Editorial notes

The NTT Group Corporate Social Responsibility Report 2007 has been created to foster communication with all our stakeholders in accordance with the NTT Group CSR Charter. The Charter, which was drafted in fiscal 2007, describes the basic principles behind the implementation of NTT Group CSR activities.

This report begins with a message from the company President, and then goes on to detail the basic vision, policies and systems that guide our CSR activities. The highlight of the report is a description of the next-generation network (NGN), one of our major projects for fiscal 2007.

Next, we report on progress made within each of the four goals of the NTT Group CSR Charter: communication between people and their communities, communication between people and the global environment, safe and secure communication, and Team NTT communication.

We conclude with a report on communications with our stakeholders.

Please note that we have changed the definition of our fiscal year from this year's report, as a result of which fiscal 2007 (FY2007) in this report means the fiscal year from April 1, 2006 to March 31, 2007.

In this report, NTT refers to NIPPON TELEGRAPH AND TELEPHONE CORPORATION, NTT Group refers to NTT and its group companies, and NTT – refers to individual companies within the NTT Group.

The report has been created with reference to the GRI (Global Reporting Initiative) Sustainability Reporting Guidelines 2002 and the Japan Environmental Management Reporting Guidelines 2003.

In order to reduce the consumption of paper resources, this report provides a condensed outline of the essential information related to the NTT Group’s CSR activities. More detailed information is provided on our website.

Website: http://www.ntt.co.jp/csr_e/

Reporting scope

Period: April 1, 2006 to March 31, 2007

- Certain activities implemented after March 31, 2007 and outlook for the future are also included.

Organization: NTT and the NTT Group companies (419 companies)

- The figures given for the NTT Group in fiscal 2007 are tabulated from figures for NTT, NTT EAST, NTT WEST, NTT Communications, NTT DATA, NTT DoCoMo, and other group companies (419 companies).

- The scope of specific reports is noted in relevant areas.

- Organization names are current as of March 31, 2007, however, some organization names are from fiscal 2008.

- Month published: February 2008

- Previously published: December 2006

- Next report: December 2008 (provisional)

About the contents of this report

- Should any errors be found in this report after publication, a report and table of errata will be provided on our website.

- The contents of this report refer only to past events, but also cover future plans and forecasts at the time of publication. Such descriptions include assumptions and judgments based on information that was available at the time of printing. Please note that actual future activities and results may differ from those described herein.

See our CSR website for details of our latest CSR activities.

http://www.ntt.co.jp/csr_e/

Latest information available on our regularly updated CSR website

After this report is published, we will continue to provide timely new information about the NTT Group’s CSR initiatives through regular website updates. The latest information can be seen in the Topics section on the top page of the site.

More detailed information available on the website

The website presents more information than is available in this report, including examples of CSR projects and environmental data, and provides broader, more in-depth information about the NTT Group’s CSR activities. There are also links on the site to CSR information of individual NTT Group companies.

A user-friendly website with easy-to-read page layouts

The website has been designed according to NTT official homepage guidelines and was subjected to the check of hearing-impaired, vision-impaired, and other differently abled people, most of them NTT Group employees. This checking process, which is based on the NTT CLARITY accessibility checklist, helps to ensure that the site is suitably laid out for differently abled and elderly users.
Message from the President

We at the NTT Group work as one within the framework of CSR to promote safety, security, and prosperity from the customer's point of view.

The world of communications has grown to encompass broadband access and ubiquitous computing on a global scale in a remarkably short period of time. Among the increasingly rapid changes in technology that we have witnessed during this time is the trend toward the merging of disparate technologies, including fixed mobile convergence (FMC — the convergence of fixed line and mobile telephones), as well as communications and broadcast media. At the same time, Japanese society now faces numerous social issues, including an aging society with a shrinking population that requires ever greater levels of medical treatment and nursing care, disparities in employment supply and demand, environmental and energy conservation issues, damage from natural disasters and increasing crime. The NTT Group CSR Charter is a statement of our commitment to facing social issues such as these head on, and is intended to serve as a framework for recognition of our corporate social responsibility as well as a reminder that CSR is an integral part of a basic business posture capable of contributing to sustained social development.

Everyone at the NTT Group recognizes the responsibility we bear as a leader in the information and telecommunications industry for promoting activities that will not simply maintain but actually enhance the safety, security, and reliability of our services as well as contribute to the development of ubiquitous broadband communications. To this end, a field trial of NTT’s next-generation network (NGN) began in December 2006 in preparation for the offering of services to the general public. We have also made every effort to enhance the reliability of emergency communications networks as well as to strengthen our ability to guarantee critical communications and restore interrupted services in the event of a large-scale natural disaster. Despite these efforts, our Hikari Denwa optical fiber telephone service has suffered major failures that caused our customers great inconvenience and concern. We are doing everything in our power to prevent further failures through strengthening both the physical infrastructure and operations management of the system. We are also redoubling our efforts to protect the Earth’s environment by further enhancing our ongoing activities for combating global warming and other environmental initiatives.

We feel that continued efforts such as these are part and parcel of the NTT Group’s corporate social responsibility, and we undertake a wide variety of citizenship activities in cooperation with the communities we serve. Each NTT Group company fulfills its responsibility to undertake social, economic, and environmental activities suited to its own unique business situation. Working as one to promote corporate social responsibility as described in the NTT Group CSR Charter, we strive to enhance our corporate value as a customer-oriented enterprise.

To inform our customers and all other stakeholders about these activities, we are once again pleased to make our annual CSR report available to the public. This year we have for the first time included a third-party opinion from a representative of our stakeholders, and we look forward to hearing the candid comments and suggestions of our readers regarding the content of this year’s report.

October 2007
Outline of the NTT Group and the role of the holding company

NTT Group companies

(aas of August 1, 2007)

Regional communications businesses
- NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION
- NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION
- NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION
- NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION
- NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION
- NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION

Regional communications business support group
- Regional communications-related businesses
  - NIPPON TELECOMMUNICATIONS CORPORATION
  - NIPPON TELECOMMUNICATIONS CORPORATION
  - NIPPON TELECOMMUNICATIONS CORPORATION
  - NIPPON TELECOMMUNICATIONS CORPORATION
  - NIPPON TELECOMMUNICATIONS CORPORATION
  - NIPPON TELECOMMUNICATIONS CORPORATION

Long distance and international communications businesses
- NTT Communications Corporation
- NTT Communications provides inter- and international communications services and related businesses. This includes system integration for corporate services, fixed voice-related services, and IT services.

Data communications business support group
- System Integrations: Services
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION

Data communications business group
- System Integrations: Services
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION
  - NIPPON DATA SYSTEMS CORPORATION

Mobile communications businesses
- NTT DoCoMo, Inc.
- NTT DoCoMo, Inc.
- NTT DoCoMo, Inc.
- NTT DoCoMo, Inc.
- NTT DoCoMo, Inc.
- NTT DoCoMo, Inc.

Other businesses
- Mobile communications businesses
  - NTT DoCoMo, Inc.
  - NTT DoCoMo, Inc.
  - NTT DoCoMo, Inc.
  - NTT DoCoMo, Inc.
  - NTT DoCoMo, Inc.
  - NTT DoCoMo, Inc.

Overview of NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Name: NIPPON TELEGRAPH AND TELEPHONE CORPORATION (NTT)
Head office: 3-1, Hibiya 2-chome, Chiyoda-ku, Tokyo 100-8116, Japan
Date of establishment: April 1, 1985
Paid-In capital: ¥937.95 billion (As of March 31, 2007)
Number of employees (As of March 31, 2007): 2,900 employees (198,765 employees on a consolidated basis)
Number of consolidated subsidiaries: 419 (As of March 31, 2007)
Website: http://www.ntt.co.jp/index_a.html

Role of NTT (holding company) within the NTT Group

The NTT Group consists of NTT and subsidiaries (including 419 consolidated subsidiaries). The Group's main businesses are regional communications, long distance and international communications, mobile communications and data communications. NTT formulates overall group business strategy in consultation with the individual group companies, as well as providing suitable and appropriate advice and facilitation. Based on this support, the individual group companies run themselves as independent business entities, taking responsibility for their own management.

NTT Group structure

As of March 31, 2007

R&D activities

NTT has three laboratory groups: the Cyber Communications Laboratory Group, the Information Sharing Laboratory Group, and the Science and Core Technology Laboratory Group. These groups provide NTT with the R&D muscle for the commercialization of next-generation services. The development of basic technologies that will support the creation of safe, secure, and convenient ubiquitous broadband services. Furthermore, through the effective use of our “Comprehensive Commercialization Functions” and in close collaboration with the NTT Group companies, NTT has steadily commercialized its R&D results.

Role of NTT R&D

Basic R&D
- Basic technology for developing new services and business, and essential technology for creating new products and devices.
Overview of reporting organization

Consolidated financial statement for fiscal year 2007

In fiscal 2007, the NTT Group continued to implement the NTT Group Medium-Term Management Strategy (announced November 2004) and respond to customer demand by further deploying the B FLET’s optical fiber access service and the FOMA third generation (3G) mobile communications service. To provide solutions for our corporate customers, we developed new businesses through alliances and joint investments with companies outside the Group. We also began verification experiments for the launch of full commercial services for our next-generation network (NGN). Consolidated performance for fiscal 2007 showed a decline in voice-related revenue owing to a drop in fixed-line subscriptions, but revenue from B FLET’S, FOMA, and other IP-related services and system integration revenue increased. As a result, NTT Group consolidated operating revenue for fiscal 2007 amounted to 10,760.6 billion yen (year-on-year increase of 0.2%), consolidated operating income to 1,107 billion yen (year-on-year decrease of 7.0%), and consolidated net income to 476.9 billion yen (year-on-year decrease of 4.4%). We paid total dividends for fiscal 2007 of 8,000 yen per share, divided into midterm and end-of-term dividends.

NTT Group’s Medium-Term Management Strategy

This is a period of great transition in the information communications market, driven by the rapid spread of broadband access and IP technology, and growing convergence and integration between fixed and mobile communications, and between telecommunications and broadcasting. In response to these changes, the NTT Group announced the NTT Group Medium-Term Management Strategy in November 2004. The aim is to shift roughly half the number of conventional fixed-line subscribers to optical fiber access and NGN services by fiscal 2011. Building around this framework, NTT would work to increase corporate value by developing the ubiquitous broadband communications market, and constructing a safe, secure, and convenient communications network environment.

NTT Group Medium-Term Management Strategy (announced November 2004)

Management objectives

- Leverage NTT’s all-round strengths to actively develop the ubiquitous broadband communications market.
- Contribute to the realization of the u-Japan Strategy and u-Japan Policy.
- Provide customers with a safe, secure, and convenient communications environment, and build the foundations for broadband access. Smoothly migrate from fixed line service to IP telephone service and from copper wire to optical fiber.
- Work to increase corporate value and achieve sustainable growth.

Specific initiatives

- Development of ubiquitous broadband communications services to drive convergence between fixed line and mobile communications.
- Construction of a high-quality and flexible NGN that guarantees security.
- Smooth migration from existing fixed-line phones to IP telephones, and from copper wire to optical fiber.
- Expansion of business opportunities by leveraging ubiquitous broadband communications services.
- Building of a firm financial foundation and strengthening our competitiveness.

Initiatives for promoting the NTT Group’s Medium-Term Management Strategy (announced November 2005)

NTT announced action plans in November 2005 designed to drive the implementation of the NTT Group Medium-Term Management Strategy. Under these action plans, the group announced two concrete initiatives: the building of an NGN, and the development of ubiquitous broadband communications services.

Action Plans

NGN deployment

- Basic concepts
  - A safe, secure, and convenient network handling rapid increase of IP traffic
  - Providing services ensuring Quality of Service (QoS)
  - IP-based network enabling the provision of seamless fixed (intranet & inter-protocol) and mobile communications
  - A network conforming to international standards
  - Disclosure of interface to the application layer enabling service providers to provide a wide array of application services
  - An open network ensuring security and connectivity (interconnectivity) with other carriers and ISPs
- For NTT EAST, NTT WEST, NTT Communications, and NTT DATA, figures in the pre-tax income row indicate recurring income.

Ubiquitous broadband service development

- Network services
  - Highly-functional, highly-reliable fiber-based services
  - High-speed and advanced mobile services and multi-functional wireless handsets
  - Fixed mobile Convergence
- Upper layer services enhancement including Internet connection and portal service
- Corporate services enhancement
- Promotion of convergence and partnership between telecommunication and broadcasting
- Provision of one-stop customer services
- Expansion of international business and standardization activities
- Efforts directed to realize a safe and secure society as envisioned by New IT Reform Strategy and u-Japan Policy

Consolidated and major company financial highlights (partial) for FY2007

Table: Financial Highlights

<table>
<thead>
<tr>
<th>Period</th>
<th>Operating Revenue (in billions)</th>
<th>Net Income (in billions)</th>
<th>Dividend per Share</th>
</tr>
</thead>
</table>
| FY2007     | NTT Group | NTT EAST | NTT WEST | NTT Communications | NTT DATA | NTT DOCOMO | NTT CSD
| Operating Revenue | 10,760.6 | 2,061.3 | 1,915.5 | 1,144.4 | 1,044.9 | 4,781.1 |
| Operating expenses | -2.02% | -3.0% | -3.8% | +1.6% | +15.2% | +0.5% |
| Operating income | +1.1% | -2.8% | -3.3% | +0.7% | +11.0% | +2.1% |
| Operating income | 1,107 | 59.9 | 20.4 | 77.3 | 90.2 | 773.5 |
| Pre-tax income | -7.05% | -9.2% | -36.1% | +14.9% | +92.8% | -7.1% |
| Net income | -12.9% | +7.3% | -4.4% | +8.3% | +104.1% | -18.6% |
| Net income | 478.9 | 83.9 | 28.3 | 30.3 | 50.6 | 457.3 |
| For NTT EAST, NTT WEST, NTT Communications, and NTT DATA, figures in the pre-tax income row indicate recurring income.
Basic approach to CSR

The NTT Group's vision for society and its own role in creating that society

Nothing could be more fundamental to the fulfillment of our CSR than sound corporate conduct. This requires the appropriate implementation of a wide range of initiatives related to such areas as compliance with laws and regulations, the application of high ethical standards to business conduct (corporate ethics), the active disclosure of financial and other information that the public has a right to know (corporate information disclosure), and mechanisms for the constant monitoring of business conduct (corporate governance). We feel that addressing the expectations of our customers and other stakeholders by implementing concrete endeavors based on the principles of the NTT Group CSR Charter — not only in our everyday business of providing quality products and services, but also through environmental protection, volunteer and other social contribution activities — contributes to our corporate value and our sustained development. We of the NTT Group believe that by sustaining our CSR activities based on our four communication goals, we can contribute to the creation of a safe, secure, and prosperous society through communications that serve people, communities and the global environment.

Promoting CSR across the NTT Group

1. Why we enacted the NTT Group CSR Charter

The NTT Group has long sought to fulfill its responsibilities as a corporate citizen through implementing a range of CSR activities, but we drew up the NTT Group CSR Charter to more clearly define fundamental principles for the active implementation of CSR activities by Group companies.

2. Features of the NTT Group CSR Charter

The NTT Group CSR Charter consists of a statement of our CSR commitment and a description of the following four CSR goals linked by the common theme of communication: communication between people and their communities, communication between people and the global environment, safe and secure communication, and Team NTT communication.

3. The process of drafting the Charter

To draw up the Charter, we first gathered basic information about CSR activities, including existing CSR directions and thinking within NTT and NTT Group companies, as well as ideas and examples of initiatives from leading companies in Japan and abroad, and trends in CSR guidelines and the like. After organizing this basic information, CSR leaders of major Group companies held meetings to debate and come to a consensus on the desirable form and direction of NTT Group CSR activities so as to ensure that the Charter was endowed with sufficient substance to promote and develop CSR within the Group. We also sought out objective views in hearings with CSR professionals, using their advice on points of discussion, direction, and the wording of the Charter itself to create a draft. This was then circulated among Group companies to reach a final consensus, after which the Charter was enacted in June 2006.

