NTT Group

NTT Group

CSR Report
2008

NTT GROUP ECOLOGY PROGRAM

About the NTT Group CSR Report 2008

Editorial notes

During fiscal 2007, the NTT Group established the NTT Group CSR Charter to provide fundamental guidelines to enable better implementation of NTT Group CSR activities. The NTT Group Corporate Social Responsibility Report 2008 has been created to foster communication with all of our stakeholders by reporting the various CSR activities of the NTT Group that were implemented during fiscal 2008 in accordance with the NTT Group CSR Charter.

This year's report begins with a message from our president, and goes on to detail the basic vision, policies, and systems that guide our CSR activities. For the special feature section of this report, our officers in charge of CSR activities held a roundtable discussion to consider NTT Group CSR activities while remaining mindful of NTT Group efforts toward becoming a "service creation business group" that makes the most of overall Group strengths.

The main body of the report is divided in four sections according to the CSR goals outlined in the NTT Group CSR Charter, namely: communication between people and their communities, communication between people and the global environment, safe and secure communication, and Team NTT communication. Each section introduces key CSR activities of the NTT Group companies likely to be of interest to all NTT Group stakeholders. In order to better enable readers to understand the significance of each of the CSR activities contained in this report, sections are headed by icons indicating the particular stakeholders intended to benefit from those activities, and the logos of the NTT Group companies* that conduct them.

*Conventions for names of companies in this report:
- This report covers nine of the major NTT Group companies that issue CSR reports (see figure below).
- NTT subsidiaries are referred to by their company name, such as NTT CLARUTY.
- Subsidiaries of major Group companies other than those of NTT are referred to by the company name of the major group company to which they belong, such as NTT Resonant which is listed as its parent NTT Communications.

Reporting scope

Period: April 1, 2007 to March 31, 2008
Certain activities implemented after March 31, 2008 and outlook for the future are also included.

Organization: NTT and the NTT Group companies (476 companies)
- The figures given for the NTT Group in fiscal 2008 are tabulated from figures for NTT, NTT East, NTT West, NTT Communications, NTT DATA, NTT DOCOMO, and their group companies (476 companies).
  The scope of specific reports is noted in relevant areas.
- Organization names are current as of March 31, 2008. However, some organization names are from fiscal 2009.
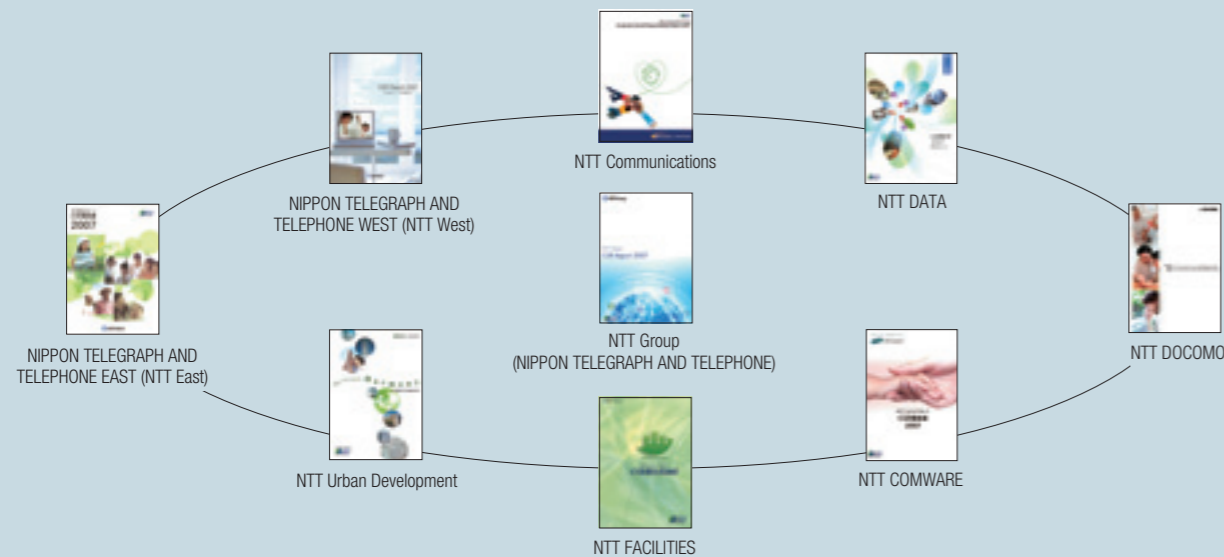
Month published: December 2008
Previously published: February 2008
Next report: December 2009 (provisional)

Reference guidelines

- This report has been created with reference to the GRI (Global Reporting Initiative) Sustainability Reporting Guidelines 2006 and the Ministry of the Environment's Environmental Reporting Guidelines FY2007 Version.

CSR reports by major NTT Group companies (issued in fiscal 2008)

NTT Communications

NIPPON TELEGRAPH AND TELEPHONE WEST (NTT West)

NTT DATA

NIPPON TELEGRAPH AND TELEPHONE EAST (NTT East)

NTT Group (NIPPON TELEGRAPH AND TELEPHONE)

NTT DOCOMO

NTT Urban Development

NTT FACILITIES

NTT COMWARE

About the contents

- In this report, NTT refers to NIPPON TELEGRAPH AND TELEPHONE CORPORATION, NTT Group refers to NTT and its group companies, and NTT [name] refers to individual companies within the NTT Group.
- 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 not 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 website updates as occasion demands. 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 CSR website presents more information than can be displayed within the limited space of this report, including examples of CSR activities and environmental data, and provides broader, more in-depth information about the NTT Group's CSR activities. There are also links on the website to CSR information of individual NTT Group companies.

CSR website designed to be easy-to-read and user-friendly

The CSR website has been designed according to NTT official homepage guidelines and evaluated by NTT CLARUTY employees with vision and hearing impairments and other employees with disabilities. NTT CLARUTY applied its accessibility checklist to the design of the website to help ensure that it is accessible to elderly users and people with disabilities.

Contents

The NTT Group works as one to contribute to the sustainable development of society through CSR activities grounded in the evolution of information and communication technology.

The world of telecommunications has been changing dramatically with the spread of ubiquitous broadband networks and increasing integration of services in conjunction with IP network deployment. At the same time, present-day society now faces a wide range of pressing issues, including an aging and shrinking population, widening social disparities, stretched nursing care and medical treatment systems, energy, resource, and environmental issues, and response to large scale natural disasters. The prominence given to environmental concerns at the G8 Hokkaido Toyako Summit in July 2008 testified to the growing urgency of such issues in recent years, and countermeasures are being considered and implemented on a national level.

We of the NTT Group believe that it is our responsibility to society to do whatever we can within our business to tackle these increasingly diverse and complex issues and contribute to the sustainable development of society. With this CSR goal in mind, we are working as one to implement a wide range of initiatives based on our NTT Group CSR Charter.

In May 2008, we announced our "Road to Service Creation Business Group" vision aimed at listening to our customers, improving customer satisfaction and providing new services tailored to changing customer and societal needs. We are striving to further enhance living standards and business productivity through utilizing next-generation network (NGN) and Super 3G

(a high-speed mobile data communications standard) to build a full IP network and develop a growing range of ubiquitous broadband services in new business areas including solutions business, energy, and environment. We also believe that providing even more convenient and user-friendly services requires that we leverage our all-round strengths as a Group by pooling the business resources of our fixed communications, mobile communications, systems integration, and other businesses.

We launched NGN-based commercial services in parts of the Tokyo metropolitan area and Osaka Prefecture in March 2008. We will expand these services in phases to ultimately cover all of Japan, and we aim to complete migration from the current B FLET'S service by fiscal 2013. We see NGN as a vital platform for further contributing to the sustainable development of society, and we will strive to develop an increasing range of NGN-based services through broad industry collaboration.

We are also taking a unified approach to tackling environmental issues, focusing in particular on curbing the CO_2 emissions generated by our business activites – currently rising as a result of the growth of our information and communication technology (ICT) services – through a range of measures including environment- and energy-related R&D and the deployment of energy-efficient network equipment and

data centers. We have also launched "Green NTT" activities to further promote the use of solar power and other alternative energy sources across the Group and plan to take further measures to counter global warming in the future.

We also help to mitigate the impact of human society as a whole on the environment through providing high quality video conferencing, Internet shopping, and other ICT services that reduce the need for movement of people and goods, resulting in CO_2 emission reductions.

As we work towards the full-scale rollout of ubiquitous broadband services, we will strive to

constantly keep our responsibility to society in mind and make CSR a top priority in the management of our business. We have designed this CSR report to promote dialog with all of our stakeholders by providing an easy-to-grasp overview of our activities.

We would welcome and appreciate any thoughts and comments regarding our efforts and this CSR Report.

Satoshi Miura

Satoshi Miura
President & CEO
NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Two hundred thousand NTT Group employees are working to usher in a new age of ubiquitous broadband communications by providing a wide range of services.

Business overview		Group companies

Regional communications businesses

NTT Group companies provide intra-prefectural domestic communications services and operate related businesses. This mainly involves broadband fixed communications services, IP communications services, and sales of communications equipment.

Operating revenues (for the year ended March 31, 2008)
¥4,209.7 billion
33.7 %[1]

Number of employees (for the year ended March 31, 2008)
110,679 employees
57.1 %[2]

Regional communications business support group
- NIPPON TELEGRAPH AND TELEPHONE EAST
- NIPPON TELEGRAPH AND TELEPHONE WEST
- NTT EAST-TOKYOMINAMI
- NTT WEST-KANSAI
- NTT-ME
- NTT NEOMEIT
- NTT MARKETING ACT
- NTT INFRASTRUCTURE NETWORK
- NTT DIRECTORY SERVICES
- NTT Quaris
- NTT Solco
- NTT CARD SOLUTION
(Also 94 other companies)

Long distance and international communications businesses

NTT Group companies provide inter-prefectural domestic communications and international communications services, and operate related businesses, including system integration fixed voice-related services, and IP communications services for enterprises.

Operating revenues (for the year ended March 31, 2008)
¥1,322.8 billion
10.6 %[1]

Number of employees (for the year ended March 31, 2008)
13,177 employees
6.8 %[2]

Long distance and international communications business support group
- NTT Communications
- NTT PC COMMUNICATIONS
- NTT Resonant
- NTT Plala
- Verio
- NTT Com Asia
- NTT America
- NTT AUSTRALIA
- NTT Europe
- NTT WORLD ENGINEERING MARINE
- NTT BizLink
- NTTComTechnology
(Also 37 other companies)

Data communications businesses

NTT Group companies provide system integration, network system, and related services for the public sector, and finance and other private sector industries.

