

**The Reorganization of the NTT Inc.**  
**- Domestic and International Consequences for Japan**

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## **1. Introduction**

Discussion of the reorganization of the NTT Inc. was reawakened in 1995. The 1990 amendment to the NTT Law (Law on the Nippon Telegraph and Telephone Inc.) had provided for reconsideration of the company's organization five years later with the goal of spurring the development of the telecommunications market in Japan. Because the term of the clause was limited, the Ministry for Post and Telecommunications (the MPT) requested one of its Councils to submit a report on possible organizational reforms for the NTT. This Council on Telecommunications will publish its final report at the end of March 1996. Until then the heated debate now taking place between all parties concerned will continue. This study will attempt to describe the political process of telecommunications reform in Japan, from the basic reform of the telecommunications market in 1985 to the possible upcoming reorganization. A few of the more important aspects of any possible future reorganization of the NTT will also be discussed. It is hoped that this will add a concrete contribution to the discussion of the reform.

The reform of 1985 was a great turning point in the history of the Japanese telecommunications market. The monopoly which the former NTTPC (Nippon Telegraph and Telephone Public Company) enjoyed in the areas of carriers policy, network policy, and services policy was in one step almost completely dissolved. This forced the carrier into straightforward competition with New Common Carriers (NCCs). Here I would like to summarize briefly the special characteristics of the Japanese telecommunications market following its liberalization in order to make clear the nature of the differences between it and telecommunications markets in other countries (Agata, 1993 and 1994).

First, in Japan there has been a clear separation of domestic and international telephone services since the foundation of the KDD Inc. (Kokusai Denshin Denwa, International Voice Communications) in 1953. The reform of 1985 did not amend the law in this area. According to § 1 of the NTT Law (equivalent to § 1 of the KDD Law) those carriers which participate in the domestic market (including NTT, Japan Telecom, and those NCCs active in the domestic market) may not participate in the international market, and vice versa. Thus the policy of separation applies equally to those carriers which are active in the international market but which may be interested in the domestic market. This would include KDD, International Telecom Japan, and NCCs active in the international market.

The second unique characteristic of the Japanese telecommunications market is the separation of Type I and II carriers as defined in §§ 9, 22 and 24 of the Telecommunications Business Law (TBL). Type I carriers own the networks which they use to offer telecommunications services. Type II carriers in contrast offer telecommunications services on networks leased from Type I carriers. Type II carriers are further subdivided into two categories. Special Type II carriers offer services to unspecified customers, while General Type II carriers are limited to offering services to certain groups of customers, for example to certain industries. The three different groups of carriers are each subject to a different type of MPT regulation when entering or leaving the market. Type I carriers require MPT approval in accordance with legally stipulated criteria. Special Type II carriers must register themselves and can be refused permission to register by the MPT. General Type II carriers are merely required to report their presence on the market.

A third special characteristic of the Japanese telecommunications market is the fact that the regulations governing telecommunications infrastructure there are seemingly asymmetrical. The NTT alone of the Type I carriers is required to serve the public interest by offering consistent, uniform telecommunications services at a reasonable price (§ 2, NTT Law). This is the so-called Universal Service clause. However, the asymmetry of this regulation is reduced by the fact that the other Type I carriers are required to provide analogous services in their approved service areas (§ 34, TBL).

In the following sections I will describe the process of liberalization of the Japanese telecommunications market to date and the continuing discussion regarding reform. The discussion surrounding the possible reorganization of the NTT will then be summarized, and the positions of the various parties concerned compared. Finally, some of the more critical issues under discussion will be highlighted and evaluated.

## **2. The Process of Telecommunications Liberalization in Japan**

The process of telecommunications liberalization in Japan up to 1994 may be divided into at least four important phases: the report of the Second Provisional Reform Council (SPARC) in 1982, telecommunications reform of 1985, the preliminary proposal of the Telecommunications Council in 1989, and the final report of this Council and the steps taken by the government in response. Because of the importance of these four phases, it is worth considering them in detail:

### ***2.1 The SPARC Report of 1982***

In Japan administrative reform is often introduced or even decided upon by a Council set up by the cabinet or by the ministry concerned. The practice of basing administrative reform on Council action can in the post-war period be traced back to the First Provisional Administrative Reform Council. The Council suggested that reform be co-ordinated at the cabinet level. However, to date its recommendations have not been carried out. The telecommunications reform of 1985 was consequently another Council-oriented administrative reform (Iio, 1993).

