Chapter 5

Outlook for Information and Communications Policies

Section 1

Promotion of a Comprehensive Strategy

1. Promotion of a national strategy

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; this worked for fast, high priority implementation of policy on the formation of an advanced information and telecommunications network society. The "New Information and Communications Technology Strategy" was created in May 2010, and the "New Information and Communications Technology Strategy, Work Schedule, Revised Version" was created in August 2011. The "Experts Investigation Group on Regulatory and System Reform for Information and Communications Technology Utilization" was established in the Planning Committee of the IT Strategy Headquarters in June 2011, task forces were established for three fields (e-Government, Medicine and ITS) in August 2011, and the "Council for the Promotion of Disaster Management IT Lifeline" and "Advisory Council for Government Information System Revitalization" were established in March 2012.

2. ICT policy approaches to realize a knowledge information society

In response to the February 2011 Inquiry of the Information and Communications Council, the "New Business Creation Strategy Committee" and "Research and Development Strategy Committee" (hereinafter referred to as "Both Committees") were established in the Information and Communications Council. Towards realizing a full scale "Knowledge information society," Both Committees are focusing on the period until around 2020, and investigating with the aim of drawing up a "Comprehensive Strategy" which shows future directions of ICT policy.

After that, considering the Great East Japan Earthquake which struck in March 2011, ICT policy necessary for recovery and restoration was urgently studied, and intermediate findings were put together in July 2011. In response, in order to efficiently investigate from a comprehensive perspective of technology and business, the "Basic Strategy Board" was established as a joint working group under Both Committees in December 2011.

Furthermore, in order to derive issues from a more

specialized viewpoint with regard to the utilization of big data which is a field where future growth is expected, the "Ad Hoc Group on Utilization of Big Data" was established in the Basic Strategy Board. Its investigation results were put together as "How Big Data Should Be Used" in May 2012.

Based on the investigations by the Basic Strategy Board and Ad Hoc Group, the ICT Comprehensive Strategy (Draft) considered global trends, the environment faced by Japan, ICT trends, etc., and concluded that in order to bring Japan back from its precipice, it is important to develop an environment where people and information gather to bring out innovation, and to promote a new ICT comprehensive deployment policy for the realization thereof, thereby aiming to achieve an "internationally competitive active Japan utilizing information resources (Active ICT Japan)" by 2020.

3. Development of cloud services

Based on the "Smart Cloud Strategy" put together in May 2010, various initiatives for wider use and more advanced cloud services are being actively promoted, centering on the "Japan Cloud Consortium."

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. Therefore, in cooperation with related bodies of related ministries, agencies and municipalities, there are initiatives to support small, medium and venture companies etc. for business in the fields of information and communications.

Section 2

Development of Information and Communications Policy

1. Development of telecommunications business policy

(1) Promote dissemination of broadband

In order to comprehensively verify the degree of achieving indices on the spread of broadband and the status of compliance with fair competition requirements, the "Fair Competition Review System for Promoting Broadband Dissemination" was established. This system began operating in FY2012, and required policies are being executed, such as revisions of other related laws and guidelines.

Starting March 2012 in the "Wireless LAN Business Research Society," the Ministry of Internal Affairs and Communications is sorting out the current situation of wireless LANs. It will and derive and sort out issues about secure and safe use and dissemination, investigate necessary policies, and plans to put together a report in July 2012.

(2) Promotion of IPv6

In the "Study Group on Advanced Use of Internet with IPv6," the Ministry of Internal Affairs and Communications investigated policies and issues concerning the status of IPv6 compatibility, and put together and published its "Third Report" in December 2011. In order to promote the provision of environment cloud services which it is hoped will be applied for advanced management and control by centralizing in the cloud various environmental information, such as energy supply/demand, air temperature and humidity, gathered by sensors given IPv6 address, etc., the "Environment Cloud Service Construction/Application Guidelines" was put together and published.

(3) Development of a fair competition environment

a. Development of fair competition rules

The 177th Ordinary Session of the Diet revised the "Telecommunications Business Act" and "Law concerning Nippon Telegraph and Telephone Corporation, etc."

