

Chapter 3

Trends of Information and Communications Policies

Section 1

Achieving a Society of Advanced Information and Communications Networks

1. Building a New, Japan-Inspired IT Society

Based on the e-Japan strategy formulated by the government in January 2001, efforts have been made in Japan “to provide high-speed constant Internet access to at least 30 million households and ultra high-speed constant Internet access to at least 10 million households” so as to make Japan the world’s most advanced IT nation. As a result, steady achievements have been made toward accomplishing this strategy, including accomplishing the target number of households having access to the Internet and offering the lowest high-speed Internet access fees in the world. However, the number of households that actually subscribe to the high-speed or ultra high-speed Internet services is considerably smaller than the number of those that can have access to such services, indicating stagnation in the rate of actual use.

In light of this situation, the Internet Use-Promoting Committee of the Department on Information Communications Policy of the MPHPT’s Telecommunications Council discussed the direction of the IT strategy and compiled an interim report in January 2003. The interim report covers proposals about “building a new, Japan-inspired IT society” while giving consideration to the balance between the upgrading of the infrastructure and expansion of use.

2. Promoting the IT National Strategy

The government established the IT Strategic Headquarters and has promoted the IT national strategy based on the Basic Law on the Formation of an Advanced Information and Telecommunications Network Society (IT Basic Law) that entered into force in January 2001. The headquarters formulated the e-Japan Strategy in January 2001 toward “making Japan the world’s most advanced IT nation within five years.” It also formulated the e-Japan Priority Policy Program in March 2001 for

materializing said strategy, and the e-Japan 2002 Program in June 2001 for reflecting said priority policy program upon the measures to be taken in fiscal 2002.

Furthermore, it set up the Acceleration and Advancement of e-Japan 2002 Program in November 2001. In addition, the headquarters drastically reviewed the e-Japan Priority Policy Program and created the e-Japan Priority Policy Program-2002 in June 2002. Furthermore, the IT Strategic Headquarters set up the Expert Study Committee on Future IT Strategy in November 2002 and continues its efforts to review the e-Japan Strategy in order for Japan to remain being the world’s most advanced IT nation even in and after 2006.

3. Budget Related to e-Japan

The government budget in fiscal 2003 relating to the formation of an advanced information and communications network society totals 1.5358 trillion yen. The MPHPT’s budget related to IT is 131.3 billion yen, up 4.8% from the initial budget of 125.2 billion yen in fiscal 2002. In the supplementary budget for fiscal 2002, a total of 287.9 billion yen was allocated as budget relating to formation of an advanced information and communications network society.

4. Implementation of the “e!Project”

Since it is essential to enhance national understanding on IT for promoting the IT revolution, the “e!Project” was implemented based on the e-Japan 2002 Program. The “e!Project” is a showcase for displaying the image of the world’s most advanced IT nation to be achieved in 2005 to the general public and the entire world. Under the budget for fiscal 2002, demonstrative experiments were conducted with regard to the desirable utilization of IT in six fields including education and local administration.

Section 2

Development of Information and Communications Policies

1. Development of Telecommunications Policies

(1) Desirable competition policies for the telecommunications industry

The Telecommunications Council of the MPHPT commenced deliberations in July 2000 on desirable competition policies to be implemented in the telecommunications industry for promoting the IT revolution. After releasing a first report in December of the same year and a second in February 2002, the council presented its final report on this issue in August 2002. The final report included proposals on aggressive deployment of competition policies, the enhancement of consumer protection administration, and the introduction of a new competition framework in consideration of the shift toward broadband and IP networks.

(2) Introduction of a new competition framework

The MPHPT submitted a bill for amending the Telecommunications Business Law and the Law Concerning Nippon Telegraph and Telephone Corporation, etc. to the 156th session of the Diet. This bill proposes deregulation measures, such as the abolition of the Type I/Type II business categories, abolition of the requirement to obtain permission to operate as a Type I telecommunications business, and abolition of the obligation to set forth and notify the charges and tariffs, to enable private carriers to fully demonstrate their capabilities. At the same time, the bill ensures universal service, essential communications, network security/reliability, and a minimum safety net for protecting users, in the aim of making the entire system more convenient for users in Japan.

(3) Promotion of pricing policies

A study group established by the MPHPT is examining the setting of user rates of calls originating from NTT East and West and terminating on mobile networks via inter-exchange carriers and those originating from IP phones and terminating on mobile networks.

The MPHPT has introduced since October 2000 a pricing system with price cap regulation for services that lack sufficient competition and that are highly likely to affect the interest of users. In line with this, the MPHPT calculated the estimated productivity improvement rates to be applied in the next term (three-year period starting October 2003), and consulted with the Telecommunications Council in April 2003 about the caps on the rate standards (standard rate indexes) to be applied for the one-year period starting October 1, 2003.

The same level of standard rate index as present was proposed for voice transmission services and a slightly lower standard rate index than present was proposed for dedicated services.

(4) Review of interconnection charges between carriers

With respect to calculation of interconnection charges between telecommunications carriers, the Long-Run Incremental Cost (LRIC) methodology was introduced to calculate the interconnection costs for some designated telecommunications facilities, based on the Telecommunications Business Law as amended in May 2000 and the regulations for interconnection charges that entered into force in November of the same year. In addition, the Study Group on the LRIC Model in the MPHPT considered reviewing the model and compiled a report on the issue in March 2002. Following receipt of this report, the MPHPT consulted the Telecommunications Council regarding calculation of interconnection charges based on a revision of the LRIC model, and the council reported its findings in September 2002. Based on these findings, the MPHPT partially amended the regulations for interconnection charges.