SPARC was organized in 1981 as a direct advisory body to the cabinet. Its purpose was to provide a comprehensive review of the administrative reform which had been desired since the Japanese oil crisis. Its report, which was published in April 1982, led to the telecommunications reform of 1985 and still serves as the basis of discussion of the above-mentioned reorganization of the NTT. The

SPARC report consists of four proposals concerning liberalization of telecommunications: (1) privatization of the NTTPC, (2) separation of local and long-distance operations in the NTTPC after its privatization, (3) division of the single local communications carrier into several regional companies, and (4) introduction of competition on the domestic and international telecommunications markets.

The basic idea set forth in the SPARC report was that competition per se should be introduced to the Japanese telecommunications market because, due to widespread advances in information and communications technology, the state monopoly could no longer offer a number of necessary telecommunications services. To introduce this competition, it was indispensable to separate the regulatory and operational aspects of telecommunications, i.e. to privatize the NTTPC. In addition, SPARC believed that the operations of the NTTPC were too diverse. It was therefore proposed that not only should the NTTPC monopoly on long distance and local communications services be dissolved, but that local services should further be divided among several regional carriers.

Two events which occurred abroad during this discussion spurred the movement towards Japanese telecommunications reform. First, the private U.S. telecommunications monopoly AT&T was split up in January 1984 into one long-distance and seven local telecommunications companies. Second, the British public telecommunications monopoly, British Telecom, was also privatized in August 1984. These reforms could not but have had a great impact on the discussion of reform in Japan.

The political nature of the telecommunications reform process of 1985, which grew out of the SPARC report, may be said to have focused the discussion on the various special interests of the parties concerned. Indeed, the form telecommunications services would take in future was not considered in detail even after the reform. The main reason for this may well be that the parties concerned had great difficulties in arriving at a compromise. As a result, telecommunications reform was discussed and decisions regarding it were made in the context with those other attempts at reform, the national railway and the cigarette monopoly (Agata, 1995).

## ***2.2 The Telecommunications Reform of 1985***

As a result, two of the above-mentioned four suggestions of SPARC were partially realized in the reform of 1985. First, the NTTPC was privatized as one unit. Second, the principle of competition was introduced throughout the whole telecommunications market. The NTT Law and the Telecommunications Business Law (TBL) were passed in December 1984.

In privatizing the NTTPC, the Japanese government was required to possess at least one third of the new company's shares (§ 4, NTT Law). In fact, only a third of the approximately 1.54 million shares were initially floated. Because NTT share prices dropped dramatically following this step, no further shares have been floated since that time. The government thus still owns two thirds of all NTT stock.

To promote competition, a large number of NCCs have received permission to enter the domestic local and long-distance markets as well as the international market. Liberalization had an effect on the market as early as 1986, when three NCCs appeared on the domestic long-distance market as Type I carriers and two entered the satellite communications area, also as Type I carriers. As of 1994 the number of Type I carriers had gradually increased to 84. Similarly, in 1985 alone 85 new General Type II carriers entered the market. As of 1994 their number had increased to 1,550 (InfoCom, 1995(2):27).

Another effect of liberalization was a drop in prices for telephone services. A price war between the NTT and the NCCs began in 1987 in the area of long-distance services. The latest available data for the end of 1993 show that the price of a typical three-minute call between Tokyo and Osaka during the day had fallen from 400 to 180 yen. On the international market, the trend is so strong that a typical three-minute daytime call between Japan and the USA using KDD services had sunk from 1,530 to 670 yen. The third example of price cuts is the monthly fees for mobile communications. At the time of the reform in 1985 the fees were 30,000 yen including rental of an end user device from the NTT, whereas in April 1994 the price had sunk to 9,400 yen without the obligatory rental of an end user device. By 1994 these devices were in fact no longer commonly rented, but instead sold. To

the extent that prices have been monitored following the reform, the liberalization seems to be having a positive effect, particularly from the consumer's point of view (MPT, 1994:158).