In cases where telecommunications operations etc. are contracted to a subsidiary etc., the revised Telecommunications Business Act obligates a telecommunications business which installs Type I Designated Telecommunications Facilities to (1) provide appropriate supervision so the subsidiary etc. does not engage in anticompetitive acts (connection information used other than for its purposes, etc.), (2) strengthen firewalls between the facilities unit and other units in the company in order to appropriately manage information obtained on connection operations, and take actions to develop a system to ensure there is not disadvantageous treatment of other telecommunications businesses.

On the other hand, considering that it is desirable that both NTT East and West can provide timely new services in response to market changes and consumer needs etc., the revised Law concerning Nippon Telegraph and Telephone Corporation, etc. changed the system of approval by the Minister for Internal Affairs and Communications, so that when NTT East and West conduct necessary operations in order to achieve management of regional telecommunications business (purpose achievement operations) and operations which utilize the facili-

ties and technology or staff which those companies have (utilization operations), now those companies can conduct such operations by advance notice.

b. Study of subscriber optical fiber connection fee calculation method

Regarding the suitability of connection fee setting per split line relating to subscriber optical fibers, there was a reply on March 29, 2012, from the Information and Communications Administration and Postal Administration Council, to the effect that it is appropriate to expand optical cabling zones, and to quickly introduce an entry menu as a complementary measure. Considering this, on the same date, fast execution of items pointed out in the reply was set as a condition, and fee adjustment approval was made with regard to connection fee setting per single core for FY2012. In June 2012, applications for a connection clause change for the introduction of entry menu by NTT East and West were submitted, and deliberation will be conducted on this in the Information and Communications Administration and Postal Administration Council.

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 "Competition Assessment 2010," a "Survey of demand substitutability of cellular phones, smartphones, and tablet PCs" was proposed, and the assessment results report was published in September 2011. Regarding "Competition Assessment 2011," from the viewpoint of assessing competition while considering new trends in recent years such as progressive migration from metal cables to optical fiber, development of wireless broadband, and more diverse business models for telecommunications business, the "Basic Policy for Assessment of the State of Competition in the Telecommunications Business Field" was revised, and a fiscal year plan created and published in February 2012.

2. Development of broadcast policy

(1) Trends after development of new communications and broadcasting legal system

In June 2011, the Ministry of Internal Affairs and Communications revised the system concerning broadcast, radio and telecommunications businesses, to arrange and create a more rational system which suits the progress of digitalization in the communications and broadcast field, integrate a system for various broadcast forms, and provide a more flexible system of licensing of

wireless stations and authorization of broadcast operations.

(2) Development of satellite broadcast policy

With execution of the June 2011 revised Broadcast Act, satellite broadcasts and 110 east longitude communication satellite broadcasts became "Major Satellite Broadcasts," and 124/128 east longitude communications satellite broadcasts etc. became "General Satellite Broadcasts." Also, on July 24, 2011, satellite analog broadcasts ended, and were completely shifted to digital broadcasts. Spectrum freed up by this shift was used to enable viewing 31 channels in broadcast satellite digital broadcasts as a whole, thus developing the environment to meet diverse needs of viewers. Moreover, regarding 110 east longitude communications satellite broadcast related Major Satellite Broadcasts, in February 2012, Major Satellite Broadcasting Business was authorized for 10 HDTV channels and 4 SDTV channels. Thus starting in summer 2012, new broadcasts are planned to start one after another, which it is hoped will help improve the video quality of satellite broadcasts.

3. Development of radio policy

(1) Overview of radio policy

a. Promotion of effective use of radio spectrum usage

In March 2012, the Ministry of Internal Affairs and Communications developed the system for area broadcasts, created technology standards for communications type systems, etc. It is thus working to achieve services, and continues to promote the utilization of white space. Also, the "Study Group on Promotion of Effective Use of Radio Spectrum Usage" began in April 2012, is proceeding to investigate from a broad perspective, and plans to put together a report around December 2012.

b. Introduction of a frequency auction system

The Ministry of Internal Affairs and Communications began its "Panel Discussion concerning Frequency Auctions" in March 2011, and put together and published its report in December 2011. In response, the "Bill for Partial Revision of the Radio Act" was submitted to the 180th Ordinary Session of the Diet. This bill would enable introduction of a frequency auction system.

