Foreign Telecom Firms Ring in Competition

By Hayden Stewart

Japan's telecommunications industry is gearing up for what promises to be one of its greatest transformations in modern history. NTT and a handful of domestic equipment makers have long dominated this industry, but foreign companies are now helping young Japanese firms to take on NTT in both old and new markets. In the near future, they hope to match NTT in power and market share.

NTT's domination dates back to its days as a public telephone monopoly. Although its monopoly officially expired in 1985, NTT's eleven Regional Communications Sectors continue to hold an effective monopoly over the market for wire-based local telephone services. Another division of the company commands over 90% of the wire-based long-distance telephone market. NTT's subsidiaries are also prominent providers of wireless services such as NTT DoCoMo (cellular) and NTT Personal (personal handy phones).

Beyond providing services, NTT is also active in research and development, employing 11,600 people in this section of the company. NTT itself does not produce any goods, however. Instead of manufacturing, the firm consigns production to a family of well-known manufacturers, including Fujitsu and NEC.

In terms of people and revenue, NTT is Japan's largest company. It has 191,400 employees, and expects to collect about ¥6.157 trillion in fiscal 1995.

It remains unclear whether NTT's size has helped the company to provide goods and services, but it has certainly hurt the firm politically. Like the Japanese adage—"nails which stick up get hammered down"—NTT's size has attracted scorn and criticism. Critics include the government, domestic rivals, and foreign providers of telecommunications equipment.

Foreign companies and governments are among the most longstanding critics of NTT. Because of the Japanese company's tight relationship with domestic producers of equipment, foreign companies long struggled to sell goods in Japan. Eventually, their troubles led to government intervention. The U.S. Trade Representative's Office records state that "Inadequate coverage of NTT equipment purchases under GATT Government Procurement Code led the U.S. to sign a separate NTT agreement in 1980." This pact obliges NTT to increase notice about upcoming tenders, recognize international standards, specify the criteria for evaluating bids, and meet regularly with the U.S. government. The NTT agreement has been renewed five times, and the current version expires September 30, 1997.

With such government help, foreign suppliers of equipment have been able to crack the Japanese market. AT&T, which once openly complained about the closed Japanese market, now values NTT as a good customer. It would neither comment on efforts to break-up NTT nor release information about its quantity of sales to the company.

Progress notwithstanding, the NTT agreement remains a politically sensitive issue. U.S. Trade Representative Mickey Kantor has requested the pact's extension to cover NTT's new personal handy phone division.

Many domestic rivals are also critics of NTT. Among the more vocal are DDI and Japan Telecom. These two firms, along with Teleway Japan, launched domestic long-distance telephone services in the mid-1980s after the liberalization of Japan's telecommunications market. Each firm has been officially classified by the Ministry of Posts and Telecommunications (MPT) as a New Common Carrier (NCC).

Despite over a decade of providing services, Japan's three NCCs have captured a little less than 10% of the long-distance telephone market.

According to Shiraishi Noriaki, manager of Japan Telecom's Corporate Planning Division, the expansion of his company's market share is slowed by a reliance on NTT's infrastructure. When their customer makes a telephone call, the NCCs must ask NTT to connect the patron with his or her party. This dependency is unavoidable as the NCCs do not own telephone lines—NTT operates the cables that connect every household in Japan.

Every time NTT provides access to its infrastructure, the carriers pay an "access charge" to one of NTT's eleven Regional Communications Sectors. The price of interconnection is high. NTT's previous rate—¥12.57 per three minutes—was twice the fee which long-distance carriers pay in the U.S. On October 31, 1995, NTT agreed to reduce its access fee by 16.8% to ¥10.46 per three minutes. Shiraishi believes the fee is still too high. Until NTT further reduces its access charges, he argues, "We cannot offer cheap rates."

NTT's long-distance division also pays access charges to the same 11

Personal Handy Phones

"Handy phones" (PHS) are based on Japanese technology that debuted last summer. They are cheaper than cellular phones, although they cannot be used in high-speed vehicles. It is still too early to judge the long-term success of PHS. As of the end of December, three months after the service became available nationwide, the number of subscribers stood at 600,000.

If PHS is successful, DDI's foreign ties should help the firm again. The company teamed up with several firms, including Cirrus Logic, Pacific Communications Sciences, and Arraycomm all of the U.S., to develop its personal handy phone service. DDI claims that this system's "cells" have a radius of 300–500 meters. By contrast, NTT Personal's cells have a radius of 100–200 meters.

