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No. 106

From the Editor

Technological innovation has meant that in all sectors existing systems have become antiquated, and irrespective of the will of the government, the power of the market is forcing the abolition of regulations, with a gradual progression towards a level that is on par with international standards. The dissemination of satellite broadcasting has meant that radio waves are transcending national borders. The rapid expansion of the Internet has heralded the advent of broadcasting and telephone stations that do not require licenses, and the walls between national borders and categories of industry are rapidly crumbling. Today, national domestic rules, that rely so heavily on industry classifications and the coordination between supply and demand, are quickly losing their validity.

Innovations in digital compression technology and developments in transmission technology have made it possible to digitalize a variety of image and audio data. Now, even the distinction between telecommunications and

broadcasting is starting to become meaningless. As a result, the Ministry of Posts and Telecommunications is conducting an examination into systematic issues and new businesses related to the convergence of telecommunications and broadcasting through their "Panel on the convergence of telecommunications and broadcasting towards the 21st Century."

In Japan, the Telecommunications Business Law enacted in 1985 deregulated the telecommunications industry. However, a distinction was made between telecommunication carriers according to whether or not they owned telecommunications facilities. For example, Internet service providers are classified as network service providers (Type II Telecommunications Carriers) who provide telecommunications processing services by leasing facilities from the owners. However, the fact that these regulations differentiate between those carriers that own lines and those that do not, and not between the services provided by those carriers, is now said

by some to be inappropriate given recent progress in information and communications technology and the development of the communications market. For this reason, the relaxation of carrier participation regulations, interconnection regulations, connection charges and service regulations is now being deliberated, based on principles of fair competition. As a result of these deliberations, the Ministry for Posts and Telecommunications has recently announced a number of policies aimed at relaxing regulations.

The argument that Nippon Telegraph and Telephone Corp. (NTT) should be separated into distinct business areas or different regions to ensure fair competition and to increase managerial efficiency has been debated in a number of forums since the privatization of NTT. However, in 1990 the government decided to postpone decision on the NTT issue for five years. After this decision in February 1996, the Telecommunications Council presented their report on NTT's status to the Ministry of Posts and Telecommunications. Prior to this, related groups and institutions, as in the previous review, publicly announced their views for or against the breakup of NTT. The

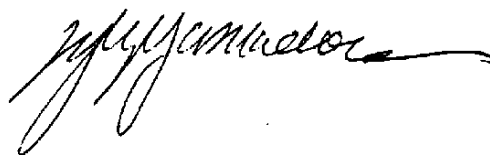
government initiated discussions upon receiving the report; however, it has postponed coming to any conclusions until the next ordinary session of the Diet. Thus, the question of whether or not NTT should be broken up remains unanswered, with related parties still holding opposing views. It is highly unusual that in a field where technology is developing so rapidly that it should take so long to achieve a solution to a problem. An early resolution is needed to meet the urgent need to create the new telecommunications system required to satisfy today's technological revolution.

In Japan, all ministries and agencies are involved in working out proposals and visions for the future in anticipation of changes in the telecommunications infrastructure. The creation of this infrastructure is being prepared as these ministries and agencies put in place policies and relax regulations. The construction of this next generation of information and telecommunications networks, the so-called creation of an advanced information and telecommunications infrastructure, will play an extremely important role in the development of the advanced information society. However, in such a society, the principle of competition in

the telecommunications market and, in particular, the activation of regional telecommunications markets cannot be ignored. It is also hoped that providers will place greater importance on creating an environment capable of meeting the needs of users rather than on merely providing a physical infrastructure and planning networks. In other words, the infrastructure should be highly user-friendly and provide user-oriented contents.

In this issue of the JIPDEC Informati-

zation Quarterly (JIQ), the current situation of telecommunications in Japan is discussed, focusing on developments to date. I hope this will be of some use to readers.



Yuji Yamadori

Director

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I. The Previous Telecommunications Reforms (1985)

Throughout NTT's history as a public corporation, discussion of reforms to telecommunications regulations and systems were dominated by the debate about the status of NTT. Although of course telecommunications regulations and systems cannot be discussed without talking about the status of NTT, a monopolistic carrier, too often the only topic of debate has been whether or not NTT should be broken up. This debate, which always starts and ends with a contentious battle between those for and against the breakup, is clouding any meaningful dialogue over the nature of telecommunications regulations and systems.

This section begins by discussing the events that led to the last round of telecommunications reforms, implemented in 1985, which served as the basis for the telecommunications reform of 1996.

1. Report of the Ad hoc Administrative Reform Research Council

In March 1981, an Ad hoc Administrative Reform Research Council was set up as a subsidiary organ of the Prime Minister's Office to promote administrative reform. It was also known as the Doko Council because it was chaired by Mr. Toshio Doko. The biggest issue at the time of the establishment of the Council was the huge cumulative deficit problem of the Japanese National Railway Public Corporation.

In July, the Council presented its first report, a collation of concepts and issues involving administrative reform and policies for reforms that required urgent attention. In this report, the Council said of the system of public corporations, "This Council will be radically reviewing the nature of the existing public corporation system and will study the management of public corporations including privatization options, to promote efficient mana-

gement, to rationalize operations, and to effectively utilize such organizations." In its fourth subcommittee, the Council began discussions on the nature of the three public corporations, the five business operations by the government, and special public corporations.

At the time, the management of NTT was far from unsatisfactory. Rather, it was the best of the public corporations. However, inefficiencies were noted and it was believed that reforms were needed to prevent a second "National Railways".

In May 1982, the Council's fourth subcommittee presented a proposal to break up and privatize NTT. This proposal stated that NTT should be a special company owned by the government as a tentative measure and that within five years it should be divided into one central operating company and a number of regional companies. It also proposed that competition should be introduced into the trunk line section and that data communication services operation be separated from others. In January of that year, in the United States, a proposal for the reconciliation of the antitrust action taken against AT&T by

the Justice Department, basically a proposal concerning the breakup of AT&T, was made public. The report from the subcommittee seems to have been strongly influenced by this reconciliation proposal.

In July, based on the report from the subcommittee, the Council produced a report proposing the privatization and restructuring of NTT, introduction of competition, and a breakup of the data communications service division. This report was not an emergency policy report, but rather one that painted a picture of the medium- or long-term outlook for administration and basic policies for future administrative reforms. It was called, by the Council itself, the Basic Report.

In September, the cabinet of the then prime minister, Mr. Zenko Suzuki, decided to support the third report of the Council. It put forward specific proposals after consultation with related parties that would be both favorably and adversely affected. In November 1983, the Hashimoto proposal, put together by Mr. Ryutaro Hashimoto, the current prime minister, who was also Chairman of the Research Commission of Public Administration and Finances of the

Liberal Democratic Party, was approved by all sides as a basic framework. In April 1984, the cabinet formulated the three reform bills for the liberalization of telecommunications. In December of the same year, the bills were passed and enacted, then implemented in April 1985.

The result of these reforms was the deregulation of the telecommunications industry. NTT was privatized, becoming Nippon Telegraph and Telephone Corporation. While the Council's recommendations were becoming law, discussions on NTT's status were postponed for five years. That was prescribed by law in the Nippon Telegraph and Telephone Corporation Law. This inability to resolve matters, and instead shelving them in this way, is something that is often seen in Japanese politics, which hates strong leadership. Thus, the time taken for proposals to be implemented is often extended.

Discussions concerning the future status of NTT were to be concluded by March 1990. Given this time limit, in July 1988, the Ministry of Posts and Telecommunications began discussions in earnest, submitting the review of

NTT management to the Telecommunications Council, an advisory organ to the Minister of Posts and Telecommunications. The Ministry had maintained a position stating that NTT had to be broken up to enable fair competition, and it was expected that the report presented by the Telecommunications Council would follow this line. In October 1989, the Telecommunications Council presented an intermediate report on the breakup of NTT, clarifying the direction of its final report, which was expected in March 1990.

On the other hand, shares in the privatized NTT were incredibly popular when first released in November 1986. When shares with a face value of 50,000 yen were offered at 1.197 million yen, they rose in value immediately. In the second release of shares in November 1987, shares sold out at 2.55 million yen per share. Japan was right in the middle of its bubble economy and the sale of NTT shares was a boon for a Ministry of Finance who was hoping for top prices to balance the public finance.

