

# Chapter 3

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**Trends of Information  
and Communications  
Policies**

## Section 1

# Realizing a Society of Advanced Information and Communications Networks

### 1. Building a New, Japan-Inspired IT Society

The Telecommunications Council, an advisory body of the MPHPT, conducted discussions on the direction of IT strategy from now on, and in July 2003 the Internet Use-Promoting Committee of the Department on Information Communications Policy issued its third interim report. In this interim report, it is proposed that the government, industry, and academia should cooperate in the creation of a “new, Japan-inspired IT society” that takes advantage of the special features and strengths of Japan, such as its mobile phone, intelligent home appliance, digital television, and optic-fiber technologies, does not simply follow the West, and can be transmitted as a model to the whole world.

The interim report suggests that a “new, Japan-inspired IT society” will be formed centered on the three use axes of (a) the ubiquitous network society, (b) the age of high-quality images, and (c) the interconnection of the Internet and digital television. In addition, as measures for realizing a “new, Japan-inspired IT society,” the interim report proposes, among other things, the realization of a network environment that is useful for users and the distribution of contents that lead to affluent lives for users.

### 2. Promoting the IT National Strategy

Responding correctly to the social and economic structural changes that are occurring on a global scale as

a result of the utilization of information and communications technology has become an urgent issue for Japan as well. In January 2001 the government established the IT Strategic Headquarters, formulated the e-Japan Strategy aimed at “making Japan the world’s most advanced IT nation within five years,” and set about constructing IT infrastructure. Since then Internet diffusion in Japan has made great strides. The goal of constructing an environment enabling “high-speed Internet use by 30 million households and ultra-high-speed Internet use by 10 million households” has already been achieved, and the construction of systemic infrastructure related to e-commerce and e-government has also made progress.

Accordingly, recognizing that the first-phase targets of the IT strategy are in the process of being achieved, the IT Strategic Headquarters evolved the strategy into the second phase of the expansion of IT use and in July 2003 formulated the e-Japan Strategy II. For the realization of an “energetic, worry-free, exciting and more convenient” society, the e-Japan Strategy II takes up seven areas for leading efforts: medical services, food, lifestyle, small and medium enterprises financing, knowledge, employment and labor, and public service.

### 3. Budget Related to e-Japan

The fiscal 2004 government budget relating to the formation of an advanced information and communications network society totals 1.40 trillion yen. Of this, the IT-related budget of the MPHPT amounts to 134.8 billion yen, up 2.1% over the initial budget for the previous fiscal year of 132.0 billion yen.

## Section 2

# Development of Information and Communications Policies

### 1. Development of Telecommunications Policies

#### (1) Revision of the Telecommunications Business Law

In consideration of the advance of broadband and IP networks and in order to actively develop competition policy, improve consumer administration, and introduce a new competition framework, the MPHPT carried out a

partial revision of the Telecommunications Business Law and the Law Concerning Nippon Telegraph and Telephone Corporation, etc. The revised law, which promotes deregulation so that private carriers can fully demonstrate their capabilities, ensures the minimum safety net required by society, and seeks to make the entire system more convenient for users in Japan, went into effect in April 2004 (**Figure 3-2-1**).

**Figure 3-2-1 Main Points of the Partial Revision of the Telecommunications Business Law and the Law Concerning Nippon Telegraph and Telephone Corporation, Etc.**

1. Abolition of Type I and Type II business categories  
The revision abolished the Type I and Type II telecommunications business categories which paid attention to whether or not carriers had set up telecommunications line facilities.
2. Review of system relating to business entry and change in business content  
The revision abolished the system of requiring permission for business entry and change in business content and switched to systems of registration and notification involving simpler procedures.
3. Liberalization in principle of service provision conditions  
The revision abolished in principle the obligation to formulate tariffs for charges and contracts, etc. and made it possible for telecommunications carriers in principle to freely supply services. (However, the formulation of tariffs for contracts is necessary in the case of universal services, etc. that are indispensable for national life.)
4. Establishment of user protection rules  
The revision made it obligatory for telecommunications carriers to notify users when abolishing or suspending a business. Also, regarding services for the general consumer, the revision made it obligatory for telecommunications carriers and agents to explain the main points of service supply conditions and thoroughly promoted user protection by making it obligatory for telecommunications carriers to process complaints.
5. Review of system relating to public-service business privileges  
The revision introduced a certification system so that telecommunications carriers can receive public-service business privileges to facilitate the construction of infrastructure if they so wish.

## **(2) Review of interconnection charges, etc. between carriers**

The MPHPT partially amended the regulations for interconnection charges, introducing the Long-Run Incremental Cost (LRIC) methodology for calculating interconnection costs and enabling adjustment between carriers in the case of a heavy fluctuation in traffic. In recent years, as a result of the diffusion of mobile phones and the rapid emergence of IP telephone, the environment surrounding fixed line phones has undergone a major change. For example, the amount of traffic on fixed line phones has decreased. Therefore, in April 2004 the MPHPT submitted an inquiry to the Telecommunications Council to look into the method of calculating interconnection charges from fiscal 2005.

## **(3) Study of setting of basic fees, etc.**

Of the main charges for fixed line phones, dialing fees have steadily become cheaper and more diverse since the liberalization of the telecommunications market in 1985, but basic fees have remained level since a hike in 1995, and opinions have been voiced that the time has come for a review. Therefore, in April 2004 the MPHPT submitted an inquiry to the Telecommunications Business Department of the Telecommunications Council to study the method of calculating basic fees and the sharing of expenses for the construction of facilities.