The third aspect of the reform is the development of the share of the market enjoyed by the NCCs. A clear increase in the NCCs' market share can be observed on the international market. In January 1993 more than a quarter of all international calls were made with two NCCs. This ratio has steadily improved in the last 5 years. On the other hand the market share of some of the NCCs on the domestic market was in 1993 still only 13.2%. Whether this number should be seen as a positive or negative development eight years after the reform is a question which must be considered (InfoCom, 1995(1):200).

### ***2.3 October 1989: the Interim Report of the Council on Telecommunications***

In a rider to the NTT Law of 1985 it was stipulated that the organization of the NTT should be discussed again five years later. Thus in 1989 the Council on Telecommunications published an interim report to the effect that the NTT should be split up into one central and 10 regional companies.

At least three actors strongly resisted this plan. First, Zendentsu, the single comprehensive union of NTT employees, was strongly against the division of the NTT because any such division would entail a corresponding division of the union. Second, the Ministry of Finance (MOF) objected to the division of the NTT because it might lead to a further drop in the price of the company's stock. Finally, the largest business association in Japan, the Japanese Association of Economic Organizations, believed that the splitting up of the NTT should be temporarily postponed. It should be mentioned at this point that the Fair Trade Commission also believed that it was too soon for any division of the NTT, and that the issue should be discussed again in 3-5 years.

## ***2.4 Report of the Council in March 1990 and the Measures Undertaken by the Government in Consequence***

After the discussion occasioned by the October 1989 publication of its interim proposals, the Council in March 1990 submitted an official report on the reorganization of the NTT. In this report it was recommended that the NTT be divided into one local and one long-distance company, and that the mobile communications business should be spun off entirely.

The government, however, held that the opposition of the parties concerned in this plan could not be ignored. In the end, the government took the following steps:

- 1) The splitting up of the NTT was postponed for 5 years.
- 2) The internal organization of the NTT was altered to create separate divisions to deal with local and long-distance calls.
- 3) The NTT's mobile communications operations were spun off to form an independent subsidiary, the NTTDoMoCo, which in 1993 was further divided into 9 regional companies.

The delay in splitting up the NTT is a measure of the strength of the resistance to this measure from many parties. The opinion expressed by the union of NTT and the MOF was apparently of particular importance. In addition, the NTT shares were still trading at a much lower level than when first floated.

The intraorganizational separation of the NTT's local and long-distance services, which was carried out in April 1992, may have prevented the so-called cross subsidization between the two services. It has often been claimed that loss-making local services are always subsidized with the excess profits from long-distance services. This internal subsidy can have the effect of preventing new competition by allowing the price of local calls to fall to such a low level that NCCs simply cannot compete.



A mutually independent, transparent calculation of the NTT's local and long-distance services could promote the entry of additional NCCs on the market. In addition, regulations governing the relationship between local and long-distance services, and particularly access charges, must be clearly defined so as to apply equally to NTT and NCCs.

The independent subsidiary NTTDoCoMo was set up in July 1992. The purpose of this step was to set clear conditions on the connection between regular telephone services and mobile communication which applied equally to NTT and the NCCs, and to further the privatization of the NTT.

### **3. 1995: Discussion of the Reform**

The first step in the course of the discussion set off for the reform was taken by a "working group of deregulation" of the Commission on Administrative Reform in August 1995. This commission was intended to oversee the development of administrative reform since 1985. The working group suggested that the NTT be divided into four regional companies and one long-distance company which could also offer international services (Hayashi, 1995, Sato, 1995, Honma, 1995).

A great problem in the Japanese telecommunications market is that 10 years after the reform there are still no competitors of comparable weight to the NTT at the local level. The NCCs offering local services are almost exclusively offerers of leased lines, not of public networks. The proposed division of the NTT into four regional companies was intended to reduce the universal hold of the NTT on local services so that comparable NCCs could enter the regional public market more easily. The background for this step was the fact that the NTT so far has not allowed other Type I carriers any connections whatsoever with the NTT's own public network for the purpose of offering local telephone services. For local calls the Type I carriers have always had to own their own networks, which has been simply impossible. The current situation is in essence a de facto monopoly of the NTT on the local network.