Enthusiasm had subsided slightly by the time of the third release of the shares in October 1988, and the release price was somewhat lower. Even so, the shares

were selling for 1.9 million yen each. Subsequently, however, NTT's share price fell steadily until it dipped below the release price. Ordinary investors then turned a critical eye on the Ministry of Finance which, by selling the shares at high prices, had made a fortune. (In the aftermath of the bursting of the bubble economy, the price of one NTT share is approximately 800,000 yen. The Ministry of Finance lost any further chance to sell shares after the third release.)

At this time, it was popular to argue that Japanese technological prowess had outstripped the United States. It was a time when the United States, faced with a sense of growing crisis, was trying to strengthen its research and development ability and when the issue of bolstering international competitiveness was being widely discussed. Many people voiced their opinion that the divestiture of AT&T had cut into US research and development prowess.

This was the scenario as March 1990 approached. On March 2, as expected, the Telecommunications Council published their report recommending that NTT be broken up. Opposition appeared from all quarters saying that

it was too early to make a definite decision to break up NTT. The report became increasingly ignored.

The reason for this criticism, which stated that it was too early for such action, was that there were still no obvious benefits to be seen from the introduction of competition enabled by the deregulation of the telecommunications industry.

By dividing the industry into international and domestic sectors, and long distance and local areas, and by limiting the number of enterprises that could participate in each market, the Ministry of Posts and Telecommunications had attempted to introduce competition while nurturing new businesses. However, both NTT and KDD were competitive only to the point that they did not remove new players from the field. While prices were lowered, the diversification in services that had been expected as a result of real competition did not in fact occur. There was thus insufficient proof of the benefits of relaxed regulations and free competition. People wanted this to happen before NTT was carved up. However, the Ministry of Posts and Telecommunications thought the breakup of NTT

was essential for free competition and that one could not really be discussed without discussing the other.

From the point of view of international competitiveness, the breakup of NTT, Japan's only carrier with sufficient resources to invest in joint ventures with overseas companies and with the largest and best research and development capacity in Japan, was to be avoided. So great were the expectations placed on the research and development capacity of NTT that students in scientific fields throughout Japan hoped to gain employment with NTT. Employment with other companies was considered only as a second choice.

It is also thought that the most influential group opposing the breakup of NTT was the Ministry of Finance. The reason for this was that if the price of NTT shares was to drop further because of a breakup, ordinary investors "cheated by the government" would increase their opposition and the problem would no doubt become a political one. Fears of this eventuality proved to be the deciding factor.

On March 30, in the midst of such opposition to the breaking up of NTT,

the government put off the decision, instead deciding to promote fair and effective competition, and improving NTT's operating efficiency. A conclusion to the NTT problem was to be reached during the 1995 fiscal year.

This further five-year delay meant that a conclusion to the problem had been put off for exactly ten years since the issue was first raised.

The position of the Ministry of Posts and Telecommunications had been that the breakup of NTT was essential to enable fair competition. Merely relaxing regulations would only benefit NTT and so it would be difficult to proceed further with such relaxation. With no resolution to the NTT problem, the Ministry of Posts and Telecommunications was left with nowhere to go. No matter what its nature, a conclusion of any type would have meant that the Ministry of Posts and Telecommunications could have adopted a framework for regulations and implemented appropriate policies. However, with a decision having been put off, the government had no choice but to wait.

Given that technological developments in the telecommunications industry are

rapid and that new services and new markets are appearing all the time, the fact that the review of telecommu-

nications regulations has been stagnant now for ten years cannot be good news for the Japanese players.

II. Obvious Problems

In the five years since 1990, the telecommunications industry has experienced many changes. The environment for discussing the nature of regulations and systems in Japan's telecommunications industry, which has centered on the NTT problem, has also changed. Furthermore, the problems left over from the past now are more obvious than ever.

1. Remaining problems

(1) Classification of carriers

Telecommunication carriers are classified into Type I Telecommunications Carriers, which own telecommunication facilities, and Type II Telecommunications Carriers, which provide services on facilities leased from Type I Carriers. Type II Telecommunications Carriers are further classified into Special and General Type II Telecommunications Carriers. Special Type II Telecommunications Carriers provide international services or have over 500 lines with a line speed of 1,200 bits per second.

Other carriers are General Type II Telecommunications Carriers.

Telecommunication facilities must always be leased from Type I Telecommunications Carriers. In other words, it is not possible to lease private facilities from companies that are not telecommunications carriers. Also, even if a company wants to lease surplus capacity to carriers, they cannot do so without the license of Type I Telecommunications Carrier.

From the start, this has been viewed as a problem. Because companies who own private facilities must obtain a Type I Telecommunications Carrier license to merely lease their facilities, and be subject to regulations for telecommunications carriers, there is no incentive to lease the surplus capacity of the facilities. This therefore makes flexible use of existing infrastructure impossible.

The facility-based carrier classification, not the service-based, is easy to

implement regulations. However, because there is no difference in the services provided by the Type I and Type II carriers, there is nothing special in being a Type II carrier. As a matter of fact, Type II Carrier classification was an adoption for VAN business. When the fusion between computers and communications is unquestioned, the VAN concept should be seen as having performed an historical role in leading to the liberalization of telecommunications. Thus, the classification of Type I and Type II carriers is losing its basis for existence.

(2) Interconnection

Under the Telecommunications Business Law, Type I Telecommunications Carriers are not obliged to allow interconnections. If carriers cannot agree on interconnection and there is a claim from one of the parties, the Minister of Posts and Telecommunications orders interconnection if it is seen to be necessary and appropriate in the promotion of public interest. When the conditions for interconnections cannot be resolved in the negotiations following such an order, the Minister of Posts and Telecommunications can make a ruling (Clause 39, Telecommu-

nications Law).

Under the Telecommunications Law, negotiations for the conditions of interconnection are the responsibility of the parties involved. No general rules have been prescribed for interconnection. Accordingly, negotiations between NCCs (New Common Carriers - Type I Telecommunications Carriers that have entered the market since it was freed up are generally called NCCs in Japan) and NTT frequently take a long time, causing a delay in the provision of new services.

In 1994, this became of particular concern when Japan Telecom Co., Ltd. (JT), one of the long distance NCCs, wanted to provide a frame relay service using NTT leased lines for access. The negotiations for interconnection begun with NTT went nowhere. Finally, the situation reached the stage where the Minister of Posts and Telecommunications was asked to make a ruling for interconnection.

The reason why negotiations for interconnection between NTT and JT were so stormy was because JT wanted to connect frame relays, a public service, to NTT leased lines, private services. This was the first such

connection of two different types of services, and NTT believed that the principles relating to the connection of different services should be established before connection. In short, it was the lack of principles for interconnection that impeded the negotiations.

In this case, NTT expressed it wanted to arrive at a decision without waiting for an order from the Minister of Post and Telecommunications, and in no time both parties came to an agreement. A decision was therefore reached after JT withdrew the claim it had made to the Minister of Posts and Telecommunications. It is said that the reason NTT hurried the resolution was that it feared the problem could have repercussions regarding the breakup of NTT.

Another problem that emerged from the start was the access charge paid by long distance NCCs to NTT. Until a carrier's rate was introduced in April 1994, the NTT lines used by the NCCs were treated in the same way as ordinary subscribers. There was considerable dissatisfaction. The current access charge is 10.46 yen for three minutes, and the charge is calculated by the second.

The access charge paid by long distance NCCs to NTT in 1994 was 310.3 billion yen, 49.4% of the 628.4 billion yen telephone charge revenue of the three long-distance NCCs. Increases or decreases in the access charge are directly related to the operating profits of the NCCs. In March 1990, when it put off the decision relating to the breakup of NTT, the government introduced a separate accounting system to clearly separate the accounting of NTT's different businesses. This clarified the income and expenditure for each of the NTT services; however, there were many areas in telecommunications service where cost allocation was difficult. The mistrust the NCCs felt toward NTT could not be eliminated.