Drafting the Charter

[Our Commitment]

As a leader of the information and telecommunications industry, the NTT Group is committed to providing reliable, high-quality services that contribute to the creation of a safe, secure and prosperous society through communications that serve people, communities and the global environment.

[Our CSR Goals]

1. Communication between people and their communities

   1. We shall strive to create a fairer and more convenient communications environment, and utilize our technology to contribute to the resolution of the various issues faced by societies with aging and declining populations.

   2. Communication between people and the global environment

   2. We shall strive both to reduce our own environmental impacts and build environment-friendly forms of communications, and to provide information and communications services that help to reduce the impact of society as a whole on the global environment.

   3. Safe and secure communication

   3. While striving earnestly to ensure information security and resolve telecommunications-related social issues, we shall do our utmost to provide a safe and secure user environment and contribute to the creation and future development of communication culture.

   4. Fully recognizing the role that telecommunications plays as critical infrastructure supporting society and protecting our livelihoods, we shall strive to offer secure and reliable telecommunications services fortified against disasters and capable of connecting people irrespective of time, location and other circumstances.

[Team NTT communication]

5. All of us, Team NTT pledge to perform our duties with pride and a keen sense of responsibility in compliance with the highest ethical standards, striving to fulfill our mission to society by working both for our own development as professionals, and for the further development of a flourishing and vibrant community.

   - Team NTT comprises all NTT Group employees, including temporary employees, contractor employees, and also former employees who endorse the NTT Group’s CSR activities.

Activity categories

- Leveraging information and communication technology (ICT) to address issues related to declining population and aging society
- Reduction of environmental impact to contribute to the creation of a sustainable society
- Ensuring information security and building a sound user environment
- Contributing to society through building and maintaining communications infrastructure
- The social mission of all who work under the NTT name
Management organization

1. Basic stance
The NTT Group considers corporate governance to be a matter of vital importance in maintaining our customers’ and the public’s trust and ensuring its sustained development. The Group’s corporate governance efforts are directed at ensuring the following:

(1) Sound management
(2) Appropriate decision-making and execution of business
(3) Clear accountability
(4) Full compliance with laws and regulations

2. Composition of board of directors and board of audit
NTT maintains a board of 12 directors, two of whom are outside directors.
In principle, the board of directors meets once per month to make decisions and report on important management issues. NTT maintains a board of audit, which is composed of five members, referred to as corporate auditors, of whom three are outside corporate auditors.

3. Executive Officers Meeting and committees
In principle, important company matters are discussed and decided by NTT’s Executive Officers Meeting, which is made up of the President, Senior Executive Vice Presidents, full-time directors, and the heads of staff organizations. The Executive Officers Meeting members meet once every week or two, and held 33 meetings in fiscal 2007. It also oversees the activities of committees charged with discussing specific areas of company and group management strategy. In principle, each committee is chaired by either the President or a Senior Executive Vice President, and has a membership composed of directors and other senior executives involved in the specific areas for which each committee is responsible. Committee meetings are held as occasion demands.

4. Internal control system

Though NTT already had compliance, risk management, and other internal control systems in place, in conjunction with the coming into effect of Japan’s new Corporation Law (May 2006), the board of directors adopted a basic policy related to the creation of a system of internal controls for the NTT Group as a whole to ensure the appropriate execution of duties, and is working to enhance Group internal control systems.
NTT also reformed its financial reporting internal control system in line with the US Public Company Accounting Reform and Investor Protection Act of 2002 (Sarbanes-Oxley Act) Section 404. Tests conducted to assess the reforms and operation of the system revealed no major problems and confirmed the effectiveness of the new system.

5. Audits by the auditors

Each corporate auditor of NTT audits the performance of NTT’s directors in the execution of their duties as occasion demands. The corporate auditors also endeavor to strengthen the auditing system by working closely with the NTT Group’s audit firm through means such as periodic discussion of audit plans and results.

6. Internal audits

NTT’s Internal Control Office conducts inspections of the status and operating effectiveness of internal controls across the Group as a whole through such measures as conducting standardized group audits that target all group companies and checking the work of internal auditors in each group company. The Internal Control Office also continues the work of building, operating and improving internal control systems across the NTT Group, including IT controls.

Compliance

1. Corporate Ethics Charter

Based on a core belief that it is imperative to conduct business in compliance with laws and the highest ethical standards, NTT enacted the NTT Group Corporate Ethics Charter in November 2002.
The Charter, which applies to all directors and employees of the NTT Group, lays out the basic principles of corporate ethics and provides concrete guidelines for ethical behavior.
The Charter is intended to remind everyone of their duty as members of a communications group to prevent dishonesty and misconduct, and to ensure that they conduct themselves according to the highest ethical standards in both our private and public activities, and avoid unethical behavior such as discriminating against or exchanging excessive favors with customers, suppliers, and others.

2. Thorough implementation of corporate ethics

In order to ensure the effectiveness of the Charter, we conduct assessments of ethical awareness among employees, as well as running CSR and corporate ethics seminars for employees. Each company has in place a system for employees to report and consult on ethical issues. In addition, employees can also go outside their company through the group-wide Corporate Ethics Help Line that we have established.
In line with Japan’s Whistleblower Protection Act and other laws, the NTT Group has also since April 2006 accepted reports from companies outside the group that have dealings with the NTT Group.

Risk management

The NTT Group functions within a rapidly changing business climate marked by increasingly fierce competition, and the companies of the NTT Group also face a wide variety of business risks from natural disasters and other unforeseen circumstances.
Seeking to minimize potential risks through putting priority on prevention and readiness, we have prepared a standard manual for distribution to all member companies to assist in their efforts to manage business risk and ensure a unified approach to risk management. With the help of this manual, we work to anticipate and prepare for risks, so that should they arise, we are able to minimize the impact on our stakeholders. Each member company also prepares its own manual or other mechanisms tailored to its specific business activities and environment in order to manage and mitigate business risks.

Corporate governance structure

![Diagram of Corporate Governance Structure]

- General meeting of shareholders
- Executive officers
- Independent audit
- Group companies

- Board of directors
- Appointment and Corporate Governance Council
- Senior executive and executive officers
- CSR Committee - Corporate Ethics Committee - Business Risk Management Committee etc.
- Performance of duties
- Internal audit
- Internal Control Office
Management organization

1. CSR Committee and organizations to promote CSR

NTT created a CSR Committee chaired by a Senior Executive Vice President in June 2005 to establish a clear management structure for the implementation of the NTT Group’s CSR activities. Based on its consideration of group-wide thinking and measures that will further promote CSR activities of the NTT Group as a whole, the CSR Committee drew up the NTT Group CSR Charter in 2006 as a vehicle for driving the implementation of the NTT Group’s CSR initiatives. With the establishment of the CSR Committee, we brought the existing Global Environmental Protection Promotion and Social Contribution Promotion Committees under its control, rationalizing the organization to promote CSR initiatives. Furthermore, in order to unify CSR initiatives across the Group, we hold regular Group CSR Liaison Meetings at which the CSR Committee shares information on the latest issues under discussion, and individual companies in the group also explain their CSR initiatives to promote the horizontal development of initiatives.

2. Publishing CSR reports

The NTT Group publishes the NTT Group CSR Report (this publication) once a year to communicate the NTT Group basic approach to CSR and to present representative NTT Group initiatives being implemented under the four goals of the NTT Group CSR Charter. This report is published in Japanese and English both in printed form and on the NTT Group CSR website. By distributing this information as widely as possible, we aim to further nurture communication as described in the CSR Charter. Group companies also publish CSR reports that introduce their own initiatives in more detail.

Index

- Entering a prosperous new world of ubiquitous broadband communications via NGN ........................................ 14
- Communications in the NGN Era ........................................ 16
- NGN field trials
  - Ubiquitous protection and nursing care .................................. 18
  - IP retransmission of digital terrestrial broadcasts ......................... 19
  - Telepathology systems .................................................. 20

NOTE (Hamamatsu, Tokyo)
NOTE (Izumotsu, Osaka)

Pioneering New Styles of Communication with NGN

As a leader of the information and telecommunications industry, the NTT Group is committed to providing reliable, high-quality services that contribute to the creation of a safe, secure and prosperous society through communications that serve people, communities and the global environment.

In December 2006, the NTT Group began field trials of its next-generation network (NGN), including the opening of showrooms in both Tokyo and Osaka, in preparation for launching commercial services at a later date. We are proud to feature NGN in this report as a highlight of our CSR activities for fiscal 2007.

NTT Group CSR organization

NTT Group CSR website http://www.ntt.co.jp/csr_e/
The future of communications is now in sight.

Entering a Prosperous New World of Ubiquitous Broadband Communications via NGN

NGN, the new world-class communications infrastructure

NTT’s next-generation network, or NGN, is an optical fiber-based full IP network that combines the stability and reliability of a telephone network with the convenience and economy of the Internet. Under NTT’s current Medium-Term Management Strategy, which went into effect in November 2004, NGN is positioned as a mainstream for future NTT business, and is currently under development for practical applications.

We are confident that the implementation of a new world-leading communications infrastructure compliant with international standards will help to solve many of the social and economic issues now faced by Japan, and contribute to its further growth.

New services developed with NGN

Any discussion of the next generation of information and communication technology is sure to refer to information digitalization, IP networks, and ubiquitous broadband communications. These technologies are already evident in many emerging styles of communication, such as the increasingly diversified and sophisticated use of the Internet or the convergence of fixed-line and mobile communications and of communications and broadcasting. Responding to such changes in technology and market needs, NGN is expected to become a driving force in the creation of new business models and services.

Building the NGN together with our partners

Openness and interconnectivity are indispensable attributes of any network, because a network can only fulfill its true potential if it is used by large numbers of people. Seen in this light, it is obvious that the NTT Group could not successfully create such an NGN entirely on its own.

From the very start of development, we have based our NGN initiatives on the concepts of openness and collaboration, and we will continue to enable open access with the networks of other service providers and work with our partners in other businesses and industries to create new value and services.

Monitor service already underway

In addition to the 29 companies participating since the end of 2006, about 501 monitors including ordinary households also joined the NGN field trials in April 2007. Field trials are designed to enable us not only to test our technology, but also to gain a clear understanding of market needs as we work toward making NGN available to the general public by the end of fiscal 2008.

We will continue to put feedback from our partners, monitors, and customers to use in further developing NGN, and we feel that with NGN, the future holds much for all of our stakeholders to look forward to.

The roles of NGN

NGN is designed to play three major roles.

1. To further drive the evolution of society through ICT and contribute to the creation of value and enhancement of productivity
2. To contribute to the resolution of ICT-related downside issues such as cyber-attacks and network fraud
3. To contribute to the resolution of social issues now faced by Japanese society, including an aging population and declining birthrate, and the need for ever greater levels of nursing and healthcare

In order to fulfill these roles, however, existing telephone systems and best-effort Internet service are not sufficient. We have undertaken the development of NGN precisely because we consider the establishment of a new network that combines the stability and reliability of a telephone network with the convenience and economy of the Internet to be indispensable to future communications.

NTT Group NGN initiatives

ICT-driven evolution of society
- Creation of value
- Enhancement of productivity

Resolution of ICT-related issues
- Protecting against cyber attacks
- Preventing network fraud

Resolution of social issues
- An aging population and declining birthrate
- Provision of high quality nursing and healthcare

Creation of a new network that combines the stability and reliability of a telephone network with the convenience and economy of the Internet

NGN attributes

Four major NGN attributes.

1. Quality of service
NGN has been designed to allow any given application to be assigned the most suitable of four quality of service (QoS) classes: First Priority, High Priority, Priority, and Best Effort. The First Priority class ensures sufficient bandwidth to guarantee clear transmission over the network of audio signals or high-definition video data.

2. Security
NGN helps prevent spoofing and other kinds of identity theft by checking caller IDs such as IP address and telephone number allocated to a specific line. Other security features include the detection and blocking of unusually high levels of traffic at network gateways.

3. Reliability
NTT’s accumulated expertise in ensuring the safety and security of telephone lines has been incorporated into NGN, with redundancy built into lines and equipment, and design that enables appropriate traffic control and the securing of critical communications when network traffic is congested.

4. Open interface
NGN is designed to accommodate a wide variety of applications, and provides functions compatible with interactive communications utilizing high-quality audio and video signals, uni-cast and multicast distribution of content, Internet connectivity, and high-quality, next-generation Ethernet functionality. NGN’s open network interface specification is intended to promote the development of new communications applications together with third parties in other fields and businesses.

NGN has been designed to accommodate these advanced features in order to promote the creation of a flexible and secure communications environment for the development of new services and businesses.
Communications in the NGN Era

NGN combines the stability and reliability of a telephone network with the convenience and economy of the Internet, and enables the safe and secure transmission of large volumes of data at high speeds. Whether for personal, business, or community applications, NGN helps users to enrich their communication experiences.

The NTT Group is promoting NGN as a major step in the realization of a society served by ubiquitous broadband communications that can help resolve ICT-related downside issues and other social issues.
Ubiquitous Protection and Nursing Care

Our NGN initiatives are based on the concepts of openness and collaboration. Here we introduce two examples of new styles of communication proposed by corporate field trial participants as solutions for some of the issues facing a society with an aging and shrinking population.

Keeping track of schoolchildren on their way to and from school, and providing parents/guardians with real-time images

We live in an age in which parents and guardians of schoolchildren are always grateful for help in protecting their children from crime. Matsushita Electric Industrial Co., Ltd. is now conducting field tests on a system that uses RFID tags to help keep track of children on their way to and from school and provide parents and guardians with real-time images of the children’s location via RFID tag readers and network cameras set up in strategic locations.

Earlier such systems used the Internet and accordingly lacked the level of security required to protect the privacy of the children. Matsushita’s latest system, however, is able to use NGN’s call/session functionality to guard against spying and ensure that information and video images of children’s whereabouts are viewable only when detected and only on the specific terminals of registered parents or guardians. NGN’s QoS control functions moreover ensure that sufficient bandwidth is available for the real-time transmission of high-quality video images that provide a clear picture of the child concerned.

Providing remote monitoring of the health of people receiving nursing care

As Japan’s population continues to age and shrink in size, more and more people see the provision of nursing care as an increasingly serious social issue. Hitachi, Ltd. is now field testing a new system that enables remotely located caregivers to monitor weight, blood pressure, and other health parameters while ensuring the privacy of those receiving care. This system, which consists of a blood pressure gauge, weight scales, and a bed mat (known as an Ai Mat) equipped with built-in sensors that monitor the subject’s pulse, breathing, and body movements while sleeping, transmits all of this data automatically via NGN without the patient needing to do anything other than take routine measurements. Moreover, the NGN call/session function can ensure that this information remains secure and unseen by unauthorized third parties. The remote caregiver is able to monitor the subject’s condition via NGN and respond in the patient’s health via videophone, providing safe and secure nursing care.

The views of field trial participants

Confirming the reliability of NGN

The objective of this field trial is to test the reliability of our ubiquitous protection system in actually transmitting location information and video images to parents or other guardians. Thanks to this trial, I’ve been able to see for myself just how well NGN handles the secure transmission of high-quality data, and I’m convinced that this is an ideal network for this kind of monitoring system. I hope to make the most of this experience to make further improvements to the system and develop other applications.

Yusuke Takaishi, Ph.D. Manager IP Access System Group, Network Development Center, Matsushita Electric Industrial Co., Ltd.

Creating New Value

Participation in this field trial came only after extensive discussion as to how we were going to approach the provision of nursing care. We have established a strong working relationship with our counterparts in NTT through discussing various aspects of nursing care provision. We hope that this testing of the connectivity of our service control platform with NGN will lead to the development and offering of new and valuable nursing, healthcare, and other services that take full advantage of the attributes of NGN.

Naoki Kinoshi Department Manager Broadcasting and Convergence Business Administration Department, Network Business Operations, Network Systems Solutions Japan, Hitachi, Ltd.

