Chapter 3

Trends of Information and Communications Policies

Section 1

Realizing a Society of Advanced Information and Communications Networks

1 Promotion of the national ICT strategy

Recognizing that the first-phase targets of the ICT strategy are in the process of being achieved, the IT Strategic Headquarters evolved the strategy into the second phase—the expansion of IT use—and in July 2003 formulated e-Japan Strategy II. For the realization of an "energetic, worry-free, exciting, and more convenient" society, e-Japan Strategy II takes up seven areas for leading efforts including medical care, food, and administrative service.

In an effort to securely implement e-Japan Strategy and e-Japan Strategy II, the IT Strategic Headquarters has formulated the e-Japan Priority Policy Program every year, clearly indicating the concrete measures, the competent ministries and agencies, and the time limit for the implementation. In June 2004, the e-Japan Priority Policy Program - 2004 was drawn up. The e-Japan Priority Policy Program - 2004 has two aspects: a priority policy program to ensure the achievement of the 2005 goals (last program) and a priority policy program to serve as strategic steps for goals in 2006 and beyond (pre-program). Furthermore, since 2005 is the year for attaining the goals of the e-Japan Strategy, the IT Strategic Headquarters laid down the IT Policy Package - 2005 in February 2005 to put forth the last spurt from a user perspective without slowing down the efforts to date. This package mainly contains measures in fields familiar to people's lives, such as administrative service, medical care, and education.

2 u-Japan Policy

In order to study measures and challenges toward achieving u-Japan, the MIC established the Policy Roundtable for Realizing a Ubiquitous Network Society in March 2004 and compiled the "u-Japan Policy" in December of the same year.

The basic concept of the u-Japan Policy stands on the following three principles.

First is the development of ubiquitous networks. While conventional infrastructure development had centered on wire communications, a shift from narrowband to broadband such as DSL, CATV, and optical fiber, the u-Japan Policy aims at building seamless ubiquitous networks where users need not be conscious of whether the communication is wired or wireless.

Second is advanced use of ICT. Conventionally, use of ICT was often intended for pioneering digitization or boosting up digitization wherever lacking. However, the u-Japan Policy focuses on using ICT to resolve social problems.

Third is upgrading an enabling environment. The spread of ICT to all areas of daily life could further increase concerns and obstacles that are already emerging in the cyber society and generate new unexpected problems. In order to clear these problem in advance, the u-Japan Policy includes drastic measures in the area of use environment.

Through implementation of the policy based on these three principles, the u-Japan Policy aims to achieve a "value-creating" society where ICT penetrates every corner of life like grassroots and various new values are generated through creative ICT use.

Section 2

Development of Information and Communications Policies

1 Development of Telecommunications Policies

(1) Study on ideal method of calculating connection charges from fiscal 2005 onward

The diffusion of mobile phones and rapid rise of IP phones have dramatically changed the environment surrounding fixed line telephones, such as the considerable and continuous decrease in the traffic from fixed line telephones. In light of this situation, the MIC consulted the Telecommunications Council in April 2004 about an ideal method of calculating connection charges from fiscal 2005 onward. In response, the council submitted a report on the calculation method of connection charges and the handling of the non-traffic sensitive (NTS) costs (the costs that arise irrelevant to the amount of traffic), among other matters.

Based on this report, the MIC revised the regulations for interconnection charges and started applying the new connection charges in April 2005.

(2) Study on ideal basic monthly charges and installation fees

Upon consultation with the Telecommunications Council in April 2004, a study was also conducted on the ideal basic monthly charges and installation fees in order to examine the handling of NTS costs. The council compiled a report on ideal basic monthly charges and installation fees among other matters in October of the same year. Based on this report, NTT East and NTT West revised their basic monthly charges in January 2005 and their installation fees in March of the same year.

(3) Study on the ideal Universal Service Fund System

The Universal Service Fund System was introduced in June 2002 to ensure provision of telecommunications that are essential for national life throughout Japan. It had been decided from the beginning that the system should be reviewed about two years after its introduction, with necessary measures to be taken based on the results. Since then, the number of mobile phone subscribers has exceeded the number of fixed line telephone subscribers and the use of IP telephones has rapidly become widespread. In addition, competition in the telecommunications field is likely to further intensify in the future due to the expected growth of new fixed-line telephone services called chokushu-type services, in which subscribers call without using NTT's switching network, and the reduction in the basic monthly charges and the installation fees of NTT East and NTT West. Against this backdrop, in November 2004, MIC requested advice from the Telecommunications Council on future policies for an ideal Universal Service Fund System, including issues such as the scope of universal service, the method of calculating the cost for providing universal service, and the method of financing this cost.

(4) Implementation of the competition review in the telecommunications field

The MIC started a measure called "the competition review in the telecommunications field" in fiscal 2003 in order to accurately understand the competition status of the telecommunications field, which is becoming ever complex with the introduction of IP and broadband networks, and to reflect it in the policy. The competition review in fiscal 2004 covered not only "Internet connectivity" and an "intra-company network," which had been subject to the fiscal 2003 review, but also "mobile communications" and "IP telephones" for analysis and evaluation. Since increased convergence of these services would affect not only terminals but also network configurations, the MIC analyzed and evaluated the competition status while watching the future relationship among the three services—broadband, mobile phones and IP telephones.

(5) Dispute settlement between carriers

The telecommunications field is seeing the occur-rence of complicated disputes between carriers in line with the advancement/diversification of services and increased use of IP networks. Therefore, the Telecommunications Business Dispute Settlement Commission presents flexible and reasonable resolutions for individual dispute cases from the viewpoint of the public benefit status of telecommunications services and user protection even if there were no existing rules. Furthermore, when the commission finds that rules have yet to be developed in the course of dispute settlement or deliberation of matters consulted on by the Minister for Internal Affairs and Communications, it recommends to the minister that new rules be developed, as well as expects the minister to develop new rules based on precedents accumulated by the commission. The commission processed 37 cases and made two recommendations to the Minister for Internal Affairs and Communications by the end of fiscal 2004.