## **(4) Implementation of competition evaluation in the telecommunications business field**

From fiscal 2003 the MPHPT has been tackling the issue of competition evaluation. In November 2003 the ministry formulated and issued the Basic Approach

Concerning the Evaluation of Competitive Situation in the Telecommunications Business Field, which gives a general picture of competition evaluation, and the fiscal 2003 Details for Implementation of the Evaluation of Competitive Situation in the Telecommunications Business Field, which indicates the areas subject to evaluation in fiscal 2003 and specific evaluation methods. In fiscal 2003 the MPHPT implemented competition evaluation in the area of Internet connection.

## **(5) Settlement of disputes between carriers**

In order to facilitate smooth settlement in the case of the outbreak of a dispute between carriers, the Telecommunications Business Dispute Settlement Commission engages in procedures for conciliation, mediation, etc. and also conducts deliberations as an advisory body at times when administrative measures are given by the Minister, such as an order to discuss interconnection. By the end of fiscal 2003 the commission had settled 31 dispute cases and submitted two recommendations to the Minister.

## **2. Development of Broadcasting Policies**

### **(1) Promotion of digital broadcasting**

The digitization of broadcasting will realize a high-quality, advanced-function broadcasting media that is close to the national life. In Japan, following CS broadcasting, BS broadcasting, and cable television broadcasting, digital broadcasting began on the core terrestrial television in December 2003 in the three metropolitan areas of Tokyo, Nagoya, and Osaka.

In May 2003 broadcasters, makers, retail stores, con-

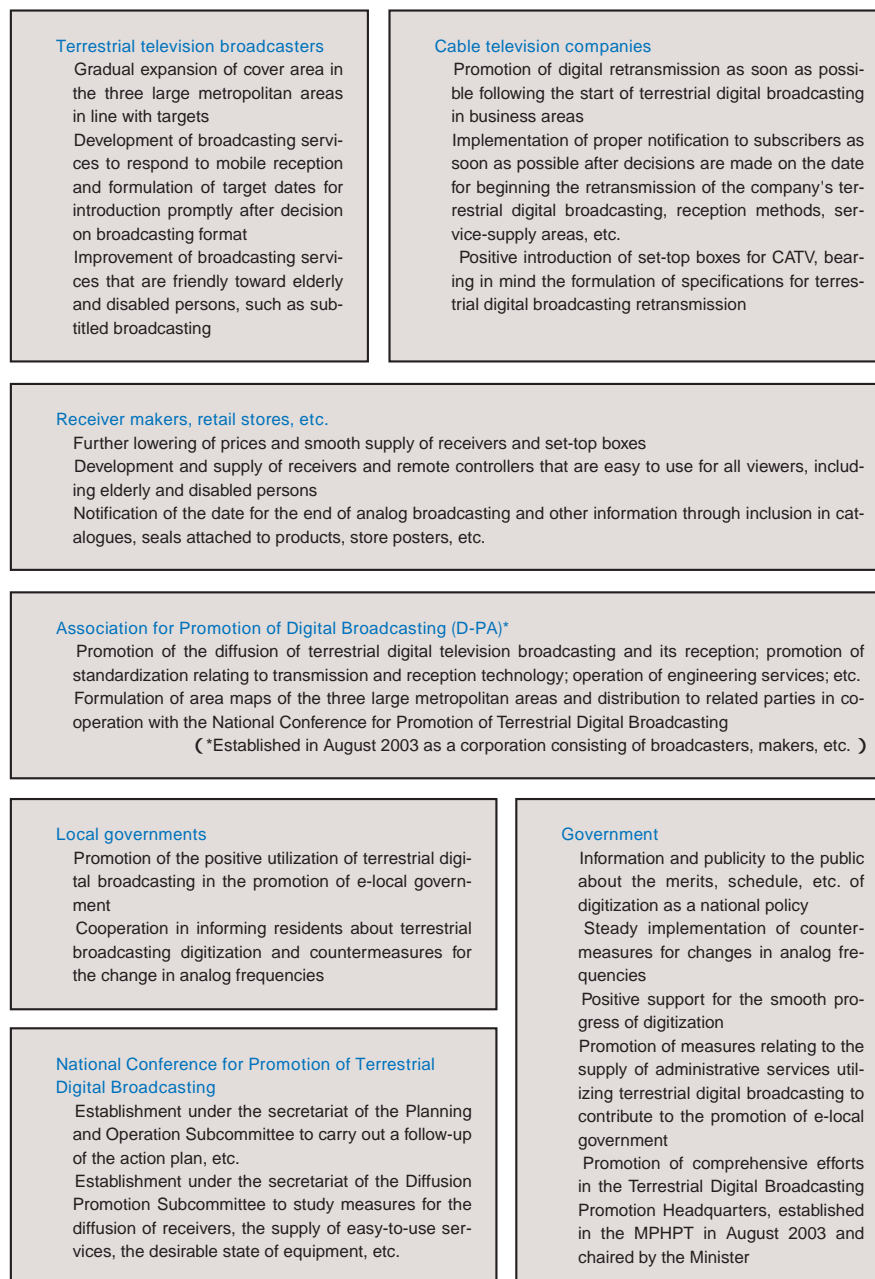
sumer groups, local governments, media organizations, and others, together with the MPHPT and related ministries, set up the National Conference for Promotion of Terrestrial Digital Broadcasting, and in October 2003 this council formulated “the Fourth Action Plan” including, among other things, the further strengthening of measures to publicize and make the public more aware of terrestrial digital broadcasting. In order to realize a complete shift to digital broadcasting in 2011, the MPHPT, while coordinating with the National Conference for Promotion of Terrestrial Digital Broadcasting, is positively implementing such policies

as the steady implementation of countermeasures for the change of analog frequencies that will be necessary as a consequence of the shift to digital broadcasting, the further strengthening of publicity, and support for broadcasters (Figure 3-2-2).

