

III-2-1 The government's role in creating a 21st century society based on advanced info-communications

The Telecommunications Council is debating the nature of a society based on advanced info-communications and the role of the public sector in creating it.

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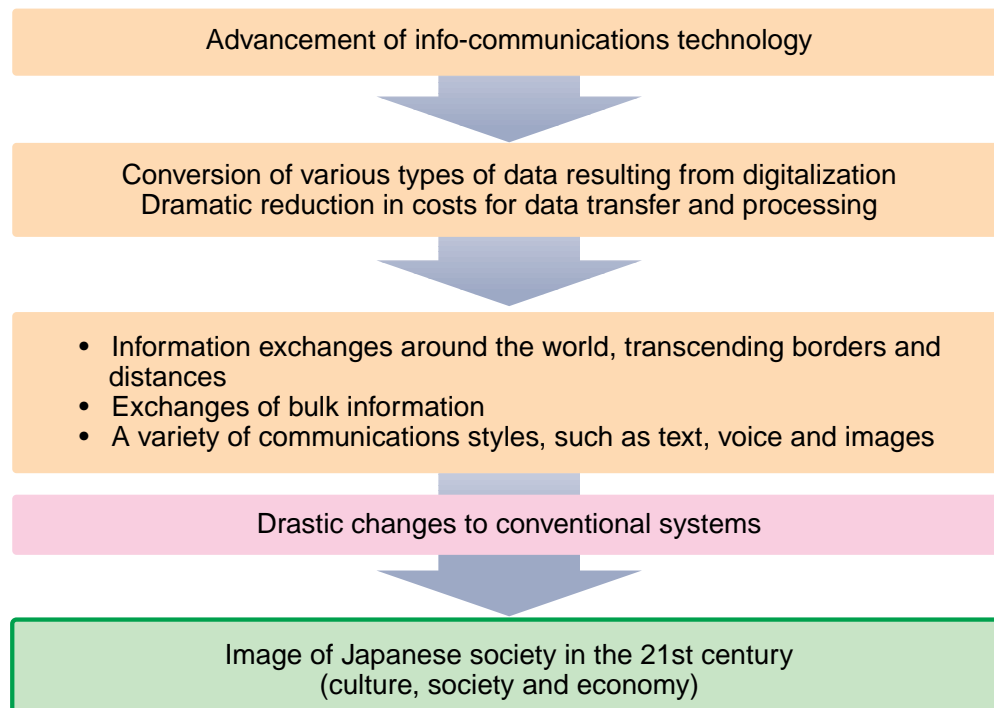
The explosive growth of the Internet on a global scale, as well as remarkable developments in digital technology, have prompted the shift of the society to an advanced info-communications society. This shift that enables every entity, including individuals, to send and receive information worldwide is likely to lead to dramatic changes in the norms and conventions of societies.

With this in mind, MPT has begun studying how such an advanced info-communications society

should take shape in Japan and what role should be played by the administration. In December 1998, MPT commissioned the Telecommunications Council to discuss these issues (Fig.).

Currently, deliberations are under way in the Subcommittee on Cultural and Social Issues and the Subcommittee on Economics organized under the council's Info-communications Policy Study Group. In May 1999, the council compiled their findings into an interim report.

Fig. Flow of study procedure



III-2-2 Reform of Japan's telecommunications market

(1) Ensuring competition in the telecommunications market

Promotion of further competition will lead to lower charges and more diverse and advanced services.

As the second info-communications reform schemes, MPT is proceeding with the reorganization of NTT, promotion of interconnection policies and deregulation. These schemes are aimed at accelerating the growth of the info-communications

market, enhancing the international competitiveness of the Japanese info-communications industry and better meeting the needs of users.

Reforms were also carried out during fiscal 1998, such as the abolition of the KDD Law (Table).