Operating revenues (for the year ended March 31, 2008)
¥1,059.5 billion
8.5 %[1]

Number of employees (for the year ended March 31, 2008)
22,592 employees
11.7 %[2]

Data communications business support group
- NTT DATA
- NTT DATA FRONTIER
- NTT DATA SYSTEM TECHNOLOGIES
- NTT DATA Getronics
- NTT DATA SYSTEMS
- NTT DATA WAVE
- Nihon Card Processing
- NTT DATA FORCE
- NTT DATA CREATION
- itelligence
(Also 120 other companies)

Mobile communications businesses

NTT Group companies provide mobile phone (FOMA and mova), packet communications, satellite phone, international communications, wireless LAN and other services, as well as selling handsets and other equipment for these services.

Operating revenues (for the year ended March 31, 2008)
¥4,711.8 billion
37.7 %[1]

Number of employees (for the year ended March 31, 2008)
22,100 employees
11.4 %[2]

Mobile communications business support group
- NTT DoCoMo
- NTT DoCoMo Hokkaido
- NTT DoCoMo Tohoku
- NTT DoCoMo Tokai
- NTT DoCoMo Hokuriku
- NTT DoCoMo Kansai
- NTT DoCoMo Chugoku
- NTT DoCoMo Shikoku
- NTT DoCoMo Kyushu
- DoCoMo Service
- DoCoMo Engineering
- DoCoMo Mobile
- DoCoMo Support
- DoCoMo Systems
(Also 108 other companies)

Other businesses

Other businesses include system integration and information processing, advanced technology development, engineering, financing, real estate, and administrative services.

Operating revenues (for the year ended March 31, 2008)
¥1,185.1 billion
9.5 %[1]

Number of employee (for the year ended March 31, 2008)
25,283 employees
13.0 %[2]

- NTT FACILITIES
- NTT COMWARE
- NTT Urban Development
- NTT FINANCE
- NTT Electronics
- NTT ADVANCED TECHNOLOGY
- NTT Software
- NTT BUSINESS ASSOCIE
- InfoCom Research
- NTT LOGISCO
- NTT ADVERTISING
- NTT LEARNING SYSTEMS
(Also 57 other companies)

1. Percentage of consolidated revenues (Includes intersegment transactions)
2. Percentage of total NTT Group employees

- "Kabushiki Kaisha" (KK) has been omitted from company names.

NTT

Overview of Corporation (As of March 31, 2008)

Name: NIPPON TELEGRAPH AND TELEPHONE CORPORATION (NTT)

Head office: 3-1, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8116, Japan

Date of establishment: April 1, 1985

Paid-in capital: ¥937.95 billion

Number of employees: 2,890 employees (193,831 employees on a consolidated basis)

Number of consolidated subsidiaries: 476

Website: http://www.ntt.co.jp/index_e.html
(For additional information including details of management strategy:
http://www.ntt.co.jp/about_e/index.html)

Consolidated financial data
(for the year ended March 31, 2008)

Breakdown of operating revenues
- Other businesses 9.5%
- Mobile communications businesses 37.7%
- Data communications businesses 8.5%
- Regional communications businesses 33.7%
- Long distance and international communications businesses 10.6%

10,680.9 billion yen

Operating revenues
(in billions of yen)

2004	2005	2006	2007	2008
11,095.5	10,805.9	10,741.1	10,760.6	10,680.9

(Year ended March 31)

Operating income
(in billions of yen)

2004	2005	2006	2007	2008
1,560.3	1,211.2	1,190.7	1,107.0	1,304.6

(Year ended March 31)

Net income
(in billions of yen)

2004	2005	2006	2007	2008
645.4	714.5	503.1	481.4	635.2

(Year ended March 31)

- NTT consolidated net income prior to the year ended March 31, 2007 has been changed from previously reported amounts due to the acquisition of additional shares during the year ended March 31, 2008, and in line with the retroactive application of the equity method for past years with regard to affiliated companies for which the equity method has been newly applied.

NTTEAST
Regional communications businesses

NTT East provides individual and corporate customers in its East Japan region with a wide range of telecommunications services including fixed lines and Internet access for personal and business use. It aspires to provide stable, high quality universal services, and is actively expanding its fiber optic services and other broadband business. It is also pursuing solutions business, providing system integration and other solutions for fields such as local government and education.

Main CSR activities   Only key entries are listed below (same for other companies).

- Improving network infrastructures to support ubiquitous communications ▶P. 24
- Helping customers to reduce, reuse, and recycle ▶P. 38
- Promoting appropriate use of information and communications services ▶P. 47
- Supporting employee volunteer activities ▶P. 56

NTT Communications
Long distance and international communications businesses

NTT Communications provides global IP-based solutions as well as domestic long distance and international communications services. In its Vision 2010, it gives its mission as being to bridge the present with the future for its customers worldwide as a trusted partner dedicated to creating a safe, comfortable and prosperous society, and bases its business on the seven core concepts of solutions, network management, security, global, ubiquitous, portals/engines, and managed quality operation.

Main CSR activities

- Supporting various medical services ▶P. 26
- Increasing employment opportunities ▶P. 28
- Raising awareness and spreading information inside and outside the company ▶P. 40
- Preparing for disasters ▶P. 44

NTT docomo
Mobile communications businesses

NTT DOCOMO handles the NTT Group's mobile communications business. As competition among telecommunications carriers heats up, NTT DOCOMO, based on its corporate philosophy of creating a new communications culture, aims to further expand its FOMA service and enhance core businesses, and to contribute to the creation of a flourishing and prosperous society through providing user-friendly mobile multimedia services tailored to the needs of both individuals and businesses.

Main CSR activities

- Helping customers to reduce, reuse, and recycle ▶P. 38
- Promoting appropriate use of information and communications services ▶P. 47
- Creating services based on universal design ▶P. 50

NTT COMWARE
Other businesses

NTT COMWARE supports system aspects of ubiquitous broadband communications infrastructure through its three core competencies of (1) network technology for mission critical IP network solutions that support NGN ICT platforms, (2) systems and applications for providing high-value services, and (3) advanced and comprehensive support and maintenance services that guarantee the continuity of customer businesses and services.

Main CSR activities

- Ensuring information security ▶P. 46
- Pursuing customer satisfaction and providing a framework for quality management ▶P. 49
- Support for parents and caregivers ▶P. 53
- Promoting occupational safety and health ▶P. 54

NTTWEST
Regional communications businesses

NTT West provides individual and corporate customers in its West Japan region with a wide range of telecommunications services including fixed lines and Internet access for personal and business use. It aspires to provide stable, high quality universal services, and also offers a full range of access line services, application services, digital content, and solutions for contributing to regional development as it strives for further growth centered on its fiber optic-based broadband business.

Main CSR activities

- Improving network infrastructures to support ubiquitous communications ▶P. 24
- Increasing employment opportunities ▶P. 28
- Helping customers to reduce, reuse, and recycle ▶P. 38
- Performance-based pay and a range of training opportunities ▶P. 55

NTT Data
Data communications businesses

NTT DATA develops, provides, and maintains a variety of information systems and services that support individuals, business, and society both within Japan and overseas and span a wide range of industries from the public sector to financial and other private enterprises. As expectations in the power of ICT to revolutionize society and business rise, NTT DATA is moving beyond systems integration to serve as a true innovation partner providing total support for the transformation that its customers seek, and contributing to the creation of value and further the development of society and business.

Main CSR activities

- Reducing society's environmental impact by offering ICT services ▶P. 35
- Ensuring information security ▶P. 46
- Support for parents and caregivers ▶P. 53

NTTFACILITIES
Other businesses

NTT FACILITIES is a general engineering services company that provides ubiquitous broadband telecommunications environments through the planning, design, construction, and maintenance of buildings, power systems and air conditioning systems, and the development and supply of high-reliability power systems for supporting telecommunications. Its mission is to apply its rich experience in the integration of information, energy, and construction technology to provide facility solutions that best address society's increasingly diverse and complex information distribution needs.

Main CSR activities

- Providing products and services that help customers reduce CO_2 emissions ▶P. 36
- Preparing for disasters ▶P. 44
- Ensuring information security ▶P. 46
- Pursuing customer satisfaction and providing a framework for quality management ▶P. 49