## (2) Relaxation of the principle of media decentralization

While endeavoring to ensure the multidimensional supply of information and regionalistic features, in order to promote terrestrial digital broadcasting and contribute toward strengthening the managerial base of broadcasters, the MPHPT conducted a review of the principle of

Figure 3-2-2 Specific Efforts by Related Parties on the Basis of “the Fourth Action Plan”



media decentralization and relaxed this principle in March 2004.

### 3. Promotion of Policies Concerning Effective Radio Spectrum Use

#### (1) Promotion of the Frequency Open Strategy

In order to realize the building of the most advanced wireless broadband environment in the world and make the Japanese economy robust and full of activity, the MPHPT is promoting the Frequency Open Strategy, the main pillars of which include (a) a fundamental review of frequency assignment, (b) the introduction of a benefits scheme for the reallocation of the radio spectrum, and (c) the partial introduction of a registration system in place of the current license system in order to promote the free development of the radio spectrum business (Figure 3-2-3).

#### (2) Formulation of the Frequency Reorganization Policy

In October 2003 the MPHPT formulated and issued the Frequency Reorganization Policy, which outlines its basic thinking on frequency reallocation. A 2002 amendment of the Radio Law introduced a scheme to survey, publicize, and assess the actual state of radio spectrum use, and surveys is being carried out on the state of use, including the state of use of radio wave devices and the amount of traffic.

#### (3) Introduction of benefits scheme for the reallocation of the radio spectrum

In implementing the reallocation of the radio spectrum, there is a danger that existing radio spectrum users will suffer an economic burden because, for example,

they will be unable to use radio facilities that they acquired or constructed through investment in the past, have removal costs, or have to acquire new facilities. Therefore, the Radio Law was amended in May 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.

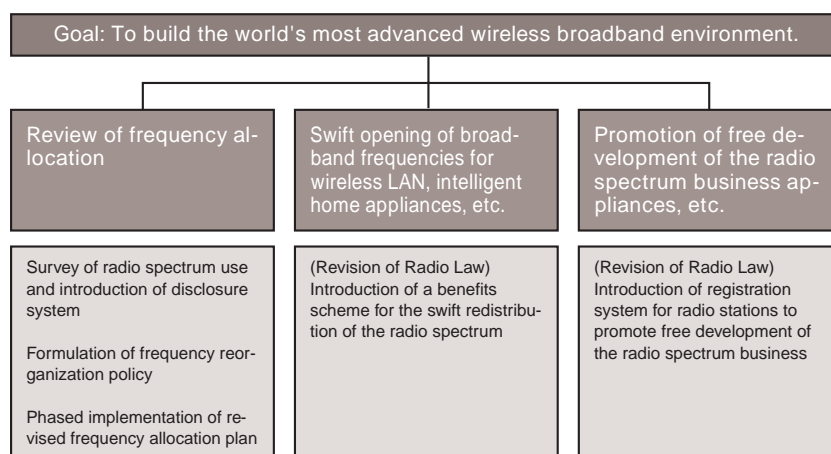
#### (4) Introduction of registration system for radio stations

In order to further promote the effective use of the limited and scarce radio spectrum, to maintain order in radio spectrum use, such as the prevention of interference, and to achieve the free development of the radio spectrum business, it is necessary to adopt measures for promoting the multiple use of the radio spectrum. From this perspective, the Radio Law was amended in May 2004. Regarding high-output outdoor wireless LAN and common-use radio systems, the amendment, while maintaining radio spectrum order, implements deregulation and introduces a post-check registration system in place of the existing pre-check license system.

#### (5) Revision of the radio spectrum user fee system

In April 1993 the MPHPT introduced the radio spectrum user fee system by which all of the licensees who are the beneficiaries of public service for radio stations as a whole pay the expenses for this service. Compared with the time of introduction, however, the situation surrounding radio spectrum use fees has greatly changed. Therefore, within the MPHPT, the Study Group on Policies Concerning the Effective Radio Spectrum Use is considering a revision of the system of radio spectrum use fees from a multidimensional and comprehensive perspective, including the pros and cons of reflecting the economic value of the radio spectrum.

Figure 3-2-3 Frequency Open Strategy







## Section 3

# Upgrading Information and Communications Networks

### 1. Promoting Improvement of the Network Infrastructure

#### (1) Promoting the shift to IPv6

Since fiscal 2003 the MPHPT has been implementing demonstrative experiments relating to the shift from IPv4 (Internet Protocol version 4) to IPv6 (Internet Protocol version 6) for networks comprising such Internet user entities as households, companies, and local governments. The objective is to solve issues arising in network operation and to formulate the most appropriate models for users to facilitate their shift to IPv6 without exerting an impact on the present IPv4. Also, in order to promote the international shift to IPv6, the MPHPT intends to transmit the know-how relating to the shift to IPv6 obtained from these demonstrative experiments to other countries by means of the publicizing of the results of the experiments and so on.

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

In consideration of the further development of IP and broadband that is expected from now on, the MPHPT since February 2004 has been convening the Study Group on Next-Generation IP Infrastructure to study prospects for the construction of next-generation network infrastructure capable of responding to the rapid increase of traffic in the future, policy support for infrastructure construction, and other issues. The study group is scheduled to issue its first report in June 2004.

#### (3) Study on mobile phone number portability

From November 2003 discussions were held in the MPHPT's Study Group on Mobile Number Portability, which compiled a report in April 2004. This report noted that around 30% of mobile phone users (the equivalent of about 24 million subscriptions) intended to use portability; that introduction was making progress in other countries and having the effect of lowering rates through the promotion of competition; that there was a strong possibility of the merits spreading widely among not only the users of number portability but all mobile phone users; and that estimates of the effects of introducing portability showed that the benefits of introduction would exceed the cost. Therefore, the report proposed that it would be appropriate to introduce mobile phone portability at the earliest opportunity in fiscal 2006.