Specifically, regarding base stations used in telecommunications operations which use designated spectrum (cellular phone base stations), this establishes a system using bidding etc. (bid or auction) for authorization of bidding opening plans of the highest price bidder, from among parties which submit bidding opening plans appropriate for the bidding opening guidelines designated by the Minister for Internal Affairs and Communications.

c. Effective use of frequency freed after shift to terrestrial digital broadcast

There are initiatives for effective use of frequency. For example, with the shift from analog to digital terrestrial TV broadcasts, cellular phones were allocated to spectrum freed up by the end of terrestrial analog broadcasts and by the reallocation of digital broadcast channels.

(2) Radio usage advancement and diversification initiatives

In the "allocation of cellular phone frequency in the 700/900MHz band," for the 900MHz band, an opening guideline (allocation guideline) was created in December 2011. Four applications were received by January 2012, and as a result of screening done based on screening criteria established in the Radio Act and opening guidelines, Softbank Mobile's opening plan was authorized in March 2012. Also, regarding the 700MHz band, opening guidelines were created in April 2012, and three applications were received by May 2012. As a result of screening done based on the screening criteria, the opening plans of eAccess, NTT DoCoMo and KDDI/Okinawa Cellular were authorized in June 2012.

There are also initiatives for "More advanced wideband mobile wireless access system," "Introduction of Inmarsat GSPS models," etc.

(3) Development of a radio usage environment

Regarding promotion of bioelectromagnetic environmental policies, the progress of wireless technologies has brought more diverse wireless devices, and wireless devices used near the body other than the head are becoming widely used, so regarding methods to measure the specific absorption rate of wireless devices used near the human body except for the head area, a partial reply was received from the Information and Communications Council in October 2011. The Ministry of Internal Affairs and Communications is currently proceeding to prepare more advanced safety criteria for such wireless devices.

The Ministry of Internal Affairs and Communications is promoting standardization in Japan. For example, regarding electromagnetic damage countermeasures, the Ministry is surveying and studying in the "Radio Wave Utilization Environment Committee" established in the Information and Communications Council Technology Subcommittee. The Ministry is contributing to deliberations of international standards in CISPR, and in September 2011, based on international criteria established in CISPR, the Information and Communications Council provided partial replies regarding allowable values and measurement methods for damaging waves from home electronics, conductive tools and similar devices.

Regarding protection of the radio usage environment, in FY2012, in response to interference with important wireless communications by illegal personal wireless, initiatives were strengthened for wiping out illegal per-

sonal wireless.

4. Handling of disputes between businesses in the fields of information and communications

(1) Mediation and arbitration by Telecommunications Dispute Settlement Commission

The Telecommunications Dispute Settlement Commission is a specialized organization for quickly and fairly handling the increasingly diverse cases of conflict in the telecom field. The Commission has three functions: (1) Mediation and arbitration to resolve conflicts between businesses etc., (2) When the Minister for Internal Affairs and Communications issues an order or ruling etc., the Commission receives an inquiry and deliberates and replies, (3) As part of mediation, arbitration, and replies to inquiries, the committee recommends competition rule improvements to the Minister for Internal Affairs and Communications.

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

In the telecommunications field, when discussions on topics such as connection of telecommunications equipment stagnate between telecommunications businesses, a telecommunications business can submit a request to the Minister for Internal Affairs and Communications that he/she issues a ruling or an order to start or restart discussions. Also, in the broadcast field, if a discussion such as on a rebroadcast agreement stagnates between a cable TV broadcast business and terrestrial core broadcast business, the cable TV broadcast business can submit a request to the Minister for Internal Affairs and Communications that he/she issues a ruling. In FY2011, the Minister for Internal Affairs and Communications issued five rulings in the broadcast field.

