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Nippon Telegraph and Telephone Corp.

NTT Group Three-Year Business Plan - Change to "Global Information Sharing Corporate Group" -

Recognizing last July's reorganization as an opportunity to change from traditional telephone oriented companies to a "Global Information Sharing Corporate Group", the NTT Group has been addressing business reforms within the new group operation framework. As part of these efforts, the NTT Group have drafted the following three-year business plan (FY2000-02), the first such Group plan, as an expression of the business direction of the Group as a whole and steps to be taken by Group companies in that direction.

This plan will be reviewed every year to ensure a sensitive response to the dramatically changing market, a process which will establish operation of Group business based on a holding company system.

I. The Changing Market Environment

In January 1994, NTT released its "Basic Concept for the Coming Multimedia Age," subsequently undertaking business reforms designed to bring about a shift from telephone business to a multimedia focus. However, the market environment is changing at a speed far exceeding expectations.

(1) The number of mobile communications subscribers outstripped fixed-line subscribers by the end of March this year, and continues to grow, reaching 80 million in FY2003.*

* Mobile Computing Promotion Consortium survey (January 2000)

(2) The number of Japanese Internet users is also expected to skyrocket, with 50 percent of the population using the Internet through fixed lines by FY2003. Further, with the rapid growth of mobile computing, Japan's total Internet use, mobile communications included, is forecast to surpass the U.S. at the end of FY2001 to place Japan on a top level in the world, topping the 80 percent dissemination mark in FY2003.*

* InfoCom Research survey (March 2000)

At the same time, higher-speed network services, access lines included, will be provided to deal with the growing diversity and sophistication of contents, and the further development of fusion between telecommunication and broadcasting, bringing about enormous expansion and development in electronic commerce and a multitude of other Internet-based businesses.

(3) Fixed-line subscribers, on the other hand, will continue to dwindle, while the further evolution of GC interconnection and new market participation by foreign companies will create even fiercer competition not only in inter-prefectural telecommunications but also at the intra-prefectural level.

(4) Further, on-going globalization of the information communications market and the growing seamlessness of services is bringing about dynamic structural change, including the realignment of forces among existing carriers, while expansion of the global market, particularly in terms of mobile and IP communications, is bringing a new edge to competition which views the world as a single market.

II. NTT Activities by Business Area

NTT Group fixed-line telephone business will inevitably fall off sharply in line with the changing market environment, reducing the share of fixed-line business from the current 50 percent to 30 percent of total Group revenue. Mobile communications and Internet-related business should expand from the current 50 percent to 70 percent of total Group revenue.

By improving the speed, lowering the cost and widening the diversity of its network/services - an IP-based structure which includes both wireless and cable services - the NTT Group will continue to contribute to that socioeconomic reform of Japan which is also known as the "IT revolution".

1. Fixed-line phones

(1) Regional phone services

Due to the changing market and competition environment, as well as the application of a long-run incremental cost method to carrier interconnection fees, the introduction of a price cap system and other changes in the regulatory framework, the regional phone business is faced with extremely stringent management conditions.

NTT East and West are enforcing management efficiency ("Mid-term Restructuring Plan," announced November 1999) and establishing the necessary business foundations to deal appropriately with changes in the regulatory environment, as well as the service diversification and fee reductions as a means of responding to the introduction of a presubscription and other factors intensifying intra-prefectural competition.

(2) Long-distance and international phone services

NTT Communications is diversifying services and lowering charges by, for example, expanding and improving bundled services both inside and beyond Japan and otherwise customizing service charges, responding actively to the introduction of a presubscription and other factors sharpening competition.

2. Mobile communications

Recognizing that the mobile communications market will continue to grow, the NTT DoCoMo Group is working steadily to expand business, and is also actively exploring the development of non-voice communications (mobile multimedia) ahead of the inevitable slow-down of growth in voice communications alone.

(1) Upgrading of "i-mode"

To further accelerate the growth of Internet connection service demand through cell phones, i-mode functions are being made a standard element of cell phones (800MHz band service) and Java-compatible terminals introduced as a means of upgrading these functions, while NTT DoCoMo is also working to further diversify and upgrade contents.

Other efforts include promotion of PHS 64K data transmissions, as well as the development and supply of new applications such as music delivery and visual phones.

(2) IMT-2000

The NTT DoCoMo Group will lead the world in launching IMT-2000 in spring 2001, expanding service areas to major cities nationwide by the end of FY2002. IMT-2000 will allow the provision of more sophisticated and diverse mobile multimedia services nationwide.

3. Internet-related services

(1) Internet access

To deal with the surge in Internet demand, NTT East and West are providing a full range of access services, including not only ISDN but also ADSL and optical access services.