NTT都市開発
NTT Urban Development Co.
Other businesses

NTT Urban Development, which was established in 1986 as the NTT Group's only general real estate company, focuses principally on the two areas of office space leasing and sales of its WELLITH brand of condominiums. It aims to maintain an optimum business portfolio also through other operations including the development of commercial facilities and concomitant expansion of its commercial real estate and property management business segments, and participation in fee-based businesses in the area of real-estate funds.
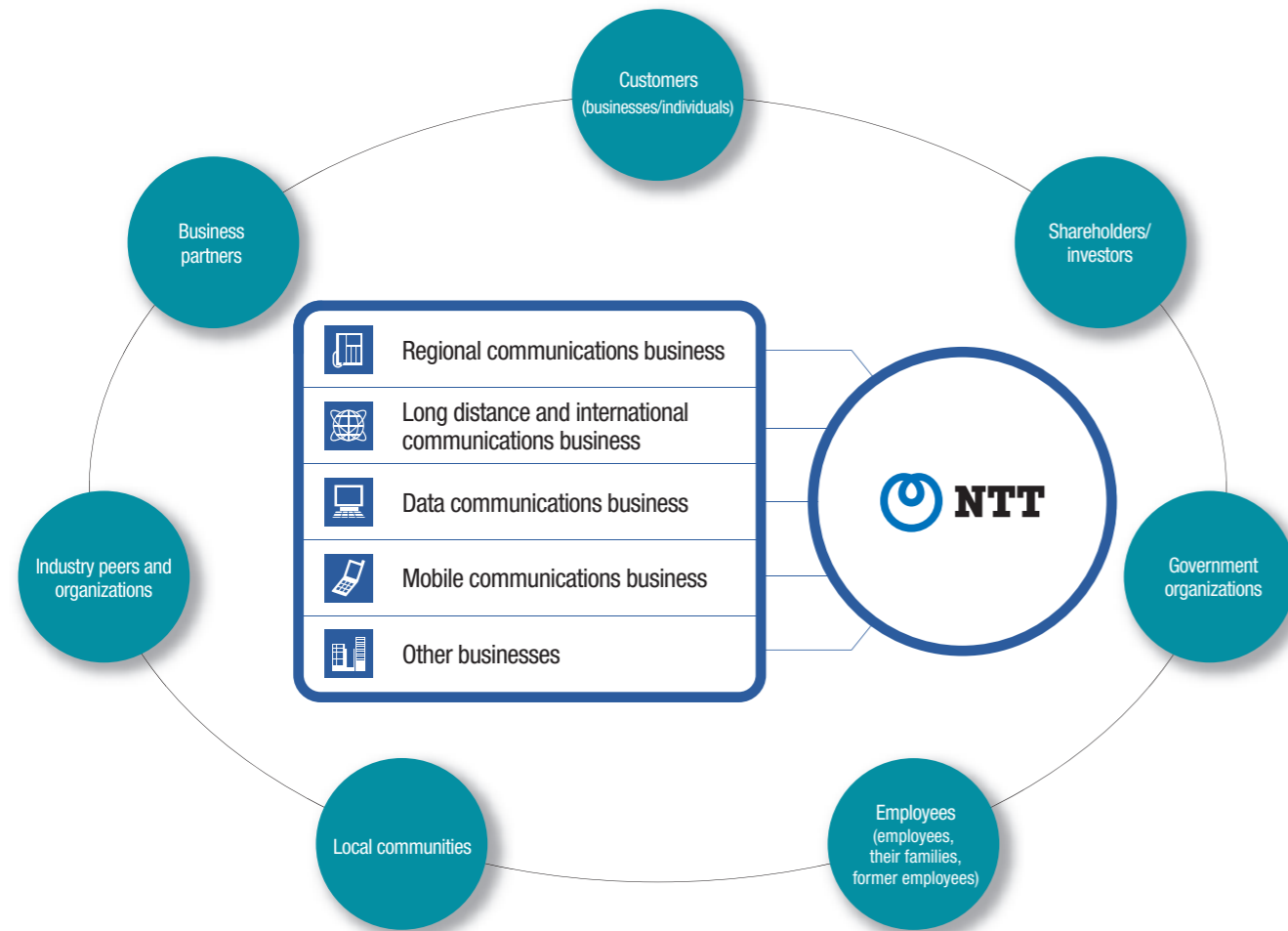
Main CSR activities

- Ensuring information security ▶P. 46
- Promoting occupational safety and health ▶P. 54

The NTT Group has structures and guidelines in place to support and ensure sound corporate conduct that meets the expectations and interests of our stakeholders.
NTT is committed to promoting CSR activities across the Group.

Customers
(businesses/individuals)

Business partners

Shareholders/investors

Regional communications business

Long distance and international communications business

Data communications business

Mobile communications business

Other businesses

Industry peers and organizations

NTT

Government organizations

Local communities

Employees
(employees, their families, former employees)

The NTT Group consists of NTT and its subsidiaries and affiliates (including 476 consolidated subsidiaries). The Group's main businesses are regional communications, long distance a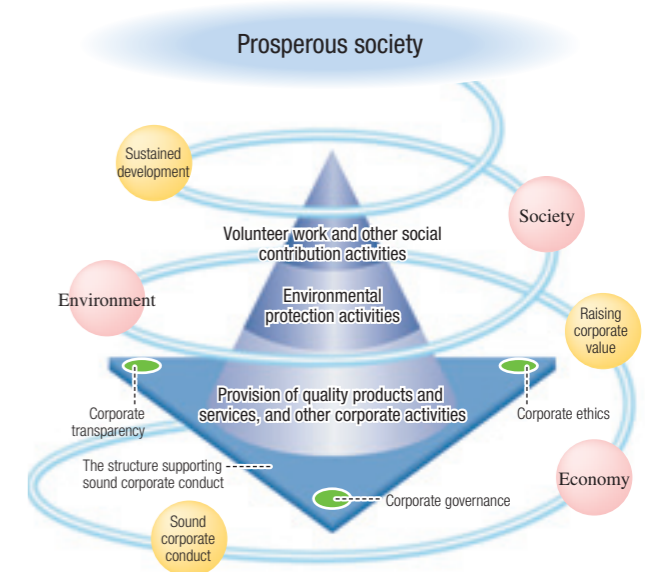nd international communications, data communications, and mobile communications. NTT is committed to promoting CSR activities across the Group to address the expectations of its stakeholders.

A structure that supports sound corporate conduct

Sound corporate conduct is fundamental to the fulfillment of our CSR. In addition to compliance with laws and regulations, ensuring sound corporate conduct requires the application of the highest ethical standards (corporate ethics), the proactive and appropriate disclosure of financial data and other information that the public has a right to know (corporate transparency), and mechanisms for ensuring responsible corporate management and control (corporate governance).

Positioning these three components – corporate ethics, corporate transparency, and corporate governance – as a structure for supporting sound corporate conduct, the NTT Group strives to address the expectations of its customers and stakeholders through a wide range of CSR activities in addition to providing quality products and services. We believe that building a prosperous society with our stakeholders ultimately contributes to our corporate value and sustained development.

Prosperous society

Sustained development

Society

Volunteer work and other social contribution activities

Environment

Environmental protection activities

Raising corporate value

Corporate transparency

Provision of quality products and services, and other corporate activities

Corporate ethics

The structure supporting sound corporate conduct

Corporate governance

Economy

Sound corporate conduct

The NTT Group CSR Charter

NTT drew up the NTT Group CSR Charter in June 2006 as a basic guideline for the more active implementation of CSR activities by Group companies.

The NTT Group CSR Charter consists of a statement of our commitment to corporate social responsibility, and the four CSR goals that outline specific priority aspects of our CSR activities.

Safe and secure communication

Creation of a safe, secure and prosperous society through communications that serve people, communities, and the global environment

Team NTT communication

Communication between people and their communities

Communication between people and the global environment

NTT Group CSR 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
● **Communication between people and their communities**
1. We shall strive to create a richer 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.

● **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.

● **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 to withstand disasters and capable of connecting people irrespective of time, location and other circumstances.

● **Team NTT communication**
5. All of us on Team NTT pledge to perform our duties with pride and a keen sense of responsibility in compliance with the highest of 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, contract employees, employees of our corporate partners, and also former employees who endorse the NTT Group's CSR activities.

The NTT Group continues to enhance its various management systems to support the sound development of its Group companies and establish a foundation of trust.

Enhancing corporate governance and building internal control systems

The NTT Group considers the enhancement of corporate governance to be of vital importance in maintaining our customers' and society's trust and ensuring our mutual sustained development.

Basic stance

The NTT Group considers the enhancement of corporate governance to be of vital importance in maintaining our customers' and society's trust and ensuring our mutual 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, and (4) full compliance with laws and regulations.

Composition of Board of Directors and Board of Corporate Auditors

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 Corporate Auditors, which is composed of five members, referred to as corporate auditors, of whom three are outside corporate auditors.

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, fulltime directors, and the heads of staff organizations. The Executive Officers Meeting members meet once every week or two, and held 36 meetings in fiscal 2008. It also oversees the activities of committees charged with discussing specific areas of Group company management strategy. In principle, each committee is chaired by either the President or a Senior Executive Vice President, with other directors and senior executives involved in relevant areas participating as occasion demands.

Internal control system

NTT is working to strengthen the Group's internal control systems with the Board of Directors adopting a basic policy for the maintenance of a system of internal controls to ensure the appropriate execution of duties within each Group company.

In line with the U.S. Public Company Accounting Reform and Investor Protection Act and Japan's Financial Instruments and Exchange Law, the NTT Group is working to document business processes and conducts repeated tests to confirm the effectiveness of its financial reporting internal control system.
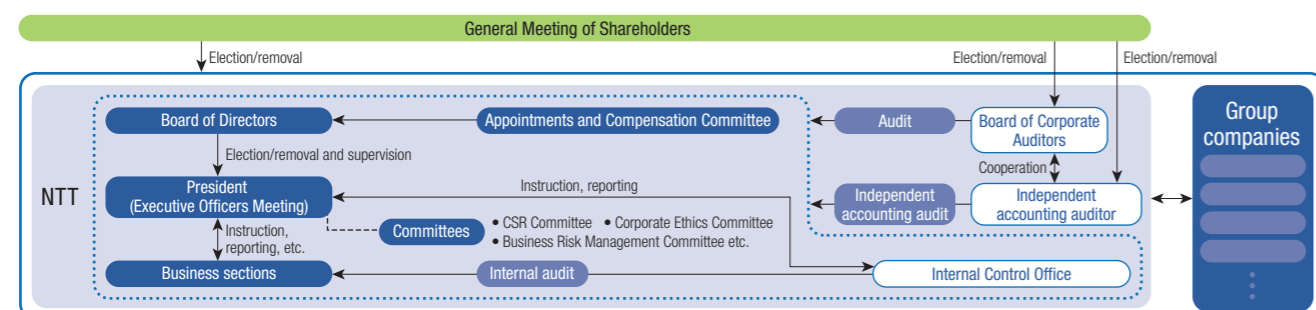
Audits by the corporate auditors

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 independent accounting auditor through periodic discussion of audit plans and results, and other means.

Internal audits

NTT's Internal Control Office monitors the status and operating effectiveness of internal controls across the Group as a whole through such measures as conducting standardized audits that target all Group companies and checking the work of internal auditors in each Group company, as well as implementing improvements to the Group's internal control systems.

Corporate governance structure

General Meeting of Shareholders

Election/removal — Election/removal — Election/removal

NTT

Board of Directors — Appointments and Compensation Committee — Audit — Board of Corporate Auditors

Election/removal and supervision

President (Executive Officers Meeting)

Instruction, reporting

Committees
- CSR Committee • Corporate Ethics Committee
- Business Risk Management Committee etc.

Instruction, reporting, etc.

Business sections — Internal audit — Independent accounting audit — Independent accounting auditor

Cooperation

Internal Control Office

Group companies

Building and implementing compliance structure

The NTT Group drew up its Corporate Ethics Charter to remind all of its personnel of their responsibilities as members of a communications group providing society with essential services.

NTT Group Corporate Ethics Charter

Based on a core belief that it is imperative to conduct business in compliance with laws and the highest ethical standards in order to promote sound corporate activities, NTT drew up the NTT Group Corporate Ethics Charter in November 2002.

The Charter, which applies to all officers and employees of the NTT Group, lays out the basic principles of corporate ethics and provides specific guidelines for ethical behavior. The stipulations in the Charter are intended to remind everyone of their duty as members of a communications group to prevent dishonesty, misconduct, and the disclosure of corporate secrets, refrain from exchanging excessive favors with customers and suppliers, and ensure that they conduct themselves according to the highest ethical standards in both private and public activities.

