

**DEVELOPING COOPERATION FOR REGIONAL INFORMATION
INFRASTRUCTURE:
JAPAN'S PERSPECTIVE**

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CHINA, JAPAN, AND KOREA

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I. Possible Reorganization of NTT

A. "NTT Group" as of 2000

1. Reforms of NTT in 1985 and 1999

a. 1985

NTT was privatized (from the NTT public Corporation).
NCCs were admitted to telecommunications markets.

b. 1999

NTT was divided into 4 companies.

2. Organizations in the NTT Group

a. NTT Holding Co. (NTT-H)

Holds 100% shares of NTT East-Japan (NTT-EJ), NTT West-Japan (NTT-WJ),
and NTT Communications (NTT-C), respectively.

Japanese government (MOF) holds a majority (59.7%) of shares of NTT-H.

b. NTT-EJ, NTT-WJ

Regional companies, access and local services.

Entry in other areas is restricted. Have universal service obligations.

c. NTT-C

Long distance and international services.

3. Related Acts

a. NTT Act (1985, 1997):

Controls NTT-H, NTT-EJ, and NTT-WJ as "special companies."

Requires approval by Japanese government (MPT) for appointment of board
members, service provisions, tariffs, M&A, etc.

b. Telecommunications Business Act (1985, 1997):

Regulates telecom providers in general.

NTT is under strong regulations as a designated (dominant) provider.

4. Outcomes of the 1999 reform:

NTT's status essentially unchanged after 1999.

NTT holds monopoly power in local and access markets.

B. Impacts of the interconnection-charge issue

1. Bilateral negotiations between U.S. and Japan on NTT's interconnection charges

- a. U.S. position: NTT's charges are excessively high; 4-5 times of charges in U.S.
- b. Japanese position: NTT's charges are cost-based; if lowered, NTT would incur heavy deficits.

2. Agreement in June 2000 (just prior to the G8 Summit in Okinawa)

NTT's interconnection charges be lowered by 23% in 3 years and by 20% in 2 years (a compromise).

3. "Enforcement" of the agreement by Japanese government to NTT, etc.

- a. Government has no jurisdiction to "order" NTT to lower interconnection charges.
- b. NTT is "expected" to file an application to decrease interconnection charges.
- c. It is reported that, in exchange for NTT's accepting to lower interconnection charges, some "promise" was informally given to NTT by Japanese government (or by the ruling LDP) so that the NTT Act would be revised to give "more freedom" to NTT.
- d. Japanese government (MPT) asked the Telecommunications Council to consider reorganization of NTT, July 2000.

4. Back-ground

- a. NTT would like to obtain approval for NTT-EJ and NTT-WJ to enter into the markets for long distance and Internet services (data transmission, Internet access services, Internet applications services, etc.)
- b. NTT would like to have NTT-EJ and NTT-WJ reunited.
- c. NCCs are strongly opposed to such expansion of NTT's business.
- d. Other points discussed:

To abolish the NTT Act; NTT should be regulated solely under Telecommunications Business Act and should not be regulated directly by MPT.

To establish a universal service fund, relieving NTT of universal service obligations.

To strengthen antitrust policies upon NTT; to let the Fair-Trade Commission

regulate NTT on the basis of antitrust laws.
To divide NTT vertically into a facility provider and a service provider.

C. Possible outcomes

1. NTT might be reorganized in some way.
E.g., NTT-EJ and NTT-WJ may be divided into NTT-Network and NTT-Services with or without unification.
2. It will take a long time to reach a decision, if the present-day decision-making mechanism on this issue is unchanged. Oppositions from NCCs to liberalizing NTT will be strong.
3. Some new outcomes may be unfolded as a consequence of the reorganization of the Japanese ministries in January 2001; MPT will join to new Ministry of General Affairs, in which former MPT officers will be a minority.

II. Construction of Communications Infrastructure in Japan

A. Deployment of local digital switches by NTT – narrowband access

Digitization of all local switches with NTT was completed in 1997 after a series of massive investment by NTT (some hundred billion yens per year for several years), following a suggestion by MPT (having sought universal interconnection with NCCs). Deployment of narrowband digital access (ISDN) is under way (4 million subscribers, 6.3% of all total subscriptions in 2000). But this investment is a cause of the high price for services with NTT.