5. Ensuring safety and reliability of infrastructure

Regarding telecom infrastructure, considering that the Great East Japan Earthquake caused congestion and breakdown etc. in telecom infrastructure over wide areas and for a long time, and that 2011 typhoon number 12 wind and flood damage cut off means of communications to mountain area villages etc., in February 2012, the Information and Communications Council provided replies for some items concerning safety and reliability policies for telecommunications. Based on these, to ensure more communications during disasters, the Minis-

try of Internal Affairs and Communications is starting work to partially revise business use telecommunications equipment rules, etc. Also, in FY2011 there were many communications failures involving smartphones and other mobile phone services. The Ministry of Internal Affairs and Communications began to hold its "Liaison Committee on Countermeasures against Mobile Phone Communication Failures" in February 2012. Starting April 2012, the Information and Communications Council began deliberations on revisions of safety and reliability standards etc. of telecom equipment for the smartphone era.

Regarding broadcast infrastructure, along with the June 2011 enforcement of the revised Broadcast Act, based on the partial replies by the Information and Communications Council, the Ministry of Internal Affairs and Communications developed rules concerning technical standards, major incidents subject to reporting, etc.

Section 3

Ensuring Citizen's Lives are Safe and Secure

1. Consumer administration in relation to telecommunications services

(1) Response to various problems concerning ICT services, considering the viewpoints of users

In its "Study Group on Examining Issues around ICT Services from the User Perspective," the Ministry of Internal Affairs and Communications began holding working groups starting in September 2010 on each topic: Examination of the "Act on the Limitation of Liability for Damages of Specified Telecommunications Service Providers and the Right to Demand Disclosure of Identification Information of the Senders," methods of handling spam, development of an environment where youth can use the Internet safely and securely, and obtaining and enhancing benefits for telecom service users. This Study Group put together and published recommendations on each topic in FY2011.

(2) Developing a safe and secure usage environment in the smartphone era

The Ministry of Internal Affairs and Communications is advocating "Protection of Children Online (PCO) by Design" as a concept which shows the design of devices, design of services, and development of systems in businesses and between businesses, etc., in a form incorporating effective youth protection. Also, starting January 2012, the "Working Group on the User Information Sent

through Smartphone" studied actions needed regarding handling of user information, and published an interim report in April 2012. And together with this, the Working Group created a "Smartphone Privacy Guide" which sorts out matters which users themselves should at least be careful of in using smartphones.

(3) Response to illegal and damaging information in the

In order to newly add individual identification numbers of mobile phone terminals etc. to transmitter information subject to disclosure, the Ministry of Internal Affairs and Communications revised the "Ministerial Ordinance Establishing Information of the Senders Set forth in Paragraph (1) of Article 4 of the Act on the Limitation of Liability for Damages of Specified Telecommunications Service Providers and the Right to Demand Disclosure of Identification Information of the Senders" in September 2011.

(4) Protection of personal information in the ICT field

Regarding personal information protection in telecommunications businesses, the Ministry of Internal Affairs and Communications created the "Guidelines for Personal Information Protection in Telecommunications Business" and its explanation. In November 2011, in response to the results of discussions of related ministries and agencies about location information obtained by telecommunications businesses, the guidelines and their explanation were revised in order to develop related rules.

2. Promotion of information security policy

(1) Achievement of a safe and secure Internet usage environment

The Ministry of Internal Affairs and Communications has been holding the "Smart Phone and Cloud Security Research Society" since October 2011. This research society put together its interim report in December 2011 including "Three Articles on Smart Phone Information Security", and in June 2012, in addition to the interim report's contents, it put together and published its final report which presents medium and long term countermeasures for businesses and government.