Such formal dispute settlement procedures have accomplished certain results, but in order to enhance the system for offering information on a dispute settlement prior to entering such formal dispute settlement procedures and to provide appropriate advice to telecommunications carriers that come to seek opinions on various matters, the commission opened the "Telecommunications Business Dispute Settlement Consultation Desk" in December 2004, and offers appropriate suggestions on dispute settlement means.

2 Development of broadcasting policies

(1) Promotion of digital broadcasting

The digitization of broadcasting will dramatically change the conventional viewing mode where viewers received one-way services, and generate a viewing style in which people, or viewers, actively take part in the service. By providing a wide array of advanced services that could not be provided through conventional broadcasting, the digital broadcasting enables various viewing modes that could not have been imagined in the analog technology phase, as well as significantly improves the usability of the radio spectrums, which are people's common resources, and opens up the possibility for yet more advanced use.

In order to realize a complete shift to digital broadcasting in 2011, the MIC is promoting digitization of all broadcasting, while coordinating with the National Conference for Promotion of Terrestrial Digital Broadcasting.

(2) Advanced use of terrestrial digital broadcasting in the public service field

The MIC sought advice from the Telecommunications Council on ideal future use of terrestrial digital broadcasting in a wide range of fields, challenges and solution measures toward achieving such use, and the role that should be played by administration in January 2004, and received an interim report in July

of the same year. In response to this report, the MIC plans to construct a model system assuming advanced use of terrestrial digital broadcasting, and implement pilot projects for developing new services that utilize the advanced functions of terrestrial digital broadcasting, such as broadcasting for mobile terminals and server-type broadcasting.

(3) Addressing various challenges pertaining to digitization of broadcasting

It is expected that advanced use of a digitized broadcasting infrastructure, development of new services in collaboration with sophisticated information and communications networks, enhancement of ubiquitous environment for using broadcasting, and use of contents such as broadcast programs under a digital environment will all make smooth progress, and that broadcasting will greatly contribute to increasing convenience in people's lives, constructing a vigorous economy and society, and creating new culture through its digitization. Under such an environment, the MIC set up the Study Group for the Development of Digitization and Broadcasting Policy in July 2004, and examines the development of digitization and new broadcasting services, public broadcasting in the age of digital broadcasting, and broadcasting contents in the digital age, so as to smoothly shift to digital broadcasting and develop broadcasting that can precisely meet the diverse needs of the people/viewers.

(4) Future of radio broadcasting in the digital age

While many local stations face severe business conditions amidst rapid changes in the environment surrounding terrestrial radio broadcasting, test broadcasting for practical application of digital radio broadcasting was launched in Tokyo and Osaka in October 2003, and expectations are growing for digitization of terrestrial radio broadcasters. In light of this situation, the MIC has been studying the basic role of terrestrial radio broadcasting in the digital age, measures for the development of a business model for terrestrial radio broadcasting in the multimedia and digital age, and the future of terrestrial radio broadcasting that takes the above into consideration at the Consultative Group on the Future Image of Radio Broadcasting in the Digital Age since September 2004.

(5) Review of the restriction of foreign investment at broadcasting stations

Terrestrial broadcasting, using public radio spectrums which are national assets, is finite and scarce in nature, and plays a large role in conveying information that is indispensable to people's lives at times of disaster, etc. It is even positioned as a designated local public institution in the Disaster Measures Basic Law.

In response to the changes in situation in recent years, such as an increase in incoming investment in Japan and rapid changes in the styles of shareholding and capital contribution, the MIC submitted a bill par-

tially amending the Radio Law and the Broadcast Law to the 162nd session of the Diet in April 2005 in order to introduce regulations on indirect investment in addition to the current regulations on direct investment with regard to foreign investment in terrestrial broadcasting.

3 Promotion of policies concerning effective radio spectrum use
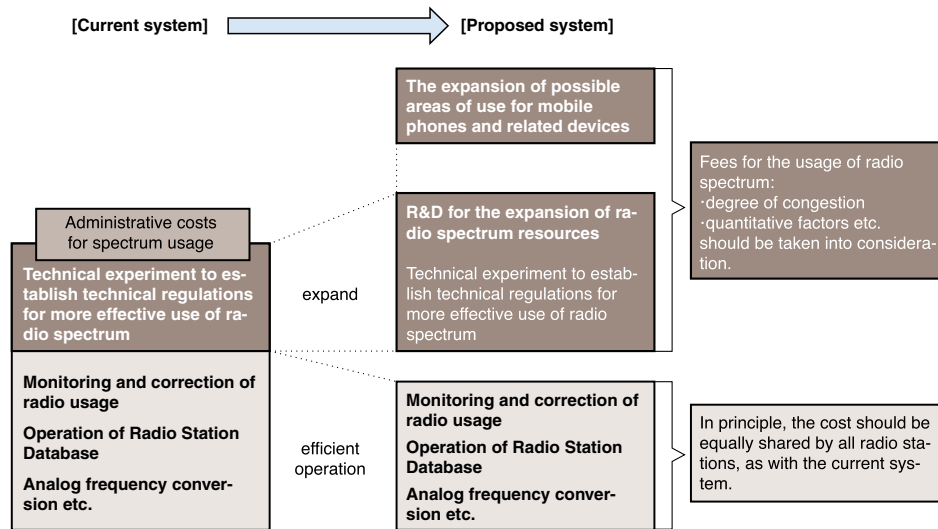
In order to build a wireless broadband environment, it is essential to enable the use of large amounts of radio waves for mobile communications systems, wireless LAN, and other core elements of the environment. Therefore, MIC formulated and released the "Guidelines for Radio Spectrum Reallocation" in October 2003, setting forth the basic concepts of the radio spectrum reallocation. In this policy, MIC indicates its plan to examine reallocation to secure a spectrum of about 330 to 340 MHz in bandwidth, mainly in the 1.7 GHz band and 2.5 GHz band, for mobile communications systems in the medium term (within five years).

