in Toward Establishing and Strengthening IT Governance in Government.

(2) Online administrative procedure initiatives to improve citizen convenience and raise administrative operational efficiency

Given the policy goal of making substantially all central government administrative procedures accessible via the Internet by 2003, 96 percent of government procedures were made available online by FY 2003. The New Strategy in Information and Communications Technology (a May 2010 IT Strategic Headquarters decision) directed that an online usage plan be compiled with the understanding of thoroughly revising business processes after validating the cost-effectiveness of online government procedures and arranging criteria on the range of services eligible for being placed online. The e-Government Task Force, set up under the IT Strategic Headquarters' Planning Committee in September 2010, investigated these matters and compiled Recommendations for a New Online Usage Plan in June 2011. In receipt of these recommendations, the IT Strategic Headquarters has formulated the New Online Usage Plan and plans to move forward with initiatives based on this plan.

(3) Promotion of information coordination between administrative bodies using common corporate codes

The New Strategy in Information and Communications Technology (a May 2010 IT Strategic Headquarters decision) placed the promotion of a user-friendly e-government as one of its three priority strategies (three pillars) and stated, as a specific initiative, that "coordination between central and local government administrative bodies and between public and private entities be promoted by using common corporate codes." Furthermore, the New Strategy in Information and Communications Technology Roadmaps (a June 2010 IT Strategic Headquarters decision) stated that issues with the adoption of common corporate codes be identified by FY 2011 and that the establishment and coordination of common corporate codes be promoted (sequentially) starting in FY 2012.

The Ministry of Internal Affairs and Communications launched the Project to Promote Administrative Task System Coordination (Verification of methods to reduce attachments through coordinated administrative task systems via common corporate codes) in FY 2010 to identify issues with the adoption of common corporate codes as per the New Strategy in Information and Communications Technology Roadmaps. This was a test project that aimed to verify associated technologies and identify systemic and operational challenges. The project targeted inspection procedures to qualify bidders on goods and services contracts that require, at the time of application, the attachment of a Certificate of Registered Matters issued by the Ministry of Justice. The project, in cooperation with the Ministry of Justice, did away with the Certificate of Registered Matters attachment by coordinating information between administrative bodies with a common corporate code. The Ministry of Internal Affairs and Communications is aiming to realize a new, user-friendly e-administration using the knowledge gained through this project.

2. Promotion of e-local government

E-local government aims to create a more efficient, streamlined administration and to advance administrative systems by making positive use of ICT at regional governments. So far, internal agency LANs and "one computer per person" environments have been established. The next step required is to construct and operate more efficient information systems, by making posi-

tive use of recent technical innovation in the ICT field, such as cloud computing, and to respond to the ICT "from ownership to use" paradigm shift, even at regional governments that have already constructed their own information systems, by developing ICT applications such as ASP and SaaS.

The Ministry of Internal Affairs and Communications has been working on the Local Government Cloud Development Verification Project since FY 2009. In the project, regional governments actually use community clouds constructed on the Local Government Wide Area Network (LGWAN) as a way of improving the convenience and cutting costs of administrative services by further consolidating and sharing regional government information systems. In July 2010, the Ministry set up the Local Government Cloud Promotion Headquarters, headed by the Minister for Internal Affairs and Communications, which is promoting the national expansion of the local government cloud and working toward the establishment of e-local governments that will improve the level of resident services.

3. Public Certification Service for Individuals provided by local governments

Because of the difficulty in identifying the creator of digital documents on the Internet, these documents are at risk of spoofing, falsification, and transmission denials. These problems must be resolved in order to move ahead with online administrative procedures and the realization of e-government and e-local governments. Therefore, based on the Law Concerning Local Government Certification Services related to Electronic Signature (Law No. 153 of 2002), local governments began providing the Public Certification System for Individuals in January 2004.

Applications and procedures that can be done with the Public Certification System for Individuals include filing tax returns and applying for property deeds. As of April 2010, the Public Certification System for Individuals was being used for procedures with 13 government ministries and agencies, 47 prefectural governments, and several 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.