IP Retransmission of Digital Terrestrial Broadcasts

In line with the policy of the Ministry of Internal Affairs and Communications (MIC) program for nationwide deployment of digital terrestrial broadcast, all terrestrial broadcast stations will complete their transition to digital format in July 2011. NGN too will contribute to this transition as an essential part of the communications infrastructure of the future.

Providing stable digital broadcasts in areas with poor signal reception

The current system of analog terrestrial broadcasts is scheduled for retirement on July 24, 2011, by which time all terrestrial stations will have completed the transition to the new digital broadcast format. MIC has proposed a policy promoting high-definition digital terrestrial broadcast rettransmission for IP TV starting in 2008, with the intent of helping ensure stable digital broadcasts in areas with poor signal reception as well as providing consumers with an additional viewing option. Digital terrestrial broadcast IP rettransmission is being field tested via NGN as part of a study of the public sector use of digital terrestrial broadcasts carried out by NTT Communications under the auspices of MIC’s official research programs for digital terrestrial broadcast rettransmission involves reception at IP transmis- sion centers of digital terrestrial broadcast signals encoded in MPEG-2, the standard video codec for such broadcasts, followed by conversion in real time to H.264, an advanced video codec featuring superior data compression. These video and data broadcasting signals are then transmitted via NGN using IP multicast technology for viewing on IP TVs equipped with suitable receivers.

TV programs retransmitted for IP TV will need to be identical to the original terrestrial broadcast in all aspects, including video content, audio signals, and data content, and this uniformity is currently being verified by the Digital Terrestrial Broadcast Supplemental Rettransmission Council. Digital terrestrial broadcast IP rettransmission can be performed over the Internet, but difficulties related to ensuring bandwidth sufficient for high-definition quality broadcasts as well as potential access from outside the broadcast area make such usage problematic. NGN’s ability to provide solutions to these issues through functionality such as QoS class priority control and IP multi-casting targeting specific areas makes it an ideal medium for IP rettransmission. Enabling the rettransmission of digital ter- restrial broadcasts in areas with poor reception should also help to bridge digital divides in Japan.

Employee views

A major challenge

Tatsuho Matusoka We worked with broadcasters and TV manufacturers to establish a standard technical format for digital terrestrial broadcast IP rettransmission. We had to proceed with caution, and it was only thanks to NTT’s R&D strengths and the cooperation of the NTT business divisions and Group companies involved in implementing NGN that we were able to overcome various issues and make IP rettransmission a reality.

Sachiyo Adachi Since rights holder organizations, broadcasters, TV manufacturers and many others were involved and there was only a limited timeframe, deciding the technical format was a colossal task. We still need to do a lot in terms of aligning policy aspects and coming up with new ideas before we can launch actual service.

Tetsuya Yamaguchi I was in charge of technical issues. We were forced to accommodate various requirements from broadcasters regarding provision of the same picture quality as digital terrestrial broadcast and synchronization of display and so forth. Thanks to our technical expertise in video codec and signal transmission technologies, we were able to pull through. Future issues include improving picture quality and reducing costs.

Tetsuya Matusoka Senior Manager Service Strategy Division, Strategy & Planning Group, NTT Network Service Operations Research and Development Planning Department, NTT

Sachiyo Adachi Associate Manager R&D & Patton Group, Research and Development Planning Department, NTT

Tetsuya Yamaguchi Research Engineer Prominent Project I, NTT Global Laboratories

Terminology

Retransmission: A service or a process that compresses and decompresses a digital data stream to signal. Digital data is re-encoded for simpler processing and transmission via optical fiber networks.


Digital divide: A term referring to a digital divide in particular to the importance of access to digital content such as digital terrestrial broadcasting services.
Telepathology Systems

Enabling diagnosis during surgery by providing stable transmission of high-definition video images

The term "pathological diagnosis" refers to both gross and microscopic examination of tissues taken from patients for diagnostic purposes. Physicians who specialize in pathological diagnosis are known as pathologists, and are responsible for the final identification of a patient's illness. If pathological diagnosis can be carried out promptly during surgery, it can significantly reduce physical burdens on patients. There is, however, a chronic shortage of pathologists in Japan, where there are fewer than 2,000 of these specialists in practice nationwide. Because of this, patients at many facilities without a resident pathologist are currently forced either to accommodate the schedule of a visiting pathologist or to wait for their specimen to be examined at another facility.

One approach to alleviating this situation is the use of telepathology, which enables pathologists at remote facilities to perform diagnoses via a network. Telepathological diagnosis not only involves the handling of confidential patient information but also depends on the ability to transmit high-quality images with no data loss, which is why NGN's safe, secure, and high-quality communications make it the most suitable network available for the field testing of telepathology systems. The availability of QoS class priority control on NGN ensures the bandwidth necessary for lossless transmission of data as well as remote operation of microscopic equipment with a minimum of lag time, enabling pathologists to perform their duties from a remote facility just as if they were on site.

At the same time, NGN's Caller ID functionality provides rock-solid security for the patient's confidential information.

One of the key envisaged applications of telepathology systems is real time diagnosis during surgery. At hospitals with no resident pathologist, patients are often faced with the unpleasant necessity of undergoing two surgical procedures — first, a biopsy to obtain tissue specimens, followed at a later date by actual surgical treatment after confirmation of the diagnosis. The presence of a pathologist can obviate the need for a prior biopsy and reduce the physical burden placed on the patient, which is why the use of telepathology for real time diagnosis during surgery is eagerly anticipated at hospitals with no resident pathologist.

Safety and security are essential elements of any medical application, and NGN's capacity to ensure these attributes means that we can expect to see many more remote medical applications such as local community healthcare integration and at-home medical examinations, as well as non-remote medical applications.

Employee views

NGN to play a major role in future medical treatment

Face-to-face communication between patient and physician is an essential element of any medical treatment. Physicians learn about a patient's condition by observing a patient's complexion and demeanor as well as by examining the affected area. This axiom holds true for the provision of remote medical treatment as well, which is why visual communication is so important. That's why I feel that the safe, secure, and high-quality communications available via NGN are so well suited to the development of remote medical applications. The telepathology system we are currently testing has been given high marks for effectiveness and practicality by the staff at Kanto Medical Center NTT EC. The aging of Japan's population is giving rise to a range of pressing problems such as a shortage of doctors and soaring medical costs, and telepathology is an essential part of providing solutions to these issues. What's more, NGN is compatible with many other kinds of medical applications, including at-home medical examinations and integration of electronic medical records. I'm very proud to be able to contribute to the development of remote medical applications through field trials such as this.

Yusuki Fujino
Senior Research Engineer, Supervisor, Preclinical Research and Development Planning Department, NTT
Moving Toward Ubiquitous Broadband Communications

- Expanding B FLET’s optical fiber access service as well as FOMA third generation (3G) mobile communications services
- Driving NGN development through conducting field trials
- Research and development of infrastructure and services for ubiquitous broadband communications

Initiatives for the creation of an infrastructure for ubiquitous broadband communications

Growth of B FLET’S optical fiber access services

Following up on the e-Japan Strategy that it launched in 2001, Japan’s Ministry of Internal Affairs and Communications in 2004 implemented a u-Japan Policy with the goal of promoting ubiquitous broadband communications. Having established a Medium-Term Management Strategy based on these policies, the NTT Group has put maximum priority on the development and deployment of the ubiquitous broadband communications services necessary for fixed-mobile convergence and other goals. As of the end of March 2007, NTT EAST provides B FLET’S optical fiber access service to approximately 3.4 million subscribers and NTT WEST to approximately 2.68 million subscribers, and optical coverage for NTT EAST and NTT WEST communications networks had reached 89% and 87% respectively.

Growth of FOMA 3G mobile communications services

The NTT Group is driving migration to FOMA third generation (3G) mobile communications services in accordance with government initiatives such as the u-Japan Policy. As of the end of March 2007, NTT DoCoMo provides these services to approximately 35.53 million subscribers nationwide. With NTT DoCoMo Kyoto’s expansion of service area on March 29, 2007 to the remote islands of Minami Daitosan and Kita Daitosan in Okinawa Prefecture, population coverage for FOMA 3G mobile communications services reached 100%. Future plans aimed at providing added convenience to all aspects of everyday life include the continued enhancement of speed, capacity, and quality of the FOMA network, development of advanced handsets capable of utilizing international services, and expansion of the area covered by FOMA HIGH-SPEED, a high-speed data communications service that uses the High-Speed Downlink Packet Access (HSDPa) protocol.

The technology behind ubiquitous broadband communications

Developing technology for the next-generation infrastructure

The NTT Group is promoting group-wide basic research and development of NGN infrastructure using safe and secure full IP-based technology. This new infrastructure is also expected to serve as the mainstay of our efforts to achieve the goals outlined in our Medium-Term Management Strategy. We have successfully developed a number of new communications network technologies for creating future network platforms, including IP network technology that supports backbone networks and optical media technology for developing next-generation optical transmission media.

High-capacity optical transmission technology delivering 14 Tbps of data over a single optical fiber cable

NTT’s latest transmission technology was developed to handle future communications traffic growth. 14 Terabits is equivalent to transmitting 140 digital high-definition movies in just one second.

Developing a wide range of applications

The NTT Group continues to research and develop basic technology for a wide range of high quality and high security applications for ubiquitous broadband services. We are focusing in particular on developing content application technology that will serve as a foundation for high-definition content distribution and the distribution of content such as broadcasting, advertisements, music, and games. We are also developing data distribution platform technology necessary for digital rights management, payments, content distribution, and other common functionality required by content distribution businesses and e-commerce.


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Initiatives for a Shrinking and Aging Society

- Developing solutions for monitoring and providing healthcare to the elderly
- Developing solutions for providing remote medical examinations and healthcare services
- Providing support for education utilizing ICT

Developing support structures for enabling the elderly to live free of anxiety

As its population continues to shrink and age, Japan needs to address a range of pressing social issues, including safety and security in daily life, environmental and energy issues, and revitalization of the economy. However, perhaps the most crucial issue is coping with the increasingly aged population. With the shift toward nuclear families, more and more elderly live either on their own or together with other elderly people. The NTT Group is endeavoring to develop ICT-based support structures that will help to relieve anxiety and loneliness among these elderly people.

One solution is monitoring services that alert family or local authorities and such like to changes in the well-being of elderly who live on their own or with other elderly people. Such monitoring services use ICT to transmit data from a sensing system without putting any burden or stress on the individual being monitored.

Another area is the provision of emotional support by helping to relieve the loneliness of those who live on their own or link them with other family members. One such solution is a communication service in which volunteers and professional caregivers use ICT to connect with and listen to the cares and concerns of elderly people living on their own.

Yet another solution provides preventive health care support to help maintain the health of elderly people who do not require care directly. ICT is used to connect elderly in their homes with a professional caregiver or rehabilitation center. This system enables participating members to communicate among themselves and to receive instruction on exercises that help to maintain sense of balance and avoid injuries or slips and falls.

During fiscal 2007, NTT laboratory groups pressed ahead with R&D in these areas, and NTT Group companies carried out field tests of various solutions. One of our achievements in this field is the adoption in fiscal 2006 of our elderly monitoring system by the city of Kobe, where many elderly people left homeless by the Hanshin Awaji Earthquake are still living alone in temporary housing. In fiscal 2007 this system was used to augment existing manpower-based and other services for monitoring elderly people.

Providing remote medical services

The NTT Group is constantly seeking to utilize ICT to support the provision of reliable healthcare services irrespective of location. To such ends, we are developing information and communications systems to provide remote healthcare services via NSN that connect patients in their homes with doctors in medical facilities to conduct health checkups or video-based medical examinations. We are also working to develop an information and communications platform for supporting remote diagnosis and efficient collaboration between medical facilities via network connections linking general hospitals with local clinics, thereby making advanced medical expertise available to patients in areas with a shortage of medical facilities.

NTT Service Integration Laboratories conducted field tests on these systems during fiscal 2007 as part of NTT initiatives to promote their deployment and use by local authorities, university hospitals and other medical facilities throughout Japan.

Support for education in underpopulated areas

Japan’s Ministry of Education, Culture, Sports, Science and Technology (MEXT) is promoting the development of a wide variety of support programs intended to meet the needs of contemporary education in areas suffering from depopulation and declining birthrates. The NTT Group has responded by creating a platform design to overcome disadvantages faced by students and teachers in such areas by using teleconferencing, video-equipped mobile terminals, and other ICT to enable distance learning and social interaction with other schools. During field testing in fiscal 2007, NTT Group companies cooperated with local authorities in introducing these programs as well as providing Internet access for elementary school classes in a number of municipalities.

Support for remote medical services using mobile videophone capability

In an example of successful partnership between private industry and academia in the healthcare field, NTT DoCoMo Hokuriku conducted joint research with Elze Nanoa Corporation and the Kanazawa University Graduate School of Medical Science to develop a new, easy-to-operate system for transmitting graphic and video images taken with X-ray, CT, and MRI devices to the mobile videophones of specialists at other medical facilities. Neurosurgeons at Kanazawa University participating in this research reported that they were able to arrive at initial diagnoses for about half of all cases by following instructions provided by specialists who examined images sent to their mobile phones. They described the system as being extremely effective and more than sufficient for making initial diagnoses and deciding initial treatment in the field of neurosurgery, and as a result, it went into full operation in November 2006.

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Providing Increased Opportunities to Participate in the Community

- Supporting differently abled people with ICT
- Promoting teleworking through ICT

Helping people with different abilities to lead anxiety-free lives

NTT laboratory groups and Group companies are putting ICT to work in creating barrier-free environments through conducting R&D on support systems for both personal communication and information sharing, and operating a portal site containing valuable information for elderly and differently abled people. NTT DoCoMo continued in fiscal 2007 to participate in the IT Barrier-Free Project for Disabled Persons and Other Users consortium organized by the New Energy and Industrial

Topics

Providing content for differently abled people
In April 2005, NTT CLARITY opened the Yu Yu Yu portal site to provide useful information for elderly and differently abled people. The site attracted more than 280,000 page views in fiscal 2007. NTT DoCoMo Hokkaido, NTT DoCoMo Kansai, and NTT DoCoMo Kyushu also operate Internet and mobile sites on local barrier-free facilities and services that were accessed 126,678 times last year.

Increasing employment opportunities and reducing disparities in the employment market

The NTT Group is actively promoting distribution of employment information as well as contributing to the creation of teleworking and other new forms of employment that utilize ICT as solutions to an increasingly volatile employment market and the need to develop employment opportunities for elderly and differently abled people. For example NTT Communications and NTT Com CHEO decided in March 2007 to hire more CAVA (.com Advisor and Valuable Agent) staff for providing customer support for Internet access and so forth from their homes. The companies are focusing in particular on offering training to members of the postwar baby boom generation and hiring those who pass the qualifying exam.

Topics

Digital Map Virtual Factory
NTT NPGEMIT’s Digital Map Virtual Factory is an organization that provides employment opportunities to differently abled people, single mothers raising small children and others who find commuting difficult by hiring them to work from home at online creation and editing of digital map data. In March 2007, the Digital Map Virtual Factory added Ishikawa Prefecture to its existing areas of activity covering Kumamoto, Miyazaki, Ma, Shizuoka, Hiroshima, Ehime, and Fukuoka Prefectures.
Basic Policies and Implementation Structure

- Group-wide implementation of environmental protection activities based on the NTT Group Global Environmental Charter
- Reducing the environmental impacts of society as a whole by providing ICT services based on the NTT Group’s Vision for Environmental Contribution

NTT Group Global Environmental Charter

The NTT Group in 1999 enacted the NTT Group Ecology Program 21, a framework for contributing to the creation of a sustainable society.

Based on this program, we established the NTT Group Global Environmental Charter that set forth our company’s basic principles and policies related to environmental protection.

Based on the fundamental principle that group business operations need to be reconciled with environmental protection, the NTT Group Global Environmental Charter emphasizes the importance of preventing global warming and reducing waste products and paper consumption, and establishes a set of NTT Group Principal Activity Plan Targets to be achieved by fiscal 2011. These targets are currently guiding group activities.

[Basic principle]
To ensure the harmonious co-existence of people with nature and to achieve sustainable growth, we will do our utmost to protect the global environment in all our corporate activities.