(2) Promotion of safe utilization of electronic data

a. Promotion of safety assessment and advancement of encryption technology

With the goal of ensuring safety and reliability of egovernment etc., together with the Ministry of Economy, Trade and Industry, the Ministry of Internal Affairs and Communications implemented the CRYPTREC ciphers assessment project, publishes the "e-Government Recommended Ciphers List," and assesses and monitors the safety of ciphers, etc. Currently, technology progress in recent years has created concerns about the jeopardy of ciphers in the "e-Government Recommended Ciphers List," so CRYPTREC is assessing candidate ciphers from various viewpoints.

b. Promoting wider use of electronic signatures and certification business

In order to safely conduct social and economic activities via networks of electronic commerce transactions, the "Act on Electronic Signatures and Certification Business" defines certification business done for very secure electronic signatures as "Specified Certification Business," and ensures the authenticity of electronic signatures. As of the end of April 2012, 16 Specified Certification Businesses have received accreditation.

c. Promotion of use of time business

The Japan Data Communications Association accredits time businesses which meets certain standards, operating its "Time Business Reliability and Security Accreditation System" which provides reliability criteria to the public. Also, to clarify methods of time transmission and audit and in response to vulnerabilities found in encryption algorithms used in time stamps, it revised the technology standards of this accreditation system in November 2011, and plans to apply these starting October 2012.

3. Promotion of computerization in the fire safety and disaster preparedness field

There is work on development of fire safety and disaster preparedness communication networks which are strong in disasters, development of a national early warning system (J-ALERT), etc.

Section 4

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

1. Promotion of ICT in the fields of education, medicine, etc.

(1) Promotion of ICT utilization in the education field

In order to promote ICT utilization in the education field, and derive and analyze issues focused on information and communication technology aspects, the Ministry of Internal Affairs and Communications has been working on its "Future School Promotion Project" since FY2010. In FY2011, in cooperation with the "Learning Innovation Project" of the Ministry of Education, Culture, Sports, Science and Technology, it is deriving and analyzing issues focused on information and communication technology aspects at school sites, and performing demonstration experiments on technical conditions, other benefits, etc. Its demonstration research results were put together and published in April 2012, as the "2012 Guidelines (Guidebook) concerning Information Communication Technology to Promote Use and Utilization of ICT in the Field of Education," considering the study results of the "Future School Promotion Research Society." In FY2012, demonstration research continues in cooperation with the Ministry of Education, Culture, Sports, Science and Technology, in order to improve the content of the guidelines.

(2) Promotion of ICT utilization in health and medical fields

The Ministry of Internal Affairs and Communications is striving to promote ICT utilization in the health and medical fields. For example, it is performing demonstrations to promote dissemination of wide area joint use type medical information coordination infrastructure, for safe and smooth delivery of medical and health information held locally.

(3) Promotion of telework

In FY2012, to encourage the full scale spread of telework, there is a plan to provide private companies nationwide with human resource support for the introduction and operation of telework, establish good introduction models which suit the security levels and operations content, and thereby encourage its wider use.

2. Regional development utilizing information and communication infrastructure

The Ministry of Internal Affairs and Communications' "Regional ICT Activation Panel" put together a recommendation in July 2011 that maximizing utilization of ICT functions and achieving regional activation are very important issues for the aim of recovery of Great East Japan Earthquake disaster regions, and for Japan's revitalization. Considering this, to develop a comprehensive support system for regional ICT activation, "Regional Computerization Advisors" and "ICT Regional Managers" were dispatched, and ICT utilization is being promoted in Japan's regions.

3. Promotion of Content Distribution

In the Telecommunications Policy Subcommittee of the Information and Communications Council, the Ministry of Internal Affairs and Communications established the "Study Group on the Promotion of Digital Content Distribution." This Study Group is proceeding with discussions of "Faster and more efficient rights processing," "Promotion of overseas deployment of contents," "Promotion of smart TV," etc., as issues which should be worked on urgently. Based on these, it is promoting various policies such as "Promotion of centralization of rights processing of broadcast contents," "Measures against unauthorized distribution of contents," "Proper manufacturing transactions of broadcast contents," "Promotion of digital archives," "Demonstration experiment on standardization of smart TV," "Overseas Content Expansion Conference," and "Development of environment for electronic books."

4. Establishment of a barrierfree 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: "Promotion of and assistance for ICT usage by challenged people," "Promotion of broadcasts for visually and aurally challenged people," "Promotion of a universal usage environment," etc.