In addition, the Radio Law was amended in 2004 in order to introduce a benefit system for existing radio spectrum users whose frequency use will come to an early end to assist with expenses that normally arise when the said period of use comes to an early end, from the viewpoint of facilitating prompt frequency reallocation.

With regard to wireless systems for joint use such as high-output outdoor wireless LAN, the MIC implemented deregulation and introduced a post-check registration system in place of the existing pre-check licensing system, while maintaining the spectrum order. With the introduction of the registration system, it becomes possible to register radio stations with the same mode of use in a batch while radio stations had to be individually licensed based on detailed information in the past. In addition, individual radio stations can be freely established based on registration (reporting detailed information ex post facto). In this manner, this revision will dramatically expedite and simplify the procedure for opening a radio station, and is expected to promote free use of radio spectrums.

With respect to the Spectrum User Fee System, more than 12 years have already passed since its introduction, and circumstances surrounding radio spectrum user fees have dramatically changed, including development of businesses that use radio spectrums for such devices as mobile phones or wireless LAN. Therefore, the MIC examined the revision of the Spectrum User Fee System at the Study Group on Policies Concerning the Effective Radio Spectrum Use, and based on the proposals by the study group in October 2004, submitted a bill to amend the Radio Law to the 162nd session of the Diet in February 2005 **(Figure 3-2-1)**.

Figure 3-2-1 Review of the Spectrum User Fee System

[Current system] → [Proposed system]

Administrative costs for spectrum usage

Technical experiment to establish technical regulations for more effective use of radio spectrum

Monitoring and correction of radio usage

Operation of Radio Station Database

Analog frequency conversion etc.

expand

efficient operation

The expansion of possible areas of use for mobile phones and related devices

R&D for the expansion of radio spectrum resources

Technical experiment to establish technical regulations for more effective use of radio spectrum

Monitoring and correction of radio usage

Operation of Radio Station Database

Analog frequency conversion etc.

Fees for the usage of radio spectrum:
·degree of congestion
·quantitative factors etc.
should be taken into consideration.

In principle, the cost should be equally shared by all radio stations, as with the current system.

Section 3

Upgrading Information and Communications Networks

1 Promoting improvement of the network infrastructure

(1) Development of advanced infrastructure befitting a frontrunner

The MIC has implemented demonstration tests on a shift of the whole Internet infrastructure from IPv4 (Internet Protocol version 4) to IPv6 (Internet Protocol version 6) since fiscal 2003 to resolve problems in network operation and secure interconnectivity between various equipment, and formulated a model for a smooth shift to IPv6. In addition, the MIC also engages in promoting the shift to IPv6 on a global scale by sending out the results of these demonstration tests to other countries and contributing to the IPv6 Ready Logo program, which is an international effort to certify compatibility with IPv6 specifications. In fiscal 2005, the MIC plans to promote full-fledged diffusion of IPv6 based on the achievements to date by investigating attractive applications that use the characteristics of IPv6, such as a facility management system, in cooperation with local governments.

(2) Study on construction of next-generation network infrastructure

The MIC has been convening the Study Group on Next-Generation IP Infrastructure since February 2004, and compiled the first report in June 2004. The report pointed out the current situation where Japan's backbone traffic is centralized in Tokyo, and proposed countermeasures against a future surge in traffic, such as the need for the development and commercialization of technology for reinforcing networks, the need for efforts/technical development on traffic control and quality assurance, and the need for examining technical challenges in decentralizing traffic, in order to strengthen the next-generation IP infrastructure. Based on this report, the MIC launched "R&D on the Next-Generation Backbone Circuit" in fiscal 2005 and has been promoting this effort, while it also continues to examine various challenges related to next-generation IP infrastructure development.

(3) Management of IP addresses and domain names

Due to the increasing penetration of the Internet in society and the economy worldwide, including in developing countries, and the growing importance of the Internet, wide-ranging challenges related to the Internet including an ideal international management framework for domain names and IP addresses are currently being discussed at the Working Group on Internet Governance (WGIG) of the United Nations. The WGIG, of which establishment was requested of the U.N. Secretary General during the first phase of the World Summit on the Information Society (WSIS), has been making active efforts since its establishment in November 2004 in order to contribute to the discussions in the second phase of the WSIS. The MIC is proactively participating in

international discussions, mainly in the WGIG.

(4) Study on mobile phone number portability

From November 2003 discussions were held by the MIC's Study Group on Mobile Number Portability, which compiled a report in April 2004. In response to this report, the MIC created and published "Guidelines Concerning Introduction of Mobile Number Portability" in May of the same year.

(5) Efforts toward upgrading mobile communications systems

In response to the report by the Radio Regulatory Council in March 2005 on formulation of technical standards for the high-power passive tag systems using the 950 MHz band, the partial amendment of the Rules for Regulating Radio Equipment concerning frequency assignment, and the draft partial amendment of the Frequency Assignment Plan, the MIC amended the relevant ministerial ordinance, etc. in April of the same year. With this amendment, RFID tags became usable not only in the conventional 135 kHz, 13.56 MHz, and 2.45 GHz bands, but also in the 950 MHz band, which allows relatively long-distance communications and has the potential for new usage.