(5) Settlement of disputes between carriers

The Telecommunications Business Dispute Settlement Commission was established in November 2001 with the aim of strengthening the dispute settlement system in the telecommunications business field. The commission has settled 28 dispute cases and has submitted recommendations to the Minister of MPHPT in two cases as of the end of fiscal 2003. During the period of over one year from its establishment, the council has promptly settled a large number of diverse disputes.

2. Development of Broadcasting Policies

In prospect of increased numbers of information and communications networks moving toward broadband in the future, the MPHPT set up the Roundtable Conference on the Future Aspects of Broadcasting in the Broadband Age from November 2001 to April 2003 to discuss from a broad perspective the problems surrounding broadcasting in the age of broadband. In April 2003, the conference released its final report, which indicated its main courses of action for the problems surrounding broadcasting. At the same time, the conference also formulated the Third Action Plan for the Promotion of Digital Broadcasting, which included diffusion goals for terrestrial digital TV receiver units.

In addition, considering the changes in the environment surrounding broadcasting, such as the digitization of all broadcasting media and the advances of the Internet, the MPHPT established the Study Group on Broadcasting Policy from May 2000 to March 2003 to examine broadcasting policies in general, including review of the concept of broadcasting, desirable commercial broadcasting, and desirable public service broadcasting.

3. Promotion of Policies Concerning Effective Radio Spectrum Use

As the shortage of assignable radio spectrums has become a serious matter in Japan, there is a growing demand for prompt and smooth reallocation of radio spectrums to precisely meet the new radio spectrum needs while taking into account the actual situation of radio spectrum use. Accordingly, the MPHPT intends to assess the extent to which radio spectrums are being effectively used by inviting public opinions, based on the legal scheme to survey, publicize, and assess the actual radio spectrum use that was introduced by the 2002 amendment of the Radio Law.

In addition, the MPHPT held the "Study Group on Policies Concerning the Effective Radio Spectrum Use" from January 2002, which released its first report in December 2002 proposing introduction of a system to provide compensation to existing licensees who will suffer economic losses, among other matters. In response to these proposals, the MPHPT launched the "Study Group for the Realization of a Benefits Scheme for the Reallocation of the Radio Spectrum" in February 2003 to conduct deliberations toward actualizing the benefits scheme.

Furthermore, the MPHPT submitted an inquiry to the Telecommunications Council in August 2002 concerning establishment of a medium to long-term outlook of radio spectrum use (Radio Policy Vision) in order to view the future of radio spectrum use and to promote radio policies from such comprehensive perspectives as IT strategies and international strategies.

Section 3

Upgrading Information and Communications Networks

1. Promoting Improvement of the Network Infrastructure

The Telecommunications Council of the MPHPT organized its second interim report in August 2002 about the "ideal Internet policies in the 21st century." In the second report, the council created roadmaps toward shifting to IPv6 networks for the respective entities including ISPs, households, companies, and the government, and presented the need to implement demonstrative experiments in model environments so as to accelerate the shift to IPv6.

As a system improvement measure for further diffusion of IP telephones, the MPHPT partially amended the telecommunication numbering regulations in June 2002 in order to enable use of 11-digit numbers starting with "050" as numbers for dialing from general subscriber telephones to IP telephones. In response to the enforcement of the amended regulations, applications for the number allocation started in September of the same year. At the same time, the MPHPT launched the "Study Group on Telecommunications Number" in March 2002 to examine problems that can be assumed when providing IP telephone services and a desirable method of number management in Japan among other issues.

Japan presented its vision of the fourth-generation mobile communications system, which follows the third-generation mobile communications system, to the International Telecommunication Union (ITU). Japan's vision was adopted as a draft recommendation by the ITU in February 2003 and is planned to be officially approved in June 2003.

With regard to wireless Internet access, there are growing expectations toward enhanced development and introduction of new systems that use radio. Thus, in order to promote the introduction and upgrading of wireless LANs, the MPHPT amended the ministerial ordinances related to the 2.4 GHz and 25/27 GHz spectrums in February 2002 and the 5 GHz spectrum in September 2002.

Furthermore, the MPHPT takes actions regarding Internet governance and measures to further diffuse intelligent transport systems (ITS).

2. Promoting Advances in Broadcasting

The digitization of broadcasting leads to many merits for audiences and allows for a drastic saving in frequen-

cies used as compared to analog broadcasting, making it possible to respond to the new need for frequencies such as is required for mobile communications.

The MPHPT is taking various measures to prepare the environment toward introduction of terrestrial digital television broadcasting. In order to emit radio waves for digital broadcasting under the crowded frequency circumstances in Japan, there is a need to change the frequencies of existing analog broadcasting in some locations prior to the shift to terrestrial digital broadcasting. Accordingly, the Radio Law was partially amended in July 2001 with the aim of dealing with the expenses necessary for changing the frequency used for analog broadcasting through introduction of a Spectrum User Fee System. In the three major regions (Kanto, Kinki, and Chukyo), the MPHPT launched measures on the senders' side in August 2002 and measures on the reception by individual households in February 2003. In September 2002, it enacted a licensing policy for radio stations that were to conduct terrestrial digital television broadcasting, and granted pre-permits in April 2003. The broadcasters are scheduled to start terrestrial digital broadcasting services in December 2003. Furthermore, the MPHPT provides tax benefits and financial support to broadcasters whose implementation plan has been certified under the Advanced Television Broadcasting Facility Development Promotion Temporary Measures Bill in order to encourage establishment of facilities for conducting terrestrial digital broadcasting.