#### (4) Upgrading of the wireless Internet

In order to respond to new applications in the future (such as the transmission of three-dimensional images

and ultra-high-definition images and the parallel and distributed processing of large amounts of information), the realization of super-high-speed wireless LAN enabling gigabit-class communication is called for. The e-Japan Priority Policy Program 2003 also states that "in order to enable gigabit-class communication indoors, etc., efforts will be made to realize super-high-speed wireless access by fiscal 2010." In consideration of such opinions, the MPHPT in fiscal 2004 commenced research and development toward the realization of super-high-speed wireless LAN with the aim of contributing to the building of the most advanced mobile IT environment in the world.

### 2. Promoting Advances in Broadcasting

In July 2001 the "National Conference for Promotion of Terrestrial Digital Broadcasting" was established, consisting of three parties: NHK, commercial broadcasters, and the MPHPT. After discussing such matters as countermeasures for the change of analog frequencies, the estimate of expenses for countermeasures, and future developments, the council in August 2002 estimated that expenses for countermeasures would amount to about 180 billion yen, the number of stations requiring countermeasures would be 801, and the number of households requiring countermeasures would be around 4.26 million. In consideration of these study results, in the three major metropolitan regions the MPHPT began countermeasures for transmitters in August 2002 and countermeasures for individual households and others in February 2003. In other areas, it began countermeasures relating to Seto Inland Sea in September 2003 and then decided to bring forward countermeasures elsewhere around the country and implement them in an intensive manner in fiscal 2004.

In order to promote the construction of facilities for the operation of terrestrial digital broadcasting, the MPHPT provides tax benefits and financial support to broadcasters whose implementation plans have been certified (119 companies had received certification by the end of fiscal 2003) on the basis of the "Advanced Television Broadcasting Facility Promotion Temporary Measures Law". Furthermore, as a result of the tax system revision in fiscal 2003, efforts are made to further lighten the investment burden on companies, for example by expanding the scope of eligible facilities and equipment, and support measures involving national taxes (special repayment of corporate tax or income tax) and the fiscal investment and loan program are applied to broadcast program production companies.

### 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.

On the basis of the “Law Concerning Promotion of Development of Technologies for Communications and Broadcasting Convergence”, which went into effect in November 2001, the MPHPT grants subsidies to private developers of technologies used for services that converge communications and broadcasting and 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.

In fiscal 2003, in response to the start of terrestrial digital broadcasting in the three major metropolitan areas, the MPHPT increased the construction of equipment compatible with terrestrial digital broadcasting in the test-bed systems for the development of communications-broadcasting convergence technologies so as to promote the early participation of broadcasting stations and related companies and to contribute toward accelerating and promoting the creation of new business models through terrestrial digital broadcasting.

## Section 4

### Promoting IT in Private Companies

#### 1. Establishment of Environment for Promoting the Creation and Growth of IT Venture Companies

Because many IT venture companies face such problems as a lack of credit capability immediately after founding, they have difficulty in procuring funds, securing human resources, 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 IT venture companies, the MPHPT provides various support measures in the areas of fund supply, human resources and know-how, taxation, and so on. In addition, a subsidy scheme involving cooperation between the public and private sectors was established in fiscal 2004, whereby the National Institute of Information and Communications Technology (NICT) grants subsidies to IT venture companies that have investment from private venture capital.

#### 2. Diffusing and Promoting Electronic Signatures and Certification Services

The MPHPT is reviewing the standards relating to the accreditation of designated certification services and is making efforts to ensure the safety of electronic signatures and security relating to certification services. Also,

in order to make it possible for anyone to make easy use of strict certification functions using electronic certificates and to enable the safe supply and use of network services, the MPHPT from fiscal 2004 is implementing research and development relating to the establishment of an advanced network certification infrastructure.

Furthermore, a list of recommendable cryptographic techniques for e-government procurement activities was decided in February 2003. Bearing this list in mind, when using a code for the building of an information system, ministries as far as possible make efforts to use a code that is included in the e-government recommendable cryptographic list. At present, in response to the further upgrading of offensive techniques against cryptography, the Cryptographic Technique Monitoring Subcommittee is conducting surveillance activities, such as gathering information on technological trends relating to cryptography, so as to maintain the safety of the codes included in the e-government recommendable cryptographic list.



## Section 5

# Promoting IT in Administration and Public Services

### 1. Promoting IT in Local Areas

In order to establish an environment for the building of e-local government and to correct the digital divide, the MPHPT is making efforts toward the realization of a system of highly accessible administrative services utilizing the data broadcasting and interactive functions possessed by terrestrial digital broadcasting, which began in the three major metropolitan regions of Tokyo, Nagoya, and Osaka on December 1, 2003. In fiscal 2003 the MPHPT built an administrative service supply system utilizing terrestrial digital broadcasting in Gifu City and verified the usefulness and problems of the system through a demonstration test in which about 150 households used it to access administrative services, such as the booking of public facilities. In fiscal 2004 the MPHPT is scheduled to implement a demonstration test toward realizing the supply of administrative services enabling application and notification that require personal certification.

Also, local governments are appearing that, in response to the development of wide-area local administration, connect the local public networks built by municipalities with the information highways, etc. constructed by prefectures and use them to promote e-local government through joint outsourcing and to develop applications related to education, long-distance medicine, disaster prevention, etc. Against this background, the MPHPT in December 2003 convened the “Study Group on the Promotion of IT in the Regions”, which is studying such issues as the construction of public networks nationwide, the joint building and joint operation of applications, and the development of human resources to support the spread of IT in local areas.