[Basic policies]
- Compliance with laws and regulations and fulfillment of social responsibilities
- To observe all laws and regulations regarding environmental protection issues and to carry out our responsibilities as global-corporate citizens
- Reducing environmental loads
- To establish action plans for energy conservation (reduction of greenhouse gas emissions), resource conservation (conservation of materials such as paper), and waste reduction, and to strive to make continuous improvements
- Establishing and maintaining environmental management systems
- To establish an environmental management system enabling each business unit to pursue voluntary environmental protection activities
- Developing environmental technologies
- To contribute to the reduction of environmental load through various areas of R&D, including multimedia services
- Social contribution efforts
- To promote daily environmental protection efforts in coordination with citizens and government agencies
- Disclosure of environmental information
- To enhance both internal and external communications through the disclosure of environmental information

The NTT Group’s Vision for Environmental Contribution

In May 2006, the NTT Group announced its Vision for Environmental Contribution. This vision clarifies our basic concept for providing ICT services that will enable our customers as well as society as a whole to reduce environmental impacts. The vision also defines our CO₂ reduction target for fiscal 2011 and the activities we intend to undertake to achieve this target.

NTT Group Vision for Environmental Contribution

The NTT Group is helping to reduce the environmental impacts of its customers and society as a whole by developing and disseminating ubiquitous broadband-based ICT services that promote positive changes in lifestyles and business models.

Reduction target for fiscal 2011

- Reductions in CO₂ emissions as a result of ICT services
- CO₂ emissions from providing ICT services
- 10 million ton reduction in CO₂ emissions

Activities for achieving our targets for fiscal 2011

- Increase subscriber base for optical fiber services that enable lower impact lifestyles and business models.
- Expand ubiquitous broadband services.
- Reduce the environmental impacts of our business activities.
- Reduce the electrical power required by customers’ communications equipment.

Green guidelines

NTT Group operations have the following three key attributes: (1) procurement of a great many products; (2) in-house R&D facilities; (3) possession of many buildings. To promote the effective reduction of our environmental impacts, we have drafted green guidelines that address each of these three key attributes.

1. Guidelines for Green Procurement
To ensure that both we and our suppliers contribute to environmental conservation on a continuing basis, Guidelines for Green Procurement call for such measures as minimizing the use of hazardous substances and using materials suitable for recycling, and also stipulate criteria for evaluating the environmental practices of suppliers.

2. Green R&D Guidelines
Green R&D Guidelines stipulate criteria for evaluating the effectiveness of methods, processes, and results of our R&D activities in reducing environmental impacts.

3. Green Design Guidelines for Buildings
Green Design Guidelines for Buildings stipulate criteria for evaluating seven categories in the area of construction and maintenance of buildings, including extension of operating life, with the aim of reducing building-related environmental impacts.

Organization for promoting environmental protection

In 2005, the NTT Group established a CSR Committee charged with overseeing Group CSR activities. Under this committee, the NTT Group Global Environmental Protection Promotion Committee was established as a decision-making body for group environmental protection activities that work in close cooperation with the NTT Environmental Protection Office and departments in charge of environmental issues in individual group companies.

The NTT Group organization for promoting environmental protection (as of July 2007)

The Global Environmental Protection Promotion Committee oversees several other committees, including the Greenhouse Gases Reduction Committee, Waste Disposal and Recycling Committee, and the Environment and ICT Committee together with their subordinate working groups and group-wide environmental projects. The committee is also responsible for establishing basic policies, managing objectives, and resolving issues.
Environmental Goals and Activities: Results and Assessment

Progress made on the NTT Group Principal Activity Plan Targets (by fiscal 2011)

<table>
<thead>
<tr>
<th>Goals</th>
<th>Prevention of global warming</th>
<th>Waste reduction</th>
<th>Reduction in paper use</th>
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<tbody>
<tr>
<td>● Reduce CO₂ emissions per subscriber by at least 35% based on fiscal 1991 levels for all telecommunications carriers. (Telecommunications carriers: NTT EAST, NTT WEST, NTT Communications, NTT DoCoMo)</td>
<td>● Reduce CO₂ emissions per unit of sales by at least 25% based on fiscal 1991 levels for all other group companies. (Other group companies: NTT DATA, NTT COMWARE, NTT FACILITIES, etc.)</td>
<td>● Reduce CO₂ emissions in logistical and sales operations (see p. 34).</td>
<td></td>
</tr>
</tbody>
</table>

- CO₂ emissions reduction rates of NTT telecommunications carriers declined. Power consumption rose due to increased deployment of IP related equipment and base stations for third generation mobile technology, resulting in a decline in CO₂ emissions reduction rates compared with the previous year.

- CO₂ emissions reduction rates of other group companies declined. Power consumption rose due to increased deployment of data centers and other equipment, resulting in a decline in CO₂ emissions reduction rates compared with the previous year.

- CO₂ emissions rates of other group companies (base year: fiscal 1991)

- CO₂ emissions from business operations

- Waste output and final disposal waste

- Virgin pulp consumption

Environmental accounting

The NTT Group introduced environmental accounting in fiscal 2001 to boost the efficiency and effectiveness of its environmental conservation efforts by quantitatively determining both the cost of environmental conservation programs undertaken as part of its business activities and the returns gained in fiscal 2007, as a result of making further recycling efforts and switching to intermediate processors offering superior cost performance, we were able to boost the amount of recycled waste materials by nearly 20,000 tons in addition to saving nearly 790 million yen in resource recycling costs compared with fiscal 2006. We are determined to further improve our environmental management through quantitative measurement and analysis of our environmental activities.

1. Scope of data
The companies subject to consolidated environment accounting are NTT, NTT EAST, NTT WEST, NTT Communications, NTT DATA, NTT DoCoMo, and their group companies (159 companies in total).

2. Applicable period
Data for fiscal 2007 report is from April 1, 2006 to March 31, 2007. Data for fiscal 2006 report is from April 1, 2005 to March 31, 2006

3. Accounting method
Accounting is based on the NTT Group Environmental Accounting Guidelines. These guidelines comply fully with the Environmental Accounting Guidelines 2006 issued by the Ministry of the Environment.

- Environmental conservation costs are expressed in monetary units and conservation benefits in monetary units or physical quantities.
- Environmental conservation costs are tabulated separately as environmental investments and environmental costs. From fiscal 2004, deprecimation costs are included in environmental costs. Personal costs are also included in environmental costs.
- Figures for environmental investments and costs for fiscal 2006 were provided as a result of measurement of available data.
- Reductions in CO₂ emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.
Overview of the NTT Group’s Environmental Impacts

The NTT Group quantitatively tracks the environmental impacts of its various business activities at regular intervals, and is striving to reduce its impact on the environment by establishing concrete numerical targets for preventing global warming, and reducing waste and consumption of paper based on the NTT Group Principal Activity Plan Targets.

Of the 3.776 million tons of CO₂ emissions generated by the NTT Group in fiscal 2007, 3.7 million tons (approximately 98%) was derived from business operation-related electricity consumption. Of the 679,000 tons of waste generated, 635,000 tons (approximately 94%) was recycled, and the remainder was incinerated, resulting in a reduction of 11,000 tons to leave 32,000 tons of final disposal waste.

Each year, the NTT Group issues approximately 119.51 million telephone directories throughout Japan, which translates into 73,000 tons of paper, or approximately 0.2% of the total amount of paper used in Japan. Of those 73,000 tons, 23,000 tons are from virgin pulp.

1. Research and development by NTT Laboratories
2. Products satisfying the rigorous environmental criteria stipulated by NTT EAST and NTT WEST
Initiatives to Prevent Global Warming

- Reducing CO2 emissions through TPR campaign that cut electricity consumption by 124 million kWh
- Reducing the environmental impact of society as a whole by developing and deploying ICT services

Initiatives to reduce power consumption

Over 90% of the NTT Group’s CO2 emissions are attributable to electrical power consumption, a situation that prompted the NTT Group to launch its Total Power Revolution (TPR) campaign and work as one to reduce power usage. Through its TPR campaign, the NTT Group had been promoting energy management schemes for the 4,000 buildings that it occupies throughout Japan. In addition to deploying energy efficient electrical devices and air conditioning equipment and switching to the use of energy-saving DC power supply for broadband equipment such as servers and routers, the TPR campaign also calls for the use of clean energy systems such as solar and wind power. Furthermore, many NTT Group companies have registered with the Ministry of Environment’s Team Minus 6% project, and have initiated “CoolBiz” and “WarmBiz” dress codes. These various initiatives succeeded in saving 124 million kWh of electricity throughout the entire NTT Group in fiscal 2007.

Initiatives to reduce environmental impacts in logistical and sales operations

Compliance with the Revised Energy Conservation Law

The Revised Energy Conservation Law that came into effect on April 1, 2006 requires the implementation of energy con-

servation initiatives also by third party contractors hired to handle shipping and logistical operations. Each NTT Group company also calculates and evaluates approximate shipping volumes based on our newly established NTT Group Shipping Volume Calculation Manual. NTT LOGISCO is in charge of comprehensively managing and controlling logistics throughout the entire NTT Group, and has been devising further efficiencies through arranging joint transport and deliveries, and promoting modal shifts in its logistical operations. In fiscal 2007, NTT Group shipped 5,800 tons of goods using transportation modes with low CO2 emissions like rail and ferry services.

Environmental solutions and efforts to reduce the environmental impact of NTT Group products and services

The NTT Group is engaged in efforts to reduce the environ-

mental impact of its products and services in order to prevent global warming. NTT DoCoMo has been working to develop more energy-efficient mobile phones, while NTT FACILITIES has also endeav-
ored to reduce environmental impacts across a range of fields. For example, it provides stand-alone solar LED lighting sys-

tems with zero CO2 emissions, and low-energy air conditioning solutions. It also participated in a “mega-solar” project launched in Sakuragi City, Nagano Prefecture, in September 2006 that provided an opportunity to use its experience in developing environmental technologies in a clean energy project.

Using low-emission vehicles

When renewing the lease on a company vehicle, each NTT Group company has been switching to low-emission cars to cut down on CO2 emissions. At the end of fiscal 2007, the entire NTT Group had a total of 603 low-emission vehicles, which included 387 hybrid cars and 216 cars that run on natural gas. We also made efforts to reduce fuel consumption and cut down on CO2 emissions by avoiding unnecessary idling and checking tire pressure.

Efforts to reduce environmental impact by offering ICT services

The spread of the ICT devices does of course increase electricity consumption, but providing ICT services can drive the more efficient usage of energy and resources and reduce the CO2 emissions of society as a whole by boosting the efficiency of production processes, replacing the use of transportation and delivery of goods, and reducing the production of physical media such as books, CDs, and DVDs by enabling the download or streaming of content. Calculations performed by NTT indicate that the use of ICT services in Japan during fiscal 2007 saved energy equivalent to 1.9% of the country’s energy consumption.

With the enactment of the NTT Group’s Vision for Environmental Contribution in fiscal 2007, we declared our commitment to protecting the global environment by further expanding our business operations to provide ICT services. As an environmental management system initiative, NTT Laboratories evaluates the environmental impact reduction effects of leading R&D achievements that have been adopted by Group companies, and this information can be used as a tool to support sales activities. For example, an e-government system developed by NTT Service Integration Laboratories that enables the online execution of various local authority-related procedures by members of the public was found to have clear environmental merits, cutting related CO2 emissions by 68% through reducing travel to local authority offices and consumption of paper application forms.

Urban heat island mitigation

With the aim of protecting the natural environment, the NTT Group is actively pursuing efforts to install rooftop gardens and wallside greenery systems on company buildings in an effort to reduce urban heat island (UHI) effects that are gen-

erated in cities. NTT Advanced Technology is also promoting heat-blocking paint applications to mitigate UHI effects.

Topics

Countering UHIs with sweet potatoes

In a joint UHI research initiative, in May 2006 NTT FACILITIES and NTT Urban Development installed an aerohydroponic cultiva-

tion system to grow sweet potatoes on the rooftop of the Urban Net Mita Building, located in an area of Tokyo designated for heat island mitigation measures. The experiment showed that the exceptional heat-blocking performance of the sweet potato plants reduced the surface temperature of the roof by up to 2°C and that nearly 80% of the net solar energy reaching the sweet potato plants was being dissipated through transpiration from the surface of the leaves.

Daily change of surface temperatures on the rooftop

<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature difference in surface temperature between sweet potato and adjacent areas (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 a.m.</td>
<td>50</td>
</tr>
<tr>
<td>6 a.m.</td>
<td>40</td>
</tr>
<tr>
<td>10 a.m.</td>
<td>30</td>
</tr>
<tr>
<td>2 p.m.</td>
<td>20</td>
</tr>
<tr>
<td>6 p.m.</td>
<td>10</td>
</tr>
<tr>
<td>10 p.m.</td>
<td>0</td>
</tr>
</tbody>
</table>

Comparative study of UHI mitigation by rooftop-greenery

<table>
<thead>
<tr>
<th>Sweet potato cultivation area</th>
<th>Comparative area without sweet potato</th>
<th>Comparative area with sweet potato cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet potato cultivation area</td>
<td>30°C</td>
<td>22°C</td>
</tr>
<tr>
<td>Comparative area without sweet potato</td>
<td>30°C</td>
<td>22°C</td>
</tr>
<tr>
<td>Comparative area with sweet potato cover</td>
<td>30°C</td>
<td>22°C</td>
</tr>
</tbody>
</table>

Efforts in reducing energy consumption through use of ICT

<table>
<thead>
<tr>
<th>Year</th>
<th>Reduction in energy consumption through use of ICT (%)</th>
<th>Total energy consumption of ICT devices and network equipment (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2006</td>
<td>1.6%</td>
<td>1.0%</td>
</tr>
<tr>
<td>FY 2007</td>
<td>1.9%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

A portion of FY 2006 data was revised due to changes in government supplied data regarding e-commerce.

Terminology

Team Minus 6%: A Japanese government initiative to drive the achievement of its commitment to reduce Japan’s greenhouse gas emissions to a level of 6% below the level of 1990. “CoolBiz” and “WarmBiz”: Japanese government initiatives to save energy and reduce GHG emissions through promoting dress codes that help limit the use of air conditioning. Modal shift: Switching from one mode of shipping to another.

Terminology

Net solar energy: The amount of net solar radiation received, calculated by subtracting the amount of solar radiation reflected by the Earth’s surface from the total amount of solar radiation received.
Efforts to Reduce Waste

• Final disposal waste reduced to 32,000 tons through strenuous efforts to curb waste output, surpassing our fiscal 2011 target of 72,000 tons for the second consecutive year.
• Zero emissions achieved for the third consecutive year with communications equipment recycle rate of 99.7%.

Reduction of final disposal waste

Having committed itself to reducing the amount of its final disposal waste to 15% or less of fiscal 1991 levels by fiscal 2011, the NTT Group is now implementing 3R (reduce, reuse, and recycle) programs in the areas of used communications equipment, construction waste, civil engineering waste, and office waste.

Efforts to reuse and recycle communications equipment

The NTT Group owns a variety of communications equipment used to provide communications services, such as telephone poles, switching equipment, and communications cables. Naturally, such equipment needs to be removed and disposed of when it reaches the end of its service life or is replaced during system upgrades. Of the 200,000 tons or more of communications equipment that is taken out of service each year, the NTT Group attempts to reuse as much as possible for various internal needs, and makes every effort to recycle any equipment that is left over.

For fiscal 2007, across the entire NTT Group, we recycled 166,000 tons of concrete telephone poles, 14,000 tons of switching equipment, and 28,000 tons of communications cables. These activities resulted in a recycle rate of 99.7% for all of our communications equipment, achieving zero emissions for the third consecutive year.

Environmental Risk Management Initiatives

As a responsible corporate citizen, the NTT Group undertakes various measures to minimize any potential threat to society posed by risks such as environmental accidents and pollution. Activities performed periodically and systematically according to established guidelines and checklists as part of this commitment include soil and water surveys, chemical management, and removal and storage of items using PCBs (polychlorinated biphenyls) according to established guidelines and checklists.