(6) Upgrading wireless access systems

Since the 5 GHz band frequency was globally allocated for wireless access systems at the World Radiocommunication Conference (WRC-03) in July 2003, the MIC consulted with the Telecommunications Council on the technical requirements in October of the same year in order to institutionalize the use of the new band, and received a partial report in November 2004. Based on this partial report, the MIC sought advice from the Radio Regulatory Council in April 2005 on the draft of the necessary stipulations. The MIC received the advice in the same month, and based on that advice, it institutionalized the use of the new band in May of the same year.

(7) Promoting intelligent transport systems (ITS)

As a measure to promote the diffusion and upgrade of ITS, the MIC promotes dedicated short-range communications (DSRC) in cooperation with the DSRC Forum Japan (Secretariats: Association of Radio Industries and Businesses (ARIB), Highway Industry Development Organization (HIDO), and Japan Automobile Research Institute (JARI)), the ITS Info-Communications Forum (Secretariat: ARIB), the Smartway Project Advisory Committee, and the Study Committee for Practical Application of Smart Plates (Secretariat: Ministry of Land, Infrastructure and Transport). At the same time, the MIC diffuses/develops ITS in local communities, and provides international cooperation by using Japan's ITS technology in Asia, particularly in China.

In terms of R&D of ITS, the MIC engaged in "R&D of Internet ITS" until fiscal 2004, and plans to launch

and promote "R&D of ubiquitous ITS" in fiscal 2005 in cooperation with the Study Group for Promotion of Advanced Safety Vehicles (ASV) and autonomous movement support projects in order to achieve a ubiquity for ITS.

2 Promoting advances in broadcasting

(1) Promoting digitization of terrestrial broadcasting

In the three major metropolitan regions, the MIC began countermeasures for transmitters in August 2002 and countermeasures for individual households and others in February 2003. It also implements countermeasures in other areas, and steadily promotes the respective measures according to the plan, launching countermeasures in 353 regions and completing countermeasures for about 2.3 million households (about 54% of the total) by the end of fiscal 2004.

Under the cooperation of the National Conference for Promotion of Terrestrial Digital Broadcasting and Local Councils to Promote Terrestrial Digital Broadcasting, the MIC drew up the concrete target time for starting broadcasting at the prefectural capitals nationwide, the implementation of which is planned by the end of 2006, and published the result as a roadmap for the opening of new terrestrial digital television broadcasting stations (prefectural capitals).

(2) Upgrading satellite broadcasting

Based on the report by the Study Group on Protecting Personal Information in the Field of Broadcasting and Satellite Broadcasting in the Age of IT compiled in February 2005, the MIC announced the results of the invitation to comment on applying the Law Concerning Broadcast on Telecommunications Services to the use of left-hand circular polarization that is transmitted from communications satellites at 110 degrees east longitude in March of the same year, and plans to make necessary institutional improvements.

(3) Upgrading cable television

As the cable television networks become more and more sophisticated, new modes of services such as FTTH have been started. In light of this situation, the MIC sought advice from the Telecommunications Council on the technical requirements for cable television networks mainly based on optical fiber cables as "technical conditions for improving cable television networks with FTTH" in July 2004 in order to smoothly provide the transmission characteristics specific to optical fiber and services that converge broadcasting and communications, and received a report from the council in March 2005. The MIC plans to formulate technical standards based on the report.

3 Convergence of communications and broadcasting

On the basis of the "Law Concerning Promotion of the Development of Technologies for Communications and Broadcasting Convergence," which went into effect in November 2001, the MIC grants subsidies to private developers of technologies used for services that converge communications and broadcasting, and it establishes telecommunications systems for the common use of such developers, thereby supporting the developers of such technologies and accelerating and promoting the development of services that converge communications and broadcasting.

Section 4

Promoting ICT in Private Companies

1 Measures for improving credibility of electronic data

(1) Promotion of use of time business

The time business, which involves time distribution services (distribution of accurate time information on networks) and time certification services (certification of the time at which the electronic data existed and non-tampering thereafter by certifying the validity of the time stamp attached to the electronic data), is becoming increasingly important recently for improving the credibility of distributed or stored electronic data in various fields such as e-commerce. The MIC is making active efforts to promote the use of the time business by, for example, formulating and releasing "Guidelines on Time Business" in November 2004, which would enable users of private-sector time businesses to use their services with confidence.

(2) Digitization of documents obliged by statute to be stored

The statutory obligation on private business operators, etc. to store documents on paper had been an impeding factor for increasing the efficiency of business activities and operational management in the private sector. Therefore, it was set forth in the e-Japan Strategy II Acceleration Package (decided by the IT Strategic Headquarters in February 2004) to enact a uniform law, which basically allows electronic storage of documents and account books in the private sector, while ensuring the accuracy, readability, etc. according to the content or nature of the documents. In response to this, the Law for the Use of Information Communications Technology for the Storage of Documents by Private Sector Companies and the Law on Improvement of the Related Laws in Line with Entry into Force of the Law for the Use of Information Communications Technology for the Storage of Documents by Private Sector Companies (e-Document Law) were established in November 2004 and entered into force in April 2005.

2 Establishment of environment for promoting the creation and growth of ICT venture companies

The creation of new businesses is believed to be important for achieving sustainable development of the Japanese industry and stimulating the Japanese economy. On the other hand, many recently started ICT venture companies face such problems as a lack of business accomplishments, lack of established technical evaluation, and lack of physical collateral and credibility, and often have difficulty in procuring funds, securing staff, and finding clients, which makes it hard for them to turn an excellent technology into a new business. Therefore, in order to promote the startup and growth of ICT venture companies, the MIC provides various support measures in the areas of fund supply, human resources, know-how, and so on in cooperation with the related ministries and agencies.