(3) Field of Services Restrictions

Putting NTT and KDD aside for a moment, because of the clear definitions of their business given in the Nippon Telegraph and Telephone Corporation Law and the Kokusai Denshin Denwa Co., Ltd. Law, in the Telecommunications Business Law there are no clauses or items restricting the field of services in which carriers can engage. However, to nurture new participants, the

government has adopted a policy for regulating the number of participants in each market by classifying service areas when business licence are granted. Such service areas include international and domestic, and long distance and regional areas.

However, the result of this has been that no carrier represents a threat to NTT, which provides services in all areas other than the international area. In particular, the regional NCCs that are subsidiaries of the regional power companies that have infrastructures to rival that of NTT, can only provide telecommunications services in the service regions of their parent companies. It is regrettable that power-company based NCCs have been unable to connect with each other and provide a national service.

In short, a contradiction has been exposed between regulations in the Telecommunications Business Law, that presumes a split NTT, and the delay in the decision regarding the carving up of NTT.

(4) Supply and Demand Adjustment Clauses

According to Clause 10 of the Telecommunications Business Law, the Ministry of Posts and Telecommunications will consider the state of supply and demand in the market in which an applicant wishes to participate when granting a business license. Also, Clause 18 states that it is necessary to obtain a permit from the Ministry of Posts and Telecommunications to withdraw from a market. Such provisions can also be seen in laws relating to public utilities such as electricity and gas, but they are inconsistent with a free market. Thus, these clauses have been referred to as major barriers to free competition.

(5) Rebalancing Charges

Telephone charges and the charges for leased lines have yet to be balanced. In February 1995, the first rise in the monthly subscriber charge since NTT was privatized was implemented. This was one step towards rebalancing but was only approved one year after the initial filing and only on the condition that the price rise would be reduced. It is probably true that a rise in the price of local telephone calls would be

politicized and create a problem that would need to be handled delicately. However, if there is no appropriate relationship between costs and charges, then new carriers will not be attracted to enter regional telephone services market and NTT bottlenecks will not disappear. Indeed, there is a strong mistrust of the way in which NTT calculates its regional service costs.

(6) The Nippon Telegraph and Telephone Corporation Law and the Kokusai Denshin Denwa Co., Ltd. Law

Both NTT and KDD are special companies that were established by special laws. However, as competition increases, the reason for their existence is becoming weaker. The necessity for this special law is especially doubtful in the case of KDD which faces plenty of competition, and which does not have a bottleneck monopoly of equipment.

Under special laws, both companies must obtain the approval of the Minister of Posts and Telecommunications when appointing or dismissing board members and auditors. However, it does not seem right that the government should have the right to intervene

regarding personnel in a competitive company.

2. A New Era for Telecommunications

Over this period of five years, the telecommunications environment has changed greatly in Japan, as well as in the rest of the world. Furthermore, convergence in media has meant that the essence of telecommunications itself is changing.

(1) Global Alliances of Mega-Carriers

In addition to BT and MCI's Concert and the union of World Partners, under the AT&T umbrella, and Unisource, late January 1996 saw the entrance of a third international alliance with Global One, a joint venture between Sprint, France Télécom and Deutsche Telekom. In the past, telecommunications carriers did not disturb the telecommunications market in other countries, but rather cooperated in providing services. There was no competition between telecommunications carriers from different countries, as national borders were respected.

However, as national competition became more fierce, carriers began to see growth potential in overseas markets. Alliances have therefore been born to provide 'one-stop shopping' services for multinational corporations. The fight to enter domestic markets in other countries has begun unreservedly and without explanation.

Given this situation, Japan has found itself lagging behind, with no carrier being able to provide a seamless domestic and international service because of the regulations which separate domestic and international business. The main reason why Japan was unable to assume the leadership in an international alliance is that NTT, Japan's only carrier that can meet the mega-carriers of Britain and the United States, such as AT&T and BT, on an equal footing, has not been allowed to participate in the international arena. Because any other global alliance such as mentioned above, big and influential, would not appear at least in near future, the fact that no Japanese carrier played a significant role in creating such alliances means that Japan may lose business opportunities overseas.

(2) Changes in the information and communication industries

The NII initiative, aimed at establishing an advanced information network society based on broad-band high capacity communication infrastructure, was announced in many countries, starting in the United States. These countries already had a quite developed technical convergence of telecommunications and broadcasting.

A particular instance of this is the worldwide trend for companies to participate in both telecommunications and CATV. These services are positioned as the central media for transmitting both animation and images, and the companies involved will be the key players in the realization of a multimedia society. There are also many large-scale joint ventures being established to vertically integrate contents and media.

The Internet has experienced an incredible boom since commercial use became possible. Many venture businesses have begun operation and large corporations do not necessarily have any advantage. Rather, it is whispered that small-scale corporations

that can change quickly and virtual companies that exist only on the network are more profitable.

At present, the use of multimedia has been seen mainly on the Internet, but technology for services such as the Internet telephone service is quickly being applied in the sacred area of telecommunications business. The situation now is progressing in a way that was totally unforeseen in 1990.

(3) Progress of alternative regional network services

JIQ No. 102 dealt especially with cellular phones and Personal Handyphone Systems (PHS). The number of subscribers to these systems has increased at a staggering rate (see III. 4 (4)). Even though the PHS, which

was expected to replace subscriber lines of fixed systems, did not quite live up to early expectations, it accumulated 2 million subscribers in the ten months between the start of operations in July 1995 and the end of April 1996.

Practical testing of CATV telephones is now under way, and there are CATV operators that have begun negotiations seeking interconnection with NTT.

In this way we now see the start of competition in regional networks which were always considered to be natural monopolies. The breakup of AT&T in 1984, which is a model for the proposed breakup of NTT, was based on the natural monopoly of regional networks. Accordingly, it is necessary to rethink whether or not the adoption of this proposal is still appropriate now.

III. Events Leading Up to the February 1996 Report by the Telecommunications Council

The state of the telecommunications regulatory system, including the state of NTT, is a major problem for the socio-economic future of Japan. For this reason, just as the five years before, the related organizations and institutions announced their respective stances, to be reviewed by the Telecommunications Council.

1. The opinions of organizations and institutions

(1) The Fair Trade Commission

The report on the "Issue of Policy Governing Competition Within the Telecommunications Sector" which the Fair Trade Commission released in November states that "Taking measures toward deregulation and the provision of competitive conditions is an indispensable precondition. The

breakup of NTT into separate companies is probably a useful step as such, but should be argued from the viewpoint of promoting local competition; the breakup of NTT by itself is not the paramount issue here;" which presents a rather critical stance toward placing too much emphasis simply on the breakup of NTT.

(2) The Administrative Reform Committee

In July 1995, the deregulation subcommittee of the Administrative Reform Committee indicated in the report on the "Opening to the public of the disputed points of deregulation" that the telecommunications market is a distinct structure inevitably relying on the NTT local network, and as such, does not offer a fair competitive structure. In August, it also announced the committee's tentative plan to divide

NTT into a total of five companies consisting of one long-distance carrier and four local operators. As a final report in December, together with implementing all types of deregulation, the partition of NTT has been proposed in terms of "a configuration permitting the working of competitive principles." The method of partition was left to the Telecommunications Council and other bodies.

(3) The Federation of Economic Organizations

In September, the Federation of Economic Organizations reached the point of announcing the "viewpoint on the state of the future information communications market; medium-term rationalization." The paper proposed the abolition and easing of regulations, the provision of fair and effective competitive conditions as well as the implementation and promotion of competition, and, where supplementary activities were required, studying the NTT partition as well. The paper was counter-productive to the NTT partition. However, the final report of January 1996 proposed that the government should execute a radical review of communications administration as

quickly and as surely as possible, and this review should be oriented toward deregulation and making regulations transparent and more accessible. However, the issue of NTT's partition has remained a separate argument with no sign of resolution. It is being said that there has been radical retreat by the proponents of the partition.

(4) Securities companies

In March 1995, Goldman Sachs (Japan) Ltd. released a report that stated the NTT partition would raise NTT management efficiency and help Japan's communications industry. Morgan Stanley Japan Ltd. (Tokyo Branch) also released a report that stated the partition only would not provide a resolution: the fundamental problem would not be an organizational configuration, but whether the regulating authorities would somehow deal properly with issues of interconnection and cost allocation.