B. Present state of broadband access

1. Deployment of broadband access is being prepared by NTT, replacing old copper twist cables with PON (passive optical network) up to the point connecting to drop cables. This will be completed within a few years in urban areas without using new investment fund (i.e., by using depreciation investment fund only).
2. A subscriber can then get FTTH by bearing a once-and-for-all cost of 100,000-200,000 yens. Internet access of low cost at 128K is now available in new apartments, etc., as a consequence of this.
3. NTT, however, is cautious not to invest in the drop part (i.e., the last 20 feet) of broadband access for the risk of it becoming obsolete because of the competition with other means for broadband access such as cable connection, WLL, etc.

C. Introduction of competition to access markets

1. Access service, narrowband or broadband, is mostly under monopoly by NTT.
2. Broadband access with cable TV operators is increasing, but still below 1% of all subscribers.
3. Other broadband access such as DSL, WLL, and satellites is only emerging.

D. Digital broadcasting and satellites

1. Digital broadcast by BS (broadcast satellites):
Deployment scheduled December 2000 with 6 x HDTV (6 MHz each) channels.
Some interactive services being planned.
2. Digital broadcast by CS (communications satellites):
Started in 1998; 200,000 subscribers for a platform of 50-150 channels in 2000.
3. Digital broadcast terrestrial:
A plan to start in the three largest metropolitan areas (Tokyo, Osaka, and Nagoya) by 2003 is being planned by MPT, but it is reported that difficulties are ahead (such as the problem of reallocating spectrums).

E. Formation of level-playing field for communications infrastructure services in Japan

A level-playing field is yet to be formed; new entry using communications infrastructure services is still virtually impossible.

1. Optical fibers and conduit: under monopoly by NTT; unbundling is very limited.
2. Spectrum: allocated by MPT on comparative hearings or on first-come basis.
Virtually no fees. However, "resale" of spectrum has become possible after a revision of the Spectrum Act in June 2000.
3. Orbital positions for geo-stationary satellites: supplied by MPT on ad-hoc basis, no fees.
4. Spaces and facilities for cables: supplied by local and national governments on ad-hoc basis, no market-based fees.

III. Cooperation of Japan with Korea and China in Information and Communication Infrastructure

A. Construction of infrastructure

1. Financial background

Japanese economy is of significant excess supply of capital with very low interest rates as a consequence of high savings and low domestic investment.

2. Regulatory environment

NTT cannot invest, domestic or abroad, without an approval of MPT under the current NTT Act. This prevents NTT from making efficient decisions on international cooperation and investment. If this act is revised, the chance for NTT to cooperate internationally will be increased greatly.

3. Recommendations:

- a. Removal of intervention by the Japanese government to NTT's international cooperation.
- b. Conversion of high-risk high-return projects into low-risk low-return ones on the side of receiving investment. One way is to "unbundle" investment with regard to risk and returns. The reason is that NTT cannot take high risk.
- c. Formation of level-playing fields for infrastructure services and open them to international competition.

B. "East-Asia Free Trade Agreement" for e-commerce:

1. Basic principles for growth is open and free markets to everybody—a baseline .
2. Legal basis for electronic transactions: a common system for electronic signatures including supporting systems (registration of coding-decoding keys, coordination in judiciary matters, etc.). Mutual recognition of the system supplied by partners.
3. No cross-border tariff.
4. Coordination in imposing sales tax.
5. Coordination in maintaining securities and protecting privacy.

C. IT and the governance of organizations of the East-Asian style

1. China, Japan, and Korea have common cultural characteristics, some of which do not fit to the characteristics of IT as a means for governing organizations.
2. The three countries can cooperate in recognizing and overcoming such characteristics.
3. Characteristics:
 - a. Less use of formal and logical means for governance.
 - b. Emphasis on direct human communications as distinct from communication in formal and recordable means.
 - c. Absence of a mechanism for making decisions for a group of members with conflicting interests.