3. Convergence of Communications and Broadcasting

Digital broadcasting, which is highly compatible with the Internet, allows easier distribution of conventional broadcast contents on various media other than broadcasting, particularly through a combination with the IPv6 Internet, expanding the possibilities for new services that converge communications and broadcasting. Therefore, the MPHPT grants subsidies to private developers of technologies used for services that converge communications and broadcasting and establishes telecommunication systems for common use of such developers under the Promoting the Development of Technology for the Convergence of Broadcast and Telecommunication Act enacted in November 2001, so as to support developers of such technologies and to accelerate/drive development of services that converge communications and broadcasting.

In fiscal 2002, a test bed that links facilities in Osaka City and Okayama City was established and operated for demonstrating the effectiveness of convergence technologies.

Furthermore, the rapid progress in the widening of bandwidths through the use of communications satellites and optical fibers in recent years has enabled use of broadband telecommunications circuits of carriers not only for communications, but also for broadcasting. Thus,

with the aim of responding to such increased convergence of transmission lines for communications and broadcasting, the Laws Concerning Broadcast on Telecommunications Services, which provides for broadcasting that utilizes telecommunications services, went into force in January 2002. In March 2003, cable television broadcasting through ADSL was launched based on this law.

Section 4

Promoting IT in Private Companies

1. Establishment of Tax Incentives for Promoting Investment in IT Networking

In order to increase competitiveness of Japanese companies and to reform the industrial structure, it is necessary to make selected investment to promote establishment of IT networks that contribute to improving the efficiency of corporate operations and raising the added value of their businesses. Thus, tax incentives for promoting investment in IT networking were introduced in fiscal 2003 to improve operational efficiency and raise the added value in private companies through providing tax benefits for IT investment in both hard and soft aspects. This tax system will realize a tax reduction effect of approximately 600 billion yen in the initial fiscal year.

2. Formulation of IT Strategy toward Increasing International Competitiveness of Japanese Companies

With the objective of deliberating a truly effective policy for driving IT in private companies, while giving consideration to the future situation of the information and communications network infrastructure and the emergence of new business models in the information and communications field, the MPHPT hosted a Study Group on IT Strategy of Private Companies for Recovering International Competitiveness from July 2002, which released a report in December 2002. Based on the proposals, the MPHPT is carrying out study on establishment of an “info-communications platform to support corporate IT usage” that can be utilized as a common infrastructure suitable for Japanese companies, so as to promote use of IT in companies and contribute to creating new high-value added businesses.

3. Expansion of Support for IT Venture Companies

IT venture companies face difficulties in procuring funds, securing human resources, and securing clients, since many of them have only started up recently and lack credit capability. To promote start-ups and growth of IT ventures, the MPHPT provides various support measures in terms of funds, technologies, and human resources. In addition, since March 2003, the MPHPT has held the “IT Venture Study Group,” which comprehensively discusses about the various problems surrounding IT ventures and

concrete support measures for promoting IT ventures, aiming at development of concentrated and selective measures for promoting IT ventures. The MPHPT also encourages Telework and SOHO.

4. Diffusing and Promoting Electronic Signatures and Certification Services

The Law Concerning Electronic Signatures and Certification Services was enforced in April 2001 under the joint jurisdiction of the MPHPT, the Ministry of Justice, and the Ministry of Economy, Trade and Industry (METI) with the objective of further promoting e-commerce and other social and economic activities utilizing information and communications networks through enabling smooth utilization of electronic signatures by citizens. This law introduced a national accreditation system for designated certification services to provide citizens with a guidepost for credible certification services, and as of the end of fiscal 2002, 12 designated certification services have been accredited. Moreover, diffusion and public awareness activities have been continued through publicity activities with respect to the legal effects of electronic signatures and the points to note when using electronic signatures, in order to improve citizens’ understanding of electronic signatures and certification services. Furthermore, a list of recommendable cryptographic techniques for procurement activities by Japan e-Government was decided in February 2003 by “CRYPTREC,” a cryptographic techniques evaluation project jointly carried out by the “CRYPTREC Advisory Committee” hosted by the MPHPT and METI and the “CRYPTREC Evaluation Committee” hosted by the Telecommunications Advancement Organization of Japan (TAO) and the Information-Technology Promotion Agency, Japan (IPA), after inviting citizens’ opinions.

Section 5

Promoting IT in Administration and Public Services

1. Promoting IT in Local Areas

The MPHPT has been promoting comprehensive digitization of local communities, through activities to close the gaps in info-communications and telecommunications, as well as intangible activities utilizing information and communications, with the view of improving education, welfare, and other services for residents, improving the efficiency of public administration, and rectifying the digital divide. In addition, the MPHPT held the “Study Group on Production of Local Information on the Terrestrial Digital Broadcasting” from September 2002, which discussed the various problems that could occur when local governments utilize terrestrial digital broadcasting for publishing administrative and other information, and compiled a report in March 2003.

2. Revitalizing Local Economies through Utilization of IT

The MPHPT promotes a concept of IT business model districts based on the “Basic Policies for Economic and Fiscal Policy Management and Structural Reform 2002” (Cabinet decision in June 2002). This is a concept to designate the local governments that are enthusiastic about promotion of IT businesses and realize an attractive business environment for IT businesses prior to other areas, in order to accumulate IT businesses and revitalize local economies through establishing local development models of IT businesses and applying those models to other communities. In April 2003, eight districts were designated nationwide as IT business model districts. The MPHPT also promotes development of Okinawa through IT.