### 2. Revitalizing Local Economies Through Utilization of IT

By designating local governments that actively promote IT business as IT business model districts and realizing attractive business environments for the IT business there ahead of other areas, the MPHPT is endeavoring to concentrate the IT business and is promoting the revitalization of local economies through the establishment of local development models of IT business and the application of these models in other areas.

### 3. Accomplishing e-Government

In July 2003 the Liaison Meeting of the Chief Information Officers (CIO) of the Ministries and

Agencies (CIO Liaison Meeting) decided on the e-Government Building Program that stipulates concrete efforts by the government relating to the building of e-government during the three years from fiscal 2003 to fiscal 2005. On the basis of this program, the government is tackling business reform to improve the convenience of the public and services and respond to the spread of IT.

As part of its efforts based on this program, the government in January 2004 revised the functions of its e-government portal site (e-Gov: <http://www.e-gov.go.jp>) that provides a general search function of administrative information supplied by ministries and agencies, information on administrative procedures, searches for ordinance data, and so on. The government increased convenience and improved services by, among other things, introducing information on administrative procedures by event (marriage, employment, etc.) and integrating information on the organization and business content of ministries and public comment (the solicitation of opinions and disclosure of results).

Also, as a result of advancing the online supply of procedures in line with the Action Plans Relating to the Electronification of Administrative Procedures, Etc. compiled in ministries and agencies, by the end of fiscal 2003 the government had put almost all of the procedures relating to application, notification, etc. handled by administrative organizations of the state online.

Furthermore, since the e-Government Building Program called on the government to make efforts in a strategic and cross-sectional manner toward the simplification, greater efficiency, and rationalization of administrative operation through the optimization of business and systems, the government conducted a systematic rearrangement of the business and systems of the government as a whole by the end of December 2003, and in February 2004 the CIO Liaison Meeting selected 72 areas in which positive effects could be expected from the optimization of business and system integration as subjects for the formulation of optimization plans.

In addition, since the gathering and transmission of information is essential to implement prompt and precise disaster relief activities in emergency situations, such as large-scale disasters, the MPHPT, on the basis of the e-Japan Priority Policy Program-2003, etc., is making efforts to build advanced information and communications network systems in the fire and disaster prevention fields in response to the rapid progress of information and communications technology.



## 4. Achieving e-Local Government

The Local Government Wide Area Network (LGWAN), which is an administration-dedicated network connecting local governments, was connected with the intranets of prefectures and ordinance-designated cities in October 2001 and with the Kasumigaseki WAN in April 2002, and by mid-2003 all local governments were participating.

Also, in August 2002 the Network System for Basic Resident Registers went into operation, making it possible to have a common national personal identification information consisting of name, address, date of birth, gender, residence certificate code, and changes in this information. Thus, it became possible to provide personal identification information to any administrative organization. At the same time, the requirements to attach a copy of the certificate of residence when applying for a passport and to submit notification of current status when receiving a mutual-aid pension were abolished. In August 2003 the Basic Resident Registers Network

System went into full-scale operation with the beginning of wide-area issue of residence certificate copies, the simplification of procedures relating to moving residence, the issue of Basic Resident Register cards, etc. Furthermore, a public personal certification service utilizing the system was begun in January 2004. Thus, the system is playing an important role as the basis of e-government and e-local government.

The Basic Resident Register card, the issue of which began in August 2003, is an IC card that is issued by the mayor to those who want one. As well as serving as a public identification certificate, the card can be used in a variety of ways that take advantage of the high-level security functions and information processing functions of IC cards. For example, the card can be used as a secret key for public personal certification services and as a means of preserving an electronic certificate, as well as for automatic certificate-issuing services allowed by municipal ordinances and everyday administrative services, such as the booking of public facilities.

## Section 6

# Promoting Network Contents Distribution and Developing Human Resources

## 1. Promoting the Production, Distribution, and Preservation of Network Contents

The Intellectual Property Strategy Headquarters, which was set up in the government in March 2003 on the basis of the Basic Law on Intellectual Property, pointed out the importance of contents in the realization of a state based on intellectual property and established, under the headquarters, the Task Force on Content, which conducted multidimensional studies on such subjects as promoting the creation, protection, and distribution of contents and issued a report in April 2004. The “Bill concerning Promotion of Creation, Protection and Exploitation of Content” was submitted to the 159th session of the Diet as legislation submitted by Diet members and was enacted in May 2004.

Regarding the facilitation of processing copyrights and other rights, which has become an issue relating to contents, and the establishment of safe, definite, and diverse distribution technology, under the cooperation of the public and private sectors, the MPHPT since fiscal 2002 has been conducting trials on the development and demonstration of a copyright clearance mechanism and the development and demonstration of broadband con-

tents distribution technology.

Also, in response to the increase of illegal and harmful information on the Internet, in order to enable users to easily judge the safety of information, the MPHPT from fiscal 2004 is carrying out surveys and research with the aim of promoting the establishment of a Contents Safety Mark system (tentative name) so that site operators can indicate the safety of their own sites.

## 2. Developing Human Resources

The field of information and communications is a rapidly developing field with a high degree of technological power. In order to maintain and strengthen the international competitiveness of existing industries by utilizing information and communications, high-level information and communications engineers are essential.

In fiscal 2001 the MPHPT introduced the Supporting System for Training of ICT Human Resources with the aim of developing human resources with expert knowledge and skills in the information and communications fields. Also, with the aim of ensuring and improving the safety and reliability of networks, the MPHPT in fiscal 2004 introduced the Business of setting up information communications security personnel training centers.



## Section 7

# Protecting Information and Communications Users

### 1. Consumer Administration in Telecommunications Services

It is thought that the main cause of trouble concerning contracts between telecommunications carriers and consumers, such as contracts relating to DSL or IP phones, is often the fact that consumers conclude the contract without fully understanding the content of the telecommunications service because, for example, the explanation by the carrier is difficult to understand. Therefore, the Telecommunications Business Law was revised in the 156th session of the Diet to newly establish accountability. The amendment stipulates that a carrier or agent must explain the content to the consumer at the time of concluding a contract and that a carrier must accurately and promptly deal with any complaint or inquiry from a consumer.