(5) The Telecommunications Policy Study Group

The specially formed Telecommunications Policy Study Group (Executive office: International University), which

is comprised of noted economic researchers, proposed in October that the recognition of local network bottlenecks was a relic of the past, and that emphasis should be placed on the building of a system framework dealing with modern circumstances and the securing of competitive rules' transparency and fairness, along with an emphasis on the Telecommunications Council's public accountability, transparency and continued fairness.

(6) Others

In September, the Japan Committee for Economic Development proposed the abolition of the Nippon Telegraph and Telephone Corporation Law and the Kokusai Denshin Denwa Co. Ltd. Law. In November, the Communications Industry Association of Japan released a report in which it discussed "trends controlling the information communications market and the market's future state." The report proposed that with the present situation of international competition between carriers, the weakening of NTT through partition would be contrary to the national interest, and that rather than partition, emphasis should be on deregulation and on the creation of competitive condi-

tions. As such, the association's members think of NTT as a major client, which is the sort opinion that was expected.

2. The strategy of the Ministry of Posts and Telecommunications

Among reports released from the research groups of assembled outside experts brought together by the Ministry of Posts and Telecommunications, albeit indirect, references to the state of NTT appeared. In September, the Ministry's "Research groups on the state of research and development in the information communications industry toward the multimedia age" released its report. The report indicated a decline in NTT's research and development capacities and proposed the need for research and development competition. Although there was no direct mention of the fact, the report hinted at the need for an NTT partition. Further, in October, the Ministry's "Research groups on the future scenario of the new information communications industry toward the 21st century" released a report. This report indicated that local network bottlenecks would become a major impediment to the development

of the information and communications industry, and proposed that the partition of NTT would be the fastest way of resolving this problem.

On the other hand, the Ministry of Posts and Telecommunications, in response to the opinion that deregulation was inadequate, clarified different deregulation strategies. To avoid the conclusion that deregulation is inadequate and that it could therefore not be determined whether the NTT partition is necessary, the Ministry created a deregulation environment prior to the release of the Telecommunications Council report. The Ministry lifted the ban on interconnection of public lines and leased lines in April of 1995. In October, the Ministry made a part of the Type I Telecommunications Carrier tariffs a notification system. Then in December, the Minister of Posts and Telecommunications expressed the abolition of field of service restriction on Type I telecommunications carriers with the exception of NTT and KDD. In January 1996, the Minister announced the delete of supply and demand regulatory clause in Telecommunications Business Law and the legislation of interconnection rules. He also announced, along with the approval

for the lease of facilities of non-telecommunications carrier entities, making the mobile communications service tariffs a notification system. These are close to the deregulations that dealt with issues stated in the previous chapter.

3. NTT's response

The main point of people who support the partition of NTT is the monopoly of local network. To deal with this, NTT announced at the end of September 1995 a total local network opening strategy. This does not only focus on the local exchange level, but also recognizes interconnectivity at the subscriber local switch level, making physical collocation possible. It is a fairly bold plan. If complete interconnectivity is realized on a cost basis, the NTT partition rationale will disappear. In November, NTT also proposed that OS (which is loaded on local switches) should be determined after consultation with NCCs. This would cancel the need for NCCs to wait for NTT's software rebuilding when they provide new services.

Similarly in November, NTT announced an restructuring plan that would

realize 150,000 employees by the year 2000, and a phased-in reduction of the maximum distance charge of long-distance phone calls to 100 yen for a three-minute unit.

4. Telecommunications business following the 1985 liberalization

Here we will look at the main areas concerning how NTT and telecommunications carriers have developed following the 1985 reforms, up until the review in 1996.

(1) The number of NTT employees

The number of NTT employees exceeded 300,000 at the time of privatization. However, as of the end of fiscal 1995, employee numbers had been reduced to 194,700 (Figure III.1). However, these were just the figures for the NTT itself. Many NTT workers were relocated to subsidiaries, and it is indicated that NTT, by delegating its operations, has paid these personnel costs to the subsidiaries. It is therefore difficult to see this "personnel reduction" as an expression of management rationalization.

(2) Comparison with the main telecommunications carriers

Present market conditions can still largely ignore NCCs in the local telephone market. A comparison between domestic long-distance carriers and NTT reveals an overwhelming market dominance by NTT in terms of revenues (Figure III.2). However, a look at the traffic share (number of traffic) of NTT and NCCs, in terms of the long distance market only, reveals the share of NCCs has grown to as much as 31.3% (Figure III.3). Between major cities, the NCC share exceeds 50%.

(3) A decline in long-distance telephone call charges

At the time of market liberalization, the maximum long distance telephone call charge (for a three-minute unit) was 400 yen. Presently, NTT charges 140 yen and the NCCs charge 130 yen for the same unit, a 65% reduction (Figure III.4). Moreover, the distance applying to maximum distance charges has fallen from 320 km or more to 100 km or more. NTT presently divides its distance classification into six parts. However, a comparison with charges internationally reveals that NTT still has

Fig. III-1 Trends in NTT employee numbers

Year	1985	1986	1987	1988	1989
No. employees	303,951	297,596	291,142	276,650	266,017

Year	1990	1991	1992	1993	1994
No. employees	257,627	249,942	232,200	215,629	194,700