5. ICT contributions for global environmental problems

The Ministry of Internal Affairs and Communications is promoting its "Green ICT Project," with two pillars: "Green of ICT (greening of ICT system itself)" and "Green by ICT (greening of each field by utilization of ICT)." Also, considering that the global warming problem is a serious international issue, in order to promote research and development in the ICT field to solve this problem, this research and development is being carried out in the "Strategic Information and Communications R&D Promotion Program" starting FY2012.

6. Development of ICT personnel

Regarding ICT human resource development, the Ministry of Internal Affairs and Communications is executing the "Advanced ICT Human Resource Training Program Development Project" and "Project for Practical ICT Human Resource Development Promotion between Remote Locations." Amidst global progress in internet use by youth, the Ministry of Internal Affairs and Communications also put together its "Internet Literacy Assessment Indicator for Students" in March 2012, by accurately understanding the Internet literacy needed by youth, while working to adjust for international trends. Furthermore, the Ministry works on the "Promotion of e-Net Caravan" and "Enhancement of media literacy."

Section 5

Promotion of Computerization of Government Services

1. Realization of e-government

(1) Establishing and strengthening IT governance in government

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, to investigate specialized and technical reform policies. In March 2011, the Study Group released its recommendations in Toward Establishing and Strengthening IT Governance in Government.

(2) Implementation of e-government

The "Plan for New Online Utilization" (August 2011 IT Strategy Headquarters Decision) states that regarding overall procedures such as the national government's applications put online, the scope of online use considering factors such as cost benefits shall be determined; and that regarding "priority procedures" often used by citizens and companies etc., operation process reform shall proceed with a focus on the overall system including procedures. The Ministry of Internal Affairs and Communications also plans to advance these initiatives. In order to discover the issues concerning company codes introduction, in FY2011, regarding expanding the scope to "Investigation Procedure for Qualifications for Participation in Bidding for Business such as Measurement and Construction Consultants" and "Investigation Procedure for Qualifications for Participation in Bidding for Goods and Labor of Local Governments (Prefectures)," and in cooperation with related ministries, agencies and municipalities, using common company codes to link information of government institutions, thereby eliminating requiring attached registration item certificates, the Ministry of Internal Affairs and Communications conducted demonstration experiments with the aim of discovering issues regarding technical verification and system and operation aspects, etc. Furthermore, the Ministry promotes the "Back Office Collaboration Promotion Project" and "Project to promote mobile access to e-Government service."

2. Promotion of e-local government

(1) Construction of ICT infrastructure for local government organizations strong in disasters and accidents

a. Promotion of local government clouds

The Ministry of Internal Affairs and Communications is studying local financial measures and standardization of data structures for introduction of local government clouds. It is providing fiscal support for Great East Japan Earthquake disaster areas, and proceeding with initiatives for national deployment of local government clouds.

b. Promotion of Business Continuity and Ensuring Information Security

Considering the lessons of the Great East Japan Earthquake, the Ministry of Internal Affairs and Communications decided to build a model of e-local government which is strong in disasters, revise the "Guidelines for Creating Business Continuity Plans of ICT Units in Local Governments," and spread its results nationwide, thereby working to strengthen and enhance the crisis response abilities of local governments. It was also decided that the Ministry of Internal Affairs and Communications shall work with local governments to share information on cyber-attacks and personal information leaks, etc., and give cautionary warnings as needed when IT failures occur, to continue supporting the execution of appropriate information security measures.

(2) Enhancement of infrastructure to achieve citizen centered e-government and more efficient procedures

a. Utilization of Resident Registration Network System

The number of items of personal identification information provided from the Resident Registration Network System to government institutions etc. is steadily increasing. In FY2011, in order to eliminate the requirement to submit address changes of pension recipients, personal identification information began to be provided. This contributed to the number of personal ID information provided reaching about 427,000,000 items.