The NTT Group has been promoting the removal of asbestos—especially sprayed asbestos—at NTT facilities since 1985 in response to growing social concern about asbestos-related health issues. Following the enactment in 2005 of the Ordinance on Prevention of Hazards Due to Asbestos, we carried out a new survey in fiscal 2007 that revealed the existence of materials containing asbestos in some NTT facilities, and took appropriate measures as stipulated by law.

The NTT Group will continue in its efforts to prevent environmental accidents and pollution through practicing effective environmental risk management.
Environmental Technology Development

- Conducting basic research and development in energy conservation, clean energy, hazardous substance detection and detoxification, and other fields.

Based on the NTT Group Global Environmental Charter, we have been contributing to the creation of a sustainable society through environmental technology R&D, with NTT Laboratories conducting basic research and development in various fields including energy conservation, clean energy, and detection and detoxification of hazardous substances.

Promoting Environmental Education and Communication

- Publishing the latest environmental information in printed reports and on our website
- Participating actively in broader environmental protection initiatives to contribute to the creation of a sustainable society
- Educating employees and putting priority on communication with our stakeholders

Providing information on environmental activities

The NTT Group has reported on its implementation of various corporate environmental activities based on the NTT Group Global Environmental Charter, starting with its Environmental Protection Activity Reports from 1999 and CSR Reports from 2003.

The NTT Group environmental activity website introduces Group environmental activities in an easy-to-understand format using various visual content and content geared towards children. We also run advertisements on our environmental initiatives in business and general magazines as part of our efforts to communicate with as many stakeholders as possible.

“Kankyō go”, a comprehensive portal site for environmental information operated by NTT Resonant, provides a variety of useful content including recent news, CSR-related topics, and information about environmental management and business. NTT DATA too helps to operate a MIYAKE-ECO.NET site to support the recovery of Tokyo’s Miyake-Jima, an island devastated by a volcanic eruption in 2000. This site is used to attract tourists through a blog and pod-casting to provide information about Miyake-Jima’s natural environment.

Participating in broader initiatives

The NTT Group actively engages in a range of broader initiatives with the aim of sharing the results of its environmental technology R&D to reduce the environmental impact of society as a whole. We are also an active partner in several global environmental organizations such as the WBCSD (World Business Council for Sustainable Development) and GEA (Global Environmental Action).

In fiscal 2007, we continued to participate in the Ministry of Environment’s Japan Low Carbon Society Scenarios toward 2050 Project to study and plan long-term scenarios for combating global warming. This year, we reported on the potential for ICT applications to reduce greenhouse gas emissions by delivering efficiencies in manufacturing industries. The NTT Group is also a participant in a Ministry of Internal Affairs and Communications research project on the utilization of ICT systems and networks for reducing environmental impacts, contributing to the publication of a guidebook titled “Environment-Friendly ICT Use”.

External evaluation

NTT Communications was ranked first in the Communications and Service Industries category of the 10th Nikkei Environmental Management Survey announced in December 2006. With NTT WEST, NTT EAST, NTT FACILITIES and NTT DoCoMo ranked 2nd to 5th in the same category, NTT Group companies took all of the top five slots.

Environment-Friendly ICT Use: A guidebook outlining strategies for reducing the negative environmental impacts of ICT caused by higher electricity consumption and increasing the positive impacts of ICT in reducing the need for movement of people and goods.
Employee education

The NTT Group holds regular study sessions for employees in environmental leadership roles to further drive corporate environmental activities and boost awareness of environmental issues among employees. The introduction in fiscal 2007 of a distance learning system provided by NTT LEARNING SYSTEMS prompted a rapid rise in the number of participants compared with the traditional on-site group format. This also helped cut related CO2 emissions by approximately 34% owing to travel reductions. All NTT Group companies conduct a range of activities to raise the environmental awareness of their employees, including the display of CoolBiz and WarmBiz energy conservation dress code posters, education through CSR newsletters and company intranets, distribution of desk pad calendars and memo pads inscribed with environmental messages, and environmental poetry contests.

<table>
<thead>
<tr>
<th>Company</th>
<th>Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTT</td>
<td>- Display of environmental policy posters, etc.</td>
</tr>
<tr>
<td>NTT EAST</td>
<td>- Display of posters</td>
</tr>
<tr>
<td></td>
<td>- Intercom announcements about energy conservation, etc.</td>
</tr>
<tr>
<td>NTT WEST</td>
<td>- Display of CoolBiz and WarmBiz posters in every section</td>
</tr>
<tr>
<td></td>
<td>- Promotion of WarmBiz dress code in NTT WEST-HOKURIKU CSR newsletters</td>
</tr>
<tr>
<td>NTT Communications</td>
<td>- Environmental information shared on intranet bulletin board</td>
</tr>
<tr>
<td></td>
<td>- Distribution of desk pad calendars and memo pads</td>
</tr>
<tr>
<td></td>
<td>- Display of posters and environmental slogans</td>
</tr>
<tr>
<td>NTT DATA</td>
<td>- Display of environmental policy posters</td>
</tr>
<tr>
<td></td>
<td>- Distribution of environmental e-zine - Organization of environmental photo contest</td>
</tr>
<tr>
<td></td>
<td>- Organization of environmental poetry contest with winning entries used in calendars</td>
</tr>
<tr>
<td>NTT DoCoMo</td>
<td>- Display of environmental policy posters</td>
</tr>
<tr>
<td></td>
<td>- Determination of environmental information through in-house publications and intranet</td>
</tr>
<tr>
<td></td>
<td>- Collection of used mobile phones from employees and their families</td>
</tr>
<tr>
<td>NTT COMMUNIQUE</td>
<td>- Announcement and implementation of personal “Environmental Challenge” targets by employees</td>
</tr>
<tr>
<td>NTT FACILITIES</td>
<td>- Organization of environmental slogan contest</td>
</tr>
<tr>
<td></td>
<td>- Poster contest</td>
</tr>
</tbody>
</table>

Examples of employee education initiatives

Initiatives to Preserve Biological Diversity

- Participating in activities to protect the natural environment through ecosystem protection and forest improvement projects designed to preserve biological diversity

NTT Group companies engage in environmental protection activities such as ecosystem protection and forest improvement projects designed to preserve biological diversity. NTT WEST has been working with a local NGO to protect the dollarbird (Eurystomus orientalis), a roller species that breeds over summer in Japan and has been designated as an endangered species in the Ministry of the Environment’s Red Data Book. Activities have included placing nest boxes on NTT telephone poles and antennas and providing works vehicles for this project. NTT DoCoMo has also been installing nest boxes on base stations, and working to protect biological diversity by integrating systems for environmental protection into its communication equipment and infrastructure.

As a part of its environmental protection activities, NTT DoCoMo has since 1999 been implementing a DoCoMo Woods project to protect local woods as locations to hold nature classes and learn about biodiversity with members of local communities. The DoCoMo Woods project utilizes the Forestry Agency’s “Corporate Forest” program and “Green Fund” of the National Land Afforestation Promotion Organization. As of March, 2007, DoCoMo Woods had been established in 32 locations, including some overseas locations, and covered a total area of nearly 123 hectares.
Providing Safe and Secure Communications Services

- Maintaining and managing our communications infrastructure to consistently provide highly reliable communications services
- Implementing measures to prevent further failures in the Hikari Denwa optical fiber telephone service

Communications infrastructure maintenance and management

This nation’s communications infrastructure plays a vital role in supporting socioeconomic activities and is indispensable as a life line that helps ensure public safety, which is why we build NTT Group communications equipment to withstand disasters, and operate and maintain our communications infrastructure so that it will always function properly. NTT EAST, NTT WEST, NTT Communications, and NTT DoCoMo monitor communications networks 24 hours a day, 365 days a year from their respective operations centers, and can restore service by remote switching to backup systems in the event of system failures caused by disasters or other factors.

Public telephone users are also increasing, and the proliferation of mobile phones, but NTT EAST and NTT WEST continue to maintain public phones ($58,000 and 51,000 respectively) to ensure that communications remain available during emergencies and natural disasters.

Topics

Agreement to develop underwater optical cable system between Japan and Russia

NTT Communications and TransTeleCom of Russia signed a memorandum of understanding on February 27, 2007 to develop the Hokkaido-Sakhalin Cable System (HSCS), an underwater optical cable system that will connect Ishikari, Hokkaido in Japan and Nevesik, Sakhalin in Russia. The project is slated for completion by the end of 2007. HSCS will be connected to TransTeleCom’s 50,000 km optical fiber backbone and will be the shortest telecommunications route from Japan to Russia and Europe. HSCS will not only boost communications quality between Japan and Russia and Europe, but will also enhance international communications network reliability through augmenting the existing Indian Ocean route.

Prevention of further failures in the Hikari Denwa optical fiber telephone service

Between February and December 2006 Hikari Denwa optical fiber telephone services offered by NTT EAST and NTT WEST became intermittently unavailable for brief periods, particularly from September 19 to 21 in the NTT EAST area and from October 23 to 25 in the NTT WEST area. We sincerely apologize to our customers for the considerable inconvenience caused by this problem. Server software issues and insufficient processing capacity were behind the problem, and we are responding by testing software and upgrading network equipment and capabilities. In addition to such initiatives to prevent recurrences, we have also established prompt discovery and service restoration systems and procedures to address any problems that may arise. We are looking into further ways of bolstering network reliability and minimizing the impact of system failures on our customers as we continue to improve operational methods and train engineers.

Providing Communications Services to Withstand Disasters

- Implementing various measures in line with basic policies of improving communications network reliability, securing critical communications, and enabling prompt restoration of service
- Providing enhanced disaster-response capabilities through various prevention systems and solutions

Improving the reliability of communications networks

The NTT Group has learned many lessons from its experiences during great disasters of the past, and is putting accumulated expertise to work in the creation of an even more reliable communications networks. For example, transmission lines are multi-routed for redundancy and telephone exchanges that house transit switches are sufficiently dispersed to enable communications to be rerouted to avoid damaged areas in the event of a natural disaster. We monitor our nationwide communications network 24 hours a day and are ready to respond to any eventuality at any time.

Securing critical communications

As soon as an earthquake or some other disaster strikes, the telephone system of the affected area is inundated with calls from worried friends and relatives. Under such conditions, we suppress ordinary phone traffic to secure critical communications services necessary to conduct emergency rescue and restoration operations, maintain public order, and keep 110 and 119 emergency number services going.

We also provide Disaster Emergency Donden (Message) Dial (171) and other services to the general public as a means of checking on the safety of relatives and friends in affected areas, and make our public telephones available free of charge and provide specially installed public telephones at evacuation sites and other facilities in affected areas for use by residents.
Prompt restoration of services

NTT Group companies station highly mobile disaster response equipment at locations throughout the country to aid in the prompt restoration of services and securing of critical communications in the event of a natural disaster. This equipment, which includes power supply vehicles, portable satellite communications equipment, and portable mobile base stations, can be deployed anywhere in response to a disaster. In the event that communications services are disrupted by a major disaster, NTT Group and affiliated company employees immediately set up a disaster management headquarters and other emergency structures to form a wide-area support organization that works to promptly restore services.

Disaster response training

Each year, NTT Group companies conduct disaster response training programs based on a variety of scenarios. Each training program focuses on new aspects of disaster response in accordance with current national and municipal policies and issues made apparent by actual disasters.

In the event of an actual disaster, we work to apply the knowledge acquired through such training to promptly restore communications services.

Topics

Disaster response training simulating a road blockage following a major quake

On February 22, 2007, NTT EAST and NTT DoCoMo together with the Japan Ground Self Defense Force (JSDF) conducted a disaster response training exercise based on a scenario in which a road had been rendered impassable by a major earthquake. Thirty people from NTT EAST, 10 people from NTT DoCoMo, and 60 people from the JSDF took part in the training exercise. To secure communications in the disaster zone and at evacuation sites, large JSDF transport helicopters airlifted NTT EAST and NTT DoCoMo disaster response equipment, specially installed public telephones were deployed, and mobile phone base stations were equipped with emergency power supplies.

Enabling people to check on the safety of relatives and friends in disaster areas

In the event of a major natural disaster, NTT offers a range of services to the general public as means of verifying the safety of family, relatives, and friends in affected areas. We launched our Disaster Emergency Broadband Message Board (Web 171) service in October 2006, adding to our existing Disaster communications services. NTT Communications in close cooperation with global telecommunications carriers secured alternate cable routes and made emergency repairs, as a result of which 90 percent of services disrupted by the quake had been restored within two days, considerably earlier than other companies.

Emergency Dangoon (Message Dial 171) and i-mode Disaster Message Board Services. To help promote the effective use of these services, we provide opportunities for people to try them out on the first day of every month and other designated days.

Emergency message service use in fiscal 2007

![chart](chart.png)

<table>
<thead>
<tr>
<th>(NTT Disaster Emergency Message Dial)</th>
<th>(i-mode Disaster Message Board Service)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A service for registering and checking information on the safety of individuals via voice mail using phone numbers in the affected area or mobile phones.</td>
<td>A service for registering and viewing information on the safety of individuals in text, sound, and images via the Internet.</td>
</tr>
<tr>
<td>Heavy rain in Kagoshima</td>
<td>Heavy rain in Kagoshima</td>
</tr>
<tr>
<td>Typhoon No. 13 Hato</td>
<td>Typhoon No. 13 Hato</td>
</tr>
<tr>
<td>Noto Peninsula earthquake</td>
<td>Noto Peninsula earthquake</td>
</tr>
<tr>
<td>(September 8 6:00 AM to 9:00 AM)</td>
<td>(September 8 6:00 AM to 9:00 AM)</td>
</tr>
<tr>
<td>170</td>
<td>170</td>
</tr>
<tr>
<td>29,000</td>
<td>11,900</td>
</tr>
<tr>
<td>550 660 770 880 990</td>
<td>4,800 5,400 6,000</td>
</tr>
<tr>
<td>Messages recorded</td>
<td>Messages registered</td>
</tr>
</tbody>
</table>

Website: [http://www.ntt.co.jp/171a1](http://www.ntt.co.jp/171a1) (in Japanese only) | NTT Group’s disaster countermeasures website

Disaster response assistance

NTT Group companies provide a wide range of useful disaster response systems and solutions, including services for delivering emergency earthquake information, and for organizations to contact employees and check on their safety in the event of a disaster.