Table Measures carried out in fiscal 1998 under the Second Reform of Info-communications

<p>July 1998</p> <p>Abolition of the KDD Law</p> <p>As a result, KDD Corp. completely privatized</p>
<p>November 1998</p> <p>1. Revision of tariff regulations</p> <p>Type I telecommunications carriers made subject to a prior-notification system in setting their new end-user tariffs, instead of needing to obtain authorization from the Minister of Posts and Telecommunications.</p> <p>2. Network facilities installation by Type II telecommunications carriers</p> <p>Allowed Type II telecommunications carriers to provide services using their own terminal transmission line facilities, if they can meet the requirements.</p> <p>3. Re-classification of Type II telecommunications business</p> <p>Special Type II telecommunications carriers defined as those providing international communications services and those providing telecommunications services for an unspecified number of general subscribers through their telecommunications facilities that have met a required standard. Special Type II telecommunications services redefined as those providing international communications services and voice services based on the Ko-Sen-Ko* system. Other Special Type II services categorized as General Type II telecommunications services, which are subject to less strict regulations than those for Special Type II services. (*The "Ko-Sen-Ko" system allows the connection of a leased circuit with public switched networks at both ends. Using their own leased circuits as access lines, companies can offer low-priced telephony services to individual customers through this system.)</p> <p>4. Conditions for approving Type I carriers' entrusting services to others</p> <p>When entrusting part of their services, Type I telecommunications carriers were required to get an approval each time from the Minister of Posts and Telecommunications. This requirement has been relaxed to apply only to the cases where the commissioned parties operate such services using telecommunications facilities established by the trustor.</p>
<p>March 1999</p> <p>Revision of systems for certification of conformity with technical regulations for radio equipment and other devices</p> <p>In revising the System for Certification of Conformity with Technical Regulations pertaining to radio equipment and the System for Technical Conditions Compliance Approval for terminal equipment, MPT incorporated the expertise of foreign certification authorities and of businesses in Japan and abroad.</p>

(2) Introduction of new tariff systems

Introduction of price-cap regulation in regional communications markets

New entrants and their growing market shares have made competition in the Japanese telecommunications market increasingly intense. This is particularly apparent in long-distance and international services, as well as data communications services such as Internet access. In these sectors, measures must be taken to allow carriers to actively pursue business opportunities by setting their charges promptly and strategically, and to accommodate users' needs for a variety of services.

Meanwhile, in Japan's regional communications markets, although there have been a few new entrants, in reality, much of each regional market is still dominated by NTT. In these markets, where competition has yet to mature, the government needs to intervene to some extent to complement the market mechanism, as well as provide incentives to encourage service providers to increase their efficiency, so achieving lower end-user charges.

With the aim of updating tariff systems in line with recent trends and the progress of competition in the telecommunications market, revisions were made to the Telecommunications Business Law in May 1998. Type I telecommunications carriers in general were made subject to a prior-notification system in setting their new end-user tariffs, instead of obtaining authorization from MPT (Table 1).

In addition, a price cap regulation was introduced for services which are not yet fully subject to competition and in which high prices would make the services less valuable to consumers. MPT set a standard charge index (Table 2) to calculate appropriate maximum charges for a service, taking into consideration the costs borne by carriers, commodity prices and other economic indices. When carriers want to introduce new charges that are lower than MPT's standard, they only need to notify the ministry; when the proposed new charges are higher, carriers must obtain MPT's approval.

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Table 1 Outline of revisions to telecommunications tariff systems

<p>1. Shift from a prior approval system to a notification system Shift from a prior approval system to a notification system for Type I telecommunications carriers in setting and revising end-user charges.</p> <p>2. Clarification of conditions for issuing an order to revise tariffs To ensure that carriers impose appropriate charges, MPT can issue an order for charges to be changed in cases that meet the following conditions:</p> <ul style="list-style-type: none"> i) When the method of calculating charges is not defined properly or clearly; ii) When the charges discriminate against a certain group of people; iii) When the charges could cause inappropriate competition against other carriers and is considered extremely improper in terms of socioeconomic aspects, so obstructing user benefits. <p>3. Introduction of a system for collecting opinions and suggestions End-users and competing service providers can submit their opinions and suggestions to the Minister of Posts and Telecommunications, concerning telecommunications services tariffs, service conditions and other issues.</p> <p>4. Introduction of a price cap regulation In prefectural communication markets, where competition has yet to mature, a price cap regulation has been implemented for telephony, ISDN and leased circuit services provided using designated telecommunications facilities, in order to benefit consumers and encourage service providers to become more efficient.</p>

Table 2 Calculation method of standard charge index

Calculation formula:

$$\text{The standard charge index} = \boxed{\text{the standard charge index for the previous year}} \times \left(1 + \boxed{\text{the fluctuation rate of the last fiscal year's consumer price index}} - \boxed{\text{the expected rate of improved productivity (x)}} \pm \boxed{\text{exogenous factors}} \right)$$

Notes: 1. The first standard charge index was set at 100, at the time of its initial introduction.