One particular focus is the early development of low-cost and diverse optical access services in response to the expected sudden growth in demand for high-speed Internet access, with world-leading efforts underway to expand and improve the optic fiber access network.

(a) Flat-rate (metal) access service

(i) IP connection service

NTT East and West began offering this service on a trial basis last November, and will lower the monthly rate from 8,000 yen to 4,500 yen this May, as well as adding a new service for connection at central office (monthly rate 2,900 yen). And also the companies are expanding service areas to major cities by the end of FY2000 and afterward to nationwide in line with demand trends.

(ii) ADSL service

NTT East and West began offering this service on a trial basis last December (using subscriber's regular line: 5,100 yen monthly), and are expanding services and service areas in line with demand trends during the trial period.

(b) Provision of optical access services

(i) High-speed optical IP connection service

In the third quarter of FY2000, NTT East and West will begin offering on a trial basis optical access service (maximum speed 10Mb/s) providing faster and more convenient Internet use at a flat rate of around 10,000 yen a month (connection at central office).

(ii) LAN-style optical communication service

NTT East and West will launch a low-cost LAN-style optical communication service in the first quarter of FY2000. Operating at a maximum speed of 10Mb/s, the service is intended to meet the needs of business users such as local authority and corporate

Intranets.

(iii) Further improvement of medium-high-speed access services

To respond to the needs of users looking for high-speed, low-cost and diverse services, optical services will be improved through the introduction of ultrahigh-speed optical access line and guaranteed-speed high-speed Internet access line, and the line-up of medium-high-speed access lines will be bolstered by teaming these with a menu exploiting wireless, xDSL and other technologies.

(2) Expansion of networks, platforms and contents applications

The Internet access breakthrough provided by low-cost optical access services will not only increase petitions for a higher-speed, higher-volume IP backbone, but also expand demand for the contents applications and platforms which form the upper layer of this backbone, as well as strengthening market pressure for more sophisticated and diverse services. Anticipating these trends, NTT Group companies will engage in dynamic business development through investment in and tie-ups with powerful external partners, as is explained below.

(a) NTT's Internet connection services will be accelerated and diversified in line with the greater speeds and lower costs of access lines, and value will be added to services by, for example, introducing SLA(Service Level Agreement) and improving customer support functions.

(b) To respond to the distribution demand for high-volume contents (music, software, video, etc.) which is expected to expand still further as a result of the greater speeds, greater volume and lower costs of access lines, the NTT Group will actively develop business such as housing, hosting, data centers, ASP, and EC platforms such as authentication, billing and settlement. One means of doing so will be to work together with major contents suppliers.

(c) To respond to demand for seamless, full support services, terminals included, the NTT Group will provide home gateways linking home networks with high-speed access lines, and promote the dissemination of terminal-free IC cards.

III. Promotion of Globalization

The NTT Group will aim to achieve 100 billion yen in global businesses in FY2002, as well as to become a world leader in this market, focusing on the high-growth areas of mobile communications, IP networks and platforms, and expanding out into U.S. and European markets from its Asian base, as is explained below.

1. Mobile communications

NTT DoCoMo will use its global competitiveness and strength in areas such as i-mode and IMT-2000 technology to build investment and financing ties with the world's major telecoms players and actively engage in business development with an eye to the full-scale development of mobile multimedia services in the U.S. and Europe, while in Asia emphasizing the potential growth capacity of voice transmissions.

Tie-ups will also be formed with the world's leading multimedia companies toward establishing mobile communications standards and other de facto standards.

2. IP network

NTT Communications and NTT DoCoMo will spearhead efforts to develop a global IP network and IP connectivity in Asia and the U.S. in particular, responding to the borderless needs of Japanese global companies and global companies seeking to break into the Japanese and Asian markets.

3. Platforms

NTT Communications, NTT DoCoMo, NTT Data and other Group companies will combine their strengths toward capturing a considerable share of the rapidly growing EC market, and will also engage in the necessary partnering and alliances to promote global information sharing platform business based in Japan (ASP, data centers, etc.)

IV. Strengthening Technical Capacity

The NTT Group will pursue R&D toward building a safe, secure, comfortable and convenient network society on photonic infrastructure supporting the 21st century information sharing industry.

More specifically,

(a) NTT will lead the way in diversifying the information sharing industry. Not only, for example, will it develop communications technology which takes advantage of the two-way and broadband nature of photonic infrastructure to present video images and other information with an unprecedented reality, as well as information sharing platform technology allowing safe and secure network use, but it will also create innovative applications that will exploit the full potential of the photonic infrastructure and new business models with strong international competitiveness.