Section 6

Promotion of Research and Development (R&D)

1. Research and development strategy to enhance the international competitiveness of Japan

In coordination with the government's overall science and technology policy and the New Growth Strategy (a June 2010 Cabinet decision), the Ministry of Internal Affairs and Communications is working toward strengthening Japan's international competitiveness and resolving social issues on three fronts: green innovation, which aims to create a low-carbon society through higher energy-efficient ICT systems and broader application of ICT; life innovation, which aims to raise the convenience, safety, and security of ICT services and advance medical care, nursing, and health through the application of ICT; and future innovation, which aims to create new industries with Japan's core technological strengths.

The Ministry submitted an inquiry to the Information and Communications Council in February 2011 to look into future R&D topics that should be pursued, approaches to R&D systems, and approaches to role sharing between government, industry, and academia, given the rapidly changing conditions in the ICT field. The Information and Communications Council, in receipt of this inquiry, set up the R&D Strategy Committee under the Information and Communications Policy Section, and the Committee is currently progressing with its examinations. The Ministry intends to efficiently and effectively advance research and development based on the results of the Committee's examinations.

2. Promotion of green innovation

The Ministry of Internal Affairs and Communications has a priority focus on R&D in the area of green innovation, which aims to create a low-carbon society through higher energy-efficient ICT systems and broader application of ICT. Specific topics include R&D into photonic network technology, R&D into ultra-high-speed optical edge-node technology, and the ICT Green Innovation Promotion Project.

3. Promotion of life innovation

In the area of life innovation, which aims to raise the convenience, safety, and security of electronic services and advance medical care, nursing, and health through

the application of ICT, the Ministry of Internal Affairs and Communications is moving ahead with several R&D projects, including R&D into innovation creation models that make use of brain structures, R&D into robot and network convergence, and R&D into universal communications.

4. Promotion of future innovation caused by paradigm shifts in society

The Ministry of Internal Affairs and Communications is prioritizing the promotion of R&D related to ICT technologies that Japan is strong in and is implementing R&D projects, such as construction of a next-generation communications network test bed (JGN-X), with the aim of bringing technology to market as soon as possible.

Section 7 Promotion of International Strategy

1. Promotion of international policy

(1) Promotion of international policy in the Asian-Pacific region

The Ministry of Internal Affairs and Communications is engaged in various initiatives to further international policy in the Asian-Pacific region, including cooperation with member countries of the Asia Pacific Economic Cooperation (APEC), the Asia Pacific Telecommunity (APT), and the Association of Southeast Asian Nations (ASEAN). In 2010, Japan became the chair of APEC, and a number of high-level APEC meetings were held, including the Economic Leaders' Meeting in Yokohama, Kanagawa Prefecture. In October 2010, the Eighth APEC Ministerial Meeting on the Telecommunications and Information Industry (TELEMIN 8), with the participation of all 21 APEC economies, was held in Nago, Okinawa. Under the direction of the co-chairs, Yoshihiro Katayama, Minister for Internal Affairs and Communications, and Tadahiro Matsushita, Senior Vice Minister of Economy, Trade and Industry, discussions about telecommunications and information industry policy within APEC were held and the Okinawa Declaration was adopted, which established common goals for APEC to achieve in the ICT field.

(2) Promotion of international policy at international organizations and in multilateral relationships (excluding relationships in the Asian-Pacific region)

Japan is making positive contributions on the international stage by, for example, obtaining many chair and vice-chair positions at International Telecommunications Union (ITU) research committees, taking leadership posts on research topics, and making recommendations and proposals. In October 2010, the ITU's Plenipotentiary Conference — the organization's highest decision-making body — was held in Guadalajara, Mexico. At the conference, Japan was elected for the tenth consecutive time since 1959 as a member of the ITU executive committee. The Ministry of Internal Affairs and Communications cooperates actively with many other international organizations including the Internet Governance Forum, the G8, the World Trade Organization, and the Organisation for Economic Co-operation and Development.