NTT Group Corporate Ethics Charter Handbook

Ethics education and awareness surveys

To ensure the effectiveness of the Corporate Ethics Charter, NTT Group companies provide their employees with education in corporate ethics and CSR, and conduct surveys to monitor employee awareness.

Help Line

To prevent dishonesty and misconduct, each company has in place a system for employees to report and consult on ethical issues. We have also established a group-wide Corporate Ethics Help Line to enable employees to go outside their company for help if required.

In line with Japan's Whistleblower Protection Act (effective as of April 2006) and other laws, the NTT Group also accepts reports from companies outside the group that do business with the NTT Group.

NTT Group Corporate Ethics Charter

1. Recognizing the establishment of corporate ethics as one of its most important missions, top management shall exert its leadership to ensure that the spirit of this Charter is adopted throughout the Company, and shall assume full responsibility for solving any problems when any event inconsistent with that spirit occurs.

2. Every person with subordinate employees shall not only act in a self-disciplined manner, but shall also always provide guidance and assistance to his/her subordinate staff to ensure that their conduct is in conformity with our corporate ethics.

3. Every officer and employee of the NTT Group shall not only comply with all laws and regulations, social standards, and internal company rules whether in Japan or overseas, but officers and employees shall also hold the highest ethical philosophy within himself/herself both in public and in any private situations. Among other things, each officer and employee, as an officer or employee of a member of a Global Information Sharing Corporate Group, shall keep himself/herself fully aware that any disclosure of customer or other internal privileged information constitutes a materially wrongful act. Also, as a member of a group of companies which holds great social responsibilities, he/she shall strictly refrain from giving or receiving from customers, business partners, and other interested parties excessive gratuities.

4. Each NTT Group company, at the first opportunity, shall take initiatives to provide training programs in order to help its officers and employees enhance their awareness of our corporate ethics.

5. Every officer and employee of the NTT Group shall direct his/her efforts to prevent wrongful or scandalous acts which may potentially occur as specialization and advancement of our business proceeds. Each NTT Group company shall improve its system to prevent such acts, including, for instance, the re-assignment of contract representatives who have remained with the same customers for a long period of time, and the improvement of monitoring tools to protect customer and other information.

6. Any officer or employee who may come to know of the occurrence of any wrongful act or any scandal shall promptly report the wrongful act or scandal to his/her superior or other appropriate persons. If he/she is not able to make such a reporting, he/she may contact the "Corporate Ethics Help Line (Consulting Center)." It should be noted that every officer and employee who reports the occurrence of any wrongful act or scandal shall be protected so that the reporting party shall not suffer any negative consequences due to such reporting.

7. In the event of an occurrence of any wrongful act or scandal, each NTT Group company shall be committed to the settlement of the problem by taking appropriate steps through a speedy and accurate fact finding process, and responding in a timely, suitable, and transparent manner in order to fulfill its social accountability.

Risk management system

The NTT Group has a framework to prevent risks from emerging and to minimize any impact should they emerge.

The NTT Group functions within a rapidly changing business climate marked by increasingly fierce competition in the areas of information and communications. Group companies also face a wide variety of business risks, such as major earthquakes and other unforeseeable circumstances.

We make efforts to anticipate and prevent potential risks at hand and minimize the impact should they emerge. As part of these efforts, we have prepared a standard manual for distribution to all Group companies to ensure a unified approach to risk management. Each Group company also prepares its own manual or other mechanisms tailored to

its specific business activities and environment to manage and mitigate business risks.

Risk Management Manual

Human rights awareness

We make Group-wide efforts to raise human rights awareness and create a corporate culture that respects human rights and is free of any discrimination or harassment.

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 take a unified approach to addressing human rights issues.

More specifically, we encourage employees to regard human rights as a personal issue, and work to deepen their awareness and understanding so that they show respect for human rights in their day-to-day business activities and take a firm stand against discrimination by others. To this end, we provide a broad range of human rights education focused on such issues as prejudice against specific social groups, people with disabilities, the elderly, foreign residents in Japan, sexual harassment, and power harassment, as well as introducing human rights trends in Japan and abroad.

Furthermore, all NTT Group companies provide workshops, e-learning courses, and other programs that enable employees to learn about these issues on a

multifaceted continuing basis. Other activities to boost and establish awareness of human rights include soliciting 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.

Poster to solicit human rights slogans   Poster to prevent sexual harassment

R&D efforts in basic technologies

NTT conducts basic technologies R&D activities in three laboratory groups while also developing practical applications with its Group companies.

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 R&D muscle for the development of basic technologies that support the creation of safe, secure, and convenient ubiquitous broadband services and commercialization of next-generation networks. NTT's R&D results have steadily been put into practical use through the effective use of our "Comprehensive Commercialization Functions" and in close collaboration with the Group companies.

Protection of intellectual property

NTT protects the results of its R&D to maintain its competitive edge, but at the same time makes its intellectual property available to a wider audience by licensing technologies that would contribute to the development of industries and businesses as well as standardized technologies that are already used in society.

We also examine the third party rights of technologies used in our business to prevent infringement of third party intellectual property rights, and otherwise strive to comply with intellectual property-related laws and regulations and mitigate potential business risks by sharing information with our Group companies.

Intellectual property website

Activities of each laboratory group (fiscal 2008)

	Patents (No. of applications)	Joint research projects
Cyber Communications Laboratory Group	346	21
Information Sharing Laboratory Group	777	51
Science and Core Technology Laboratory Group	685	105

R&D overview

Home security, monitoring | Web portal | Medical, healthcare | Office ICT | Broadband communications | Data centers | Environment, disaster preparedness

Provision of services

NTT East | NTT West | NTT Communications | NTT DATA | NTT DOCOMO

Applied R&D
Applied system development, customization, etc.

Research results   Market needs/technology demands

NTT R&D

Basic R&D
- Basic technology and basic system development for developing new services
- Basic and elemental technology for creating new principles and devices, etc.
- Academic activities, standardization activities

CSR organization

CSR Committee and Group CSR Liaison Meetings to promote CSR activities across the NTT Group

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.

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. 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. Group CSR Liaison Meetings are also used to discuss issues shared by Group companies and any other matters pertaining to the further promotion of CSR.

NTT Group CSR organization

- Board of Directors
- President (Executive Officers Meeting)
- Committees
  - CSR Committee — Group CSR Liaison Meetings
  - Global Environmental Protection Promotion Committee — CSR promotion working groups
    - See p. 30 for details.
  - Social Contribution Promotion Committee
  - Corporate Ethics Committee
  - Business Risk Management Committee

Topics

The NTT Group has launched discussions on how its 200,000 employees can be marshaled to further promote citizenship activities as Team NTT.

On February 5, 2008, NTT Group company CSR and citizenship activity handlers gathered for a CSR Workshop to discuss ways of raising awareness and enhancing structures for bringing the Group's 200,000 employees together to drive citizenship activities as "Team NTT". After different Group companies introduced the citizenship activities being pursued through their businesses, the discussion focused on the links between local and global issues to provide participants with a fresh awareness of how closely the world is interconnected. In the discussions that followed, the participants reexamined the initiatives being pursued by their respective companies, and reaffirmed the importance of concrete action and participation, and of nurturing people with the right mindsets to drive activities aimed at building a sustainable society.

Chisato Murakami, Chief Coordinator for the Japan Council on the UN Decade of Education for Sustainable Development (ESD-J), gave a talk as guest speaker at

the Workshop, which did much to stimulate thought on how to bring Group employees together to implement citizenship activities as Team NTT. We plan to hold further discussions to drive the formulation and implementation of concrete initiatives.

Workshop

Chisato Murakami, Chief Coordinator, Japan Council on the UN Decade of Education for Sustainable Development (ESD-J)

Communicating with our shareholders and investors

The NTT Group strives to improve management transparency through proactive disclosure and IR activities.
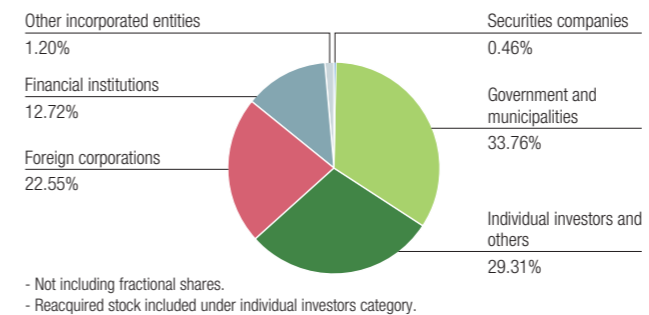
Basic ideals

The NTT Group recognizes that enhancing its corporate value in the mid- and long-term and realizing appropriate returns to shareholders are crucial aspects for its business. At the same time, we are striving to improve the transparency of management through proactive disclosure and IR activities to enable our shareholders, investors, and other stakeholders to appropriately evaluate our business performance.

NTT stocks

As a result of six offerings of government-owned shares since NTT's privatization in 1985, NTT stocks are in the hands of approximately 1.33 million shareholders (including holders of fractional shares), as of the end of March 2008.

NTT shareholders

- Other incorporated entities 1.20%
- Securities companies 0.46%
- Financial institutions 12.72%
- Government and municipalities 33.76%
- Foreign corporations 22.55%
- Individual investors and others 29.31%

- Not including fractional shares.
- Reacquired stock included under individual investors category.

Returns to shareholders

NTT seeks to enhance returns to shareholders over the medium term. We determine the amount of dividends based on an overall consideration of factors such as business performance, financial position, and dividend pay-out ratio, focusing also on stability and sustainability. For the year ended March 31, 2008, NTT increased its yearly dividends from ¥8,000 to ¥9,000 per share. The yearly ordinary dividends for the year ended March 31, 2009 are expected to rise to ¥11,000. NTT has also decided to implement a share repurchase, while taking into account market trends and other factors, to buy back up to ¥200 billion in the year ended March 31, 2009, following the ¥94.4 billion buy back in the year ended March 31, 2008.

Disclosure and IR activities

NTT has listed its shares on several domestic and foreign stock exchanges (Tokyo, Osaka, Nagoya, Fukuoka, Sapporo, New York, and London), and has issued domestic and foreign bonds to procure funds. We consider it important to establish and maintain relationships of trust with our shareholders and investors in both domestic and foreign capital markets, and accordingly disclose information in a timely, appropriate and fair manner, fulfilling our accountability as a business corporation.