(b) In addition to producing user-friendly devices and services, NTT will also conquer emerging challenges such as information literacy and the "Digital Divide," contributing to the creation of a more equitable and dynamic society.

In the immediate future, NTT will strengthen R&D in the following three areas, supplying the results in line with each particular Group company's mission in order to stimulate the development of an information sharing society and open up new business frontiers in the various business areas.

(1) DoPN (Data over Photonic Network)

NTT will push forward the development of the necessary technology for various network services on a high volume backbone and a broad range of access services, supplying low-cost, ultrahigh-speed communications infrastructure grounded in a photonic network.

- *"Best-effort" through to "guaranteed" medium-to-high speed IP and IP-VPN

- *Live/stored video contents delivery

- *Next-generation backbone for fixed and mobile communications

(2) Rich Internet

The Group will advance R&D toward realizing information sharing platforms for safe and secure and electronic commerce, creating an environment in which the Internet is

used universally on a daily basis. In doing so, the Group will stimulate the various network service markets and content sharing markets on the Internet.

- *Solutions for education, navigation and medical care, etc., provided on the photonic infrastructure
- *Electronic commerce platform such as authentication, electronic settlement and multi-purpose smart cards
- *Content sharing platform such as copyright protection and tracing illegal use

(3) Seamless, full and global

By promoting technology development toward flexible use of phone lines, the Internet, mobile communications and optical access, the Group will realize an affluent, high-quality living environment for clients operating on a global basis.

- *SOHO and home network applications provided in combination with home electronics, mobile devices and portals
- *Services with home information devices allowing mass-users to publish their own personal content including video images.

V. Group Operation

1. Mission clarification

While NTT as a group is centered on the information sharing industry, the various companies making up the group will be divided into the following four groups according to the type of company, target market and business content, clarifying the mission of each and laying out the direction which each should pursue. This will allow each company to exploit its independence and autonomy in pursuing dynamic business development, while also establishing the business foundations for the group as a whole.

In new business areas in particular, which attract companies from different industries, ventures and an otherwise diverse range of competitors, rather than predetermining the business territory of the various group companies, each will be left to engage in dynamic business development based on their own management judgement, actively exploring new business frontiers.

(1) Type 1: Regulated companies (NTT East and West)

- *Introduction of optical access lines as infrastructure allowing greater speed and diversity and lower cost
- *Establishment of solid financial foundations, stable provision of universal services
- *Strengthening of competitiveness in regional market

(2) Type 2: Competitive companies (NTT Communications, NTT Data, NTT DoCoMo)

- *Expansion of information sharing services
- *International expansion
- *Greater competitiveness

(3) Type 3: Management resource utilization companies (NTT-ME companies, NTT Facilities, NTT Comware, etc.)

- *Efficient commissioning making service suppliers (Types 1 and 2) more competitive
- *Expansion of business territory using the technology and know-how of these companies
 - Maintenance integration by NTT-ME companies (help desks, on-site maintenance, user network monitoring, hosting services, etc.)
 - Information environment construction services provided by NTT Facilities (design and construction supervision of highly reliable power sources, air-conditioning, security, etc., for data centers, call centers, etc.)

Once new business with no relation to the commissioned work undertaken by Type 3 companies has reached a certain scale, NTT will consider spinning this off and establishing independent entities as Type 4 companies.

(4) Type 4: Companies breaking into new business areas (NTT Electronics, NTTPC Communications, GrR HomeNet, etc.)

- *Development of new business territory in areas outside the Group's market
- *Strengthening of competitiveness by establishing core competencies and investing in and tying up with reputable external partners
- *Consideration of listing, etc., in line with growth stage

2. Reallocation of staff and more flexible employment

NTT will reallocate human resources among Group companies in line with market changes. Further, as major disparities are expected to emerge in the competitiveness and profitability of the various Group companies, the Group will also work to develop compensation in line with corporate performance, business content, the nature of the region, and individual results and performance, etc.

(1) Reallocation of staff

NTT will reallocate staff in line with market changes in order to ensure optimal staff allocation. Around 27,000 personnel of NTT East and West will be shifted

- from fixed-line phones to information sharing and to metropolitan areas, which offer greater market prospects, and
- from NTT East and West to other Group companies to fill the necessary places arising from the business development and expansion of these companies.

To facilitate speedy and accurate personnel allocation, NTT will develop a highly flexible labor market within the Group, as well as considering the diversification of personnel and compensation systems in response to the growing flexibility of the employment environment. Professional staff, for example, could be appointed from outside the Group.

(2) Heavy emphasis on results and performance

NTT's traditional seniority-based, uniform compensation system will be eliminated as far as possible, with far greater weight placed on individual staff members' results and performances, in order to establish a compensation system which allows individuals maximum room to demonstrate their entrepreneurship and spirit of challenge, as befits a global information sharing corporate group.