Also, the social security and tax number system cur-

rently being studied will utilize the Resident Registration Network System, so the system will play an even more important role as information infrastructure.

b. Public Certification Service for Individuals provided by local govern-

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 the end of April 2012, the Public Certification System for Individuals was being used for procedures with 11 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. Promotion of Research and Development Strategy

The Ministry of Internal Affairs and Communications is working to promote research and development, based on the "4th Science and Technology Basic Plan" (August 2011 Cabinet decision), which is Japan's basic policy for science and technology. And during the 3rd Target Period over the five years starting FY2011, the National Institute of Information and Communications Technology (NICT) is placing priority on four fields: "Network Infrastructure Technology," "Universal Communication Infrastructure Technology," "Future ICT Infrastructure Technology" and "Electromagnetic Wave Sensing Infrastructure Technology." The aim is efficient and effective research and development.

2. Research and Development which Leads the Next Generation

NICT is executing "Research and Development of Photonic Network Technology," "Certain Construction and Operation of Japan Gigabit Network eXtreme (JGN-X)," "Research and Development of Remote Sensing Technology" and "Multilingual Communication Technology, Contents and Services Infrastructure Technology, Super Realistic Communication Technology, "Also, the Ministry of Internal Affairs and Communications is executing "Strategic Information and Communications R&D Promotion Programme" and "Research and Development of Remote Sensing Technology, Super Realistic Communication Technology, Super Real

opment of Life Support Type Robot Technology." Moreover, the Ministry of Internal Affairs and Communications and NICT are jointly executing "Innovation Creation Type Research and Technology Utilizing Mechanisms of the Brain" and "Research and Development of ICT Infrastructure Technology (Ultra High Frequency ICT Technology, Quantum ICT Technology, Nano ICT Technology)."

3. ICT International Cooperation Promotion Research and Development Program

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

The "Strategic International Collaborative R&D Promotion Project" began in FY2012. This promotes international joint research in the ICT field, supporting research and development funding for joint proposals by universities in Japan and Europe, research institutes of private companies etc., in cooperation with the European Commission.

(2) Promotion of international research using Japan Gigabit Network eXtreme (JGN-X)

The Japan Gigabit Network eXtreme (JGN-X) is being built and operated by NICT since April 2011. This is a large scale testbed network which aims at establishing system technology foundations of a new generation network. Also, to promote cooperation with overseas research institutes, it is connected with overseas research institutes, and it is also used in promoting strategic international research and cooperation.

(3) Promoting international interaction of researchers

NICT is executing the "International Interaction Program" which promotes international interaction of researchers in advanced communications and broadcasting fields, in order to contribute to sharing of the latest technology and research information, enhancing technology levels, human resources development, and promotion of research and development and international cooperation.

Section 7

Promotion of International Strategy

1. Priority promotion issues in international policy

(1) Promotion of ICT overseas deployment

In the terrestrial digital TV broadcasting field, under government/private cooperation, there is work to expand use of the Japanese format (ISDB-T). Starting with Brazil in 2006, a total of 12 countries in Central and South America and Asia (excluding Japan) decided to adopt the Japan format. The plan is to also work on its use in Southern African countries, etc.

Regarding ICT deployment into Asian countries, the "Asia Ubiquitous City Concept Promotion Project" began in FY2011. Also, the Bali Declaration adopted in the November 2011 ASEAN Summit included Japan's proposal for an "ASEAN Smart Network Initiative," which aims to contribute to economic stimulation and to solving various social problems in ASEAN countries by achieving a leading ICT utilization and ubiquitous environment, and it was decided to advance this initiative.

(2) Development of environment for ICT overseas deployment

The Ministry of Internal Affairs and Communications is also supporting human resource development in the ICT field, and supporting international institutions and regional institutions which promote global cooperation to solve the international digital divide. The Ministry also cooperates with ODA and the Japan International Cooperation Agency, contributing to sustainable development of the ICT field in developing countries.

Regarding the promotion of strategic international standardization, the Ministry of Internal Affairs and Communications queried the Information and Communications Council regarding how fields should be prioritized for standardization, considering medium and long term research and development strategy and foreign countries' policies, and how government and private roles should be allocated when promoting standardization. The interim report was received in July 2011. Based on this interim report, regarding smart grids, which is one of the priority fields, the plan is to promote international standardization activities via the "Project for Introduction of Smart Grid Communications Interface," which supports development of facilities needed for achieving energy management.