Also, toward improvement of the situation concerning spam mail (unsolicited e-mail), as well as orders to take treatment and other enforcement of the “Law on Regulation of Transmission of Specified Electronic Mail” and other legislation, the MPHPT is making efforts to promote voluntary responses by carriers and increased awareness among users.

Furthermore, as countermeasures against illegal and harmful contents, the MPHPT is providing assistance to business groups on the formulation of related guidelines and conducting a publicity campaign so that 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” (so-called the Law Concerning the Liability of Internet Service Provider) can be properly operated.

### 2. Promoting Measures for Information Security and Privacy Protection

#### (1) Strengthening public-private cooperation toward the ensuring of information security, etc.

In order to promote countermeasures relating to responses at the time of outbreak of incidents involving the violation of information security and liaison and cooperation between the public and private sectors, including the gathering and analysis of information on security violations that abuse information and communications networks and obstruct the supply of diverse IT services and the protection of and cooperation among networks through the sharing of the results of analysis among members, Telecom-ISAC Japan was established in July 2002 by three business groups and seven telecommunications carriers. In order to detect the out-

break of incidents as early as possible and prevent the escalation of damage caused by information security violations, Telecom-ISAC Japan has begun research and development and the construction of a setup with the aim of building a wide-area monitoring system for the swift detection of proliferating incidents.

From fiscal 2003 Telecom-ISAC Japan is building a database for the collection and active preservation of computer viruses and so on and a test bed of mock networks for related research and is scheduled to establish a setup for speedy response to emergency situations caused by the outbreak of a virus and a setup for the joint use of the said test bed by outside researchers.

#### (2) Research and development relating to secure operating systems

In fiscal 2003 the MPHPT implemented an objective and impartial evaluation of the merits and demerits of open-source operating systems and non-open-source operating systems from various perspectives, including security, operation, and cost, with the aim of contributing to studies on the introduction of open-source operating systems for e-government and e-local government. As a result of this evaluation, it was proposed that since an OS that is best for all information systems does not exist, in the building and operation of each information system, a study of the information security countermeasures that should be taken should be made prior to system procurement and that selecting the best OS for each system through a method of comprehensive evaluation would be most appropriate.

#### (3) Protecting personal information in the information and communications field

Regarding the protection of personal information that covers all fields in a comprehensive manner, the government in May 2003 promulgated the Law Concerning the Protection of Personal Information, which will go into full effect in April 2005. Regarding the appropriate handling of personal information in the light of this law, the MPHPT will reach a certain specific conclusion on the handling of personal information in the information and communications field by the time the law goes into full effect, with reference to the discussions and reports of the Study Group Concerning Information Privacy in the Telecommunications Business Field, which has been held since February 2003, and the Study Group on Protecting Personal Information in the Field of Broadcasting and Satellite Broadcasting in the Age of IT, which has been held since May 2004.

#### (4) Measures to upgrade emergency information functions, etc. in the telecommunications business

Upon receiving the report of the Study Group for Ensuring Important Telecommunications in the Telecommunications Business, the MPHPT in November 2003 submitted an inquiry to the Telecommunications Council to look into measures for the upgrading of emergency information functions, etc. in the telecommunications business. The MPHPT also set up the Committee for the Advancement of Emergency Message Systems under the Telecommunications Council, which is currently engaged in deliberations.

### 3. Overcoming the Digital Divide

In regions that have disadvantageous conditions, such as depopulated areas, the construction of network infrastructure by private companies is not making headway because of such problems as profitability, and the digital divide caused by geographical factors is becoming striking. As a result, policy responses by the central and local governments are called for. The MPHPT is responding to the regional divide through various projects, including the construction of Subscriber Fiber-Optic Networks, the construction and maintenance of transmission towers for mobile telecommunications, and the construction of facilities to ameliorate poor reception of commercial television and radio broadcasting. The MPHPT is also making efforts to address the digital

divide caused by disabilities and age, for example by supporting IT use by disabled and elderly persons and expanding subtitled broadcasting.

### 4. Improving the Environment for Radio Spectrum Use

In order to ease concern that radio waves emitted from radio equipment have an unfavorable effect on the human body and to establish an environment in which people can use radio waves safely and with peace of mind, the MPHPT is promoting research on the effect of radio waves on the human body and other issues, formulating appropriate standards for preventing the impact of radio waves on equipment, and implementing continuing studies. Also, the MPHPT is conducting the appropriate supervision and management of radio waves and, regarding telecommunications equipment, promoting the swift market entry of wireless equipment and terminal equipment. In order to contribute to economic revitalization and the strengthening of international competitiveness, the MPHPT has introduced the Self-Verification of Conformity to Technical Regulations system, which enables the swift development of products because manufacturers themselves are able to confirm conformity with technical standards beforehand. Furthermore, in order to prevent obstruction by interference and so on, the MPHPT has prepared ex post facto surveillance and orders, including penalties.

## 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 the Japanese people to lead safe lives with peace of mind, it is necessary to make active and strategic investment 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.

In consideration of the government's overall policy, the MPHPT submitted an inquiry to the

Telecommunications Council to study R&D and standardization strategy with the aim of giving shape to the basic strategy on R&D and revising the R&D Basic Plan (Third Edition). In March 2003, as its basic thinking on such topics as linking the results of R&D to industrialization, incorporating the perspectives of users and makers in R&D, and uniformly promoting R&D and standardization so as to widely diffuse the results of R&D, the Telecommunications Council outlined the R&D issues and policies that should be tackled in the R&D Basic Plan (Fourth Edition), the R&D Implementation Strategy, and the Standardization Strategy.