<table>
<thead>
<tr>
<th>NTT Group disaster response systems and solutions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaster response information communications system</td>
<td>This system enables two-way communications between municipal authorities and local residents and between residents themselves using videophones. In the event of a disaster, authorities can automatically display evacuation information. (Developed by NTT Information Sharing Laboratory Group in March 2007. Service to be offered at a future date)</td>
</tr>
<tr>
<td>Ahorin Hoito (&quot;breathe easy&quot;) service for HiLink Derwa optical fiber telephony service</td>
<td>This service uses uninterrupted power sources (UPS) to ensure uninterrupted HiLink Derwa optical fiber telephony services even during power outages. (Available since March 2007)</td>
</tr>
<tr>
<td>High-speed Artilin (&quot;peace of mind&quot;) service for HiLink Derwa optical fiber telephony service</td>
<td>This service uses uninterrupted power sources (UPS) to ensure uninterrupted HiLink Derwa optical fiber telephony services even during power outages. (Available since November 2006)</td>
</tr>
<tr>
<td>Emergency Earthquake Alert Service</td>
<td>This service provides immediate emergency information about earthquakes issued by the Japan Meteorological Agency transmitted through nationwide IPv4 multicast. (Available since November 2006)</td>
</tr>
<tr>
<td>Emergency contact and safety confirmation system</td>
<td>This service enables organizations to simultaneously contact employees and check on their safety in the event of a disaster or other emergencies. A new version available from February 2007 includes added functionality of transmission of earthquake and tsunami information from weather and disaster response sources to registered users.</td>
</tr>
</tbody>
</table>

Organization

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTT EAST</td>
<td>This system enables two-way communications between municipal authorities and local residents and between residents themselves using videophones. In the event of a disaster, authorities can automatically display evacuation information. (Developed by NTT Information Sharing Laboratory Group in March 2007. Service to be offered at a future date)</td>
<td>NTT EAST</td>
</tr>
<tr>
<td>NTT WEST</td>
<td>This service uses uninterrupted power sources (UPS) to ensure uninterrupted HiLink Derwa optical fiber telephony services even during power outages. (Available since March 2007)</td>
<td>NTT WEST</td>
</tr>
<tr>
<td>NTT FACILITIES</td>
<td>This service uses uninterrupted power sources (UPS) to ensure uninterrupted HiLink Derwa optical fiber telephony services even during power outages. (Available since November 2006)</td>
<td>NTT FACILITIES</td>
</tr>
<tr>
<td>NTT ME</td>
<td>This service provides immediate emergency information about earthquakes issued by the Japan Meteorological Agency transmitted through nationwide IPv4 multicast. (Available since November 2006)</td>
<td>NTT ME</td>
</tr>
<tr>
<td>NTT MCED1T</td>
<td>This service enables organizations to simultaneously contact employees and check on their safety in the event of a disaster or other emergencies. A new version available from February 2007 includes added functionality of transmission of earthquake and tsunami information from weather and disaster response sources to registered users.</td>
<td>NTT MCED1T</td>
</tr>
</tbody>
</table>

A drill to restore power to a mobile phone base station using an emergency power supply

A total of 100 personnel from NTT EAST, NTT DoCoMo, and the JSDF participated in the exercise

A view of the emergency equipment loaded into a large transport helicopter

- We provide the public with opportunities to try out our emergency message services during Japan’s Disaster Prevention Week from August 30 to September 5, and Disaster Prevention and Volunteer Week from January 15 to 21, as well as from January 1 to 3 and the first day of every month. In fiscal 2007, on the first day of every month and during the first three days of January, the public had our our emergency message services a total of approximately 400,000 times.
Creating a Safe and Secure Environment for ICT Users

- Investing resources in the creation of a secure environment for ICT users
- Conducting R&D to develop technology for ensuring communications network safety and security

Achieving a safe and secure environment for ICT users

The rapid spread of e-money and Internet banking has been accompanied by an increase in ID and password theft. The use of file sharing software has also led to the unauthorized access of data. The NTT Group is taking various measures to address these problems. For example, Pila Networks has added a Winny Filter function for blocking traffic from the Winny file sharing network as a security service for its B-FLET’S optical access service for private users. NTT DoCoMo too offers a service for enabling users to remotely lock their mobile phones, and NTT IT offers USB keys with which users can safely operate their PCs from remote PCs. The NTT Group will continue to invest resources in initiatives to create a safer and more secure environment for its customers.

Topics

Mobile phone-based one-time password service
Our one-time password service is a system for enhancing user authentication and security by changing user passwords each time used. Generating such passwords previously required specialized hardware, but with NTT DATA’s newly introduced system, users can now download a special password generation software program to their mobile phones. NTT Group companies are constantly working on security enhancements such as this for Internet banking and other financial transactions.

Creating a safe and secure user environment through R&D

NTT Group companies conduct a wide range of advanced encryption and other security-related research to protect communications network integrity from security threats and create a safe and secure user environment.

Technology developed by the NTT Group

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Research organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watermark authentication platform</td>
<td>This is a platform for enabling simple authentication using paper cards with watermarked photos or logos printed on those cards.</td>
<td>NTT Cyber Space Laboratories</td>
</tr>
<tr>
<td>Technology for the effective use of sensor databases</td>
<td>This is platform configuration technology for building systems for handling time-series data constantly generated in large volumes by ubiquitous data sources. It can be used as a platform for applications such as logistics, healthcare, crime prevention, traffic control, and disaster prevention.</td>
<td>NTT Cyber Space Laboratories</td>
</tr>
<tr>
<td>A faster, more reliable more functional database management system</td>
<td>NTT Cyber Space Laboratories has developed redundant configuration technology (cluster technology) featuring a quiesing system synchronized with operational data and designed to boost the reliability of the PostgreSQL open source database for the provision of 24-hour services and stable services during times of disaster.</td>
<td>NTT Cyber Space Laboratories</td>
</tr>
<tr>
<td>International standard encryption algorithm “Camelia”</td>
<td>Camelia is an encryption algorithm featuring world-class security and performance to support the advanced information society. It is the first encryption algorithm developed in Japan to have been adopted as international platform technology into Linux and other international open source software.</td>
<td>NTT Information Sharing Platform Laboratories</td>
</tr>
<tr>
<td>Quantum encryption</td>
<td>NTT Basic Research Laboratories, in collaboration with the National Institute of Informatics Stanford Division and the National Institute of Standards and Technology has succeeded in transmitting quantum encryption keys using single photon-level light over a world-record 200 km of optical fiber.</td>
<td>NTT Basic Research Laboratories</td>
</tr>
</tbody>
</table>

Ensuring Information Security

- Promoting information security management
- NTT Group-wide initiatives to safeguard customers’ personal information

Promoting information security management

As a leader in the information and telecommunications industry, the NTT Group recognizes its responsibility to promote information security management. In addition to implementing the secure management of the personal information of our customers, we also focus on initial prevention, minimization of damage, and prevention of recurrence of security incidents such as virus infection and unauthorized access under the leadership of NTT-CERT (see below). The number of NTT Group company sites that acquired Information Security Management System (ISMS) and Privacy Mark certifications also grew considerably in fiscal 2007. NTT COMWARE is focusing on in-house security diagnosis and in fiscal 2007 also carried out a diagnosis of company databases. In addition to NTT Group internal security measures, NTT Communications has launched an Information Security Guide website to provide its corporate customers with information on IT system security.

ISMS and Privacy Mark certifications

<table>
<thead>
<tr>
<th></th>
<th>FY 2006</th>
<th>FY 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISMS</td>
<td>129 sites</td>
<td>167 sites</td>
</tr>
<tr>
<td>Privacy Mark</td>
<td>50 companies</td>
<td>79 companies</td>
</tr>
</tbody>
</table>

The above figures are totals for NTT EAST, NTT WEST, NTT Communications, NTT DATA, NTT COMWARE, and NTT FACILITIES.

Topics

NTT-CERT

As the Computer Security Incident Response Team (CSIRT) for the entire NTT Group, the NTT-CERT team operated by the NTT Information Sharing Platform Laboratories works with security managers and system administrators to deal with incidents and vulnerabilities in NTT Group network/information systems, also coordinating responses and providing technical support. NTT-CERT started to develop a prototype for a diagnostic security risk management system in 2005, and launched pilot operations at some of NTT Group companies in fiscal 2007. These efforts resulted in a working system that incorporates a front-line expertise and addresses front-line needs. The NTT-CERT team plans to expand use of the system groupwide. NTT-CERT has also worked to systemize security guidelines, configuration standards and checklists.

Protecting customers’ personal information

The NTT Group has established an NTT Group Information Security Policy that states its position on information security, and is doing its utmost on a groupwide basis to protect the personal information of its customers. Each of the NTT Group companies has established a privacy policy for protecting customers’ personal information. As an example of this, NTT EAST and NTT WEST conduct departmental workplace inspections, some of which are carried out by personnel from other departments, to verify the proper protection of customers’ personal information. NTT DoCoMo too provided employees with instruction on personal information security using information booklets, training videos and e-learning, and NTT COMWARE conducted employee education activities related to file sharing software. The NTT Group will continue to strengthen its efforts to protect its customers’ personal information.
Raising Public Awareness about Appropriate Use of Communications Technology

- Studying issues related to the spread of ubiquitous broadband communications from a social sciences perspective
- Raising public awareness about appropriate communications technology use
- Ensuring child safety with ICT

Research in support of safety and security in the age of broadband communications

The NTT Group is involved in research from a social sciences perspective to identify issues related to the spread of broad-band ubiquitous communications and ways to address them. InfoCom Research, Inc. (ICR) and NTT DATA Research Institute for Systems Science conduct research from various perspectives on the relationship between social trends and information communications. In fiscal 2007, ICR announced research findings concerning the economic ramifications of the ICT and mobile communications industries. The Mobile Society Research Institute conducts research into the benefits and pitfalls of mobile phones with the aim of promoting the appropriate use of mobile communications and the betterment of society through leveraging mobile communications. In fiscal 2007, the Institute published research findings on the psychology of mobile phone dependency, and on the use of mobile phones during disasters. NTT Energy and Environment Systems Laboratories has developed a Gross Social Feasibility Index to evaluate ICT service sustainability. The index evaluates triple bottom line satisfaction and the extent to which people are satisfied with their lives. The NTT Group will continue to conduct a range of research projects aimed at ensuring the safe and secure use of ubiquitous broadband communications.

Promoting appropriate use of ICT

The Internet and mobile phones have become indispensable tools in our society, but they have also given rise to a range of social issues related to the appropriate and ethical use of ICT. To address such issues, we have been educating the public on appropriate ICT use and working to foster a wholesome ICT culture. Through these activities, we hope to contribute to the resolution of ICT-related social problems and the creation of a safer and more secure Internet and mobile communications environment.

Educational activities to promote appropriate communications technology use

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational support</td>
<td>NTT Group companies dispatched instructors for the e-Net Carean organized by the Ministry of Internal Affairs and Communications, and accepted teachers for private sector training, etc.</td>
<td>NTT Group companies</td>
</tr>
<tr>
<td>NTT Dream Kids Net Town 2009</td>
<td>Events at which children can learn about communications. Held in Tokyo and Sendai in fiscal 2007, attracting 940 participants.</td>
<td>NTT Group companies</td>
</tr>
<tr>
<td>Internet Safety Workshops</td>
<td>Held at elementary schools to inform children about skills and manners for trouble-free communication in the digital age. In fiscal 2007, 3,078 students attended the workshops, which began in September 2005.</td>
<td>NTT EAST</td>
</tr>
<tr>
<td>Internet Basics</td>
<td>Courses on Internet use aimed at contributing to IT education and the improvement of information ethics, and bridging digital divides. Held three times in Tokyo and once in Osaka in fiscal 2007.</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Mobile Phone Safety Program</td>
<td>Courses providing guidance to children and others on topics such as safe and secure mobile phone use, the risks of using online dating sites, and how to deal with spam e-mail. About 1,400 classes were held nationwide in fiscal 2007 in elementary, junior and senior high schools, local community centers, and other venues.</td>
<td>NTT DoCoMo</td>
</tr>
<tr>
<td>Super Media Kids</td>
<td>A website for teaching children how to use various media over the Internet and on phones. Contents also include quizzes on Internet Safety Workshop contents and information for parents and educators.</td>
<td>NTT EAST</td>
</tr>
<tr>
<td>Kids’ goo</td>
<td>Kids’ goo is a web portal offering safe, convenient, and useful Internet services for elementary school students, and information on safe Internet use for children. Other contents include the Seven Rules of Internet Use and columns by elementary school teachers offering advice to parents.</td>
<td>NTT Resonant</td>
</tr>
</tbody>
</table>

Terminology

ICT service sustainability: The degree to which ICT services can contribute to society on a continuing basis. Triple bottom line: An idea promoting balance between economic, environmental, and social concerns, coined by John Elkington, co-founder of SustainAbility (a UK-based think tank).

Helping to protect children

Children today face a rapidly changing environment in which they are increasingly falling victim to crime, leading parents, schools, and entire communities to urgently consider protection measures. The NTT Group is focusing on various initiatives to ensure the safety of children. NTT DoCoMo, for example, offers Kids’ PHONE mobile phones with protection alarms and GPS functions that allow parents to pinpoint their child’s whereabouts. In addition to crime prevention functions, NTT DoCoMo also offers services that enable children to use mobile phones without worry, such as an expanded version of its Kids’ iMenu and a function to ward off nuisance calls, both of which were launched in fiscal 2007. NTT Group companies have also started offering systems for local governments that use IC tags to track the whereabouts of children, and services for schools to simultaneously send emergency messages to the phones, e-mails, and mobile phones, mobile phones, and mobile phone e-mail addresses of every parent or guardian. The NTT Group will continue to put the technologies of its member companies to use in initiatives aimed at ensuring child safety.

Topics

Meru-Robo Digital Log

NTT has developed Meru-Robo Digital Log, an interactive child monitoring system that combines Action Switch Platform — a technology from NTT Cyber Solutions Laboratories for controlling robots from mobile phones — with a personal robot (called “ParPaRi”), and developed by NEC Corporation. The Meru-Robo feature in this system enables parents to check on their children from a remote location and monitors children according to instructions included in mobile phone text messages sent by parents. In 2006, field tests using the system were conducted between parents and two facilities — Mights Project (a day-care facility for the early development of abilities) and Makato Aijen (a nursery facility). Parents participating in the field tests operated the robot from distant locations, checking on the wellbeing of their children, and sending messages to their children that were read out loud by the robot. Video messages of the children filmed through the robot’s eye-installed camera were also sent by the system to parents’ mobile phones. The Robo Digital Log feature in this system — a browsing function for communications between facility staff and parents — was also tested. We plan to build on the results of this trial to make further improvements to the Meru-Robo Digital Log system.

Mobile phone access restriction services

To create a safe environment for mobile phone use by minors, NTT DoCoMo provides filtering services for restricting access to inappropriate sites, and in March 2007 launched new initiatives to further promote the use of these services. For example, all new subscribers, both adults and minors, were asked if they wanted to use these services, and service names were changed to make them more appealing to junior and senior high school students. NTT DoCoMo also joined the Telecommunications Carriers Association, KDDI CORPORATION, and SOFTBANK MOBILE Corp. in launching a Protect Children from Inappropriate Internet campaign, and in March 2007 held joint events to promote the use of such filtering services.

Screenshots of the Robo Digital Log field test

Mobile phone screen displaying message sent to the Meru-Robo Digital Log robot

Protect Children from Inappropriate Internet

Steel campaign logo
Improving the Quality of Our Products and Services

- Using customer feedback to improve customer satisfaction
- Improving the quality of our products and services
- Conducting R&D with universal design principles in mind

Improving customer satisfaction

The NTT Group believes in putting its customers first, and as a customer driven organization we are dedicated to delivering customer satisfaction (CS). We have established systems for enabling customers to provide their views, and we apply this feedback to improve our operations and develop new services.

Customer consultation centers at NTT EAST, NTT WEST, and NTT DoCoMo all welcome customer opinions and requests in addition to product, service, and repair inquiries. The three companies combined received approximately 500,000 customer opinions in fiscal 2006, and 400,000 in fiscal 2007. Our customers also reach us through our website and e-mail and we interact with our customers through CS questionnaires and interviews.

Each of our Group companies also institutes mechanisms for promptly acting on customer feedback to improve business operations and services. For example, NTT EAST’s Smile Committee, NTT WEST’s Customer First Activities Working Group, and NTT DoCoMo’s CS Promotion Committee are all companywide initiatives for studying and implementing CS improvements in their respective organizations.

NTT strives to improve CS in numerous other ways too. NTT DoCoMo and NTT FACILITIES install a CS mindset in their employees through the best practices CS case studies they have compiled of group companies and other companies and through lectures from CS consultants. NTT DATA has introduced a performance awards program for CS achievements to foster a CS mindset in its employees.

NTT COMWARE organizes activities for employees such as lectures and hands-on work experience in the belief that boosting CS depends on boosting employee satisfaction. These activities are part of NTT COMWARE’s efforts to drive gains in CS by creating a company culture that excites and motivates employees. NTT COMWARE also held joint CS get-togethers with NTT DATA to exchange views with CS promoters in other companies.

The NTT Group will continue to place a high priority on further improving CS.

Improving the quality of our services

To ensure the satisfaction of its customers, the NTT Group strives constantly to improve the quality of its services and technology, and provide safe and secure services that will constitute the foundation of the coming age of ubiquitous broadband communications. To this end, we are constantly building our communications infrastructure and conducting R&D on the latest technologies for providing stable optical fiber-based broadband communications.

Obtaining ISO 9001 quality management certification is another example of our continuing efforts to provide safe and secure services.

Creating user-friendly products and services

The NTT Group recognizes that population decline and the aging of society make it even more essential that communications services are easily accessible to any and every user.