Regional Communications Sectors. But these payments do not guarantee fair competition, alleges Shiraishi. "Transferring funds between divisions of the same company is not the same as shifting money between two different firms."

As long as NTT both owns Japan's only local telephone–line system and offers long–distance services, agrees a spokeswoman with DDI, "we cannot compete equally."

The position of Japan Telecom and DDI is a major factor in the ongoing debate over the breakup of NTT.

An advisory panel to the MPT recommended last fall that NTT be divided into an operator of long–distance services and several regional companies offering intra–city services.

The position of foreign parties on the break up of NTT is less clear, because most firms are not speaking publicly about the issue. For reasons similar to AT&T, Northern Telecom declined to comment on NTT's breakup. This North American company is the largest foreign supplier of equipment to NTT. Boasts a spokeswoman, "From Aomori to Okinawa, we have supplied 1,400 DMS–10 switches for NTT's network." The firm also supplies its equipment to NTT's rival and institutions such as Fuji Bank.

For the time being, the growing power of NTT's rivals will continue to create opportunity for all companies—foreign and domestic. "Our sales are already increasing," concludes Northern Telecom's spokesperson, who adds that breaking up NTT will not necessarily lead to a competitive market: "Nurturing forces to effectively compete with NTT is key."

Local telephone market

Except for 10 pint–sized local telephone companies, NTT is a monopoly supplier of wire–based local telephone services. These 10 competitors are all associated with electric–power utilities, exemplified by Tokyo Telecommunications Network Co. (TTNet) which is a subsidiary of Tokyo Electric Power Co. (TEPCO).

Within a few years, however, cable TV operators will also join the fray. They are introducing a new technology—telephony.

Telephony was developed in the U.S. and the U.K. where providers have taken price competition to former public telephone monopolies. Telecommunications Inc., Time Warner, U.S. West, and other leading cable TV firms achieved an economy of scope by using the same infrastructure to provide programming and telecommunications services for less money than the cost of providing each service on a separate network of cables. Cost savings were then passed on to the consumer in the form of cheaper prices for telecommunications and entertainment.

Japanese cable TV operators lag behind their counterparts in the U.S. and U.K., but foreign companies are helping to close the gap. Last year, three Japanese–U.S. ventures committed more than US$1 billion (¥100 billion) to Japanese cable TV. Each of these groups plans to pursue telephony as well.

A joint venture of Sumitomo Corporation and TCI—Jupiter Telecommunications—was the first venture to begin experimenting with telephony last September. Jupiter's president Nishimura Yasushige reports that tests have gone well. Deciding access fees with NTT is the last great hurdle, says Nishimura.

Another company—TITUS Communications—is also negotiating access fees with NTT. "The negotiations will not be easy," says the company's chief communications officer, Craig Thompson. "I have never seen a monopoly give up their monopoly easily."

TITUS Communications was established by Itochu and Toshiba in January 1995 with two U.S. partners—Time Warner and U.S. West—along with Time Warner Entertainment Japan, a subsidiary owned by all four companies. TITUS hopes to begin experimenting with telephony later this year, and commence full–scale operations two years later.

Japan's Telecommunications Equipment Market (US$ millions)

	1993	1994	1995
Total Market	15,878	16,714	17,216
Local Production	22,318	23,384	24,086
Exports	7,628	7,914	8,151
Imports	1,188	1,244	2,811

Source: ICOM Publications

The U.S. embassy recently sponsored a trade show in Tokyo to promote imports of equipment for cable TV and telephony. The show attracted several hundred business people; companies which displayed products reported a large quantity of orders.

Cable TV companies are not sure whether profitability in Japan will come as easily as success in the U.S. and U.K. Says Thompson, "NTT will be a formidable competitor. They have a good reputation for quality. By contrast, British Telecom had a less than sterling reputation. NTT does have some of the highest rates in the world, however."

The successful development of telephony would probably lead to rising imports of telecommunications equipment, ranging from computers and other goods for primary telecommunications to equipment for cable TV and interactive services. Not only are the telephony providers foreign–affiliated entities, but foreign manufacturers have already acquired technical expertise in this field. And, adds the U.S. Embassy in Tokyo, prices for foreign products are often "one–third to one–half that of domestic products."