Also, in consideration of the fact that such issues as standardization in R&D and response to intellectual property strategy have come to be viewed as increasingly important in recent years, the MPHPT in April 2004 formulated the MPHPT Guidelines for Evaluating Research and Development on Information and Communications.

In April 2004 the Communications Research Laboratory (CRL) and the Telecommunications Advancement Organization of Japan (TAO) merged to form an incorporated administrative agency, the National Institute of Information and Communications Technology (NICT), which is expected to forcefully promote R&D, from the basics of information and communications to just before application, through close cooperation among the government, industry, and academia.

In addition, on October 1, 2003, three organizations (the Institute of Space and Astronautical Science, the National Aerospace Laboratory of Japan, and the National Space Development Agency of Japan) merged to form the Japan Aerospace Exploration Agency (JAXA), the new core organization for space development that undertakes everything from basic scientific research to practical R&D in a consistent manner.

## 2. Implementing Selective R&D

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

The ubiquitous network society will be realized through the combination of Japan's technologies relating to optical communications, mobile, and intelligent home appliances that are highly reputed around the world, and it is expected to contribute greatly to ensuring international competitiveness. In order to realize this ubiquitous network society, which is full of so much potential, the MPHPT is promoting priority efforts toward basic R&D that will serve as a trigger and the construction of R&D networks that might be used as test beds (Figure 3-8-1).

The R&D test-bed (demonstration experiment) networks promote the upgrading of network technology and the development and demonstration of service applications and play a role in realizing the practical shift to such a society. The Japan Gigabit Network (JGN), which was operated from fiscal 1999 to fiscal 2003, ful-

filled just such a role. It was used by an aggregate total of 650 organizations and more than 2,000 researchers and achieved tremendous results. The JGN II, a new R&D test-bed network that develops the JGN further, began operation in April 2004.

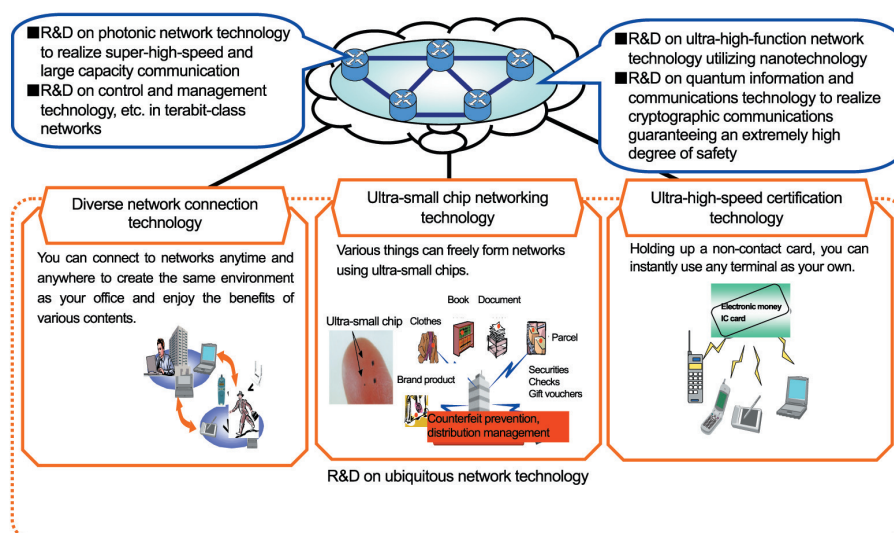
### (2) Useful technology for the realization of a ubiquitous network society

For the realization of a ubiquitous network society, it is necessary to establish basic technologies and to put them into use in a developmental manner. R&D is also necessary to promote the use of IT in various fields.

RFID tags have features that do not exist in bar codes. For example, by using radio waves, it is possible to read information contained in RFID tags from distant places and to read information from multiple RFID tags all at once. In addition, it is expected that RFID tags will become a basic tool connecting people and goods with networks in the ubiquitous network society, since, as light, small, and cheap RFID tags begin to appear, it will be possible to embed them in all kinds of things. Since fiscal 2004 the MPHPT 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 right to RFID tag information.

Also, by connecting ubiquitous networks with personal robots and industrial robots that are expected to be used in homes and offices in the future (network robots), it is anticipated that new lifestyles will be created and responses will be possible to such social problems as aging and medical treatment and care. In a five-year plan from fiscal 2004, the MPHPT is implementing R&D on such issues as "people-friendly communication technology" and "network robot linkage technology."

Figure 3-8-1 R&D on Basic Technology Toward the Realization of a Ubiquitous Network Society





Furthermore, in fiscal 2003 the MPHPT began comprehensive R&D on network-human interface, in which it is promoting R&D on such issues as a practical multilingual voice automatic translation system for network-connected mobile terminals and a technology for preventing the harmful effect of optical stimulus from visual contents on the human body.

If people come to require more diverse and higher-level services, then in place of technology like RFID tags that just attach static information to things, technology that perceives the conditions of people and things and the surrounding environment and transmits this dynamic information is going to become important. In March 2004 the MPHPT convened a research group on ubiquitous sensor network technology.

### (3) Advances in space communications

Space communications have many favorable features, such as the capacity to provide wide-area and simultaneous communications and their disaster-proof character, and they 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, in order to realize the space communications that will be required, the MPHPT is promoting the development of demonstration satellites and satellite experiments, including R&D on the quasi-zenithal satellite system, R&D on the ultra-high-speed Internet satellite, R&D on the Engineering Test Satellite VIII, and R&D on the Global Precipitation Measurement (GPM) initiative.