Section 5

Promoting ICT in Administration and Public Services

1 Promoting ICT in local areas

In December 2003, the MIC convened the "Study Group on the Promotion of IT in the Regions" to investigate the current status of local digitization, systematically sort out matters such as an ideal future public network connecting municipalities, prefectural governments, and the national government, and ideal applications for upgrading administration by using this public network, and it considers the measures for fiscal 2005 onward. The study group compiled a report in March 2005. The report included proposals on the following in order to further promote ICT use in local areas in the future based on the above current status: (i) implement public applications on the national public network; (ii) develop next-generation local information platforms; (iii) reform legacy systems in local governments; and (iv) develop frameworks for promoting ICT in local areas including resident participation programs. The MIC intends to continue studies toward achieving an introduction of ICT in local areas to suit a ubiquitous network society, based on the proposals in this report.

2 Accomplishing e-government

As for application and notification procedures of national administrative organs, about 13,000 procedures (96%) were conducted online by March 2004. Efforts will be made to provide secure one-stop administrative services thorough a single gateway on the Internet <www.e-gov.go.jp>. In addition, in order to reduce users' burdens, we are working on simplifying and rationalizing the administrative procedures, including prioritizing those with at least 100,000 applications per year.

3 Achieving e-local governments

(1) Constructing e-local governments

As of April 2005, an ICT security policy has been formulated by all prefectural governments and 2,236 municipalities (92.5%), and a personal information protection ordinance has been enacted by all prefectural governments and 2,368 municipalities (97.9%). The MIC will provide support such as fiscal measures for local governments so that all local governments conduct ICT security audits from the perspective of organizational and comprehensive ICT security management. At the same time, it will study ways to evaluate the ICT security level of the local governments and develop/demonstrate systems adopting technology for reinforcing personal information protection.

(2) The Public Certification Service for Individuals (JPKI)

An electronic certificate from the JPKI service is valid for three years and is issued at 500 yen. It is issued by being stored in a smart card such as the Basic Resident Register card after a strict personal identification process at the municipality desk. Then the resident can file an online application with an administrative organ while accompanying strict personal identification, by taking an electronic signature procedure through the use of the private key stored in the smart card and sending the electronic signature along with the electronic certificate.

As of April 2005, the procedures subject to the JPKI service were procedures of eight national government offices, 29 prefectural governments, and some municipalities, such as declaration of national taxes, and application for issuance of a passport. The use of the JPKI service is expected to be expanded to various other procedures of the national government and local governments in the future.

Section 6

Promoting Network Contents Distribution and Developing Human Resources

1 Promoting the Production, Distribution and Preservation of Content

As the construction of an advanced info-communications infrastructure proceeds with the spread of optical fiber and the start of digital broadcasting, finding ways to promote the use of this infrastructure has become a major issue. It was thus addressed in the "e-Japan Priority Policy Program 2004," the "Intellectual Property Strategic Program 2004" and in other initiatives drawn up by the Government's IT Strategy Headquarters and Intellectual Property Strategic Headquarters.

Further addressing these issues, the MIC has developed multi-content multi-use technology aimed at appropriately protecting content-related rights in the various scenarios of use, while securing high levels of freedom and convenience for the use of content on personal communication networks. The MIC also engaged in R&D related to technologies that enable efficient and secure editing and the distribution of high-quality video content of 8 megapixels such as digital cinema over networks, building and testing technologies and systems capable of archiving Web information and promoting their use (such information, which is a particularly valuable asset as it encompasses knowledge and culture in digital form, is easily deleted or lost during daily updates), and so on. In addition, in order to create an environment in which users can easily assess the safety of content, the MIC is actively promoting the establishment of a system, tentatively named the "Content Safety Mark," as a way for Web site builders to demonstrate that their sites are free of illegal or harmful content.

2 Developing human resources

The MIC implements the "Support System for Info-communications Human Resources Training Projects" for subsidizing public-private ventures and public-service corporations that implement information and communications training programs, with the aim of developing personnel with expert knowledge and skills in the information and communications fields. Also, in order to effectively and intensively develop personnel who can appropriately deal with ICT security incidents such as unauthorized access and cyber attacks, the MIC started the "Support System for the Opening of the Info-Communications Security Human Resources Training Centers" in fiscal 2004 for financially assisting facility development of public-private ventures that develop practical training facilities.

Furthermore, from fiscal 2005, the MIC is investigating and studying the abilities required for high-level ICT personnel, such as project managers and CIO, who can engage in strategic digitization in companies, and the practical method for developing such personnel under industry-university-government cooperation. At the same time, the MIC is engaged in "Development Advanced Info-Communications Human Resources Training Programs" in which model educational programs for fostering these personnel are developed.

Section 7

Protecting Information and Communications Users

1 Consumer administration in telecommunications services

(1) Measures against spam

The MIC set up the Study Group on a Framework to Handle Spam in October 2004, and has been conducting an extensive study on the necessary measures for restraint/prevention of spam distribution, such as law enforcement by the government, self-regulation by telecommunication carriers, technical solutions, awareness and international cooperation.

Based on the discussions in this study group, the MIC promoted the consideration to amend the current law, and submitted a bill partially amending the Law on Regulation of Transmission of Specified Electronic Mail to the 162nd session of the Diet in March 2005. The bill included expansion of the scope of specified e-mail, expansion of the scope of prohibited transmission of e-mail to a fictitious e-mail address, prohibition from transmitting e-mails by using false sender information,

and introduction of direct penalties for the offenders. The bill was approved in the Diet in May of the same year.

(2) Measures against billing frauds

In order to eliminate the anonymous nature of pre-paid mobile phones, which is the cause for the frequent use of these mobile phones for offenses such as billing frauds, the MIC repeatedly considered new measures to reinforce personal identification in June 2004, along with mobile phone carriers, etc. As a result, the respective mobile phone carriers and the MIC announced their new measures in November of the same year and started operation from April 2005.