ADC Telecommunications may be one of these suppliers. The U.S. firm makes telephony transports, video transports, and other infrastructure equipment. John McConnel of the company's global marketing division for access platform systems, comments that experience is the number one strength of North American companies. Through its activities in other countries, ADC also has a close relationship with TCI, Time Warner, U.S. West, and other cable TV firms. "We are counting on their success here," adds McConnell.

Long-distance telephone services

Japan's New Common Carriers have captured about 10% of the market for long-distance telephone services to date. Some commentators consider this figure low, but the NCCs are mapping strategies for strong growth in the near future.

Firstly, the New Common Carriers are strengthening their technological expertise. Explains Japan Telecom's Shiraishi, if the NCCs do not have such knowledge it is difficult to negotiate access charges effectively with NTT.

Secondly, the NCCs are developing new services in order to distinguish themselves from NTT and enter emerging fields.

Cooperating with overseas companies is the best way for Japan Telecom to fulfill the above objectives, Shiraishi believes. Since March 1994, the Japanese company has been receiving technical assistance from U.S.-based Bellcore, which is a research subsidiary of the U.S.' seven regional telephone operators.

Bellcore is now up for sale, prompting Japan Telecom to consider investing in the company. Confirms Shiraishi, "We are interested." The scale of Japan Telecom's investment remains undecided, however: "The decision will be made by Bellcore. Its parent companies may want to continue their majority ownership."

Bellcore can help Japan Telecom to import equipment which is inexpensive and distinctive. NTT has helped to design a lot of equipment by domestic companies like NEC. So, if the New Common Carriers rely on these makers, they are essentially using the same infrastructure as NTT. This kind of dependency makes it difficult for them to introduce unique services. Shiraishi also believes that NTT receives a royalty from each sale of domestic equipment. These payments can push up the price of Japanese-made switches and other goods to a high level.

Cellular communications

DDI is the most internationalized of the New Common Carriers. It has been cooperating with several domestic and foreign equipment makers to become a leader in the fastest growing segment of Japanese telecommunications—wireless services.

Since its establishment in 1984, DDI has forged relationships with several prominent international companies. One of its best-known business partners—U.S.-based Motorola—supplied DDI with equipment for constructing a cellular telephone network. At the time, DDI's Motorola-style system was the only system in Japan not specified by NTT.

DDI's investment in cellular communications seems to have paid off well. The market is now enjoying record growth: it is expected to expand from 4.33 million subscribers last year to as many as 9 million by the end of this fiscal year on March 31, 1996.

In addition to NTT DoCoMo and DDI, there are also many other players in the cellular market including IDO, TU-KA, Tokyo Digital Phone, Kansai Digital Phone, and other regional operators. They also buy their equipment from a variety of foreign and domestic companies.

NTT opposes breakup

NTT wants to remain one company and the telecommunications giant is waging a public relations campaign to save itself.

Most notably, NTT cut its access charges by 16.8% last November.

In another case, NTT President Kojima Masashi promised to further open his company's local telephone line network. NCCs must currently connect their lines to only one point of interface in each of Japan's prefectures. But they will soon have access to 6,000 points nationwide.

However, at the same time as NTT makes concessions, it is also warning the ministry that the breakup would cost ¥2 trillion. And lead to differences in charges between rural and urban areas.

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Deregulation demanded

"Even if NTT is split into long-distance and local telecommunications firms...it would not have the effect of expediting competition unless the government takes measures to simultaneously push deregulation so as to create conditions more conductive to competition."

This is the view of Japan's Fair Trade Commission. It and other insiders claim that the Ministry of Posts and Telecommunications has long used "administrative guidance" to limit competition. For instance, the ministry has not permitted local telephone companies to enter the long-distance market, and vice versa.

An easing of regulatory oversight would theoretically allow small telephone companies affiliated with electric-power utilities, cable telephony providers, cellular phone services, personal handy phone services, and Japan's three New Common Carriers to provide end-to-end services without paying NTT's eleven Regional Communications Sectors for interconnection.

The Ministry of Posts and Telecommunications' position on this issue is vague, but insiders are optimistic. At a recent press conference, former minister Inoue Issei denied standing in the way of competition: "I want to make it clear that there is and will be no such guidance by the ministry regarding business areas."