3. Accomplishing an e-Government

With regard to acceptance of online administrative procedures, all administrative procedures (approx. 52,000 procedures) including applications and notifications by individuals and companies will be made accessible around the clock from home and office computers via the Internet by the end of fiscal 2003, in principle. In the area of legal systems, the three laws for providing online administrative procedures, namely, the “Law Concerning the Use of Information and Telecommunications Technology on Administrative Procedures (Online Administrative Procedures Law),” the “Law Concerning Preparation of Related Laws for Enforcing Online Administrative

Procedures Law (Preparation Law),” and the “Law Concerning Digital Signature Certification of Local Public Entity (Public Individual Certification Law)” for further computerizing the central and local governments passed the 155th session of the Diet in December 2002. Among these laws, the Online Administrative Procedures Law and the Preparation Law (partially excluded) went into force in February 2003.

The digitization of government procurement procedures (excluding public works) is promoted by the Liaison Meeting of Ministries and Agencies for Promoting Digitization of Government Procurement Procedures (Excluding Public Works), which is lead by the MPHPT and attended by all ministries and agencies, according to the “Future Measures based on the Study Findings of the Virtual Agency (Task Force Jointly Formed by Ministries and Agencies)” (decided by the Advanced Information and Telecommunications Society Promotion Headquarters in December 1999). The MPHPT developed an online bid system using the Internet for the bid tendering/opening in fields such as commodities, etc., and launched operation of the “electronic tendering and bid opening system for non-public works” in October 2002.

The Japanese government, which is advancing computerization of administration in a comprehensive and organized manner based on the e-Japan Priority Policy Program and other programs, developed and reorganized the conventional “Liaison Meeting of Ministries and Agencies for Promoting Computerization of Administration” into a new framework in September 2002 to secure a more firm foundation for driving computerization as the whole government and to promote the digitization of administration more powerfully. This new framework was established under the IT Strategic Headquarters as the “Liaison Meeting of the Chief Information Officers (CIOs) of the Ministries and Agencies” (hereinafter referred to as the “CIO Liaison Meeting”) consisting of the CIOs of the respective ministries and agencies. Toward the next phase of e-Government building, the CIO Liaison Meeting summarized “Toward Formulation of an e-Government Building Program (tentative)” in March 2003, which will be the basic policies for the programs to be implemented from fiscal 2003 until the end of fiscal 2005.

In order to implement prompt and precise disaster emergency activities in large-scale disasters and other

states of emergency, collection and transmission of information will be indispensable. Therefore, the MPHPT engages in establishment of advanced information and communications network systems in the fire/disaster prevention field in response to the rapid progress of information and communications technology, based on the e-Japan Priority Policy Program-2002, etc.

4. Achieving e-Local Governments

The Local Government Wide Area Network (LGWAN) is an administration-dedicated network that connects local governments. The LGWAN, which is a communication network that connects the intranets of local governments and enables advanced information distribution, is intended to facilitate the communications between local governments and allow advanced use of information through information sharing. The LGWAN was further connected with the Kasumigaseki WAN in April 2002.

The MPHPT has been implementing the “e-Local Government Promotion Pilot Project,” as a three-year program starting in fiscal 2001. Based on the findings of the project in fiscal 2001 and 2002, the basic specifications for the general-purpose reception system (version 2) was formulated by the Liaison Meeting of Ministries and Agencies for Promoting Computerization of Local Government Affairs, etc. in March 2003.

In order to achieve e-Local Governments including provision of online administrative procedures, such as applications and notifications, the MPHPT announced the

“Joint Outsourcing/e-Local Government Strategy” in May 2002. This strategy aims at upgrading public services for residents, reforming the operations of local governments, and revitalizing local economies through promotion of local IT-related industries, by standardizing and unifying the operations of multiple local governments and effectively utilizing the know-how and systems of private companies.

The Basic Resident Registers are presently used to authenticate a person’s state of residence as the basis of various administrative services provided by municipalities, and they are helpful for rationalizing administration and improving the convenience of residents. The basic portion of the Basic Resident Registers Network System went into operation in August 2002, and it became possible to provide personal identification information to administrative organizations. The system has been contributing to reducing the burden on residents and increasing administrative efficiency by eliminating the need to attach a copy of the resident register when applying for a passport or the need to submit notification of the current status to receive mutual pension benefits. Starting in August 2003, copies of resident registers will be issued in a wide area, the procedures pertaining to moving residence will be simplified, and Basic Resident Register cards will be issued.

Furthermore, the MPHPT implements actions toward establishing geographic information systems and promotes digitization of local culture, such as creating databases on the traditional culture of local communities.

Section 6

Promoting Network Contents Distribution and Developing Human Resources

1. Promoting Production and Distribution of Network Contents

Amidst the development of the advanced information and communications infrastructure, as represented by the popularization of broadband services and the start of digital broadcasting, promotion of its use has become an important task. To this end, it is necessary to increase high-quality network contents and to create a favorable cycle of infrastructure improvement and network contents expansion. The MPHPT engages in improving the market environment so as to promote production and distribution of network contents by advancing demonstrative experiments under collaboration between the government and the private sector.

2. Developing Human Resources

It is essential that children acquire qualities and abilities to be able to subjectively respond to computerization in an advanced information and communications network society. Thus, in fiscal 2002, computers and the Internet began to be actively utilized in the lessons of the respective subjects and the newly introduced “integrated course” throughout elementary, junior high, and high schools, while a compulsory “IT and computer” lesson was com-

menced as part of the Engineering and Home Economics curriculum in junior high schools. In addition, “IT” was added to the high-school curriculum as a compulsory general subject in fiscal 2003. Along with the increase of IT education in school curriculums, steady efforts are also being made to improve the Internet environment in schools.