To help shareholders and investors to better understand our management strategy, we also actively conduct IR activities and create opportunities for our top management to directly communicate with our shareholders and investors by holding various events in addition to general shareholders' meetings, such as IR roadshows, presentation of corporate strategies and financial results, and presentations for corporate bond investors. We are also making efforts to enrich IR content on our corporate website.

Topics

High ratings by Socially Responsible Investment (SRI) indexes in Japan and abroad

NTT has been highly rated by SRI evaluation organizations. As of September 1, 2008, we are listed on international SRI indices such as "FTSE4Good Global Index" (UK), as well as in "Morningstar Socially Responsible Investment Index" (Japan).

MS-SRI   FTSE4Good

Roundtable
For a groupwide approach to CSR activities

In the field of information and communications, we are seeing a clear trend in recent years towards the creation of totally new services combining various content and solutions via broadband networks and platforms that merge fixed and mobile communications. In this environment, NTT Group companies are working closely to generate new synergy and pool their knowledge and expertise to implement CSR activities aimed at addressing social issues through their business activities. Group company CSR officers recently got together to hold a roundtable discussion on the theme of the NTT Group's CSR activities and how to generate synergy among Group companies.

Photos (from the left):
Seiya Wakaizumi
Executive Director
NTT Urban Development Corporation

Takashi Sakamoto
Senior Executive Vice President
NTT FACILITIES, INC.

Masae Tamura
Senior Executive Vice President
NTT Communications Corporation

Tetsuo Koga
Senior Executive Vice President
NIPPON TELEGRAPH AND
TELEPHONE EAST CORPORATION

Kaoru Kanazawa
Senior Executive Vice President
NIPPON TELEGRAPH AND
TELEPHONE CORPORATION

Hiroo Inoue
Senior Executive Vice President
NIPPON TELEGRAPH AND
TELEPHONE WEST CORPORATION

Hiroshi Matsui
Senior Executive Vice President
NTT DOCOMO, INC.

Hiroaki Takano
Senior Executive Vice President
NTT COMWARE CORPORATION

Masashi Sogo
Senior Vice President and Senior
Executive Manager, General Affairs
Department
NTT DATA Corporation

— In this roundtable, we'd like to hear your thoughts on how the NTT Group should promote CSR activities in the future from the perspective of the changing social landscape in which we operate and the nature of each company's business. First of all, Mr. Kanazawa, could you explain the Group's basic approach towards CSR activities and the issues at hand?

Kanazawa: At the NTT Group, we see our corporate social responsibility as being to contribute to society by addressing social issues through our businesses, and each Group company is involved in CSR activities according to its business based on the NTT Group CSR Charter. In recent years, however, as demonstrated by our reporting of consolidated financial results, it has become a matter of course to view and evaluate our business activities as a Group. Also, in the area of telecommunications and ICT,

we're seeing new services such as Fixed-Mobile Convergence (FMC)* services being created through the integration of different means of communication. As such, we believe that the NTT Group would be able to make a larger contribution to society by generating synergy between its member companies in its CSR activities also.

*Technology that enables seamless switching between fixed and mobile communications, so that, for example, mobile phones can be used as cordless handsets for fixed phone communications at home.

Theme 1
Ubiquitous broadband services

Providing services that help to address social issues based on a reliable telecommunications infrastructure

— When thinking about the NTT Group's CSR activities, we need to ask ourselves how we can contribute to society through our common business domain – the building and operation of telecommunications infrastructure. Could we first hear from each of you on your company's approach?

Koga: There are many ways in which enabling people to access the information they want irrespective of time or place can contribute to solving social issues. Wired and wireless broadband networks are the platforms supporting such a "ubiquitous" society, and NTT East is, along with NTT West, pushing ahead with the deployment of optical fiber-based wired networks.

Takano: NTT COMWARE contributes to building high reliability communications infrastructure by providing information processing systems-related support. For example, we provide ICT solutions

in the form of system development and application technologies for creating high value information services for building the mission critical[1] IP network[2] that constitutes the essential platform of the next-generation network (NGN) that launched commercial services in parts of the Tokyo metropolitan area and Osaka Prefecture in March 2008.

1. Equipped with maximum reliability and disaster tolerance, total support system and other measures for minimizing the impact of system failures.
2. A network operated and regulated by standard protocols and procedures widely adopted for the Internet.

Roundtable
For a groupwide approach to CSR activities

Tamura: Yes, the key to providing safe and efficient services will be the transformation of networks to IP based ones. In this sense, NTT Communications provides IP-related solution services all over the world in addition to its long-distance domestic and international communications businesses.

Sakamoto: The spread of broadband and IP networks will mean that we'll see significant increases in data volume, and so it will be even more important for us to provide reliable and secure services. In this context, NTT FACILITIES works with other Group companies to provide comprehensive engineering services for buildings such as data centers, electricity and air conditioning systems, and highly reliable power supply systems to support telecommunications systems.

Matsui: NTT DOCOMO is NTT's mobile communications arm, and we focus on broadband networks for the wireless access services that are a vital part of ubiquitous communications infrastructure. Our FOMA HIGH-SPEED data communications service now covers over 98% of the population. We have also started providing FMC services, which offer mobile broadband access through seamlessly integrating mobile and fixed communications, not only to corporate customers, but also to individual customers since June

2008 as "Home U". This service enables our customers to use their mobile phones with broadband environments at home and elsewhere.

Inoue: The spread of NGN and FMC services enhances the reliability of networks, enabling us to provide a wider variety of services and content that enhances user choice and convenience, but they can also be seen as new social infrastructure and services for addressing issues related to rural depopulation, disparity between regions, and the aging of our society. We should aim to offer solutions to these issues too as the NTT Group.

Wakaizumi: Yes, I agree. NTT Urban Development is the only company in the NTT Group that conducts real estate business on a nationwide basis, and while we're not directly involved in building telecommunications infrastructure or developing information services, we make a point of offering living and office environments that take advantage of our position as the real estate arm of the NTT Group. For example, when building and selling new condominiums or office buildings, we install broadband services such as B FLET'S and other services that enhance the everyday comfort, safety and peace of mind of elderly or people with disabilities.

Sogo: While we're on the subject

of how ubiquitous broadband services can influence the way society functions, at NTT DATA we started full-scale operation of our teleworking system in fiscal 2009 under the slogan "Work Style Innovation". Some 200 employees – 2% of our workforce – now take advantage of this system and we expect that ratio to increase over time. We feel that we can contribute to bringing about change and greater diversity in work styles by deploying broadband networks.

Theme 2
Addressing environmental issues

Reducing CO$_2$ emissions through business activities and the effective use of ICT

— While pursuing CSR synergies based on the Group's common business, the NTT Group also needs to focus on environmental issues as an important CSR theme with global implications. What are your views on environmental initiatives?

Kanazawa: There are two ways to approach environmental issues. One is the effective use of ubiquitous broadband services and ICT, which we are currently promoting to enhance the productivity and energy efficiency of society. The other is to reduce the environmental impacts of our business activities.

Sakamoto: In terms of enhancing the energy efficiency of society as a whole, our goal of providing ubiquitous communications that enable people to access content and use services irrespective of time or place could reduce the

need for movement of people and goods, and thus contribute to reducing energy consumption and CO$_2$ emissions. I think that Group-wide efforts to equip society with ubiquitous communications could in themselves make a major contribution.

Matsui: At DOCOMO, we offer remote monitoring and control solutions based on FOMA Ubiquitous Modules that can be used, for example, for monitoring and controlling electricity and gas facilities and managing vending machine inventory. Customers who currently use this service for remote vending machine inventory management give it high marks for enabling them to keep constant track of inventory and optimize delivery truck loads and schedules, resulting in a 12.5% reduction in CO$_2$ emissions.

Kanazawa: Based on such initiatives, the NTT Group has made the effective use of ICT one of the pillars of its efforts to reduce environmental impacts, and we've laid out a vision for leveraging such means to reduce the CO$_2$ emissions of Japan as a whole by 10 million tons by fiscal 2011. We also need to reduce CO$_2$ emissions from our own business activities through a Groupwide approach. After all, if our own business activ-

ities leave an increasingly large environmental footprint as we build our telecommunications platform and provide more services, we could hardly say that we're making a real contribution to society.

Sakamoto: Yes, the more ubiquitous communications become a reality, the steeper the rise in data traffic volume, which means more and larger data centers and a concomitant increase in electricity consumption. This is a serious issue for the whole telecommunications industry. We're currently working with other Group companies to address this problem, but we need to generate and leverage even greater synergy moving forward. In addition to using more energy-efficient power supply and air conditioning systems, we're also equipping our facilities with solar power systems and experimenting with green roofs.

Sogo: Energy-saving at data centers is a good starting point for generating synergy. NTT DATA has launched Green Data Center services for maximizing the efficiency of existing resources and enhancing processing capacity by utilizing new technologies such as server virtualization*, and installing solar power generation and high efficiency air conditioning systems. We're also working with NTT FACILITIES and other Group companies on testing power supply systems that enhance energy-saving.

*A method of partitioning one physical server computer into multiple "virtual" servers, giving each the appearance and capabilities of running on its own dedicated machine

Roundtable
For a groupwide approach to CSR activities

Wakaizumi: In the office buildings that we develop and operate, we install energy-saving fittings and equipment when they are built or renovated. Also, with the urban heat island effect becomes an increasingly serious issue in recent years, we are working with NTT FACILITIES to test the positive effects of green roofs.

Inoue: We use the Japanese word *mottainai* (which means "What a waste!") as a keyword to drive some of our initiatives for the environment, such as recycling and reusing communications equipment and PCs. I think other Group companies are doing the same, but if we can beef up such efforts systematically as a Group, we could probably make even more of a difference.

Tamura: I think green procurement also needs to be implemented even more stringently in future to buy the most environment-friendly equipment. The best equipment in terms of energy saving still costs a lot, but if the NTT Group sets the right example by making environment a top priority, I think it would send out a strong message to equipment vendors and society at large to do likewise.

Takano: I see the two approaches mentioned earlier by Mr. Kanazawa in terms of "development" and "utilization". I think we can have the greatest impact on society both by working with NTT FACILITIES and others on the development of power devices with low environmental impacts, and – as Mr. Tamura suggested – by defining and pursuing common themes within the NTT Group for adapting utilization to reduce the environmental footprint of our business activities.