Moreover, in order to eliminate the anonymous nature of prepaid and other mobile phones and prevent their misuse, the mobile phone carriers and PHS carriers were obligated to confirm personal identification of the subscriber upon conclusion/transfer of a subscription contract. In addition, the Law on Confirmation of Personal Identification of the Subscribers, etc. by Voice Mobile Communications Carriers and Prevention of Misuse of Voice Mobile Communications Services was proposed to the 162nd session of the Diet as a bill presented by a Diet member, and the bill was approved in April 2005. This law punishes acts including the following: an act of declaring a false name or address upon subscription, etc.; an act of commercially transferring mobile phones or PHS to others for value without the consent of the mobile phone/PHS carriers; an act of commercially lending mobile phones/PHS to others for value without confirming the name and address of the borrower; an act of transferring mobile phones/PHS owned by others.

(3) Measures against illegal and harmful contents

In October 2004, the MIC and telecom groups worked together to revise the "Guidelines Related to Libel and Privacy" which were prepared by the Conference on Examining Guidelines for the Provider Liability Law, consisting of industry organizations, etc., adding a procedure in which the human rights organization of the Ministry of Justice (Director of a Legal Affairs Bureau or a District Legal Affairs Bureau) asks the Internet service provider (ISP) to remove certain information when the distribution of the information on the Internet seriously abuses human rights and when it is difficult for the injured party to recover from or prevent the damage by themselves. The MIC also made efforts to publicize the revision.

The distribution of imitation and pirated copies at Internet auction sites has also been a growing problem recently. Hence, in December 2004, the "Working Group Related to Trademark Rights" was launched by telecom carriers, groups of rights holders, and others to study new guidelines governing methods for providers to respond.

(4) Measures against phishing

The problem of phishing, which is an act of obtaining personal information on the Internet by fraud, has also been surfacing in Japan since around the autumn of 2004. Because e-mail and Websites are serving as core tools for phishing, since January 2005 the MIC has convened the Liaison Group for the Promotion of Phishing Countermeasures, mainly consisting of telecommunications carriers providing Internet access services, to share information and consider effective countermeasures.

2 Promoting measures for information security and privacy protection

(1) Government-wide information security measures

The government's information security policy was drastically reviewed by setting up a Committee for Essential Issues on Information Security in the Information Security Special Investigation Council in July 2004. Based on the decision of the IT Strategic Headquarters ("The Review of the role and functions of the government in terms of measures to address information security issues" December 2004) given in response to the committee proposals, the National Information Security Center was established in April 2005 in order to reinforce uniform and cross-sectoral comprehensive adjustment of information security measures across the entire government. Also, in March 2005, the Information Security PolicyConference, which is capable of formulating basic strategies on information security policy and conduct ex ante and ex post facto evaluation of information security policy, was established within the IT Strategic Headquarters.

(2) Protecting personal information in the information and communications field

Regarding the protection of personal information, which comprehensively covers all fields, in May 2003 the government promulgated the Law Concerning the Protection of Personal Information. This law went into full effect in April 2005.

With regard to further measures for protecting personal information in the information and communications field, the MIC revised the "Guidelines on the Protection of Personal Information in the Telecommunications Business" and enacted "Guidelines for Protecting Personal Information of Broadcasting Receiver, etc." in August 2004 based on the examination at the Study Group Concerning Information Privacy in the Telecommunications Business Field and the Study Group on Protecting Personal Information in the Field of Broadcasting and Satellite Broadcasting in the IT Age in order to more strictly ensure appropriate handling of personal information. These guidelines have been applied since April 2005.

The above study groups also examined legislative measures for protecting personal information in the

information and communications field, and concluded that it is appropriate to consider development of a legal system that can punish acts of leaking personal information in a cross-sectoral manner in their reports released in December 2004 and February 2005 respectively.

3 Overcoming the digital divide

In the process of examination conducted by the Study Group on Putting in Place Balanced Nationwide Broadband Platforms since June, it was recognized anew that local governments that are making progressive efforts are playing a certain role in developing local broadband infrastructures in an increasing number of cases. In light of this, the "Plan for Eliminating Zero Broadband Areas"—an interim report mainly consisting of the Plan for Accelerating the Installation of a Regional Broadband Infrastructure, which summarize the challenges and measures in developing broadband infrastructure for reference by local governments—was compiled in February 2005.

4 Improving the environment for radio spectrum use

Along with the rapid spread and upgrading of radio spectrum use including mobile phones, concerns have been raised that the radio waves might cause adverse effects on the human body or cause malfunctions to medical equipment, such as the heart pacer. To ease such concerns and to develop an environment that allows people to use radio spectrum safely and confidently, the MIC has formulated adequate criteria and implemented researches.

Moreover, to protect radio equipment from electromagnetic interference from other equipment, the MIC has contributed to the establishment of international standards at CISPR and introduced domestic standards in compliance with the international standards.

In addition, in order to increase the volume of information that can be transmitted on the power line communication system, there have been demands in recent years to expand the frequency range that can be used (2-30MHz to be added). The MIC has set up the "Study Group on High-Speed Power Line Communications" and has been investigating possibilities and conditions for the coexistence of high-speed power line communications with radio uses since January 2005.

Section 8

Promoting R&D

1 Developing R&D policies in the information and communications field

(1) Future R&D promoting strategy

In order for Japan to achieve sustainable economic development and for the Japanese people to lead safe lives with peace of mind, it is necessary to make active and strategic investments in selective areas of science and technology and to maintain and develop the competitiveness of industry through the promotion of research and development. From this perspective, the Second-Term Science and Technology Basic Plan (approved by the Cabinet in March 2001) placed special priority on four fields of science and technology, including the information and communications field, and stipulated that R&D resources should be allocated to these fields in a preferential manner.