Since the information and communications field is evolving rapidly through advanced technological development, skillful IT engineers and researchers are vital for maintaining and strengthening the international competitiveness of existing industries by utilization of information and communications. Accordingly, the MPHPT introduced the “Supporting System for Training of ICT Human Resources” in fiscal 2001 to develop human resources with expert knowledge and skills in the rapidly advancing information and communications field and to contribute to becoming a major IT human resources nation. At the same time, the MPHPT promotes measures to improve IT literacy of citizens, including provision of opportunities for IT learning.

Section 7

Protecting Information and Communications Users

1. Protecting Telecommunications Users

Telecommunications, such as cell phones and the Internet, have become indispensable forms of social infrastructure in people's lives. At the same time, however, improper use of such media in a manner that disturbs others has been becoming a serious issue. Accordingly, the MPHPT has been establishing necessary systems to deal with problems for consumers that are caused by improper use of telecommunications. As a countermeasure for spam (unsolicited e-mail), the "Law on Regulation of Transmission of Specified Electronic Mail" entered into force in July 2002. The first order to take an appropriate action was given to an illegal Tokyo-based operator in December 2002. As a measure to counter malicious "wangiri" calls (random single-ring calls by commercial businesses aimed at making profits on return calls) to cellular phones, the "Study Group on Approaches to Dealing with Nuisance Communications" was held from August 2002, and a report was compiled in October 2002. In response to the report, the MPHPT submitted to the Diet a bill partially amending the Wire Telecommunications Law to establish penal provisions for "wangiri" calls in October 2002; this bill was approved and enacted in December 2002. Moreover, as the casting of aspersions and the infringement of privacy of others on Web pages and BBS have come to present serious problems, the "Law on Restrictions on the Liability for Damages of Specified Telecommunications Service Providers and the Right to Demand Disclosure of Identity Information of the Sender" was enforced in May 2002 to deal with such a situation. The MPHPT also holds Liaison Meetings for Supporting Telecommunications Consumers among other activities to enhance and increase administrative steps for consumer protection.

2. Promoting Measures for Information Security and Privacy Protection

(1) Efforts toward ensuring information security

The progress of information technology (IT) could bring immense benefits to people's lives and economic activities on one hand, but on the other, attacks on information and communications could cause serious damages to the entire society because society is becoming highly dependent on information and communications systems. At the end of January 2003, a large-scale Internet failure

occurred in the Republic of Korea and other countries. Since bolstering information security measures is indispensable in promoting IT strategies in the future, the MPHPT has been taking actions including: [1] research and development of network security technologies; [2] investigation and study of secure operating systems; [3] formulation of guidelines on wireless Internet security; and [4] measures against unauthorized access.

Furthermore, the MPHPT launched the "IT Security Site for Citizens" in March 2003 in order to raise public awareness of information security among the general public.

The IT security measures for the entire government are mainly devised by the IT Security Promotion Committee and the IT Security Expert Meeting established in the IT Strategic Headquarters. As for the measures against "cyber terrorism" for protecting important infrastructures including information and communications systems, the "Special Action Plan on Countermeasures to Cyber Terrorism of Critical Infrastructure" was formulated in December 2000. The activities based on the Special Action Plan have been strengthened and promoted from May 2002.

(2) Protecting personal information in the telecommunications business field

In the advanced information and communications network society in which digitized data are promptly distributed via networks, protection of personal information is becoming more important than ever. Since there have been incidents of leakage of personal information in the telecommunications business field in recent years, there is a strong demand for securer protection of personal information in this field. As a legal system for protection of personal information, the government submitted a "Bill on the Protection of Personal Information," which comprehensively covered all fields, to the 156th session of the Diet; this bill was enacted in May 2003.

(3) Securing safety/reliability of telecommunications

Due to the dramatic changes in the telecommunications field, there is a growing need to consider policies for ensuring important telecommunications responding to the development of communications services and diversification in modes of use. Therefore, the MPHPT has held the "Study Group for Ensuring Important Telecommunications in the Telecommunications Business" since April 2002.

3. Overcoming the Digital Divide

As of October 2002, the number of households that can subscribe to high-speed Internet access networks was approximately 35 million for digital subscriber lines (DSL), approximately 23 million for cable Internet, and approximately 16 million for fiber to the home (FTTH), indicating that the goal for establishing an Internet-accessible environment under the “e-Japan Priority Policy Program” has been accomplished. However, installation of optical fiber networks by private carriers has not made progress in remote areas due to the problem of economic viability, and a digital divide pertaining to geographic factors has been surfacing, giving rise to calls for policy measures to be taken by the central and local governments. Accordingly, the MPHPT established the “Grant for FTTH networks in Rural Areas” in fiscal 2002. It also makes effort to rectify the regional gaps in cell phone service areas and in the broadcasting field.

Furthermore, the MPHPT implements measures for realizing IT equipment and services that can respond to various disabilities of the handicapped and the elderly in order to resolve the digital divide caused by disabilities and age.