2. The expected rate of productivity improvement is calculated from the expected rate in Japan's telecommunications sector as a whole, based on projected demand and costs. It will be revised every three years.

(3) Dialing parity

Ensuring fair and effective competition between NTT and other carriers

Dialing parity allows users to place both domestic and international calls without dialing a carrier identification code, once they have registered their carriers of choice with their incumbent regional carriers. Regional carriers offering telephony through their own regional telecommunications networks including subscriber lines, accommodate this service to allow international and long-distance carriers to be interconnected when calls are made.

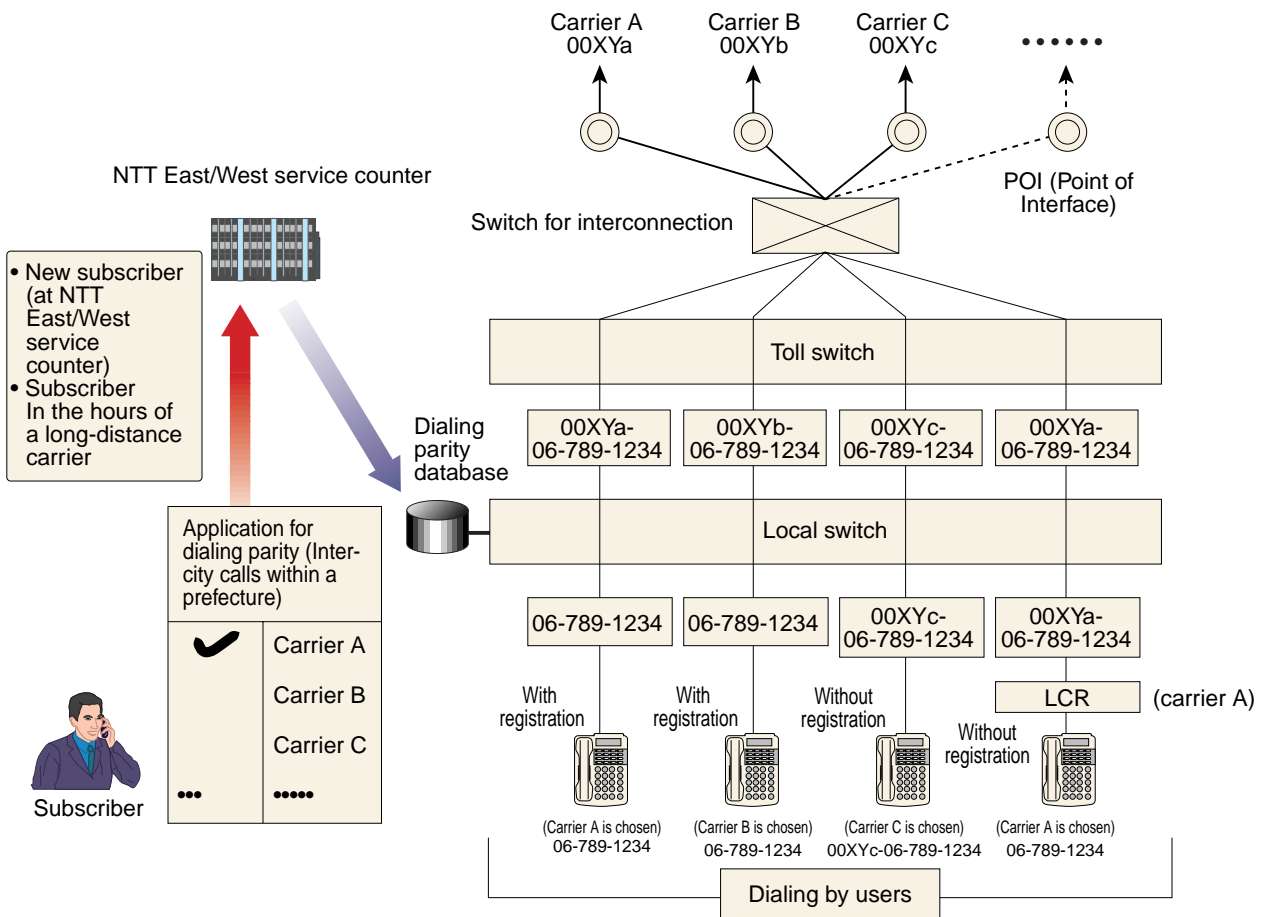
In March 1988, MPT established a "Study Group on Dialing Parity," having decided that the issue needed consideration in line with the reorganization of NTT. The study group clarified issues of concern regarding the introduction of dialing parity, as well as deciding how to move towards its implementation. It compiled its findings into a report released in November 1998.