1988 Data Communications Dept. separated and became independent (NTT Data Communications)

1992 Mobile Communications Dept. separated and became independent (NTT DoCoMo)

1994 NTT Personal Communications Network jointly established with NTT DoCoMo

Trends in NTT employee numbers

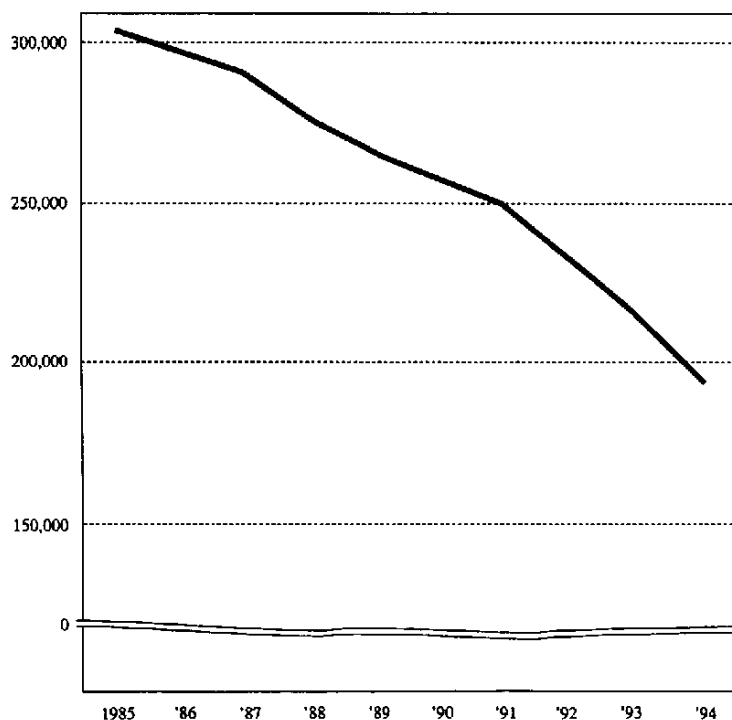


Fig. III-2 Revenues of Major Domestic Carriers

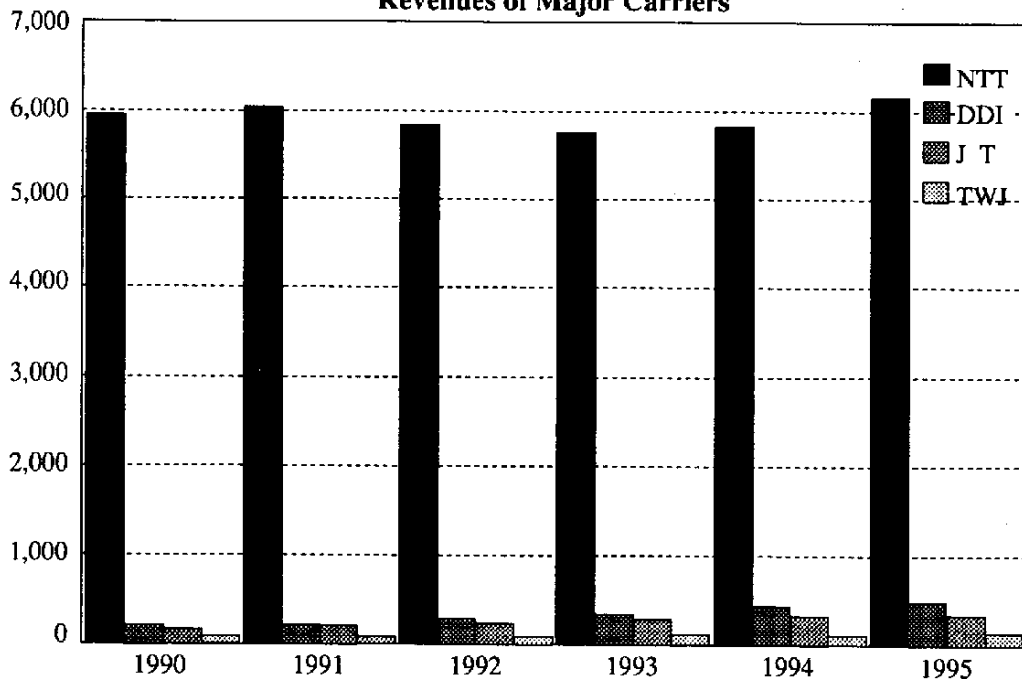
(billion Yen)

Fiscal Year	1995	1995	1995	1995	1995
Nippon Telegraph and Telephone Corporation (NTT)					
Sales and Revenues	6,234.8	5,875.7	5,809.1	5,892.3	6,056.0
Income before Taxes	328.9	142.6	109.5	248.9	352.9
DDI Corp. (DDI)					
Sales and Revenues	470.2	377.8	293.4	230.7	199.8
Income before Taxes	57.6	29.3	22.6	24.1	23.4
Japan Telecom Co., Ltd. (JT)					
Sales and Revenues	355.5	304.8	250.7	203.7	173.4
Income before Taxes	41.9	18.2	16.2	19.8	16.0
Teleway Japan Corp. (TWJ)					
Sales and Revenues	103.9	83.7	56.3	40.3	33.8
Income before Taxes	-5.7	-14.5	-12.5	-8.1	-7.1

(Source: Press release)

(billion Yen)

Revenues of Major Carriers

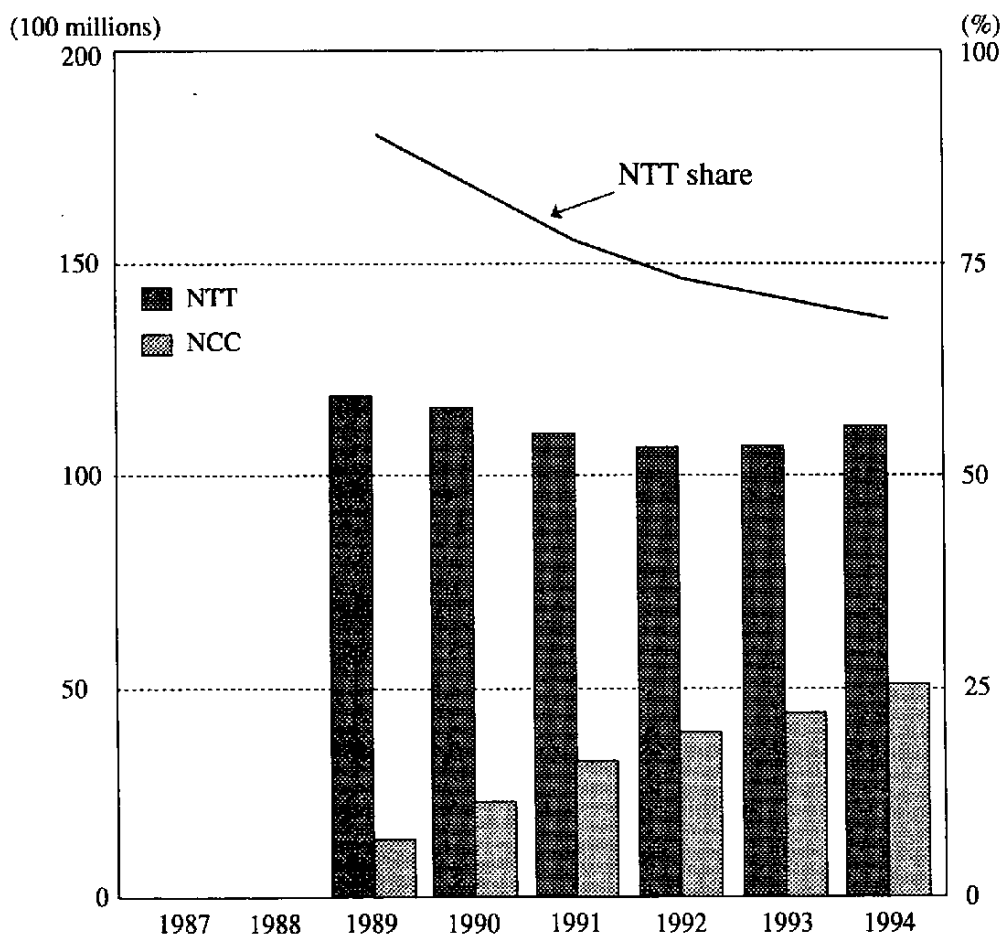


**Fig. III-3 The long-distance traffic market share of NTT and NCCs
(100 millions)**

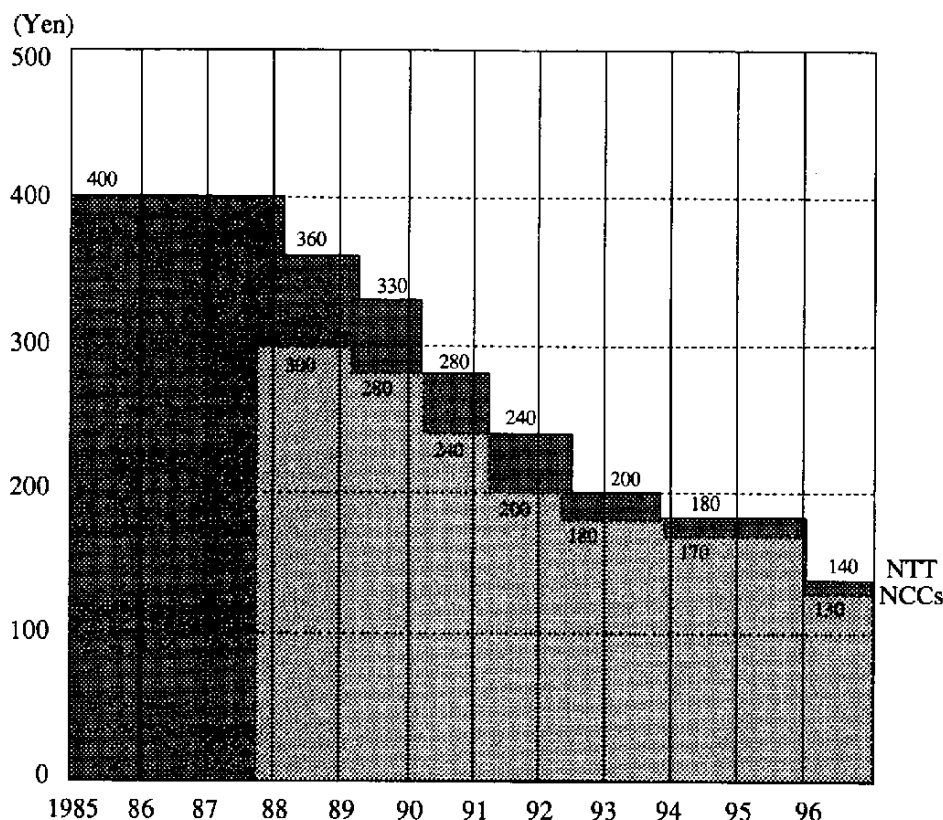
Fiscal Year	1987	1988	1989	1990	1991	1992	1993	1994
NTT no. traffic (share)	—	—	116.9 (90.4)	114.6 (84.1)	109.6 (77.6)	105.8 (73.2)	107.3 (70.9)	112.4 (68.7)
NCCs no. traffic (share)	—	—	12.4 (9.6)	21.6 (15.9)	31.5 (22.4)	38.7 (26.8)	44.0 (29.1)	51.1 (31.3)