With accessibility in mind, we offer products and services that are user-friendly to elderly people, differently abled people, and a wide range of other users. NTT has established the Universal IT Design Center within NTT Cyber Solutions Laboratories and promotes the use of IT universal design throughout the NTT Group.

Following its development of a prototype in fiscal 2006, NTT DoCoMo released a dual-screen handset in February, 2007. Buttons on this handset have been replaced by a touch panel display in which frequently used buttons are displayed as icons. The touch panel can be operated by people who lack the physical strength or otherwise find it difficult to use traditional handset buttons.

NTT DoCoMo also offers Sound Leaf, a bone conduction receiver microphone that sends sound waves through the bones of the skull to auditory nerves enabling people who have become hard of hearing or with hearing impairments to communicate effectively.

NTT DoCoMo implements initiatives inspired by universal design concepts under the DoCoMo Hearty Style brand name. DoCoMo Hearty Plaza shops are designed using universal design concepts, and have staff on location who can communicate in sign language as well as shuttle services to and from nearby train and subway stations. Telephone workshops offered at the shops for visually and hearing impaired customers teach skills such as creating e-mail and using video phones.

Topics

Hanamaru Checker trial service begins

NTT Cyber Solutions Laboratories on November 21, 2006 launched a trial of its new Hanamaru Checker software application. Hanamaru Checker is a tool that enables content developers to verify the accessibility of websites based on universal design guidelines. Hanamaru Checker not only identifies accessibility issues in website design, but also displays existing websites that serve as examples of desirable improvements, enabling users who are not universal design experts to easily check the accessibility of their websites. Hanamaru Checker itself conforms to accessibility guidelines and people who are visually impaired can operate the software through its voice browser.

We provide Hanamaru Checker in the hope that it will help popularize the use of universal design concepts in websites.

The trial service is available through Waza (http://www.waza.jp/ in Japanese only), a website that introduces new technologies developed by NTT Cyber Communications Laboratory Group. Users need only enter a website address to check accessibility automatically. Feedback from the trial will be used to further improve Hanamaru Checker.

Hanamaru Checker enables users to check degree of website accessibility at a glance.
Product and Service Safety Measures

• Researc...ions and actions currently being taken around the globe.

Radio field intensity measuring device with receiving antenna for measuring radio waves at mobile phone base stations

Responding to product-related accidents

When a product-related accident comes to our attention, we promptly release advisories to our customers and recall the product. We then identify the cause of the accident and work diligently to ensure that it does not happen again.

Topics

Taking action on defective mobile phone battery packs.

In December 2006 some battery packs for NTT DoCoMo mobile phones were found to be defective. The battery packs, model number D06, had been manufactured in May 2006 or earlier for use in FOMA D930i, FOMA D902iS, and FOMA D903i mobile phones. We sincerely apologize for any concern or inconvenience this caused for our customers. The D06 batteries could, if subjected to an external impact resulting in a surface scratch or dent, generate excessive heat and possibly rupture. We received one report of a rupture, and 17 reports of overheating or rupture thought to be caused by abnormal or excessive external shock. In response, NTT DoCoMo suspended sales of the FOMA D902i, D902iS, and D903i handsets and DoCoMo Shops were provided with replacement batteries. NTT DoCoMo also conducted an extensive customer notification campaign through direct mail, newspaper advertisements, website, and i-mode news to replace the batteries.

The defect was due to problems in the manufacturing process that deformed an electrode plate within the battery in such a way that the plate could come into contact with and damage the battery’s insulation sheet. To prevent a recurrence of such problems and ensure the safety of its batteries, NTT DoCoMo is reviewing its own safety tests, and in view of the fact that the main cause was a manufacturing defect, suppliers too have been asked to improve product quality and tighten their quality management systems.
Creating Vibrant and Dynamic Workplaces

- Expanding employment opportunities for the elderly and differently abled people, and promoting gender equality in the workplace
- Programs for helping employees to maintain a good work-life balance
- Providing employees with the scope to realize their aspirations in workplaces that also offer safety and security

Diversity in human resources

The NTT Group sees its human resources as the foundation on which its business is built, and focuses on hiring people capable of performing in strategic areas such as IP and broadband technologies and international business in response to changes in the business climate and globalization of the information and communications sector.

We are also committed to expanding employment opportunities for differently abled people. In 2004, we established NTT CLARITY, a special subsidiary for promoting the hiring of such people. Our employment rate for differently abled people stood at about 1.7% as of June 2007, and we shall continue with our efforts to further boost such hiring throughout the NTT Group with the aim of surpassing the level of 1.8% mandated by law.

The NTT Group has since 1999 also maintained a continuing employment system that allows retirees to continue to work until the age of 65 if they wish. Numerous people have used this system to contribute their accumulated experience and skills to our companies. The NTT Group is also promoting gender equality to provide equal opportunity in the workplace to both men and women. Yearly gains have been made in the number of women recruit-

Achieving a good work-life balance

To help NTT employees maintain a good balance between home and career, we have long offered effective support programs and nursing care benefits that go beyond legally mandated levels, and as of 2007, we enhanced child care benefits in various ways, including extending eligibility for reduced working hours to the end of the fiscal year in which the CHD enters third grade as opposed to first grade. To encourage NTT employees to take advantage of these benefits, we have created an NTT Group Child Care and Family Care Support site on the NTT intranet that provides a comprehensive range of information on both NTT programs and government-operated social insurance programs. We also provide online/distance learning courses and information about NTT business developments and industry trends to employees on leave to help them make a smooth return to work.

With the declining birthrate and increasing aging of the Japanese population, we have instituted a new family allowance system that provides additional benefits to employees based on number of dependents without placing a cap on that number.

Based on principles espoused in Japan’s Law for Measures to

Support the Development of the Next Generation, we will continue to promote effective support programs in the creation of a vibrant and dynamic workplace.

Examples of NTT Group family benefit programs

- Childcare leave
- Reduced working hours
- Childcare support service
- Nursing leave
- Maternity leave
- Family support service
- Guaranteed leave
- Leave to take care of elderly members

In April 2006, the NTT Group revised its pay system to place even more priority on personal performance with the aim of further boosting employee motivation.

In addition to our established systems for training evaluators and providing employees with feedback on their personal performance evaluations, we are seeking to enhance the impartiality of our performance evaluation system and employee satisfaction with it through introducing multitiered evaluation, using case studies to illustrate what is expected of successful employees, as well as providing training and online guidance to help employees to better understand how our personnel and pay systems work.

We feel that the above enhancements to our pay system will create a better motivated, better disciplined workforce, boosting both individual employee capabilities and our overall business performance.

We provide each and every employee with the opportunity to independently develop their abilities in accordance with their own career plans, offering a range of field-specific group train-

A work place where everyone feels safe and secure

OCCUPATIONAL SAFETY

All NTT Group companies recognize the importance of proactively implementing occupational safety programs to prevent accidents in the workplace. Work conditions and standard operating procedures are constantly under review, and case studies are used to inform employees and maintain awareness of occupational safety issues. If an accident should take place, the NTT Group performs an internal review of conditions, contributing factors, and measures for preventing recurrence, and promptly shares this information with all Group companies. We are therefore committed to ensuring that our employees are well educated about safety issues, are constantly reminded of the importance of workplace safety, and are able to apply their knowledge in the prevention of accidents.

Some of our facilities also hold thorough safety inspections on a monthly basis.

HEALTH MANAGEMENT

Recognizing the importance of proper employee health management, including the prevention, early detection and treatment of illness, NTT Group companies provide their employees with individualized health management counseling and encourage personal health management based on the results of comprehensive medical examinations. NTT considers mental health to be a particularly important issue, and Group companies provide preventive programs such as mental health consultation through the NTT Intranet, outside counseling, and mental health seminars. Emphasis is also placed on maintaining good communication with employees in the workplace as a means of early detection of stress and other changes in mental wellbeing.

Employee benefits

The NTT Group has implemented a wide range of social welfare policies and benefits that are intended to provide security and ensure that its employees are able to devote themselves wholeheartedly to their duties from the time they join an NTT Group company until they retire. Employees are able to take advantage of these policies and benefits in accordance with their own personal life plans.

- We provide a cafeteria plan enabling employees to select from a wide range of social welfare plans that match individual lifestyles.
- We provide a wide range of information and educational programs regarding the design of personal life plans.
- Company dormitories and housing are available throughout Japan for employees posted to new workplaces as a result of transfers, etc.
- Employees may utilize any of several health management programs, including periodic examinations and counseling.
- Various asset accumulation plans are available, including employee savings schemes and employee stock plans.
- Company cafeterias, condolence and congratulatory allowances, and other lifestyle support programs are provided for employees.
Creating a Healthy Corporate Culture

- Raising employee awareness of human rights through various activities
- Surveying attitudes and conducting employee training and other awareness activities to maintain high ethical standards among our workforce

Raising human rights awareness

The NTT Group considers the creation of a corporate culture free of prejudice and discrimination to be essential to the formation of a well-adjusted society where human rights are respected. We also feel that actively tackling human rights issues is another aspect of fulfilling our corporate responsibility to all of our stakeholders, and as such, we encourage employees to regard human rights as a personal issue, and work to deepen their awareness and understanding so as to perform their day-to-day business activities in a way that respects human rights. We provide a broad range of human rights education focused on such issues as discrimination, people with different abilities, the elderly, foreign residents in Japan, sexual harassment, and power harassment, as well as trends in human rights in Japan and abroad. All NTT Group companies provide workshops, e-learning courses, and other programs that enable employees to learn about these issues on a continuing basis. Other activities to boost awareness of human rights include soliciting human rights slogans and ideas for posters promoting awareness of human rights from NTT employees and their families, the best of which are compiled into calendars and distributed around the workplace.

Raising ethical standards

The NTT Group conducts a variety of activities to raise awareness among employees — including temporary and contract employees — of proper ethical standards and business practices. Included in these ongoing activities are lectures for both executives and employees by outside experts in human rights, e-learning programs, the display of posters, and case studies posted on the NTT intranet promoting an understanding of ethical considerations and compliance with good business practices. The responses of employees to opinion surveys are also analyzed and reflected in the content of these activities. Drunk driving became a major social issue in 2006, and NTT ran a No More Drink-Driving poster campaign to raise group-wide awareness of this issue. Group companies also implemented various measures in addition to the display of posters, including in-house workshops, distribution of leaflets, the wearing of No Drink-Driving badges, and the deployment of breathanalysers together with key drop boxes for people who have been drinking to leave their car keys.

The NTT Group understands the importance of raising individual awareness in maintaining high ethical standards, and will continue to make every effort to promote these issues in the workplace.

Citizenship Activities

- Actively contributing to society as a corporate citizen
- Promoting citizenship activities through systems for supporting employee volunteer activities
- A wide spectrum of activities, including social welfare, promotion of education and culture, and international contribution

NTT’s approach to corporate citizenship

The NTT Group believes strongly in the concept of corporate citizenship, and is committed to working alongside members of the public for the betterment of society. To this end, all NTT Group company employees including temporary and contract employees, as well as partners and former NTT employees who endorse the NTT Group’s CSR activities contribute to society as members of Team NTT.

Since the creation of its Social Contribution Committee in 1992, the NTT Group has been actively promoting citizenship activities, and continues to work to fulfill NTT’s responsibilities in this area by providing support to Team NTT members who undertake citizenship activities in various fields.

The NTT Group’s support system for employee volunteer activities

We support volunteer activities in a number of ways, in the belief that they not only contribute to the betterment of society, but also broaden the viewpoints of our employees and nurture consideration for others through promoting interest and involvement in society.

Our policy for the support of volunteers contributing to the resolution of societal issues focuses on three basic steps: (1) cultivation of a volunteer mindset through holding introductory courses and providing information on volunteer activities; (2) provision of opportunities for volunteer work through posting information on openings for volunteers on NTT’s intranet and providing hands-on experience programs such as sign language classes; and (3) support for volunteers by introducing volunteer leave and other support programs and creating a company environment that facilitates volunteer work.

Team NTT citizenship activities

Team NTT members engage in a wide range of citizenship activities in areas such as social welfare, education and the arts, local community development and interaction, international exchange and contribution, nature conservation, and the promotion of sports and physical fitness.

Each year, NTT Group companies conduct “Operation Clean Environment” litter cleanup events with local community residents throughout Japan. In fiscal 2007, 66,075 volunteers made up of NTT employees and their families participated in litter clearance activities to clean and protect local environments. Group companies also contributed to local communities through participating in local events, and opening their doors to tours for children and workplace experience programs.
Citizenship activities of NTT Group companies in fiscal 2007

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
<th>Summary</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social welfare</td>
<td>Support for differently abled people</td>
<td>Distribution of “Please Call” notebooks</td>
<td>A communication tool for people with hearing or speech impairments and elderly people. When away from home, the notebook can be used to write down telephone number and a message asking a person nearby for assistance in making calls. (approx. 200,000 distributed so far)</td>
</tr>
<tr>
<td>Support for children</td>
<td>NTT mini Project (Eve-Project) activities</td>
<td>A working group consisting of NTT Group hearing impaired and other employees examine the NTT Group products and services from the standpoint of hearing impaired people and propose measures to improve them for the goal of improving customer service.</td>
<td>NTT EAST / NTT WEST</td>
</tr>
<tr>
<td>Support for welfare organizations etc.</td>
<td>Provision of information on barrier-free facilities</td>
<td>NTT DoCoMo offers content for mobile phones and other devices providing information on barrier-free facilities in the Hakodate, Kamis, Kiyotu areas.</td>
<td>NTT DoCoMo</td>
</tr>
<tr>
<td>Support for children</td>
<td>Fundraising activities for the Japan Guide Dog Association on an OCN website</td>
<td>Online fundraising activities through the OCN Jolly website as part of activities to foster understanding of the need for guide dogs for people with visual impairments.</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Support for students</td>
<td>Donations of used PCs to welfare facilities</td>
<td>Used PCs were donated to local communities and non-profit groups, thus contributing to both society and the environment through recycling and reuse.</td>
<td>NTT Communications / NTT COMMUNICATE</td>
</tr>
<tr>
<td>Support for children</td>
<td>Carpool full collection</td>
<td>NTT EAST set up collection boxes to collect pull tabs which were then donated to volunteer groups to help purchase wheelchairs.</td>
<td>NTT EAST</td>
</tr>
<tr>
<td>Support for students</td>
<td>Provision of facilities for students with intellectual disabilities</td>
<td>Help was provided in establishing Kodomo 110 No Kids and Kodomo 110 no Kids (literally “Children’s Emergency Services Shop” and “Children’s Emergency Services Reseller”) locations to help prevent crime against children. When in danger, children can go to volunteer teams in the program for protection, after which police, schools, and parents are contacted.</td>
<td>NTT DoCoMo / NTT LOGISCO</td>
</tr>
<tr>
<td>Support for students</td>
<td>Science festival</td>
<td>NTT Communications / NTT DATA</td>
<td></td>
</tr>
<tr>
<td>Support for students</td>
<td>Support for junior high school students</td>
<td>Children at orphanages were invited to amusement parks and baseball games, and also given presents for being a Christmas baby and donor.</td>
<td>NTT DATA</td>
</tr>
<tr>
<td>Surgeries with facilities and workshops for people with physical and mental disabilities</td>
<td>Items made in workshops by differently abled people were exhibited and sold in the company. A group of employees from NTT Vallcava Research and Development Center also put on a “Furea Concert” at a facility for people with intellectual disabilities.</td>
<td>NTT Cyber Communications / NTT Laboratory Group</td>
<td></td>
</tr>
<tr>
<td>Employee donation activities</td>
<td>NTT DATA collected and donated items to volunteer organizations. Donated items included used stamp and prepaid cards, foreign coins left over from overseas trips, and unwanted CDs and calendars.</td>
<td>NTT DATA</td>
<td></td>
</tr>
<tr>
<td>Promotion of education and culture</td>
<td>NTT Philharmonic Orchestra</td>
<td>The NTT Group has supported the NTT Philharmonic Orchestra since it was founded by NTT Group employees to contribute to the enhancement of NTT Group’s creative culture through music.</td>
<td>NTT Group companies</td>
</tr>
<tr>
<td>Promotion of education and culture</td>
<td>NTT DATA Concert of Concerts</td>
<td>NTT DATA has held classical music concerts at Sunday Hall since 1996 to broaden communication with customers through arts and culture. The two concerts held in fiscal 2007 were attended by 3,000 members of the general public.</td>
<td>NTT DATA</td>
</tr>
<tr>
<td>International exchange and cooperation</td>
<td>Recovery assistance</td>
<td>NTT WEST organized a fund drive to aid disaster recovery efforts after the earthquake that occurred off the coast of the Noto Peninsula.</td>
<td>NTT WEST</td>
</tr>
<tr>
<td>Education</td>
<td>NTT DoCoMo</td>
<td>Employees are dispatched to the Japan Overseas Cooperation Volunteers, organized by the Japan International Cooperation Agency (JICA). As of March 31, 2007, 8 employees were working as volunteers in various countries.</td>
<td>NTT EAST / NTT DATA</td>
</tr>
</tbody>
</table>

**Examples:***
- **NTT Group CSR Report 2007**
- **Team NTT communication**
**Communicating with stakeholders**

The NTT Group showcases its vision to its customers for the future of communications at various exhibitions and events. NTT Dream Kids Net Town 2006 was held in Tokyo and Sendai during July and August 2006. The event’s intended audience of 4th through 6th grade students was fascinated to learn about the latest communications services and network structures. The event welcomed 940 visitors and lasted eight days, five days in Tokyo (July 26-30) and three days in Sendai (August 14-16). NTT, together with NTT Communications and NTT DoCoMo, exhibited at ITU TELECOM WORLD 2006 held in Hong Kong (December 4-8). The exhibit highlighted the NTT Group’s vision for a society equipped with ubiquitous broadband communications, and its efforts to contribute to the achievement of that vision in Asia and throughout the world. The NTT R&D Forum (February 8-9, 2007) focused on the theme “Towards a Communication Future Focused on People and the Earth.” The forum presented NTT’s new R&D Vision along with the latest technologies that will transform business in the future and cutting-edge technologies that anticipate telecommunications in ten to twenty years.