(3) Promotion of international policy in bilateral relationships

In the interest of exchanging views on broad policy challenges related to the Internet economy and promoting a shared recognition of development in the ICT field and specific cooperation on global challenges, Japan and the United States agreed in June 2010 to hold a Director-General level dialogue on Internet economy policy cooperation. The first Director-General level meeting of the US-Japan Policy Cooperation Dialogue on the Internet Economy was held in Tokyo in November 2010. The second meeting was held in Washington D.C. in June 2011, at which a shared understanding was reached and announced on the use of ICT for disaster response, principles to cope with various policy challenges surrounding the Internet economy, and specific cooperation plans (cloud computing technology, enhancing the security of commercial networks, etc.). In addition, the Ministry of Internal Affairs and Communications discusses ICT policy with its ICT ministerial counterparts in many countries and regions, including the EU, various European and American nations, China, and India. The Ministry is also actively involved in signing economic partnership agreements with other countries.

2. Promotion of international cooperation

ICT networks have a vital role to play in economic development, job creation, and raising the standard of living for the general public, but developing nations are on the far side of the international digital divide. There is a mounting need to develop global ICT networks that include developing nations as well.

The Ministry of Internal Affairs and Communications is committed to providing support for the cultivation of human resources in the ICT sector and supporting international and regional organizations that promote global cooperation in eliminating the international digital divide. In addition, the Ministry makes contributions to sustainable development in the ICT sector in developing

countries through overseas development assistance in cooperation with the Ministry of Foreign Affairs and the Japan International Cooperation Agency (JICA).

Section 8

Development of Postal Service Administration

1. Promotion of postal service administration

Japan started the privatization of its postal services in October 2007, and what had previously been a single company was divided into five separate companies. It has become apparent that this and other changes have led to a weakening of the postal service administration's operational foundations and a decline in the ability to offer the public convenient services.

In December 2009, a law was passed and enacted to freeze the sale of government-held shares in Japan Post Holdings and its banking and insurance units, and in April 2010, a postal reform bill formulated by the Cabinet was placed before the 174th Ordinary Session of the Diet that would reorganize the five-company Japan Post group into three companies and that set forth assurances that the new Japan Post Holdings would be responsible for providing universal postal, banking, and insurance services. The bill was rejected. The same bill was formulated again by the Cabinet in October 2010 and submitted to the 176th Extraordinary Session of the Diet, and debate on the bill continues at the 177th Ordinary Session of the Diet.

2. Outline of the correspondence delivery system

The Law Concerning Correspondence Delivery Provided by Private-Sector Operators 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 and special correspondence delivery. Since the law went into force in April 2003, 346 operators have entered the special correspondence delivery business as of March 31, 2011, although there have been no entrants in the general correspondence delivery business.

3. Promotion of new postal service administration

The Ministry of Internal Affairs and Communications established the Investigation Study Group for Reviewing Postal and Mail Delivery Services in February 2007 with the aim of reviewing the overall system for postal and mail delivery services after postal service privatization. The Study Group compiled its interim report in November 2007 and its final report in July 2008.

The final report recommended an ideal future system to be realized over the medium-to-long term — a system in which participating business operators are able to provide services using their own originality and ingenuity — and a new Postal Service Law that would integrate the Postal Law and Correspondence Delivery Law into a single law. In addition, the report recommended that urgent consideration be given to the scope and standards for universal postal service and new policies to ensure universality, along with the utilization of postal networks and the expansion of the correspondence delivery business's scope.

Regarding the promotion of personal information protection, the Ministry held meetings of the Study Group on Protection of Personal Information in the Correspondence Delivery Service Field and the Study Group on Protection of Personal Information in the Postal Service Field between December 2006 and November 2007. Based on the findings of the two study groups, the Ministry formulated and announced two guidelines in March 2008: the Guidelines for Personal Information Protection in the Correspondence Delivery Service Field and the Guidelines for Personal Information Protection in the Postal Service Field.