It is however also disadvantageous for the Japanese telecommunications market from the international perspective if domestic carriers are not allowed to offer international services. Thus it was suggested that the previous system of separate domestic and international telecommunications service providers should be abolished so that the current domestic carriers could also enter the international market and vice versa. This system of connections could contribute to improving the competitiveness of Japanese telecommunications as a whole.

As a second step in the discussion process, in October 1995 the working group on the future of the telecommunications industry, which had been set up by the head of the Policy Department at the MPT, published a draft of a report entitled: The Solution of a Division into one Long-Distance and Several Regional Companies. The outlines of the proposal were almost identical with those of the proposal of August 1995. The October proposal called for a clear separation of long-distance and local services and a reduction in the size of the local businesses. The fact that the proposal was published by a working group under the aegis of a department head indicates that the MPT believes that the NTT must somehow be reorganized.

The NTT itself issued a statement on the proposals concerning its reorganization, taking several concrete steps between October and November 1995. First, regarding the system of dividing the telecommunications market, the NTT clearly expressed a desire to enter the international market. In order to do so, the NTT law currently in force would obviously have to be amended. However, it is noteworthy that the NTT itself expressed such a desire in the context of the current discussion.

The NTT can however take some concrete steps on its own, without any change in the law. In order to promote competition on the local services market, the NTT has suggested two measures:

- 1) Approval of NCC connections with the local telephone networks and
- 2) Approval of the use of existing installations by NCCs.

The first measure would allow those NCCs which already own limited local networks to develop a good local service by means of connection with the NTT public network. The second measure would make it easier for all NCCs to set up or extend small new or existing local networks with the aid of the existing installations of the NTT. The possible connection with the NTT network and the possible extension of networks with the aid of NTT installations could help increase the number of NCCs entering the public telecommunications market. The current market share of the NCCs in local services is just under 2%.

In addition, in October 1995 the NTT and NCCs came to an agreement on long-distance calls and access charges. The price of such connections is to be cut by 15% so that the NCCs' long-distance prices can also be lowered. The NCCs currently offering long-distance services have no networks of their own in the local services area, but only networks for the connection between long-distance nodes. Thus they always require connections between their own networks and the NTT's public network in order to offer their services.

The NTT, which wishes to avoid any division of its business, has developed an "alternative" reform in the form of the above-mentioned proposals. It hopes thereby to ameliorate the harsh criticism of the de facto monopoly on local calls enjoyed by the NTT.

#### **4. Key Points of the Discussion**

The decision of whether to reorganize the NTT or not will be based on several factors: 1) domestic issues, e.g. infrastructure, universal services, and competition; 2) international factors, e.g. international competition and the role of the Japanese telecommunications industry in the international market; and 3) basic research.

#### ***4.1 Domestic factors***

One reason for the privatization of the NTTPC in 1985 was the fact that telecommunications service in Japan had reached a point where everyone could always make calls in the same way everywhere, cheaply: i.e. the domestic goals of telecommunications as infrastructure and of universal service had been achieved. Telecommunications services therefore no longer needed to be offered exclusively by the state monopoly which had existed up to that point. The NTT Inc., with its own nation-wide network, now in fact continued to supply infrastructure and universal services such as a nation-wide network, uniform tariffs and quality of service, and uniform distribution of connections (Hayashi/Tagawa, 1994:22-29).

Any discussion of the splitting up of the NTT must always take into consideration the possible effects on the infrastructure and universal service which the NTT has achieved. If the NTT is split up in any way, the continuation of this universal service and infrastructure must continue to be guaranteed. It must also be considered that MPT plans to install a nation-wide fibre optic network in Japan by the year 2010. This infrastructure would require an investment of 100 billion yen. The question naturally arises of who, other than the NTT, could make such an investment. Due attention must be paid to this extremely important question in the discussion of any NTT reform.

The arguments for splitting up the NTT are based on the fact that the NTT has a virtual monopoly on local telecommunications services: in the ten years following the reform of 1985 there has been no real competition for the NTT in the area of local calls. There are at least two possible solutions to this problem which would not only promote competition but would also guarantee the continuing existence of infrastructure and universal services: 1) reducing the role of the NTT to merely providing networks, and 2) allowing the entry of foreign carriers on the Japanese market.