NCCs began services in September 1987

Long-distance traffic market share of NTT and NCCs



**Fig. III-4 Trends in fees for NTT and NCCs
(comparison of fees for the longest distance)**



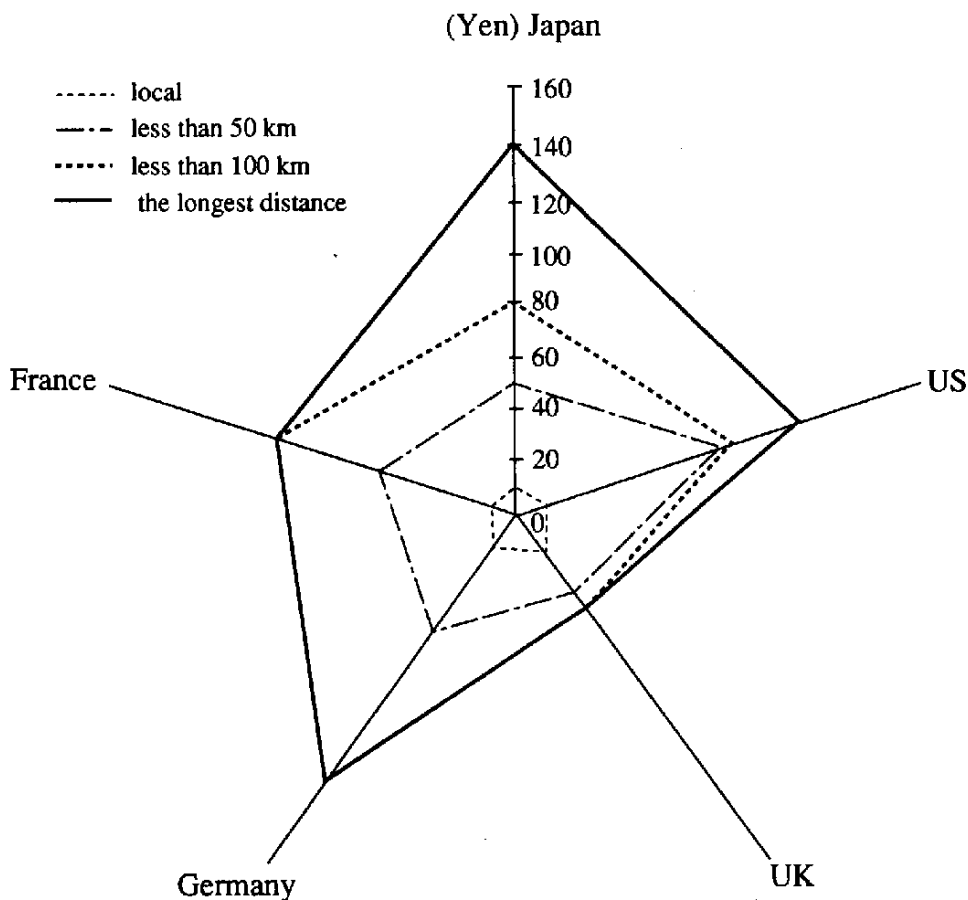
too many distance classifications and their charges are still too high (Figure III.5).

(4) The expansion of the cellular phone and PHS (Personal Handy-phone System) market

The mobile communications market is completely open to competition and as such is different from the local telephone market which has not seen

competition advance at all. Decreases in service charges are advancing rapidly. In particular, over the two years since terminal liberalization in April 1994, cellular telephone services have recorded a year-on-year growth in excess of 100%. There has also been competition with PHS whose services commenced from July 1995. Apart from the fact that short-distance telephone charges still remain high, with the use of the optional calling plan, long-

**Fig. III-5 Comparison of telephone charges for principal countries
(on a yen basis)**



distance charges have fallen to levels not inferior to those of fixed-telephone long-distance telephone charges.

increased their subscription, and are now poised to take over subscriber lines (Figure III.6).

PHS services (which commenced with their charges set at the same level as pay-telephones) have also steadily

Fig. III-6 Subscribers of Cellular Telephone and PHS Services

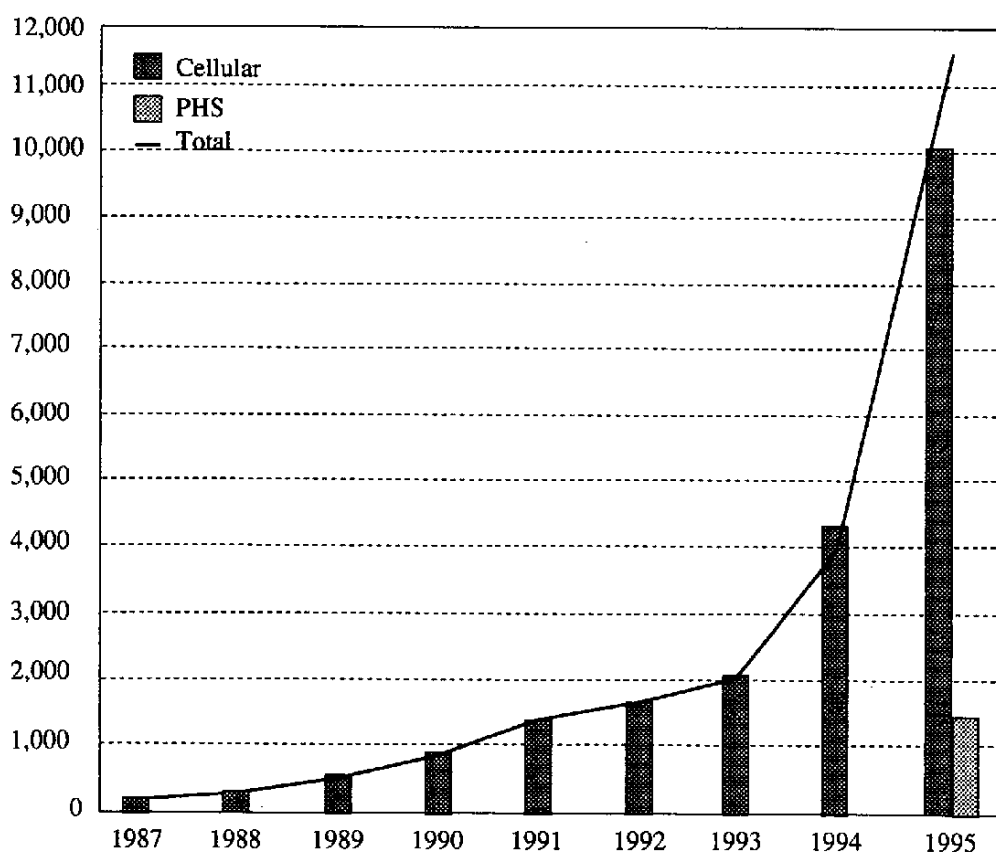
(thousand)

Fiscal Year	1987	1988	1989	1990	1991	1992	1993	1994	1995
Cellular Telephone	151	243	489	868	1,378	1,712	2,131	4,331	10,204
PHS	-	-	-	-	-	-	-	-	1,516
Total	151	243	489	868	1,378	1,712	2,131	4,331	11,720

(Source: Press release)

Subscribers of Cellular Telephone and PHS Services

(x 1000)



IV. The Telecommunications Council's Report and the Government's Decision

On February 29, 1996, the Telecommunications Council submitted a report to the Minister of Posts and Telecommunications concerning Nippon Telegraph and Telephone Corp. and promoting dynamism in the information communications industry. However, few thought this was any conclusions over this issue, and there was rather more of a focus on what kind of conclusions the government would draw with regard to this matter by the end of March.

1. Contents of the report by the Telecommunications Council

The Telecommunications Council concluded that to activate a vital infrastructure within the information communications industry that will support Japan's socio-economic future, and to hasten this development, it is necessary to carry out non-structural

measures such as deregulation and the assigning of interconnectivity obligations, and structural measures involving NTT's partition. The council has presented the following proposal detailing a NTT reorganization.

(1) The NTT reorganization plan

The following eight categories deal with concrete proposals.