4. Improving the Environment for Radio Spectrum Use

For the purpose of securing a radio user environment without mixed or obstructive signals, and also digitalizing licensing procedures and promoting a more efficient way of radio use in order to cope with the sudden increase in radio stations, the MPHPT introduced the Spectrum User Fee System in April 1993. This is a system to have the

expenses pertaining to the common-benefit administrative affairs for all radio stations borne by all licensees who are the beneficiaries. With regard to the standards and certification system for telecommunications equipment (terminal equipment and specified radio equipment), the MPHPT established the “Study Group on Conformity Assessment Systems for Terminal Equipment and Specified Radio Equipment” in May 2002, and in response to the study group’s report in December 2002, introduced the Self-Verification of Conformity to Technical Regulations that comprises ex post facto measures, such as orders and penalties, for telecommunications equipment. In addition, it submitted bills partially amending the Radio Law and the Telecommunications Business Law to the 156th ordinary session of the Diet to introduce a registration system free of the State’s discretion for designated certification agencies.

Due to the rapid diffusion and advancement of radio wave use by cell phones and other services, the MPHPT has set up appropriate standards to prevent the radio waves used for radio communications from having an unfavorable impact on the human body, and continues research on the matter, in order to eliminate concerns that the radio waves emitted from radio facilities may be harmful to humans and to allow people to use radio waves safely with a sense of reassurance.

In addition, the MPHPT conducts proper monitoring and supervising activities, such as measures against the problem of unnecessary radio waves and measures against illegal radio stations.

Section 8

Promoting R&D

1. Developing R&D Policies in the Information and Communications Field

In order for Japan to achieve sustainable economic development and for Japanese people to lead safe lives with a sense of reassurance, it is necessary to make active and strategic investment in the selected fields of science and technology, and to maintain and develop the competitiveness of industry by promoting R&D. The Second-term Science and Technology Basic Plan (decided by the Cabinet in March 2001) set forth that special focus will be placed on four fields of science and technology including the information and communications field, and that R&D resources will be preferentially allocated to these fields. The Telecommunications Council of the MPHPT submitted a “blueprint for an R&D approach for Japan in the info-communications field” in August 2002, and by presenting a basic R&D strategy, emphasized the importance of promoting R&D according to the basic strategy. Furthermore, the Telecommunications Council deliberated on “R&D/standardization strategies toward increasing the technological competitiveness in the information and communications field,” and upon reporting the findings in March 2003, compiled the R&D themes and policies to be undertaken into the “R&D Basic Plan (Fourth Edition),” “R&D Implementation Strategy,” and “Standardization Strategy.”

Toward effective and efficient promotion of R&D, the MPHPT formulated the “MPHPT Guidelines for Evaluating Research and Development on Information and Communications,” and commenced research evaluation as part of policy evaluation from fiscal 2002 using the project evaluation method. Since the need for establishment of a competitive R&D environment, particularly expansion of competitive funds and fair, highly-transparent evaluation, has been pointed out for effective utilization of the limited R&D funds, the MPHPT promotes the strategic information and communications R&D promotion system and implements R&D by inviting proposals of themes from the public.

R&D in the information and communications field involves abundant R&D elements and requires large capital investment due to the specialty and high cost of the necessary facilities, so private companies face enormous obstacles in investing in R&D in this field. Therefore, the MPHPT intends to further advance R&D in the information and communications field by establishing and

expanding special taxations to support the R&D.

An independent administrative institution, the Communications Research Laboratory, is expected to play its role as the sole public R&D institution in the information and communications field. It undertakes leading-edge R&D, which is too risky to be carried out by the private sector, to contribute to enhancing the competitiveness of the Japanese information and communications industry and contribute to realizing affluent national life through utilization of cutting-edge IT technology. Moreover, the MPHPT established an IT R&D base (an open laboratory) equipped with an R&D environment including functionally sophisticated network facilities in the Keihanna Human Info-Communication Research Center of the Communications Research Laboratory in fiscal 2002 with the aim of discovering and utilizing research potentials of local communities and smoothly introducing the research findings to society. The Communications Research Laboratory is scheduled to consolidate with the Telecommunications Advancement Organization of Japan (TAO) in April 2004 to form a new organization, the Info-Communications Research Institute.

2. Implementing Selective R&D

(1) R&D of technologies for achieving ubiquitous networks

With further acceleration of network speed and diversification of network access modes, arrival of a “ubiquitous network society” is anticipated in the future, allowing use of large-capacity applications. A ubiquitous network society, which will be realized through a combination of Japan’s highly reputed technologies—optical communications, mobile, and intelligent home appliances—is also expected to contribute greatly to securing international competitiveness. Therefore, in fiscal 2003, the MPHPT commenced R&D of elemental technologies that are indispensable for achieving ubiquitous networks, such as the ultra high-speed, real-time authentication technology and the network technology to coordinate and control an enormous number of terminals.

The electronic tags that are currently used in place of barcodes mainly for physical distribution management and entrance/exit management are expected to serve as a basic tool for ubiquitous networks by developing further linkage with networks in the future. Accordingly, the MPHPT

established the “Research Study Group for High-Level Usage of Electronic Tags in the Age of Ubiquitous Networks” in April 2003 to discuss usage of radio frequencies and policies for utilization of networks.

(2) Prospects for the network robot technology

When the ubiquitous networks connect with the personal robots and industrial robots that are expected to be used at home and offices in the future, new lifestyles will emerge, and it is anticipated that this will contribute not only to solving various social issues, such as the aging and health/nursing care problems, but also to building a new Japan-inspired IT society in the 21st century. In order to clarify the future image of network robots and consider the R&D themes to be undertaken, the MPHPT has held the “Study Group on Network Robot Technology” since December 2002.