If competition in the services market is considered as the sole basis of the discussion, while competition on the network market is disregarded, then only competition in services must be

promoted. If the NTT is not split up and concentrates solely on the operation of local networks, other current and future carriers can use the NTT's local networks to compete in various service areas. It is thus possible to guarantee the infrastructural role of the NTT without dividing up the company. The NTT could of course only charge reasonable connection fees which would be the same for all carriers. If carriers which are only involved in operating networks are called Type 0 carriers, the NTT could play a significant role only as a Type 0 carrier. Those carriers which competed with each other using the NTT's public network could be either Type I or Type II carriers.

The fact that the NTT has no competition for local services can also be traced to the industrial policy of the government, which does not promote any other carriers, and, as regards the international market, to Article 11 of the TBL, which stipulates that no foreign government, its representatives, or foreign companies may be approved as Type I carriers. By changing this regulation, existing Type I long-distance carriers such as DDI, Japan Telecom, etc. could cooperate with established foreign telecommunications carriers or providers of capital to set up their own local networks. In the case of the liberalization of the German market, it is already very clear that in addition to the privatized Deutsche Telekom at least three companies will enter the market and will operate their own networks in co-operation with foreign partners. This is one major difference between Japan and Germany.

#### ***4.2 International Factors***

Up to this point only the competition among Japanese carriers has been considered in detail. However, in the coming years Japanese carriers will have to face stiff competition from other foreign carriers, not only within Japan but also abroad. The Japanese carriers have to date hardly participated in the telecommunications markets in other countries. This is due to the fact that in accordance with the above-mentioned regulations, the NTT is not allowed to participate, while the three carriers active in the international telecommunications market (for example the KDD) are waiting and watching developments in the telecommunications markets abroad. This behaviour may be attributed to the principle of mutuality: no foreign carrier has in fact entered the Japanese market

to date, either. However, this situation may change since not only are foreign actors set to enter the competition for the domestic market in Japan, but Japanese carriers are to become active in foreign markets, particularly in building up the infrastructure in Asian countries.

Since in the USA the concept of NII (National Information Infrastructure) is to be developed, while in Europe the TEN (Trans-European Network) is to be put in place, there is nothing to prevent a network common to the Asian countries. Indeed, the MPT is drawing up a plan to become active in the telecommunications market in China or Malaysia. The question would be who should carry out such a plan. The carrier or carriers which played a significant role in such a venture would need have had a great deal of experience on the Japanese market, which could then be applied in other Asian countries. Not a little is to be expected of the NTT in this connection. If the NTT is to play such a role in Asia, however, its operations may not be too limited. It is not yet clear, it is true, when the NTT will take on this important role; but from this long-term viewpoint it must be considered whether the NTT should in fact be split up at this point in time.

#### ***4.3 Basic Research***

The question of the extent of the NTT's operations is also important for the future of basic research in telecommunications. The research institute of the NTT has made great contributions to technological progress, not only in Japan but also in the world as a whole. There are five important institutes in Japan which carry out basic research and development in telecommunications: the communications institute at the MPT, the research institute of the NTT, the KDD institute, the television technology institute of the NHK, and the ATR institute, a joint foundation of several industries. For purposes of comparison, in 1993 3,100 of the 4,069 researchers employed by the five Institutes for basic research of telecommunications worked for the NTT-Institute (76,2%). The NTT also makes the largest financial contribution to telecommunications research: the five institutes together invested a total of 334,8 billion yen in the year 1993, of which the NTT contributed 300 billion yen (87,0%) (InfoCom, 1995(1):824-829). What effect will a splitting up of the NTT have on basic research?

In view of the rapid progress of telecommunications technology in the world, further long-term, systematic basic research must be carried out. Any division of the NTT may mean that the research activities of the company in future will be able to be oriented more towards applications than basic research. It is questionable whether such a development would promote the further development of telecommunications technology in Japan or the world.

## **5. Conclusion**

On 17 November 1995 the working group of the Administrative Reform Council drew up a proposal to the effect that the NTT should in fact be split up, and on 7 December published. The final report of the Telecommunications Council will be published in March 1996. The effects of any such division of the NTT must be carefully analyzed with due regard for a variety of domestic and international factors: infrastructure and universal services, promotion of competition on the domestic market, competitiveness on the foreign market, prospects in Asia and basic research. If it should prove necessary to split up the NTT, it must be carefully considered when this step should be carried out.

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