Regarding international cooperation to counter cyberattacks, the Ministry of Internal Affairs and Communications is building an international network to collect information on cyber-attacks by cooperation with Internet service providers, universities, etc. in Japan and overseas. It is also cooperating with foreign countries to work on research and development and demonstration experiments, for technology which can predict and quickly respond to the occurrence of cyber-attacks.

2. Initiatives in international frameworks

(1) Promotion of international policy in Asia Pacific region

Regarding Asia-Pacific Economic Cooperation (APEC), the Ministry of Internal Affairs and Communications provides the APEC-TEL Chairman, and is actively contributing to APEC's information and communication related activities, such as promotion of "universal broadband access," which is a target that should be shared by APEC member countries and regions.

Regarding the Asia Pacific Telecommunity (APT), at the APT General Assembly held in South Korea in November 2011, Japan's candidate for Secretary General was Toshiyuki Yamada, who was reelected. It was decided that he will serve as Secretary General until February 2015.

Regarding the Association of Southeast Asian Nations (ASEAN), stronger cooperation in the ICT field such as the "ASEAN Smart Network Initiative" was included in the joint declaration (Bali Declaration) adopted at the ASEAN-Japan Summit held in November 2011. Regarding policy on cooperation for the ASEAN region in the ICT field, the Ministry of Internal Affairs and Communications is holding the "ASEAN-Japan Public/Private Council," which is proceeding with study by the government and private sector, and is sharing and exchanging information.

(2) Development of international policy in a global framework

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 the United Nations, Internet related discussions are mainly held in the UN General Assembly First Committee, UN General Assembly Second Committee, Economic and Social Council, and Human Rights Council.

In the WTO Doha Round negotiations, the telecommunications field is one of the most important fields in services trade fields, and there are active negotiations for much more deregulated telecommunications markets. Japan is one of the WTO member countries with the most progress in deregulating its telecommunications sector, so Japan is requesting elimination and relaxation of foreign capital regulations in foreign countries.

(3) Development of international policy in other frameworks

In the G8, the Internet was raised as one of three priority issues at the Deauville Summit held in May 2011.

At the Organisation for Economic Co-operation and Development (OECD), in the June 2011 High Level Meeting on the Internet Economy, the "Communiqué on Principles for Internet Policy-Making" was adopted, and these principles were adopted as an OECD recommendation in December 2011. Also, "Protection of Children Online" began by a proposal of Japan, and the OECD recommendation on this was adopted in February 2012.

(4) Development of international policy in bilateral relations

Regarding policy cooperation with the U.S., the "U.S.-Japan Policy Cooperation Dialogue on the Internet Economy" and "Creation of Japan-United States Trade Principles for Information and Communication Technology Services" were carried out. Policy consultations on information and communications are being held with European ministries and agencies in charge of information and communications, and cooperation on information and communications is being offered mutually with Asian ministries and agencies in charge of information and communications. In addition, work is being done on concluding an Economic Partnership Agreement (EPA).

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 was continually deliberated in the 177th Ordinary Session of the Diet, 178th Extraordinary Session of the Diet, 179th Extraordinary Session of the Diet and 180th Ordinary Session of the Diet. As a result of the discussion held among three political parties (Democratic Party of Japan, Liberal Democratic Party and New Komeito), it was decided to submit a Diet Member Drafted Bill to partially revise the Postal Service Privatization Act. The March 30, 2012 Cabinet Meeting decided to "withdraw" the government submitted postal service reform related bill, and after obtaining consent of the Diet Lower House plenary session, the "Bill for Partial Revision of the Postal Service Privatization Act, etc." was submitted to the Diet Lower House on the same date. This bill passed through deliberation in the Lower House and Upper House, was approved on April 27, and the "Act for Partial Revision of the Postal Service Privatization Act, etc." was proclaimed on May 8, 2012.

2. Promotion of correspondence delivery business

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, 374 operators have entered the special correspondence delivery business as of the end of March 31, 2012, although there have been no entrants in the general correspondence delivery business.