With the aim of ensuring benefits for users, the

report underscored that dialing procedures for the service should be as simple as possible, and the need to dial longer numbers should be avoided. In addition, the report noted that it was appropriate for dialing parity to be introduced for long-distance calls following the reorganization of NTT, to allow NTT customers to continue to use the same dialing procedures for services from the new long-distance NTT carrier.

In accordance with the report, MPT will establish the "Preparatory Committee for the Introduction of Dialing Parity" to discuss details of the dialing parity system with the carriers concerned. In addition, MPT will formulate implementation guidelines and will decide such matters as detailed specifications of the system, how costs should be shared among carriers and ways to make the system well-known to users.

Fig. Outline of the dialing parity system



Promotion of reform in the info-communications sector

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(4) Number portability

It is hoped to introduce number portability in fiscal 2000.

Number portability allows subscribers to change carriers without changing their telephone numbers. Currently, this is not possible and users have to expend a lot of effort to notifying people of their new number. Once number portability is introduced, users will feel freer to select a different carrier, resulting in a more competitive telecommunications market.

A December 1996 report from the Telecommunications Council entitled "Basic Rules for Interconnection" proposed that, in order to improve convenience for users and increase competition among carriers, number portability should be introduced as early as possible, preferably in fiscal 2000.

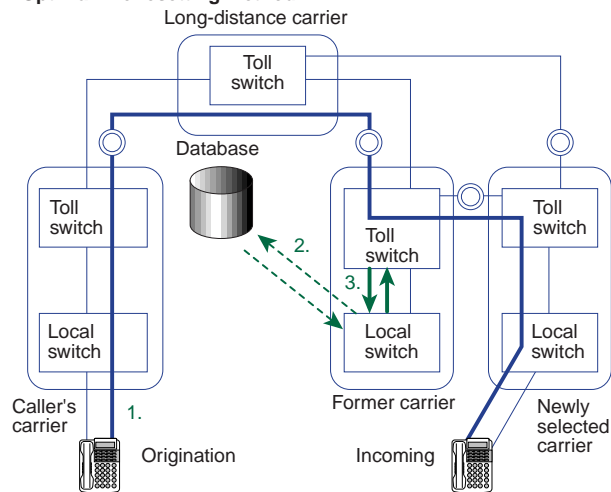
Based on this report, in August 1997 MPT established the "Study Group on Practical Systems for Number Portability" to decide the best systems.

The study group compiled a report in May 1998 which recommended various number portability systems (Fig.). The report also noted that all carriers should set standard communications protocols and decide procedures for handling users' applications for the service. Standard communications protocols were formulated in November 1998 by the Telecommunication Technology Committee.

MPT also established a "Study Group on Cost Sharing for the Introduction of Number Portability" in September 1998. The study group compiled its findings into a report in March 1999, which describes ways in which carriers can share costs for various items, such as the modification of telecommunications networks necessary for introducing number portability.