Seniority elements have already been completely removed in the case of management

positions, including the elimination of regular pay rise. In FY2000, NTT will shift further emphasis on to results and performance, expanding the difference between individual bonuses to a maximum of three times.

3. Cost structure reform

The NTT Group shares with Japanese industry structural issues such as an overly heavy ratio of middle-aged and senior staff and a multi-layered outsourcing structure. To address these issues and promote entry into new business, the Group will reform its cost structure, boost cost performance, ensure capital investment efficiency, and review its business outsourcing structure. Steps to this end will include increasing the efficiency of business management, reallocating staff and emphasizing results and performance.

VI. Emphasis on Stockholders

1. Management emphasis on investment returns

To increase the corporate value of the NTT Group in line with its duty to stockholders, the Group needs to respond to the paradigm shift in capital investment from an infrastructure development focus to a demand response focus. The Group also broadens the investment concept from capital investment to R&D and equity investment, by basing the management of Group companies on an emphasis on investment returns and engaging in business activities accordingly.

As a standard NTT Group measure will be needed for assessing returns, monitoring and assessments will be made based on indices adjusted according to the growth stage (new business, growing and mature) of each business area handled by Group companies and the risk entailed.

2. Group management indices

To optimize corporate value, NTT has introduced EBITDA margin, free cash flow and ROCE as management indices emphasizing cash flow. In the three-year management plan too, these will be positioned as NTT Group priority goals, with measures steadily implemented toward their achievement.

3. Expansion of IR activities

NTT seeks to present its stockholders with a highly visible profile, ensuring the constant clear communication of management direction. To this end, NTT will increase the number of opportunities for top management to personally explain management strategies and policies to institutional investors and analysts both at home and abroad.

VII. Corporate Culture Innovations

To fulfil its social duty of contributing to the realization of a rich information society, the NTT Group will work to provide customers with optimal services and reliability, establishing NTT as a "company leading the way into a new age".

1. Expansion of information disclosure

In addition to the information disclosure which a joint stock corporation is obliged to provide under the Commercial Code, NTT Group companies have also supplied information according to their particular status (e.g., listed companies, telecommunications carriers, special companies). With the shift to a corporate accounting system centered on consolidated settlement, active efforts will now be made to supply information from the NTT Group as a whole.

2. Enforcing company ethics

In addition to conforming with laws, regulations and contracts, the NTT Group will also act based on a social conscience and undertake fair and transparent business activities, doing its utmost to stand as a corporate group trusted by stockholders, customers, business partners and society.

As the leaking of customer information in particular is a serious issue causing customers to lose confidence in the Group and impacting heavily on business operation, the NTT Group will not only comply with the Guidelines on the Protection of Personal Data in Telecommunications Business as formulated by the Ministry of Posts and Telecommunications, but also engage in various measures to raise morals and strengthen checking mechanisms, ensuring strict customer information control.

VIII. NTT Group Structural Issues

The NTT Group is working to develop business based on the current Group formation, with keeping fair competition, and to respond to the expectations of stockholders and customers. However, compared to the time when reorganization was discussed, the management environment has changed substantially, including (a) dramatic changes in the market structure in the shape of the sudden popularity of mobile communications and the Internet and the emergence of fierce competition in regional telecommunications markets; and (b) the dramatic changes in and globalization of the business structure epitomized in dynamic M&As among global mega-carriers and mergers and tie-ups among domestic telecommunications carriers.

To respond to these changes, the NTT Group will proceed with considerations as to a possible future review of Group formation with the understanding of all those involved, looking to undertake this at some early point from FY2002 onward. The review will focus on (a) structures for maintaining universal services amidst increasing competition in regional telecommunications markets and (b) corporate management allowing speedy, accountable management amidst global competition and the accompanying large-scale M&As.

IX. Three-Year Business Plan Goals

The management goals which the NTT Group will seek to achieve by the final year of the plan (FY2002) through the above efforts are as noted in the [Appendix](#).

Figures contained in this plan relating to future predictions were estimated according to information available at this point in time, and may change in response to trends in the Japanese economy and the information communications world, as well as new services and rate of charges, etc. The NTT Group therefore does not guarantee the reliability of the figures in question.

- [\(Appendix\) Three-year Business Goals \(consolidated base\)*](#)
- [\(Reference 1\) Changes in Revenue Structure](#)
- [\(Reference 2\) Trends in Investment Amount](#)
- [\(Reference 3\) Trends in Number of Employees \(consolidated base, end of fiscal year\)](#)
- [\(Reference 4\) Forecast Income for NTT East and NTT West](#)



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