Theme 3
Disaster preparedness

Offering our professional expertise in disaster preparedness to a wider audience

— With major earthquakes rocking Japan almost every year recently, disaster preparedness has become increasingly important. Providing ICT solutions and know-how on disaster preparedness and the maintenance and prompt restoration of telecommunications infrastructure in disaster situations could be one of the major contributions that the NTT Group can make to society. What are your thoughts on this?

Koga: Yes. For example, in the past, if one of our branches was hit by an earthquake or some other disaster, it would first try to recover on its own, and if it lacked sufficient manpower, it would put out a call for help, and nearby branches would send people. Under the system we now have in place, however, say if the Tokyo office is hit, our Miyagi, Iwate, Aomori, Yamagata, and Akita branches in northern Japan will automatically send help based on the predetermined arrangement. We've conducted restoration drills based on this new plan, and we're confident we can get everything back to normal quicker than before.

Matsui: Though this has nothing to do with major disasters, I'd like to mention some of the ways in which we work with police mountain rescue units, mountain lodge staff, rescue committees, ski resorts, and others to support mountain rescue efforts. In recent years, some 48% of the people who run into trouble in the mountains apparently use mobile phones to call for help. FOMA Plus-Area radio waves have good reach in mountainous areas, and so we're directing them towards mountains to cover climbing routes more thoroughly, making the mountains even safer for alpinists, skiers, and other mountain lovers.

Kanazawa: As designated public corporations under the Disaster Countermeasures Basic Act, NTT Group companies already have long experience in formulating disaster preparedness plans and a wealth of disaster preparedness know-how. In recent years, we've been able to put that expertise increasingly to use by offering business continuity planning (BCP) to various industries.

Sakamoto: Now that information and communications systems have become such critical lifelines in society, interest in BCP is indeed skyrocketing. Nowadays many companies and other organizations see the need to prepare just as we as a telecommunications group have done as a matter of course by quake-proofing facilities, guarding against lightning strikes and flooding, deploying emergency power supplies, and other contingencies. We see providing BCP solutions to meet these needs not only as a promising business for the NTT Group, but also as an important social duty.

Kanazawa: The communications infrastructure that we're a part of is closely intertwined with other critical infrastructures such as electricity, gas and other energy supply, transport, and financial services, and so the government is now preparing Critical Infrastructure Protection (CIP) plans to maintain and restore the functions of these major infrastructures in disaster situations. The NTT Group is participating in this national initiative, working with the government and other infrastructure operators to analyze infrastructure interdependence and plan effective measures.

Tamura: The NTT Group's disaster preparedness measures range from national and regional level disaster preparedness to BCP solutions for individual companies, and I think that we also owe it to society to do more to ensure that people are aware of the availability of these solutions, and to encourage their use.

Kanazawa: If we inform our many stakeholders of our activities, hopefully they'll respond by offering all sorts of comments and suggestions, and such feedback is bound to reflect social issues that we need to pay attention to. The NTT Group's CSR activities should be about meeting these expectations by making the most of our strengths and the synergy that we can generate as a Group.

Communication between people and their communities

To provide people and society with a richer, more convenient communications environment, the NTT Group is working to create a ubiquitous broadband network that will open up new horizons both in business and private life and contribute to the solution of issues related to population decline and the aging of society.

Close Up

**Q** In what specific areas is the next-generation network (NGN) being used?

A One key example is NGN's contribution to the growth of the software-as-a-service (SaaS) market.

Users

| Manufacturing | Finance | Retail | Government | Health care | Education | SOHO | ...and more |

NGN

SaaS platform

Software and applications

SaaS vendors

SaaS benefits for users
Our NGN hosts SaaS applications that provide a secure and easy way to use the best software solutions at a reasonable price.

What are NGNs?
An NGN hosts IP network-based telephone, Internet, videophone, video distribution, and various other services, ensuring high reliability and stability by employing cutting edge technologies that comply with international standards, and quality of service (QoS) technologies that guarantee communications performance.
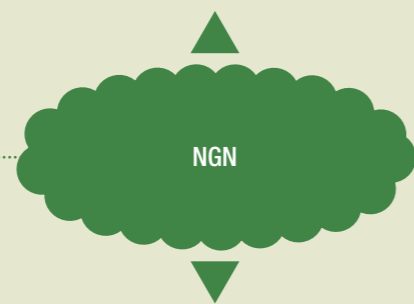
Advantages to SaaS vendors
SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

What is SaaS?
Software as a service (SaaS) is an application service that enables users to access key software features via the Internet or other networks. By using SaaS, users can save money and time on system operation management and maintenance, since there is no need to set up specific systems, or to purchase or maintain the software.

The NTT Group has led the world in NGN development and launched commercial NGN-based services in March 2008. Our NGN offers higher performance and better security than presently possible over the Internet, and enables users to freely access and link to numerous applications. We anticipate that this will lead to numerous future applications of the NGN including telemedicine and teleworking. SaaS makes the most of NGN features and has sparked growing use of the NGN.

SaaS is an on-demand software deployment model for delivering required software solutions to users as needed. We offer a secure environment for SaaS use via our NGN, and help to drive the growth of the SaaS market in Japan by equipping our SaaS platform with attractive features for the development and sale of software applications and services by SaaS vendors and otherwise promoting its use by both SaaS vendors and users.

Moving Toward Ubiquitous Broadband Communications

The NTT Group aims to equip society with ubiquitous broadband communications. To this end, we are working to improve the high-speed broadband infrastructure used by our FOMA 3G mobile communications and B FLET'S fiber optic services. At the same time we are pursuing more widespread use of the next-generation network (NGN) and developing new services that use the NGN.

Improving network infrastructures to support ubiquitous communications

Principal stakeholders: Customers | Shareholders/investors | Government organizations | Business partners

Developing infrastructure and services that address social issues NTT Group

In line with the Ministry of Internal Affairs and Communications' u-Japan Policy[1] that calls for the creation of a communications environment utilizing seamless and ubiquitous broadband networks, the NTT Group is working to develop and expand infrastructure and services related to fiber optic services, FOMA 3G mobile communications services, and the next-generation network[2] (NGN).

Promoting use of B FLET'S high-speed broadband fiber optic service NTT EAST NTT WEST

The NTT Group is promoting the use of its B FLET'S high-speed broadband fiber optic service as an essential part of the infrastructure required to equip society with ubiquitous broadband communications.

FOMA 3G mobile communications services reach 100% population coverage[3] docomo

The NTT DOCOMO Group has been driving the adoption of its FOMA 3G mobile communications services as a mobile network to support ubiquitous broadband communications. In March 2007, FOMA achieved 100% population coverage[3] in Japan.

DOCOMO also expanded its FOMA HIGH-SPEED[4] service area to major cities across Japan. This high-speed data communications service enables the download of music and video content and other services that make mobile network handsets even more useful.

Efforts are under way to expand the HIGH-SPEED service area and to develop handsets with international roaming and other cutting edge capabilities. DOCOMO is also working on raising the speed and capacity and improving communications quality of its FOMA service.

NTT EAST NTT WEST

Over 8.84 million fiber optic service subscribers nationwide

As of March 31, 2008, the total number of subscribers to the NTT Group's B FLET'S fiber optic service exceeded 8.84 million, with NTT East boasting approximately 4.96 million subscribers and NTT West at approximately 3.88 million subscribers.

B FLET'S fiber optic service (NTT East/NTT West) Number of subscribers
(in thousands)

Year	Subscribers
2004	840
2005	1,665
2006	3,419
2007	6,076
2008	8,840

(fiscal year)

docomo

FOMA HIGH-SPEED population coverage exceeds 98%

In March 2008, the population coverage for FOMA HIGH-SPEED service reached 98%.

Terminology

1. u-Japan Policy
A government policy that aims to develop ubiquitous broadband networks that seamlessly integrate fixed and wireless networks, and to use these networks to address various social issues.

2. Next-generation network (NGN)
A network that has been developed and built to provide an infrastructure for communications services required in the age of ubiquitous broadband. The NGN uses high-speed, high-capacity IP networks to provide telephone service and Internet access, and also to enable various services such as video distribution, and linkages with mobile communications networks.

3. Population coverage
An index of service area coverage based on the percentage of municipal offices (town halls) of Japan's municipalities that lie within the service area.

4. FOMA HIGH-SPEED
A service that allows for packet communications at downlink speeds of up to 7.2 Mbps.

Moving Toward Ubiquitous Broadband Communications

Developing technology for the next-generation network

Principal stakeholders: Customers | Shareholders/investors | Government organizations | Business partners

Developing communications networks and fundamental technologies to support ubiquitous broadband services
NTT Group

The NTT Group is focusing on technological innovation to develop ubiquitous broadband services in line with its vision to become a services creation group. We have already developed both optical transmission technology that enables faster and higher capacity data transmission, and quality and security technology that bolsters network performance and reliability.

In addition to carrying out basic R&D to develop high-definition video distribution services and enable the distribution of content such as TV programming, advertisements, and music, we are also putting effort into developing data distribution platform technology that hosts essential common features required by e-commerce and content distribution businesses such as digital rights management and distribution.

Developing a platform to enable high-definition video distribution
NTT

NTT Cyber Solutions Laboratories researches platform technologies for services that use the NGN, and in fiscal 2008, based on the results of its NGN field trials*, conducted commercial trials of a high-definition video distribution service and an IP retransmission service. This led to the launch of Hikari TV by Internet service provider NTT Plala, an NTT Group company, as a commercial service at the end of March 2008.

NTT

Field testing of next-generation portal sites

NTT Cyber Solutions Laboratories field tested various next-generation portal site technologies using goo Labs located within NTT Resonant's goo Internet portal site.

Doremiru Map
Visitors to Doremiru Map-enabled websites can virtually experience event venues and other locations over the Internet. The technology automatically displays information about related content on the Internet such as the popularity of content based on word patterns that appear in blogs, and features icons that show content details. In fiscal 2008 goo Labs ran a Doremiru Map field test that provided Internet users with a virtual experience of the 40th Tokyo Motor Show 2007.

NTT

Successful optical transmission at world record speeds of 20 terabits per second

NTT Network Innovation Laboratories performed a successful test in March 2007 in which extremely large data packets were transmitted via a single optical fiber at a speed of 20 terabits (approximately 20 trillion bits) per second over a distance of 240 kilometers. Surpassing last year's successful test transmission at 14 Tbps, this year's 20 Tbps speed is equivalent to transmitting roughly 200 high-definition movies in one second.