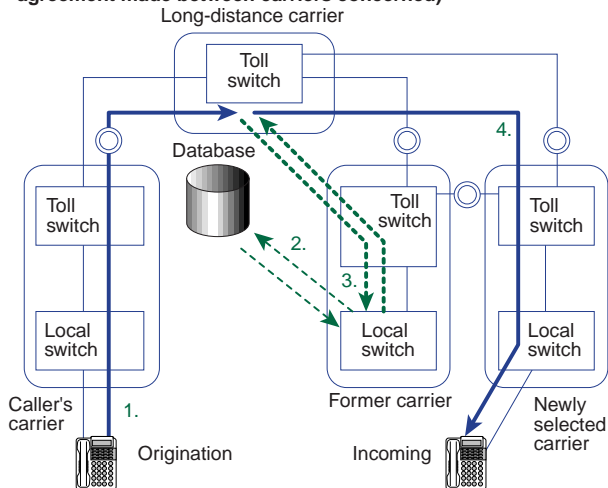
Fig. Practical number portability systems for subscriber telephones and ISDN

• Optimal line resetting method



1. Caller's regional carrier establishes a circuit to the former carrier of called party by the number dialed.
2. Former carrier confirms that the called party has switched to another carrier under the number portability system and obtains the information about the called party's transfer destination.
3. Former carrier, if necessary, opens its circuit within itself and sets a circuit linking with the new carrier based on the transfer destination information.

• Option for the optimal line resetting method (when agreement made between carriers concerned)



1. Caller's regional carrier establishes a circuit to the former carrier of called party by the number dialed.
2. Former carrier confirms that the called party has switched to another carrier under the number portability system and obtains the information about the called party's transfer destination.
3. Former carrier opens its circuit linking with the long-distance carrier or caller's regional carrier based on the transfer destination information.
4. Long-distance carrier or caller's regional carrier sets a circuit linking with the new carrier.

III-2-3 Promotion of deregulation in broadcasting sector

Deregulation measures have been implemented to encourage advances in broadcasting.

During fiscal 1998, MPT carried out the deregulatory measures outlined in the Table to promote the advance of broadcasting, including digitalization and the provision of multichannel services, taking into consideration recent developments in the broadcasting market.

MPT also submitted a "Bill to Revise the Law to Regulate the Operation of the Cable Sound Broad-

casting Service (Law No. 135 of 1951) and the Cable Television Broadcast Law (Law No. 114 of 1972)," to the 145th Ordinary Diet Session. The purposes of the bill include to repeal the items "being a non-Japanese entity," and so on, from the list of disqualification, based on which MPT may not permit them to install their cable TV broadcast facilities in Japan.

Table Main deregulatory measures carried out during fiscal 1998

	Measure	Description
Satellite broadcasting	1. Abolition of the full cost principle concerning facility supplying broadcasting service charges (June 1998)	The full cost principle was abolished to enable facility supply broadcasters to decide themselves the charges for renting slots in satellite transponders.
	2. Preparation for introducing digital broadcasting to BS broadcasting (June 1998)	As an exception made exempt from the principle of excluding multiple ownership of mass media, broadcasters engaging in BS analog broadcasting can be allowed to broadcast simultaneously the same programs in digital format, if they have notified the Minister of Posts and Telecommunications of the service.
	3. New frequency allocation method for CS digital broadcasting (October 1998)	In addition to conventional transmission methods, a new method was devised to maximize the amount of information carried. The new method allows sharing of transmission capacity among a couple of programs, allocating part of the capacity for one program to the other in intervals.
Cable TV	4. Easing of burden on applicants for obtaining permission to install cable TV facilities (April 1998)	1) Application procedures were made simpler; some documents were made exempt from submission and application forms were made simpler. 2) It was made possible to prepare application forms in digital format and to submit them in a floppy disk to the Minister.
	5. Use of telecommunications carriers' subscriber fiber-optic networks by cable TV operators (June 1998)	While assuring fair and effective competition in the market, MPT permitted telecommunications carriers to rent out their subscriber fiber-optic networks, or so-called FTTH (fiber-to-the-home) networks, to cable TV operators for use as access lines.
	6. Use of fixed wireless system as a complement to cable TV networks reaching subscribers (September 1998)	In scarcely populate districts and areas where cable installation is virtually impossible because conduits and ducts are already filled with utility lines, cable TV operators were allowed to use the 23-GHz-frequency band fixed wireless system, as a complement to their cable networks, in transmitting programs to subscriber houses and apartment complexes.

III-2-4 Creation of new info-communications businesses

The Telecom Venture Business Fund was established with capital from both the public and private sectors.