With the aim of actively promoting R&D in the information and communications field toward achievement of a future ubiquitous network society, the MIC set up the R&D Strategic Committee within the Telecommunications Council and examines strategies on the priority R&D fields, the roles of the national government and public organizations, and methods of strengthening the international competitiveness and internationally expanding Japan's information and communications technology.

(2) Developing R&D environment

An open test-bed network environment would be required to realize next-generation advanced networks at an early stage under collaboration of Japanese and overseas industries, universities, governments, and communities, revitalize the Japanese economy and society, as well as to strengthen Japan's international competitiveness.

The cutting-edge R&D test-bed network (JGN II) operated by the National Institute of Information and Communications Technology governed by the MIC supports R&D at the light wavelength level by introducing state-of-the-art optical switching, and provides access points in all prefectures nationwide. It is used as the infrastructure for industry-university-government collaboration and regional collaboration around the nation by universities, research institutes, private companies, and local governments. The pioneering efforts concerning

various technology through R&D and demonstration tests on JGN II are generating extensive spillover effects, such as improvement in Japan's technical capabilities, strengthening of industry-university-government collaborations, creation of new businesses and industries, revitalization of local activities, and effects of developing human resources.

2 Implementing selective R&D

(1) R&D on basic technology for ubiquitous networks

Placing emphasis on technologies that have the nature of basic technology, involve high risks, and have high spillover effects, the MIC has been implementing R&D on three technologies—microchip networking technology, ubiquitous network authentication/agent technology, and ubiquitous network control/management technology—since fiscal 2003 under an industry-university-government collaboration framework, and aims to establish elemental technologies.

(2) R&D toward development of next-generation, high-function network infrastructure

The MIC implements R&D on very high-function network technologies that use quantum information and communications technology and nanotechnology. While quantum information and communications technology realizes extremely safe encryption communications and ultrahigh-capacity information transmission by putting information on each photon, nanotechnology realizes higher-performance, smaller, and more power-saving network components such as relay transmission and switching by making use of the nano-scopic physicality.

(3) Advanced use of RFID tags

Since fiscal 2004 the MIC has been implementing R&D on technology for swapping the attributive information in RFID tags between different platforms in response to dynamic environmental changes, technology to link RFID tags with networks, and technology to control access rights to RFID tag information. Also, as an effort to promptly commercialize the R&D results, it conducts user-participation-type demonstration tests across Japan.

In addition, recognizing the need to have RFID tags smoothly accepted by society by taking appropriate measures from a consumer privacy protection standpoint, the MIC summed up the basic concept and formulated/published joint guidelines with the Ministry of Economy, Trade and Industry in June 2004 under the cooperation of the parties concerned, such as consumer groups.

Currently, the MIC is examining the effectiveness of the guidelines through demonstration tests in the respective fields, and plans to create detailed rules by field and modify the guidelines as required.

(4) Connecting robots with ubiquitous networks

By connecting ubiquitous networks with personal robots and industrial robots that are expected to be used in homes and offices in the future (networked robots), it is anticipated that new lifestyles will be created and responses will be possible to such social problems as aging, medical treatment, and nursing care. The major key to realizing networked robots would be the network technology connecting ubiquitous networks with robots, and in order for Japan to lead the world in the field of networked robots, the necessary core technology must be promptly established. Since fiscal 2004, the MIC has been implementing R&D on such issues as "networked robot linkage technology" and "people-friendly communication technology."

(5) Advances in space communications

Because of their many features such as the capacity to provide wide-area and simultaneous communications and to be disaster-proof, space communications are used in a wide range of fields, including communications, broadcasting, and positioning technology. In consideration of the role that space communications should play in the information and communications infrastructure that will be rapidly developed and advanced in the future, the MIC is promoting the development of demonstration satellites and satellite experiments in order to realize the space communications that will be required.

Section 9

Promoting International Strategies

1 Promoting international policies

(1) Promoting the Asia Broadband Program

As an action plan to build a broadband environment in Asia, the MIC, and related ministries, formulated the "Asia Broadband Program" in March 2003 on the basis of the "e-Japan Priority Policy Program-2002" and the "Basic Policies for Economic and Fiscal Policy Management and Structural Reform 2002." This program is treated as a subject to be steadily promoted in the "e-Japan Strategy II" and "e-Japan Priority Policy Program - 2004" as well.

The MIC arranged for cooperation to promote this program with nine Asian countries/regions to date, and reached an agreement on a cooperation arrangement in eight ICT fields in Japan, China, and the Republic of Korea. Furthermore, the MIC implements various R&D projects, human resources development measures, and policy dialogues based on these arrangements.

Furthermore, in order to accelerate the measures based on this program under strong public-private collaboration, the MIC convened the Asia Broadband Promotion Council starting in March 2004. In August of the same year, the council indicated the "measures that should be made into projects by fiscal 2005" and "projects that should be implemented or launched by fiscal 2005" with regard to fields to be promoted intensively and the concrete measures in the priority fields. Currently, the MIC is creating projects and implementing measures based on these indications.

(2) Bilateral and multilateral efforts

In the June 2001 Japan-U.S. summit meeting held at Camp David in the United States, a target was set to cooperate with each other for sustainable growth through Japan-U.S. dialogues, and multi-faceted discussions are held every year under the various meetings including vice-ministerial-level dialogues, public-private meetings, regulatory reforms, and competition policy initiatives.

In October 2004, the Japanese and U.S. governments exchanged written requests on regulatory reforms and competition policy in fields including telecommunications, with regard to Japan-U.S. regulatory reform and competition policy initiatives.

Furthermore, the Japan-EU action plan, which sets forth concrete fields and content for ten years of cooperation starting in 2001, was adopted in the Japan-EU summit meeting held in Brussels (Belgium) in December 1999. In June 2004, the "Joint Statement on Cooperation on Information and Communication Technology" was issued in the joint press statement of the 13th Japan-EU summit meeting.