NTT

Even when apart, telephone gives the sense of being in the same room

NTT Communication Science Laboratories has developed the futuristic t-Room telephone which enables communication that, even when far apart, feels just like you are in the same room as the party on the other end of the line. The t-Room telephone was exhibited at the NTT R&D Forum 2008.

Terminology
*NGN field trials
Trials conducted with trial users to verify technology and assess user needs using a network equipped with features nearly identical to those that will be available on the full NGN service when it is launched.

Effective Use of Information Communication Technology (ICT)

The NTT Group develops services and makes them widely available throughout society using broadband network environments that enable the easy sharing of high-definition video and other data. Such services make effective use of ICT to enhance telemedicine, telediagnosis, and health management, and enable elderly people to feel secure and lead active lives.

Supporting various medical services

Principal stakeholders: Customers | Shareholders/investors | Government organizations | Local communities | Business partners

Developing telecommunications systems to make telemedicine and telediagnosis a reality
NTT Group

In recent years, growing regional disparities in healthcare levels and healthcare environment deficiencies have created a serious situation in which the latest medical techniques are not being communicated properly to some healthcare practitioners.

To ensure that everyone is able to receive reliable medical treatment irrespective of location, the NTT Group is developing telecommunications systems that connect patients in their homes with doctors in medical facilities via the next-generation network, thus enabling patients to receive video-based telemedicine services such as health checkups or medical consultations. We are also working to develop a telecommunications platform to enable telediagnosis and efficient collaboration between medical facilities via network connections linking top-notch general hospitals with local clinics and other medical facilities, thereby making advanced medical expertise available to patients in areas with a shortage of medical facilities.

Support via mobile e-mail for preventing and remedying metabolic syndrome
docomo

Preventing and remedying metabolic syndrome is receiving much attention recently, and health checkups and healthcare advice services with a particular focus on the metabolic syndrome started in April 2008.

NTT DOCOMO launched a service in April 2008 in partnership with Order-Made Souyaku Co., Ltd. to provide healthcare advice on metabolic syndrome and content regarding health via mobile phone. As the service gives advice via mobile e-mail, recipients can get advice wherever they are and at any time.
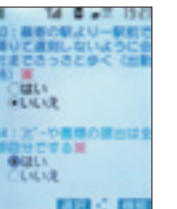
Healthcare advice via mobile phone site

NTT **NTT Communications**

Participating in Japan-Thailand telemedicine field tests

NTT Service Integration Laboratories and NTT Communications, together with Kyushu University participated in joint Japan-Thailand telemedicine field tests as part of the Ministry of Internal Affairs and Communications' Advanced ICT Joint Experiments for the Formation of an International Telecommunications Hub project (2005-2007). The tests involved the use of remote guidance in advanced medical and diagnostic technology and a telesurgery robot to carry out telesurgical operations.

NTTIT

Psychological health self-check over the Internet

NTT IT provides the Stress Check Web System to enable business people to conduct simple psychological health self-checks from such perspectives as workplace relations and job satisfaction. People who take the test are sent e-mail providing test results and advice.

NTTIT

A health management support system that improves the efficiency of medical checks

NTT IT provides the HELSMEK health management support system to companies, local governments, healthcare facilities, and other organizations to streamline their medical checks and health guidance activities.

Effective Use of Information Communication Technology (ICT)

Creating an environment that provides peace of mind to the elderly and people with disabilities

Principal stakeholders: Customers | Shareholders/investors | Government organizations | Business partners

Supporting elderly people through ICT and universal design
NTT Group

To create a society in which elderly people can live their lives with peace of mind, the NTT Group is leveraging the latest ICT advances to develop new lifestyle support services, and employing universal design concepts in its products, retail stores, and services.

Developing distance learning courses to enable students to learn universal design concepts
NTTLS

A distance learning course titled Web Accessibility: Creating Websites Easily Accessible to Everyone, developed by NTT LEARNING SYSTEMS in conjunction with NTT CLARUTY, was launched in March 2008. The course is aimed at promoting more widespread use of universal design concepts in areas such as website design.

Developing a system to prevent slips and falls using technology that anticipates body movements
NTT

NTT Cyber Solutions Laboratories is doing joint research with the Kanto Medical Center NTT EC on a system to prevent slips and falls. The system, which applies ICT, is based on a multi-sensor data processing engine that is capable of anticipating the body movements of patients. The system incorporates multiple sensors located on hospital beds which it uses to track patient head, shoulder, arm, and leg movements around the clock in order to predict when a patient is about to get out of bed. When the system detects that a patient in bed is moving to an upright position, it automatically alerts the nurses' station to help prevent possible injury.

NTT EAST
Remotely monitoring the well-being of elderly people

The Anshin Tele-chan service provided by NTT TELECON of NTT East Group enables family and others to check on the well-being of elderly people who live elsewhere through e-mail notifications that inform concerned parties of the amount of propane gas being used in the elderly person's household.

Anshin Tele-chan service overview

Elderly person (family member who lives elsewhere) → Gas meter → Communication line → Service center → E-mail → Mobile phone belonging to person to be notified

1. The Anshin Tele-chan service center constantly monitors the gas meter of the elderly person's household through communication lines.
2. The service center calculates gas usage from the meter data that has been received.
3. Pre-registered family members are notified by e-mail sent to their mobile phone or other device as to the amount of gas used.

NTT IT
Supporting nursing-care through video-based programs

In April 2006, NTT IT in collaboration with TelWel East Japan began offering Hatsuratsu Machine, a service for providing videoconferencing and video distribution-based preventive healthcare support programs to local governments and care providers through an ASP (application service provider). In May 2007, the service added two new programs – preventing dementia, and preventing malnutrition – to its lineup of other programs: bone fractures from falls, preventing urinary incontinence, and care to maintain function of mouth, legs, and lower back.

NTT CLARUTY CORPORATION
Access to website offering lifestyle information to people with disabilities and elderly people exceeds
380 thousand hits in one year

Marking over 380 thousand page views in fiscal 2008, the Yu Yu Yu portal site provides access to information beneficial to the lives of people with disabilities and elderly people such as introductions to products with universal design features, and user experience reports.

Enhancing Opportunities for Community Participation

By leveraging ICT to enable teleworking and provide online skills training programs, the NTT Group is able to provide opportunities for elderly people, people with disabilities, and many others to find employment and participate in their communities. We also actively sponsor speaking engagements and other forums to encourage community participation.

Increasing employment opportunities

Principal stakeholders: Customers | Shareholders/investors | Government organizations | Employees* | Local communities | Business partners

*employees, family, former employees

Creating telework opportunities and other new work arrangements using ICT
NTT Group

The NTT Group is actively promoting distribution of employment information as well as contributing to the creation of teleworking, SOHO, and other new forms of employment that utilize ICT as solutions to an increasingly volatile employment market and the need to develop employment opportunities regardless of age or disability.

Home-based OCN call center staff positions offer baby boomers and others more employment opportunities
NTT Communications

NTT Com CHEO conducts training and certification testing related to the Internet and the configuration and use of computers. People who have achieved IT skills certification are hired as CAVA (.com Advisor & Valuable Agent) staff who work as home-based call center staff for OCN, an NTT Communications Internet service provider.

In the latter half of fiscal 2008, we created more opportunities for people throughout the country to take part in CAVA training through home-based training via the Internet, and as a result, the proportion of employees at least 60 years old newly contracted as CAVA staff reached 10% in fiscal 2008, double the proportion of fiscal 2007, meaning that we were able to provide more employment opportunities to elderly people in an employment market rapidly filling up with retiring baby boomers.
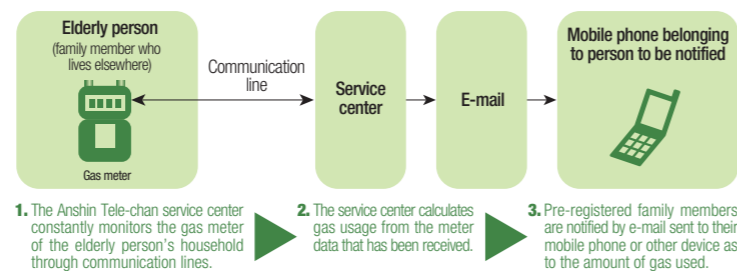
Call center staff working from home

NTT WEST
Managing a virtual factory for those who face difficulty commuting to work

NTT NEOMEIT, an NTT WEST Group company, manages a virtual workplace called Digital Map Virtual Factory in which staff in scattered group offices and teleworkers work together to create and edit digital maps via a broadband network. Since its establishment in July 2003, the Digital Map Virtual Factory has been contributing to the expansion of employment opportunities for those who face difficulties commuting to a workplace such as people with disabilities and those who are raising small children.

NTT CLARUTY CORPORATION
Sponsoring speaking engagements to promote recruitment and employment of people with disabilities

NTT CLARUTY is a special subsidiary* of the NTT Group that distributes information to help promote the recruitment and employment of people with disabilities. In fiscal 2008, NTT CLARUTY held talks presented by the company president and employees who have visual impairments at venues including the Nagano City Hall, the Center of Lifelong Learning Support for Workers with Visual Impairments, National Rehabilitation Center for Persons with Disabilities and the Japan Organization for Employment of the Elderly and Persons with Disabilities.

Terminology

Special subsidiary system
A special system introduced to promote the recruitment of people with disabilities, thus enabling companies to meet such hiring obligations. Through this system, the number of people with disabilities hired by a subsidiary specially established for this purpose can be factored into the actual proportion of people with disabilities employed by the parent company and other subsidiaries that satisfy certain criteria.