## Section 9

# Promoting International Strategies

### 1. Promoting International Policies

#### (1) Promoting the Asia Broadband Program

In order to clarify the objective of constructing a broadband environment in Asia, 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” (approved by the cabinet in June 2002), the MPHPT in July 2002 held the “International Conference for Asia Broadband Strategy”, sponsored by the Minister of the MPHPT, and issued the results as the chair’s summary in December of the same year. In the light of this paper, the MPHPT, together with related ministries and agencies, formulated the “Asia Broadband Program” in March 2003. This program is treated as a subject to make steady progress in the “e-Japan Strategy II” as well, and the MPHPT and related ministries and agencies are actively promoting various related efforts.

#### (2) Japan-UK Joint Statement on Information and Communications Technology

In July 2003, on the occasion of a visit to Japan by British Prime Minister Tony Blair, the leaders of Japan and Britain issued the Japan-UK Joint Statement on information and communications technology regarding cooperation between the two countries as the world’s leading ICT states. The two countries agreed to cooperate in realizing a ubiquitous network society, promoting the development of e-commerce, use of ICT in government and education, and building digital opportunities.

#### (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 Second China-Japan-Korea ICT Ministerial Meeting was held in Cheju, Korea, in September 2003, with the participants engaging in broad discussions on the development of Asia through the promotion of further cooperation among the three countries in the field of information and communications and agreeing on three-country cooperation in seven ICT areas from now on. The Third China-Japan-Korea ICT Ministerial Meeting is scheduled to be held in Japan in 2004.

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

The World Summit on the Information Society (WSIS), which was held in Geneva, Switzerland, in December 2003 with the participation of more than 20,000 persons from 176 countries, including 54 government leaders and 83 ministers of information and communications, was sponsored by the International Telecommunication Union (ITU) as an event of the United Nations with the aim of promoting the establishment and understanding of a common vision of the information society, issuing a declaration for the achievement of cooperative development toward the



realization of this vision, and formulating a strategic plan of action. As well as establishing a common vision of the information society at the summit level, the WSIS also formulated a declaration of principles and plan of action for the realization of this vision and so on.

Japanese Minister of the MPHPT Taro Aso made a statement at the summit, introducing Japan's efforts to promote broadband and realize a ubiquitous network society and emphasizing their importance. Minister Aso also explained that Japan was actively promoting the Asia Broadband Program and would contribute to the declaration of principles and plan of action.

A second phase of the WSIS, which among other things will undertake a follow-up of the Geneva plan of action, is scheduled to be held in Tunis in November 2005. Preparations for the second phase will take place from now on, but it is expected that studies will go ahead on the establishment of a fund to alleviate the digital divide and the form of Internet governance, which were the focal points of discussions in the first phase.

Japan is scheduled to contribute as much as possible for the second phase of the WSIS in cooperation with the ITU and a wide range of international organizations and others.

Regarding the form of Internet governance, in order to contribute to the international debate, including a working group that will be established from now on, the MPHPT is holding the Meeting for Information-sharing on Internet Governance with the aim of exchanging information with Internet-related persons in Japan.

## 2. Promoting International Cooperation

Information and communications are attracting a great deal of 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.

As well as, among other things, supporting human resource development in the IT field, assisting the formulation of IT policies and systems through policy dialogue with information and communication ministries in developing countries, assisting the construction of information and communication infrastructure through the implementation of joint international experiments and so on, and supporting international and regional organizations that promote global cooperation for resolving the international digital divide, the MPHPT contributes to the continuous 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 International Telecommunication Union (ITU) plays a central role in international standardization in the information and communications field. Within the ITU, the Telecommunication Standardization Sector (ITU-T) and the Radiocommunication Sector (ITU-R) engage in standardization activities. The World Telecommunication Standardization Assembly (WTSA) will be held in October 2004 and is scheduled to decide the setup of ITU-T study groups in the next study period (2005 – 08) and study topics, appoint the chairs and vice-chairs of study groups, review work methods, and so on. Japan also must consider its response to these issues as quickly as possible.

Also, giving proper consideration to the opinions of industrial circles and others, since standardization has been the subject of lively discussions in private forums in recent years, it is necessary to further strengthen cooperation among government, industry, and academia and, grasping a full picture of the issues relating to international standardization that Japan should tackle, not just the ITU-T, consider the standardization issues that should be promoted from now on. In light of these circumstances, with regard to Japan's response to the WTSA, the MPHPT's Telecommunications Council is scheduled to issue a partial report sometime in the summer of 2004.

## Section 10

# Development of Postal Administration

### 1. Efforts of Japan Post

Regarding the postal business, it was stipulated that a new state-run public corporation should be established that would operate in accordance with a policy of autonomous and flexible management under a self-supporting accounting system and a shift from ex ante control through Diet approval of its budget to ex post facto evaluation of the formulation of targets and plans and performance.

Inaugurated in April 2003, Japan Post undertakes autonomous and flexible management and is making efforts to improve existing services and introduce new services toward the achievement of its medium-term management goals. Japan Post is also endeavoring to improve convenience for the public by actively forming tie-ups and links with private companies.

### 2. Entry into the Correspondence Delivery Service

In conjunction with the launch of Japan Post in April 2003, the “Law Concerning Correspondence Delivery by Private-Sector Operators” (so-called Correspondence Delivery Law) went into effect, permitting the entry of private operators into the correspondence delivery business, which previously was monopolized by the state. From April 2003 to March 2004, 41 special correspondence delivery companies entered the correspondence delivery business.

### 3. Promoting the Utilization of the Post Office Network as a Community Base

The convenience of citizens would be strikingly improved if one-stop service could be realized in post offices, which are the most familiar public service providers. For this purpose, the “Law on Provision of Specific Local Government Services at Post Offices” went into force in December 2001 to enable post offices to handle certain administrative matters of local governments.