- a) The present NTT will be reorganized into one long-distance carrier and two local carriers.
- b) The long-distance carrier will be completely privatized.
- c) The long-distance carrier will be allowed to enter international communications, CATV, contents, and other new sectors, while at the same time, being granted to enter local markets. The

long-distance carrier will also succeed to the present shares of NTT Data Communications Corp., NTT Mobile Communications Network group, and NTT Personal Communications Network group.

d) In order to secure universal services in existing business areas, local carriers will be special companies and, ultimately, will be completely privatized depending on the competition in local markets.

e) Local carriers are to be allowed to enter telephone, CATV, contents, and others outside their business areas.

f) To expand business within the local operators' business areas, because of the concerns over monopolistic power being exerted, market entry into long-distance communications (long-distance communications within the area, as well as long-distance communications dispatched within the area), international communications, CATV, and contents will be regulated for the present.

g) Sufficient consideration will be given to the above measures in terms of securing the rights of stockholders

and creditors.

h) The reorganization target period will be fiscal 1998.

There is little difference between this restructuring proposal and the divestiture of AT&T in 1984. In the American case, the company was divided into seven local firms but in Japan's case, the smaller market scale dictated a smaller division into two regional firms; this being the only difference between the two cases. In February 1996, in the United States, the Telecommunications Act of 1996 reformed the Communications Act of 1934, bringing with it much greater liberalization. The restructuring plan closely mirrors the American framework of regulations before the Telecommunications Act of 1996 was established, and is confirmation of the Telecommunications Council's affirmation that the current stage of Japan's telecommunications is still at the mid-1980s of the U.S.

(3) The status of KDD

Both NTT and KDD are special companies that were established in accordance with special laws. Their

corporate activities are limited to the domestic and international fields, respectively, and obliged to offer universal service in their fields.

However, changes in the international communications climate such as alliances between mega-carriers, escalating competition with international NCCs, and relaxation of regulations in the industry to encourage competition have undercut the need to regulate KDD as a special company. Furthermore, KDD and other international NCCs compete by using their own facilities, and there is no dependency relationship in this respect between the NCCs and KDD, which

means that there is no monopoly as is the case domestically with NTT.

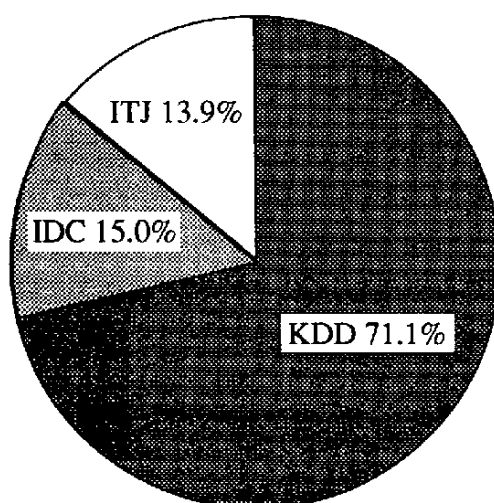
As a result, the following policies are indicated regarding KDD's status.

a) KDD will be allowed to offer domestic telecommunications services from an early date, before NTT's restructuring.

b) Study on abolishing the Kōkusai Denshin Denwa Co., Ltd., Law once stable service areas as KDD have been secured by other carriers.

KDD is Japan's largest international telecommunications carrier (Fig. IV-1)

Fig. IV-1 Market Share of International Telecommunication Services

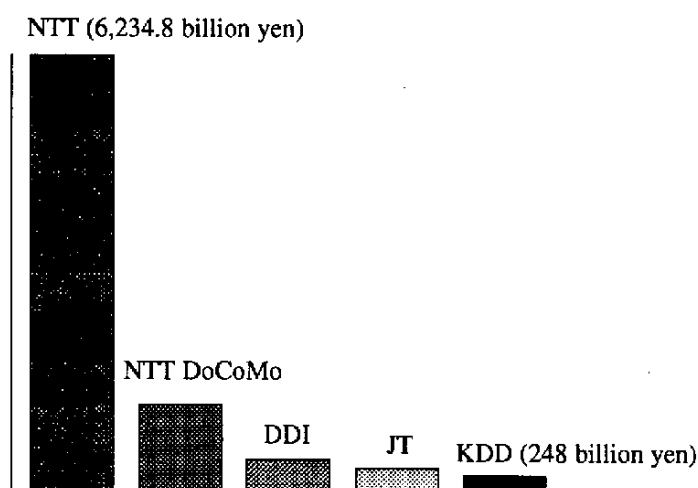


Total 349,019 million yen in Fiscal 1995

with a high brand profile; however, it does not compare favorably in sales figures with other Type I Telecommunications Carriers, at 1/25 of NTT's sales and also less than the domestic long-distance NCCs, DDI and JT. KDD has

1/5 the overall sales of the entire NTT DoCoMo Group, which offers mobile telecommunications services (Fig. IV-2). As we can see, KDD's influence is restricted to the international market.

Fig. IV-2 Revenue Comparison of Major Carriers



In view of this fact, it is no surprise that a relaxation of field of service restrictions would remove the basis for special regulations for carriers such as this one, which have a comparatively small sales base. The Telecommunications Council's report only recognizes these points regarding KDD's status.

2. Government decisions

On acceptance of the report from the

Telecommunications Council, the three governing parties (the LDP, Social Democrats, and the New Party Sakigake) set up a working team to investigate NTT's form of management. The team found that the end of March was too early to provide a solution and obtained agreement to continue investigations with the aim of reaching a conclusion in time for the following ordinary session of the Diet.

The problem that arose concerned the estimated balances for the new firms that were to be established after NTT was restructured. The report states that all three firms would start the 1999 fiscal year in the black whereas the estimates which NTT showed to the government's working team were that the regional firm managing western Japan would be operating at a deficit.

Since both parties reached their conclusions based on different premises, the government's working team was unable to make a political judgment on the appropriateness of the NTT restructuring, and the team decided to suspend an evaluation of NTT's status for about one year. However, it was decided that they would review the progress of the relaxation of regulations and clarifying the interconnection rules. The abolition of the supply and demand adjustment clause in Telecommunications Business Law was also confirmed. It was decided that policies regarding KDD were independent of any findings related to NTT and that the former would begin domestic operations from an early date.

The decision to delay the evaluation was partly a natural response to the

anticipation of strong lobbying from both pro and con factions regarding the partitioning of NTT.

Whatever the case, there will be no judgment regarding NTT's restructuring for the time being. We must wait for another one year.

3. Results of the 1996 Telecommunications Reforms

Though the NTT issue was postponed, the discussion resulted in announcements of a policy to relax several regulations this year, solving in one move issues that have been around for the past ten years. The following is an introduction to these important moves, which we have also indicated in tabular form (Table IV-1).

(1) Abolition of supply-and- demand adjustment clause

Article 10 of the Telecommunications Business Law which was established to consider the state of supply and demand of the market when issuing licenses to Type I Telecommunications Carriers planning to enter it, is to be deleted. In dealing with withdrawal regulations, it

was decided to continue with the current system and start progressively with a notification system in areas where the intensification of competition and the emergence of alternative carriers already exist.

(2) Abolition of restrictions on the field of services

Restrictions on the field of services by telecommunications carriers other than NTT or KDD are to be abolished. By the end of fiscal 1996, KDD would also start domestic operations.

(3) Notification system to be introduced for Type I telecommunications carrier tariffs

All fees used to require authorization, but now all fees other than the very basic ones related to people's personal and business lives will be on a notification system. Tariffs for the very competitive mobile communications business will also use a notification system. The authorization system for other fees will be reviewed once a fair and efficient competitive climate has been established.

(4) Interconnection obligation and the rules that govern it

The interconnection obligation, clarification of interconnection costs, technical conditions required for interconnection (unbundling, etc.), conditions required for the use of interconnecting equipment (collocation, use of poles and conduits, etc.), and how to carry out number portability are to be concretely determined.

(5) Interconnection of public network and leased lines (voice traffic)

Interconnection of PSTN and leased lines at one end (voice traffic) was allowed from April 1995. Full liberalization is due by the end of fiscal 1996. With regard to international lines, only the simple resale of public lines was recognized; however, full liberalization is due in fiscal 1997.

(6) Foreign ownership restrictions

In April 1996, the Ministry of Posts and Telecommunications announced a policy to abolish foreign ownership restrictions on Type I telecommunications carriers other than NTT and

KDD.