### Communicating with suppliers

To continue to provide customers with competitive, state-of-the-art services at reasonable prices, the NTT Group considers it essential to introduce cost-effective new technologies and products on a timely basis. To that end, it has become increasingly important for us to accurately identify customer needs, establish good partnerships with suppliers, and work closely with them to equip society with ubiquitous broadband communications.

Green procurement policies that encourage all relevant parties to consider the impact of procured products on the environment are also indispensable.

To build trust-based, open partnerships with our suppliers, we established and published our Basic Procurement Policy in 1999. (See Basic Procurement Policy on the right.) For the benefit of suppliers, we also post procurement information on our website, and have procurement contact points in North America and Europe as well as in Japan for fielding inquiries and providing guidance on procurement.

### Table: NTT Group’s initiatives and contributions

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
<th>Summary</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>International exchange and contribution</td>
<td>Support for building schools</td>
<td>NTT DoCoMo provided support for the construction of schools in Thailand in cooperation with the Asian Women &amp; Children’s Network (NPO). As of March 31, 2007, 7 schools had been completed.</td>
<td>NTT DoCoMo</td>
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<tr>
<td>Emergency assistance</td>
<td>Toll-free phone service for refugees</td>
<td>NTT Communications supported the operation of a toll-free refuge hotline for the Japan Association for Refugees, an NPO that provides help to refugees staying in Japan.</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Greening</td>
<td>Support for reforestation</td>
<td>NTT DoCoMo supported environmental protection activities in Northern Sumatra, Indonesia, through Conservation International (NPO).</td>
<td>NTT DoCoMo</td>
</tr>
<tr>
<td>Greening</td>
<td>Support for green networks</td>
<td>To cultivate employee environmental awareness through participation in tree planting activities, NTT COMMWARE supported “Make the Desert Green” NPO desert reforestation projects through donations and other activities.</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Others</td>
<td>Fairtrade coffee</td>
<td>NTT Communications often Fairtrade coffee in some of its cafeterias. Fairtrade products are made in developing countries and support sustainable lifestyle improvements for producers by offering them fair prices for their products on a continuing basis.</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Protecting the natural environment</td>
<td>DoCoMo Woods: restoration and forest activity volunteers</td>
<td>DoCoMo Woods volunteers devoted to reforestation and forest activities for local communities. NTT DoCoMo plans to establish such reforestations in all 47 of Japan’s prefectures by the year 2022.</td>
<td>NTT DoCoMo</td>
</tr>
<tr>
<td>Litter cleanup</td>
<td>Operation Clean Environment (LCE) litter cleanup events</td>
<td>NTT Group company employees work with organizations in their respective communities to clean nearby roads, parks, beaches, rivers, and mountains.</td>
<td>NTT Group companies</td>
</tr>
<tr>
<td>Environmental education</td>
<td>Operation of Earth’s Communication Education Foundation (ECEF)</td>
<td>NTT EAST offers services for community-based environmental education activities, information dissemination, and other group gatherings.</td>
<td>NTT EAST</td>
</tr>
<tr>
<td>Environmental education</td>
<td>Compliance information “Uchi Eco” eco-friendly lifestyle promotion and other related initiatives</td>
<td>NTT DoCoMo produces a pamphlet that provides examples, tips, and essays on promoting the “Uchi Eco” eco-friendly lifestyle. DoCoMo employees draw ideas from the pamphlet on their own to cultivate environmental awareness among their families.</td>
<td>NTT DoCoMo</td>
</tr>
<tr>
<td>Environmental education</td>
<td>Sponsorship of “MAYA-ECO” EDUMITE website to disseminate information on keeping a sustainable lifestyle</td>
<td>NTT DATA has supported the recovery of Toyo’s Miyalaya Area, an island devastated by a volcanic eruption in 2005, by helping to built and operate the “MAYA-ECO-ECO NET” website, which introduces the current state of Miyala’s nature to people throughout Japan to foster nationwide support for the island’s rehabilitation.</td>
<td>NTT DATA</td>
</tr>
<tr>
<td>Environmental education</td>
<td>Sponsorship of an information website</td>
<td>NTT DATA sponsors Think Daily, a website that provides news, reports and other information about Earth-related topics.</td>
<td>NTT DATA</td>
</tr>
<tr>
<td>Environmental leadership training</td>
<td>As part of its environmental education for employees, NTT DoCoMo provides an environmental leadership training program based on the Project WILD program promoted by the Ministry of Land, Infrastructure and Transport and the Ministry of the Environment. The program has been run six times to date, teaching a total of 11% environmental awareness.</td>
<td>NTT DoCoMo</td>
<td></td>
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<tr>
<td>Promoting sports</td>
<td>Nature experience classes</td>
<td>NTT DoCoMo held nature experience classes in the DoCoMo Woods for employees and their families to learn crafts such as birdhouse making and participate in talks on the environment.</td>
<td>NTT DoCoMo</td>
</tr>
<tr>
<td>Promoting sports</td>
<td>Sponsorship of sports workshops</td>
<td>NTT Group companies regularly workshops to children in their communities. They also organize soccer tournaments, inviting professional J. League players and leading twenty matches.</td>
<td>NTT Group companies</td>
</tr>
<tr>
<td>Promoting sports</td>
<td>Official sponsor of Omiya Ardija</td>
<td>NTT is a proud sponsor of Omiya Ardija, a professional soccer team in the Japanese professional J. League.</td>
<td>NTT Group companies</td>
</tr>
<tr>
<td>Promoting sports</td>
<td>Mobile Communication Fund (MCF)</td>
<td>NTT DoCoMo established the NPO Mobile Communication Fund in 2003 as an organizer for the advancement of information and communications and the betterment of society in the coming age of ubiquitous mobile communications through activities such as the work of prize, provision of funds to assist organizations, and provision of scholarships to students.</td>
<td>NTT DoCoMo</td>
</tr>
<tr>
<td>Others</td>
<td>NPO Plaza, an NPO information website</td>
<td>NTT Communications cooperated with the Japan NPO Center to create a website that allows users to search for NPOs in Japan. NTT Communications continue to assist in operating the site.</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Others</td>
<td>“good” Pink Ribbon Campaign</td>
<td>A Pink Ribbon Campaign has been set up on the “good” website to make broader awareness of the importance of early detection, examination, and treatment of breast cancer. NTT employed volunteers in the Pink Ribbon works and donation from employees are given to the project. NTT Research has also conducted surveys on breast cancer awareness as its third.</td>
<td>NTT Research</td>
</tr>
<tr>
<td>Others</td>
<td>OCN Dot Phone Charity Dial</td>
<td>Phone users can call the OCN Dot Phone Charity Dial number from OCN Dot Phones and other DSO IP telephonic services to donate to charities.</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Others</td>
<td>Volunteer activities by former employees</td>
<td>Many people who have retired from NTT Group companies volunteer their time in various ways, including helping to clean nursing homes and hospitals, acting as guides at local tourist or historic sites, and helping local streets, parks, and beaches clean.</td>
<td>Former employees of NTT Group companies</td>
</tr>
</tbody>
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**Basic Procurement Policy**

When procuring products, NTT will:

1. conduct its procurement in an open and transparent manner, taking into account basic needs;

2. provide non-discriminatory and competitive opportunities to both domestic and foreign suppliers; and

3. conduct global and market-driven procurement of competitive products that meet basic needs.

### Website

- http://www.ntt.co.jp/innovate/index-e.html
- Website for procurement information

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**NTT R&D Forum**

NTT R&D Forum and ITU TELECOM WORLD 2006

Nearly 100 exhibits attracted around 5,000 visitors in two days.

Showcased technologies included optical access systems, the latest 3rd generation mobile communications service, Network Service Caching Services, an aroma-emitting communication technology.
In partnership with our customers, shareholders, investors, and other stakeholders

Communicating with our shareholders and investors

1. Basic philosophy
NTT recognizes that it is critically important to serve the best interests of its shareholders and other investors over the long term. The group as a whole has been making a concerted effort to enhance corporate value and make appropriate returns to shareholders. At the same time, we are striving to improve the transparency of management through appropriate disclosure and IR activities so that shareholders, investors, and other stakeholders can make correct evaluations of our business performance.

2. About NTT stock
NTT stock has, since privatization in 1985, gone through six offerings of government-owned shares, and as of the end of March 2007, is in the hands of approximately 1.45 million shareholders (including holders of fractional shares). We also instituted a repurchase of shares on September 6, 2005, at which time the government sold a part of its remaining stock, bringing its share down to only 33.78% and almost completely eliminating supply pressure. We still see a long way to go, however, in establishing a more transparent and equal footing in corporate bond markets, and accordingly disclose information in a timely, appropriate and impartial manner, fulfilling its accountability as a business corporation and ensuring management transparency.

To help shareholders and investors to better understand its management strategy, NTT also actively conducts IR activities, and provides opportunities for direct communications between shareholders and top management of the company, by holding various events in addition to general shareholders’ meetings, including IR roadshows, corporate strategy briefings, financial results briefings, and presentations for investors in corporate bonds.

NTT is committed to impartial disclosure to shareholders, investors, and other stakeholders, and is enriching the content of its IR website in this respect. The site provides presentation materials and videos of various briefings in addition to financial results announcements, annual securities reports, and annual reports.

3. Dividends
NTT determines the size of dividends based on overall business performance including dividend payout ratio as well as the company’s overall financial conditions with the additional consideration on the stability and continuity of dividends. During fiscal 2007, NTT increased its yearly dividend from ¥6,000 to ¥8,000 per share, and dividends for fiscal 2008 are expected to rise to ¥9,000.

4. Disclosure and IR activities
NTT has listed its shares on several stock exchanges (Tokyo, Osaka, Nagoya, Fukuoka, Sapporo, New York, and London), and has issued domestic and foreign bonds to procure funds. NTT considers it extremely important to establish and maintain relationships of trust with its shareholders and investors in both domestic and foreign capital markets, and accordingly discloses information in a timely, appropriate and impartial manner, fulfilling its accountability as a business corporation and ensuring management transparency.

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Topics
Socially Responsible Investment (SRI)
- NTT has been rated highly by SRI evaluation organizations. It is listed on international SRI indexes such as the Ethical Excellence Index and Ethical Pioneer Index (Belgium) and FTSE4Good Global Index (UK), and also in Japan on Morningstar Japan’s SRI Index (as of September 1, 2007).

Morningstar
Morningstar has created Japan’s first ever SRI indices based on the stock values of the top 150 companies ranked by their social performance. The indices cover domestic stock exchanges that meet SRI criteria.

Website>>> http://www.mst.co.jp/jp/index_e.html

Third party opinion

The establishment of the NTT Group CSR Charter and concomitant consensus regarding CSR activities among group companies means that the NTT Group is now ready to promote specific initiatives. This marks the beginning of a new era for NTT, and one in which it will need to clarify principles and policies as well as create an organization for putting plans into action. In this sense, the existence of the CSR Charter, together with the creation of an organization for its implementation, is a welcome development that lends credence to CEO Miura’s characterization of NTT as a customer-oriented enterprise, while at the same time creating anticipation for future achievements. It is an accomplishment worthy of admiration.

Hiroji Tanaka
Guest researcher at Rikkyo University (College of Economics) (Previously professor at Rikkyo University Graduate School)
Part-time lecturer at Nihon University, Director of the Japan Society for Business Ethics Study, Ministry of Economy, Trade and Industry, Japanese Standards Association (ISO/SR) Japanese Compliance Committee member

Third party opinion statement

The NTT Group CSR Report 2007 provides a clear explanation of NTT’s principles, policies, and organization for CSR as well as provides a glimpse into NTT’s accomplishments during fiscal 2007, providing an easy-to-understand framework for each of the four CSR goals specified in the CSR Charter. It also directly addresses the issue of communication with stakeholders, which is a crucial element in the promotion of CSR activities. Compared with last year’s report, this year we have a clear description of the aforementioned principles, policies, and organization as well as an easy-to-understand description of security and disaster prevention measures that affect the reliability and security of NTT Group services. The report also provides full coverage of issues critical to CSR activities, including a list of NTT’s ongoing social contribution initiatives, and even touches on timely issues such as biodiversity.

Many of the CSR reports issued these days are full of text and difficult to understand, but the editors of this report have clearly put a lot of effort, including the use of numerous easy-to-understand diagrams that clarify the meaning of the text, into enhancing its design and readability and other means.

If there were any particular area that might be improved, I might suggest that more concrete descriptions of quantitative targets and achievement levels for each CSR goal would help illustrate whether or not these activities are producing immediate results or should be reexamined for feasibility and effectiveness. In cases where numerical data is an effective means of reporting on a particular goal, the editors should provide as much data as possible. For example, rather than just showing raw data, I believe that more information in an easier-to-understand format about the cost effectiveness of environmental accounting would be an improvement. Another point worth reconsidering is the extensive use of technical terminology when discussing the research and development of cutting edge technology, as in the section on environmental technology development. Although it is nice that explanations of these terms are provided, it would be even nicer if the text were in ordinary language that does not require explanation.

The further development of NTT Group CSR activities requires careful consideration of and conformity with worldwide trends in GRI standards, and noting such trends in this report will help convey their importance to the general public as well as provide feedback to each NTT Group company. The complexities of corporate social responsibility span economic, environmental, and social issues, but I am certain that an awareness of these issues within each NTT Group company as well as by each and every NTT employee will lead to even greater success in these areas, both next year and beyond.
<table>
<thead>
<tr>
<th>GRI index</th>
<th>GRI Global Reporting Initiative indicators (1 / page no.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Scope and strategy</td>
<td>1. General overview of the GRI initiative</td>
</tr>
<tr>
<td>2. Data and methodology</td>
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</tr>
<tr>
<td>3. Results</td>
<td>3. GRI reporting initiatives of 2007-2008</td>
</tr>
<tr>
<td>4. GRI index</td>
<td>4. GRI index</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
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</tr>
<tr>
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</tr>
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</tr>
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</tr>
<tr>
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</tr>
</tbody>
</table>

**GRI index**

<table>
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