(3) R&D of the gigabit network technology

With the goal of realizing an ultra high-speed network at the beginning of this century, the TAO mapped out a gigabit network for R&D purposes (JGN: Japan Gigabit Network) as a nationwide open test bed consisting of an ultra high-speed optical fiber network, which connects ATM switching systems located at 10 locations around Japan and an R&D facility for shared use. Through such measures the organization promotes R&D of the next-generation Internet technology and other ultra high-speed network technologies, as well as advanced application technologies. The above facilities have been widely opened to universities, research institutes, administrative organs, local governments, and private companies from fiscal 1999 to the end of fiscal 2003 for R&D of ultra high-speed network technologies and advanced application technologies.

(4) Promoting R&D on the technologies for further accelerating network speed

With the aim of realizing technologies for accelerating the speed of networks at an early stage, the MPHPT has been promoting “R&D on Ultra High-Speed Photonic Network Technologies” since fiscal 2001 and “Development of a Terabit-Class Super Network” since fiscal 2002 under the collaboration of industry, universities, and the government. In the “R&D on Ultra High-Speed Photonic Network Technologies,” development and experiments of elemental technologies were launched in fiscal 2002 based on the results of the designing and trial production conducted in fiscal 2001. The “Development of a Terabit-Class Super Network,” on the other hand, commenced the designing and trial production of technologies for promptly processing network accesses from diverse systems.

(5) R&D of information and communications technologies utilizing quantum engineering and nano-technology

Quantum information and communications technologies, which conduct data processing/transmission using the particle quality of electrons and light, and technologies that apply nano-technology and bio-technology to information communications by making use of the substance properties specific to the nano-size are a focus of attention as revolutionary technologies that have the potential to make possible networks equipped with such superior features as encryption communications with guaranteed high security and ultra high-speed communications that surpass optical communications. The MPHPT commenced R&D on quantum encryption technologies, which are expected to be put to practical use in the relatively near future, in the TAO in fiscal 2001 with the cooperation of industry and universities. In order to further enhance the R&D for achieving a breakthrough in information and communications, the MPHPT plans to drive R&D also on the aspect of applying nano-technology and bio-technology to information and communications.

(6) R&D of the time-stamp platform technology

There are increasing needs to identify the precise time at which an online transaction or procedure was made and prove that time to third parties. Moreover, in order to upgrade standard time delivery and time authentication services and to improve their security, it is necessary to promptly promote R&D of technologies for delivery/authentication of the correct time. Thus, the MPHPT has held the “Study Group on R&D related to Standard Time Delivery and Time Authentication Services” since January 2002 and compiled a report in June 2002. In response to this report, the MPHPT has been advancing R&D for establishing the “time-stamp platform technology” since fiscal 2003 in cooperation with industry and universities.

(7) R&D of network-human interface

It is essential to create an environment in which even people who are unfamiliar with information and communications networks can use the networks safely with a sense of reassurance without finding the operations difficult. Therefore, it will become important to resolve the issue of interface between humans and the information and communications networks. The MPHPT established the “Study Group on Network-Human Interface” in March 2002, which drew up a report in July 2002. In response to the report, the MPHPT launched “R&D on Network-human Interface” in fiscal 2003, and carries out practical R&D on network-based automatic translation

systems using cell phones and technologies for preventing the harmful effects of visual images on humans.

(8) Promoting R&D of Natural Vision

R&D of Natural Vision, which is nearly able to reproduce the real colors, texture, 3D appearance, and shine of actual objects based on multiple primary colors exceeding the conventional RGB, has been carried out in the TAO since fiscal 1999 as development of an unprecedented, novel image technology. Since Natural Vision is not only a pioneering technology that will bring science and technology to a higher level, but it is also widely applicable in fields of new service needs, such as remote medical care, e-commerce, and digital archiving, the achievements of this R&D are awaited with high expectations. The elemental technologies for Natural Vision for still images have mostly been established, and prototype systems for textile e-commerce and pathologic diagnosis systems have been created using the technology. The TAO is presently in the phase of conducting experiments for evaluation toward practical application.

(9) R&D of stratospheric platforms

Stratospheric platforms enable the usage of ultra high-speed Internet and multimedia mobile communications anywhere in Japan with the help of automatically operated airships equipped with communications devices suspended in the stratosphere at an altitude of approximately 20 km from the ground in relatively favorable weather. As a consequence, such platforms have garnered much attention as a new form of information and communications infrastructure. Since they can also be used for ground observation by mounting an observation sensor and are open to many other purposes, their wide application is anticipated. Thus, the MPHPT and the Ministry of Education, Culture, Sports, Science and Technology (MEXT) have jointly conducted R&D since fiscal 1998 in cooperation with industry and universities, with the goal of realizing such stratospheric platforms at an early stage. To be more specific, the MPHPT has been responsible for R&D of the communications and broadcasting mission

and the tracking control system technology, and conducts the R&D under the direct authority of the TAO.

(10) Advances in space communications

Space communications have many favorable features such as the capability of providing consistent communications throughout the nation, the simultaneous broadcasting capability, and being disaster-proof in nature, and as a result, they have been widely used in areas such as communications, broadcasting, and positioning technology. Considering the role the space communications should play in the information and communications infrastructure, which will be rapidly developed and advanced in the future, the MPHPT promotes development of various demonstrative satellites and satellite experiments as follows for realizing the space communications that will be required in the future: [1] R&D of the Engineering Test Satellite VIII; [2] R&D of ultra high-speed Internet satellites; [3] R&D of the quasi-zenithal satellite; and [4] R&D of the global precipitation measurement (GPM) initiative.