4. Future of the Telecommunications Industry

Merger and acquisition activities between international carriers and domestic NCCs is unavoidable in the wake of the abolition of field of service restrictions other than NTT. Integration of the currently fragmented market will result in the clear surplus of currently operating carriers (Table IV-2). If regional NCCs owned by power companies merge, a big influential firms will appear. Even just by establishing interconnection and number portability, these firms will prove very competitive to NTT. Until such time as there are two to three firms competing with NTT for total international and regional services, we can expect the number of mergers and acquisitions to increase.

In April 1996, the Ministry of Posts and Telecommunications has announced its intention to abolish restrictions on foreign ownership for Type I carriers other than KDD and NTT, and this is likely to happen in the 1997 fiscal year. The impending restructuring of Japan's telecommunications carriers will no

doubt be characterized by a strong role being played by major carriers from overseas who will be faced with an enormous business opportunity in entering the world's second largest market.

As mentioned earlier, the report from the Telecommunications Council points to the introduction of a regulatory framework which has already been revised in the US. However, it is questionable whether Japan, which is ten years behind, should adopt a system that is ten years old. The ultimate purpose is to solve the bottlenecks in the local network and it seems from the report proposing that NTT be divided into two new firms that the restructuring of NTT will simply end up with these two firms handling the bottlenecks instead. It is of greater importance to open the networks by obliging interconnection, clarifying the rules, and offering number portability. Indeed, even the loosening of restrictions and rationalization in 1996 reform will have far-reaching results.

Table IV-1(1)

Item	Nature of proposals	Period of execution
(1) Type I telecommunications carriers entry regulations, etc.	(a) To continue promoting transparency of entry approval procedures for Type I telecommunications carriers. This includes production of a manual in fiscal 1995 detailing the Telecommunications Business Law, approval criteria, and commercialization guidelines and is to be coupled with the provision of information through conventions and the publishing of official documents from all types of relevant research bodies.	Processed 23 January 1996
		Processed 29 September 1995
	(b) Abolition of field of service restrictions (international, national, long-distance, regional, etc.) for Type I telecommunications carriers other than NTT or KDD	Processed 23, 24 January 1996
	(c) To carry out the following measures and investigate the establishment of a new structure that grants public utility privileges for that purpose. (i) Abolish ordinances designed to eliminate an excess of facilities (clauses 1 and 2 of Article 10 of the Telecommunications Business Law) (ii) With regard to withdrawal regulations, to introduce a notification system progressively starting with areas where the intensification of competition and the emergence of alternate carriers already exist.	1996 financial year (discussions regarding the establishment of a new structure granting public utility privileges)
	With regard to withdrawal regulations, the current system (Article 18 of the Telecommunications Business Law) is to be retained and rigorously operated along these lines.	Investigate and start progressive notification in areas which the competitive environment already exists
		Processed 23 January 1996
	(d) Recognize the lease of facilities from entities other than Type I carriers.	Processed March 1996
(2) NTT's status, etc.	(a) An early restructuring of NTT's status is required in view of the state of the international telecommunications market and the competitiveness of the domestic environment. However, the end of the '95 fiscal year is too early a date by which to reach a conclusion. Therefore, investigations will continue along the lines of the Telecommunications Council's report with due consideration to the opinions of those in the business, while gradually promoting the relaxation of restrictions and the smoothening interconnection procedures, with the aim of reaching a conclusion by the next ordinary Diet session.	fiscal 1996 (under investigation)
	(b) Facilitate early entry by KDD into the domestic telecommunications market.	fiscal 1996 (under investigation)

Table IV-1(2)

Item	Nature of proposals	Period of execution
(3) Fees and services regulations of Type I telecommunications carriers	(a) In order to secure an inexpensive, high-quality service, establish an environment conducive to fair and effective competition and investigate a fee system appropriate to the multi media age.	16 June 1995 (mid-term report released)
		30 May 1996 (report of results released)
	(b) With regard to a fee-determining system, to maintain the openness of the system through publication of information and strive to carry out appropriate processing within the standard processing period.	Firm commitment to open the fee-determining system to the public and carry out processing within the standard processing period
	(c) To review the range of the authorization system for fees and to introduce a preliminary notification system other than those fundamental to personal and business activities after duly considering how to maintain fair competition and consumer protection. To clarify the fees subject to this preliminary notification system.	Processed 1 October 1995
	(d) To start a notification system for fees for mobile communications such as mobile and car phones, PHS (Personal Handyphone System), and paging services. To review the authorization system for other fees once a fair and effective competitive environment is in place.	1996 fiscal year
	(e) In the interests of protecting consumers and lightening the burden on carriers, to introduce standard stipulations so that everything that is in agreement with these stipulations is considered authorized.	Law reformed 1 October 1995
		September 1996 (paging)
	(f) In the interests of protecting consumers, establishing a system to deal with consumer complaints regarding telecommunications fees and services.	1997 fiscal year

Table IV-1(3)

Item	Nature of proposals	Period of execution
(4) Network interconnection regulations	(a) To concretely determine the nature of the basic rules for interconnection, including the following items, with a view to maintaining the openness of interconnection conditions, and promoting a variety of interconnection formats with NTT regional communications networks. (i) Obligation of interconnection (ii) Table of fees and stipulations for interconnection conditions (iii) Determination of standards and methods for interconnection accounts and detailing fees (unbundling), etc. (iv) Determination of technical conditions for functions required for interconnection such as unbundling. (v) Determination of conditions for use of stations (collocation), poles, conduits, and other equipment (vi) Method of carrying out number portability (user keeps the same number even when changing carriers) Establishment of measures to maintain the fairness, neutrality, and openness of the administration of the system, e.g., in supervision and regulation procedures	General measures processed
		During 1996 fiscal year
		1996 fiscal year (under investigation)
	(b) Gradual introduction of interconnection of private voice lines and public networks based on the actual operating conditions of Type I telecommunications carriers	1 April 1995 Interconnection at one end authorized
		During 1996 fiscal year (complete liberalization)
	(c) Gradual introduction of basic voice services of international VAN networks based on the actual operating conditions of Type I telecommunications carriers and international conditions	1 April 1995 Simple resale of private lines authorized
		During 1997 (complete liberalization)
	(d) Facilitate break-outs by international private line services (facilitate communications with a third-country by interconnecting with a public network in the other end country of the international private network)	Processed 1 July, 1995
	(e) In the case of expansions by Type I telecommunications carriers offering international communications services, maintain flexibility in facilitating designated line use through a third-country intermediary without relying on direct connections	Processed 22 February, 1996

Table IV-1(4)

Item	Nature of proposals	Period of execution
(5) Foreign ownership restrictions	To investigate further relaxation of foreign ownership restrictions for Type I carriers based on the results of basic telecommunications negotiations in the WTO regarding liberalization on a global scale.	April 1996 Declaration of abolition of foreign ownership restrictions for carriers other than NTT and KDD
(6) Type II telecommunications carriers	To revise the environment standards for Special Type II telecommunications carriers, and expand the range of corporate activities of General Type II telecommunications carriers	Processed July 1996

Table IV-2 Number of Carriers

as of the end of fiscal year	1988	1989	1990	1991	1992	1993	1994	1995
Type I carrier	45	62	68	70	80	86	111	126
Domestic	42	59	65	67	77	83	108	123
NTT	1	1	4	1	1	1	1	1
NTT DoCoMo					1	9	9	9
Long distance	3	3	3	3	3	3	3	3
Satellite	2	2	2	3	3	2	2	4
Local	4	7	7	7	8	10	11	16
Cellular	4	8	8	9	15	15	17	21
PHS	-	-	-	-	-	-	23	28
Paging	26	33	36	36	36	36	31	31
Other mobile	1	5	8	8	10	12	11	10
Others	1	-	-	-	-	-	-	-
International	3	3	3	3	3	3	3	3
Type II carrier	693	841	943	1,036	1,179	1,589	2,107	3,134
Special	25	28	31	36	36	39	44	50
General	668	813	912	1,000	1,143	1,550	2,063	3,084
Total	738	903	1,011	1,106	1,259	1,675	2,218	3,260

(Source: MPT)

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