MPT continues to offer support to providers of telecommunications and broadcasting services when they launch new services or introduce new media to local communities.

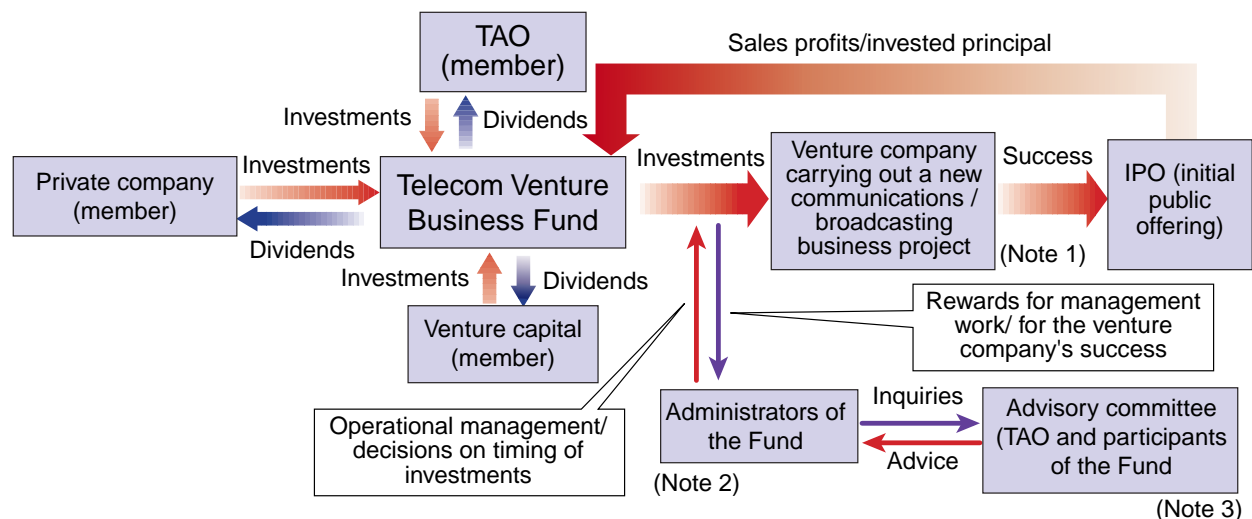
In May 1998, the Telecom Venture Business Fund (Fig.) was established with capital from the public and private sectors, with the aim of smoothly allocating funds to new telecommunications carriers and broadcasters, improving both public support and helping them to make full use of private financial resources. The Telecommunications Advancement Organization of Japan (TAO) invested 1 billion yen in the fund in order to finance a range of policy measures. In turn, the fund is to invest in new projects chosen in accordance with the "Law for Smoothing Designated Communications and Broadcasting Development Projects," which came into effect in September 1990. During fiscal 1998, the fund invested in one such project.

TAO also established a financial support system

for venture companies conducting research and development of leading-edge and innovative technologies, giving grants for such work to appropriate companies. During fiscal 1998, TAO granted subsidies to 20 projects.

In addition, using funds from fiscal 1998 supplementary budgets, a cooperative research and development system between industry and academia was established to turn the latest technologies into commercial products through the joint efforts of venture companies and universities. In this system, TAO solicits and publishes information on universities' fields of interest and invites ideas for research and development projects from venture and other companies. If a project idea is approved, work is commissioned from a research group consisting of experts from industry and academia. Of 54 applications received during fiscal 1998, nine were chosen and work has begun on those projects.

Fig. Outline of the Telecom Venture Business Fund



- Notes: 1. If a venture company is planning a new info-communications service and wants to receive an investment from the fund, the company must obtain the approval of the Minister of Posts and Telecommunications for the plan as a suitable for funding under the Law for Smoothing Designated Communications and Broadcasting Development Projects.
2. This refers to administrators of the fund commissioned with its overall operational management, including of the fund's financial assets, based on the Article 670 of the Civil Code. Specifically, they look for new companies suitable for investment, invest in selected ones and provide them with follow-up support.
3. Advisory committee gives advice to administrators of the fund responsible for its operation.

Related site: Telecommunications Advancement Organization of Japan (TAO) (<http://www.shiba.tao.go.jp/>)