(11) R&D of information and communications technologies for practical application of the next-generation geographic information system (GIS)

A 3D GIS is able to precisely reproduce the landscape of densely built buildings in an urban area on a monitor screen by achieving 3D analysis of geographic information and additionally using urban landscape information. This system is expected to allow people to conduct landscape simulation for city planning and build a disaster information system more effectively. The MPHPT conducted “R&D on information and communications technology for establishment of GIS” toward realizing the 3D GIS from fiscal 1999 to fiscal 2002, and formulated the “Technical Guidelines for 3D GIS” and the “Data Guidelines for 3D GIS.”

Section 9

Promoting International Strategies

1. Promoting International Policies

The “e-Japan Priority Policy Program – 2002” and the “Basic Policies for Economic and Fiscal Policy Management and Structural Reform 2002” (decided by the Cabinet in June 2002) laid down that an “Asia Broadband Program” should be formulated for establishing a broadband environment in the Asian region and that a concrete action plan should be set up. In response, the MPHPT formulated the “Asia Broadband Program” together with the related ministries and agencies in March 2003 with the objective of revitalizing information distribution in the Asian region and to make Asia an information center of the world.

In September 2002, the First Japan–China–Korea ICT Ministerial Meeting was held in Marrakesh, Morocco, among Japanese MPHPT Minister KATAYAMA Toranosuke, Chinese Minister of Information Industry WU Jichuan, and ROK Minister of Information and Communication LEE Sangchul. The ministers agreed to strengthen cooperation among Japan, China, and the ROK toward further development of the information and communications field, such as promoting cooperation in R&D of information and communications technologies that are compatible with the East Asian cultural area, and adopted the results of the meeting as a joint declaration.

The World Summit on the Information Society (WSIS), which aims at promoting establishment and understanding of a shared vision on an information society, and at formulating declarations and strategic action plans for achieving development toward realizing this vision in a cooperative manner, is scheduled to be held as an event of the United Nations. After regional conferences in the respective regions, the Summit meeting will be held by leaders of the nations in Geneva in December 2003. In January 2003, the Asia-Pacific Regional Conference was held in Tokyo and the “WSIS Tokyo Declaration” was adopted.

Japan also takes active steps toward resolving international economic problems in the information and communications field through various bilateral and multilateral conferences in the effort to promote international mutual understanding and international cooperation.

2. Promoting International Cooperation

With the widening of the international digital divide, there is an increasing need to establish information and communications networks around the world including developing countries. Thus, the MPHPT has been providing assistance for the development of human resources in the IT field, the creation of IT policies and systems in developing countries through policy dialogue with the responsible information and communications authorities of developing countries, the development of an information and communications groundwork by conducting international joint experiments, and for international and regional institutions that promote global cooperation for resolving the international digital divide. At the same time, in cooperation with the Ministry of Foreign Affairs, the Japan International Cooperation Agency (JICA), and the Japanese Bank of International Cooperation (JBIC), the MPHPT has made contributions to the continuous development of the information and communications fields in developing countries mainly through Official Development Assistance (ODA).

3. Promoting International Standardization Activities

The International Telecommunication Union (ITU) plays a central role in international standardization in the information and communications field. Within the ITU, the Telecommunications Standardization Sector (ITU-T) and the Radio Communications Sector (ITU-R) engage in standardization activities. Japan takes an active part in promoting international standardization activities by taking up many posts in the activities of ITU-T and ITU-R, as well as by contributing a large number of documents for drafting recommendations and having many experts attend study groups and other meetings.

Section 10

Evolution of Postal Administration

1. Launch of “Japan Post”

The Basic Law on the Administrative Reform of the Central Government (enacted in 1998) stipulated establishment of a new State-run public corporation for postal services in accordance with the policy to enable autonomous and flexible management under the self-supporting accounting system. Based on this, the MPHPT submitted the following bills to the 154th ordinary session of the Diet: [1] a draft Japan Post Law; [2] an enforcement bill for the Japan Post Law; [3] a bill on law concerning correspondence delivery by private-sector operators; and [4] a bill on law concerning preparation of related laws for enforcing law concerning correspondence delivery by private-sector operators. These laws were approved and enacted in July 2002. The Japan Post Law entered into force in April 1, 2003 to inaugurate Japan Post. From the viewpoint of conducting autonomous and flexible management under the self-supporting accounting system, Japan Post adopts various new systems. Therefore, the organization is expected to provide services of higher quality while continuing to provide universal service.

2. Promoting Smooth and Appropriate Correspondence Delivery Business

The correspondence delivery business, which had been monopolized by the State, was opened to the private sector with the enforcement of the “Law Concerning Correspondence Delivery by Private-Sector Operators” (“Correspondence Delivery Law”) upon establishment of Japan Post in April 2003. The purpose of the Correspondence Delivery Law is to introduce a correspondence delivery licensing system for private operators and take measures to ensure that they appropriately man-

age their services, thereby securing universally impartial provision of correspondence delivery services and expanding options for users. The business of providing correspondence delivery services is divided into “general correspondence delivery business” and “special correspondence delivery business,” and the operators need to obtain a license from the Minister of the MPHPT in either type of business.

3. Promoting One-Stop Service at Post Offices

It would be considerably convenient for residents if their most familiar public service provider, the post office, provided one-stop service. Therefore, the “Law on Provision of Specific Local Government Services at Post Offices” entered into force in December 2001 to enable post offices to handle certain local government affairs, such as providing a copy of the resident register, in order to improve the convenience for residents and rationalize the organization and operations of local governments. Due to this law, local governments are now able to have post offices handle various local government affairs by concluding rules and agreements with Japan Post through negotiations. As of the end of fiscal 2002, the certificate issuing service is provided at 147 post offices in 43 municipalities.