In addition, in January 2005, Taro Asao, Minister for Internal Affairs and Communications, met with the Indian Minister for Communications and Information Technology when he visited Japan, and adopted and signed a joint statement on the future promotion of bilateral cooperation in the ICT field including promotion of the Asia Broadband Program.

(3) Cooperation and collaboration by Japan, China, and the Republic of Korea

In September 2002, the First China-Japan-Korea ICT Ministerial Meeting was held in Marrakesh, Morocco, with the aim of promoting cooperation among Japan, China, and the Republic of Korea in the information and communications field and with the attendance of representatives from private companies and research institutes in the three countries.

The Third China-Japan-Korea ICT Ministerial Meeting was held in Sapporo, Japan in July 2004. From the viewpoint of further promoting cooperation among Japan, China, and the Republic of Korea in the information and communications field, the "arrangement for cooperation" that had been agreed to in 2003 was revised, and "cooperation on RFID tags/sensor networks" and other matters were included as new cooperative items.

(4) World Summit on the Information Society (WSIS)

The second phase of WSIS is scheduled to be held in Tunis, Tunisia in November 2005. The agenda includes consideration of a concrete method and a mechanism of implementation of the Plan of Action adopted at the first phase of WSIS held in Geneva (Switzerland) in December 2003, the basic principles of Internet Governance, and the financing mechanism for bridging the digital divide.

The Japanese government is planning to contribute as much as possible to the second phase of WSIS, in cooperation with the ITU and the wide-ranging international organizations.

Meanwhile, the Japanese government has been actively contributing by, for example, holding a WSIS thematic meeting on a ubiquitous network society in Japan in May 2005, and drawing up the proposal on foreseeable problems toward the realization of a ubiquitous network society and specific measures to overcome such challenges.

2 Promoting international cooperation

Information and communications are attracting high

expectation as a form of infrastructure that, among other things, leads to economic development, the expansion of employment, and improvement of the national life. In developing countries though, there are still, for example, about 30 countries in which the telephone diffusion rate does not even reach one unit per 100 persons, and the international digital divide is widening. Therefore, there is a growing need to construct information and communication networks around the world, including in developing countries.

The MIC supports human resource development in the ICT field, assists with the formulation of ICT policies and systems through policy dialogue with information and communication ministries in developing countries, assists with development of information and communications infrastructure through implementation of joint international experiments and so on, and supports international and regional organizations that promote global cooperation for eliminating the international digital divide. At the same time, it contributes to the sustainable development of the information and communications field in developing countries in cooperation with such organizations as the Ministry of Foreign Affairs, the Japan International Cooperation Agency (JICA), and the Japanese Bank of International Cooperation (JBIC), mainly through official development assistance (ODA).

3 Promoting international standardization activities

The World Telecommunication Standardization Assembly 2004 (WTSA-2004) was held in October 2004, and an agreement was reached on the standardization themes and frameworks for the next study period (2005 to 2008), including promotion of standardization activities concerning next-generation networks, reinforcement of efforts related to home networks and security, and strengthening of efforts in the Internet field, such as measures against spam (unsolicited e-mail). In addition, chairs and vice-chairs of the study groups (SGs), which conduct the concrete standardization activities, were appointed. From Japan, all candidates—two chairs and eight vice-chairs—were appointed.

In June 2003, the ITU Radiocommunication Assembly (RA-03) for 2003 was held in Geneva, Switzerland. In this meeting, the organization of ITU-R such as the structure of SGs was decided, SG chairs and vice-chairs were appointed, the working methods were reviewed, draft recommendations were approved, and proposed research themes for the next study period were approved.

Revision of a working method usually requires a two-phase procedure involving adoption and approval until a draft recommendation is approved. However, the "procedure for simultaneous adoption and approval," which is a method to shorten the procedure to a single phase (simultaneous) procedure for speeding up, was introduced. As a result, the shortest period from formulation of a draft recommendation until it is adopted and approved will be shortened from the current seven months to three months.

Section 10

Development of Postal Administration

1 Efforts of Japan Post, etc.

(1) Outline of Japan Post

The government released the "Basic Policy on the Privatization of the Postal Services" in September 2004. The basic policy indicated that Japan Post will be privatized in 2007, and its privatization will be finally completed after a transitional period based on the five basic principles in advancing privatization of the postal services (revitalization, consistency, convenience, resource utilization, and consideration) in order to achieve the following interests of the people: (i) the potential of the four functions of postal services (over-the-counter services, postal services, postal savings and postal life insurance) will be fully demonstrated, high-quality and diverse services will become available at low prices through freer business management in the market, and maximum convenience will be achieved; and (ii) funds that had been flowing into the public sector will flow into the private sector, and it will be possible to make use of people's savings for revitalizing the economy.

The government submitted the necessary bills to the 162nd session of the Diet in April 2005 based on this basic policy.

(2) Entry into the correspondence delivery business

In conjunction with the launch of Japan Post in April 2003, the "Law Concerning Correspondence Delivery Provided by Private-Sector Operators" (Correspondence Delivery Law) went into effect, permitting the entry of private operators into the correspondence delivery business, which previously was monopolized by the state.

There are two types of correspondence delivery business: the general correspondence delivery business for "complete participation nationwide" and the special cor-

respondence delivery business for providing "special services." Since the Correspondence Delivery Law imposes requirements that are specific to delivery of correspondence, such as confidentiality protection of the correspondence, providers of the correspondence delivery business must acquire a license from the Minister for Internal Affairs and Communications. At the end of fiscal 2004, 111 carriers had acquired a license for special correspondence delivery business, out of which 71 had already launched the service.