Sidebar (right margin): Communication between people and their communities | Communication between people and the global environment | Safe and secure communication | Team NTT communication
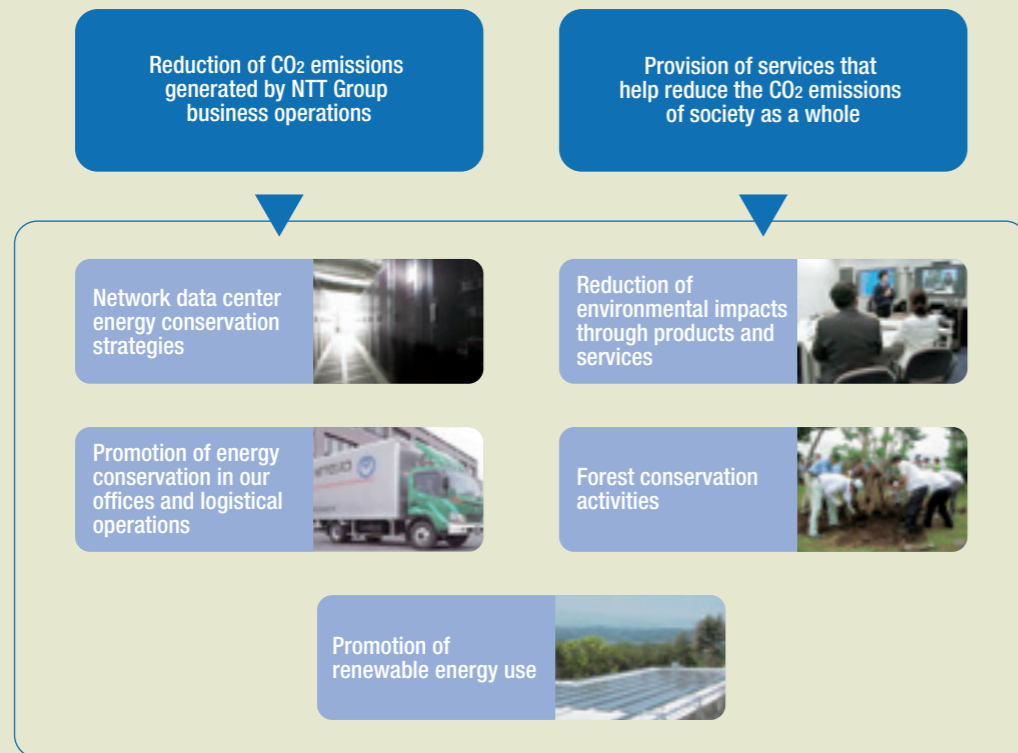
Communication between people and the global environment

As a business group involved in telecommunications, an industry that encompasses the whole of society, we are working to build a low impact communications environment both through our own business operations and through activities aimed at reducing the environmental impact of human society as a whole.

Close Up

Q What steps is the NTT Group taking to fight global warming?

A We strive to reduce CO_2 emissions from the following two perspectives:

Reduction of CO_2 emissions generated by NTT Group business operations

Provision of services that help reduce the CO_2 emissions of society as a whole

Network data center energy conservation strategies

Reduction of environmental impacts through products and services

Promotion of energy conservation in our offices and logistical operations

Forest conservation activities

Promotion of renewable energy use

At the NTT Group, we consider preventing global warming to be the most significant environmental challenge facing the world today, and are addressing this issue in a variety of ways based on the two strategies of reducing CO_2 emissions generated by our business operations, and providing services that help to reduce the CO_2 emissions of society as a whole.

As one such activity, we launched our Green NTT initiative in May 2008 to promote the use of solar and other renewable energy sources in our operations. Under this initiative we aim to reduce Group CO_2

emissions generated by energy consumption through equipping the communications facilities, data centers, and office buildings of NTT laboratories and Group companies with a total of 5 MW of solar energy capacity by fiscal 2013.

In connection with this plan, we have established NTT-Green LLP as a limited liability partnership dedicated to promoting the adoption of solar power systems in Group companies. We also plan to use our operational experience to promote the adoption of renewable energy technologies outside the Group.

Communication between people and the global environment

Basic Policies and Management System

At the NTT Group, we drew up an NTT Group Global Environmental Charter in 1999 to harmonize group business activities with goals for environmental protection, and formulated a corporate action plan that outlines goals until fiscal 2011. NTT Group companies work together to address various environmental goals and initiatives based on these principles and plans.

Establishing a shared Group charter and vision

In 1999, the NTT Group drew up its NTT Group Global Environmental Charter to formally define basic principles and policies for protecting the environment. Based on the fundamental principle that our business activities need to be compatible with protecting the environment, this Environmental Charter emphasizes the importance of combating global warming and reducing waste and paper consumption, and establishes a set of NTT Group Principal Activity Plan Targets to be achieved by fiscal 2011.

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 CO_2 emission reduction target for fiscal 2011 and the activities we intend to undertake to achieve this target.

In fiscal 2008, use of key NTT Group ICT services such as B FLET'S, FLET'S Hikari Premium and FOMA resulted in estimated CO_2 emission reductions throughout society of 4.2 million tons.

Formulation and operation of proprietary 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. NTT and Group companies apply these guidelines to their business activities.

Developing a groupwide structure for environmental management

In 2005, the NTT Group established a CSR Committee charged with overseeing Group CSR activities, and the NTT Group Global Environmental Protection Promotion Committee, which drives group environmental protection activities, was brought under the CSR Committee's jurisdiction.

The Global Environmental Protection Promotion Committee oversees the Greenhouse Gases Reduction, Waste Disposal and Recycling, and Environment and ICT subcommittees, directs groupwide projects, formulates basic policies, manages targets, and addresses any issues that emerge.

NTT Group Global Environmental Charter

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
- Reducing environmental loads
- Establishing and maintaining environmental management systems
- Developing environmental technologies
- Social contribution efforts
- Disclosure of environmental information

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 CO_2 emissions as a result of ICT services] – [CO_2 emissions from providing ICT services] = [10 million ton reduction in CO_2 emissions]

Activities for achieving our targets for fiscal 2011
1. Increase subscriber base for optical fiber services that enable lower impact lifestyles and business models.
2. Expand ubiquitous broadband services.
3. Reduce the environmental impacts of our business activities.
4. Reduce the electrical power required by customers' communications equipment.

The NTT Group organization for promoting environmental protection

Board of Directors

President

CSR Committee Chairman: Senior Executive Vice President, NTT

NTT Group Global Environmental Protection Promotion Committee Chairman: General Manager, NTT Environmental Protection Office

NTT Environmental Protection Office

NTT East Environmental Protection Office

NTT West Environmental Management Promotion Department

NTT Communications Environmental Protection Office

NTT DATA Eco-Activity Promotion Office

NTT DOCOMO Corporate Citizenship Office

NTT FACILITIES CSR Promotion Office

Group companies

Dispatch of personnel

Committees
- Greenhouse Gases Reduction Committee
- Waste Disposal and Recycling Committee
- Environment and ICT Committee

Projects
- Project to Support Environmental Consulting
- Consolidated Environmental Accounting Project

Support

Environmental Management & Provisioning Project (NTT Information Sharing Laboratory Group) NTT Energy and Environment Systems Laboratories, etc.

Support

Results and Assessments for Goals in Fiscal 2008

To achieve the NTT Group Principal Activity Plan Targets for reducing our environment impacts by fiscal 2011, every year we analyze achievement levels against specific goals for the three areas of preventing global warming, reducing waste products, and reducing paper consumption, and use our findings to implement improvements.

Progress made on the NTT Group Principal Activity Plan Targets[1] (by fiscal 2011)

	Prevention of global warming[1]		Waste reduction	Reduction in paper use
Goals	• **Reduce CO_2 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) • **Reduce CO_2 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.) 1. Achievement level for reducing global warming is assessed as the five year average for fiscal 2009-2013.		• **Reduce amount of final disposal waste to no more than 15% of fiscal 1991 levels.**	• **Reduce consumption of virgin pulp to no more than 80% of fiscal 1991 levels.**
Specific activities	• Reduce electricity consumption through the Total Power Revolution (TPR) campaign (see p. 34). • Reduce CO_2 emissions in logistical and sales operations (see p. 34).		• Reduce the amount of final disposal waste through reduce, reuse, and recycling efforts (see p. 37).	• Reduce paper use by recycling telephone directories (see p. 37). • Reduce paper use through Internet billing statement services (see p. 37).

Results (in graphs)

CO_2 emissions reduction rates of NTT telecommunications carriers and other Group companies rose.

Compared with the previous year, CO_2 emissions reduction rates rose as a result of our deployment of energy-efficient communications equipment, efficient building and operation of communications facilities, careful examination of CO_2 emissions calculations and correction of duplicated calculations within the Group, and improvement of the CO_2 emissions conversion coefficient[2] for electricity usage.

Due to revisions made in fiscal 2009 to Japan's Law Concerning the Rational Use of Energy and Law Concerning the Promotion of the Measures to Cope with Global Warming, companies in Japan are now mandated to manage energy usage (and emissions levels) on an individual company basis. To comply with these legal revisions, the NTT Group is reviewing the scope of its data collection procedures, looking into setting new energy-related targets, and implementing further reduction measures.

CO₂ emissions reduction rates of telecommunications carriers (base year: fiscal 1991)

CO₂ emissions reduction rates of other Group companies (base year: fiscal 1991)

CO₂ emissions from business operations

2. Coefficients used for calculating CO_2 emissions based on levels of power consumed were 0.378 kg/kWh for fiscal 2004-2005 and 0.555 kg/kWh for fiscal 2006. For fiscal 2007-2008, the coefficients of respective power suppliers were used.

Amount of final disposal waste* declined and reduction target was cleared.

Efforts to expand IP related equipment and base stations for 3G mobile phones resulted in more waste output compared with the previous year, but gains in recycling efficiency limited the rise in final disposal waste to only 31,000 tons, enabling us to meet our waste reduction targets for the year.

Waste output and final disposal waste

*Waste disposed of in landfills

The amount of virgin pulp used cleared our reduction targets for the year, but rose slightly compared with the previous year.

The virgin pulp content of office paper increased significantly due to discrepancies in the amounts of recycled pulp content found in paper supplied by manufacturers. There was no discrepancy in actual recycled pulp content for telephone directories, enabling virgin pulp usage to be reduced by 21,000 tons. Despite total consumption increasing slightly to 32,000 tons, our virgin pulp paper reduction goals were still cleared.

Virgin pulp consumption

- In fiscal 2007 billing statements were also included in assessments of 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 2008, higher levels of recycling pushed up our recycling costs by about ¥9.1 hundred million compared with fiscal 2007, but these efforts allowed us to boost the amount of recycled waste by nearly 100,000 tons. A cost saving of 27.41 billion yen was also achieved through the reuse of certain resources.

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 (192 companies in total).

2. Applicable period
Data for fiscal 2008 report is from April 1, 2007 to March 31, 2008
Data for fiscal 2007 report is from April 1, 2006 to March 31, 2007

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.
These guidelines comply fully with the Environmental Accounting Guidelines 2005 issued by the Ministry of the Environment.
• Environmental conservation costs are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation costs are tabulated separately as environmental investments and environmental costs. From fiscal 2004, depreciation costs are included in environmental costs. Personnel costs are also included in environmental costs.
• Reductions in CO_2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.

Environmental accounting

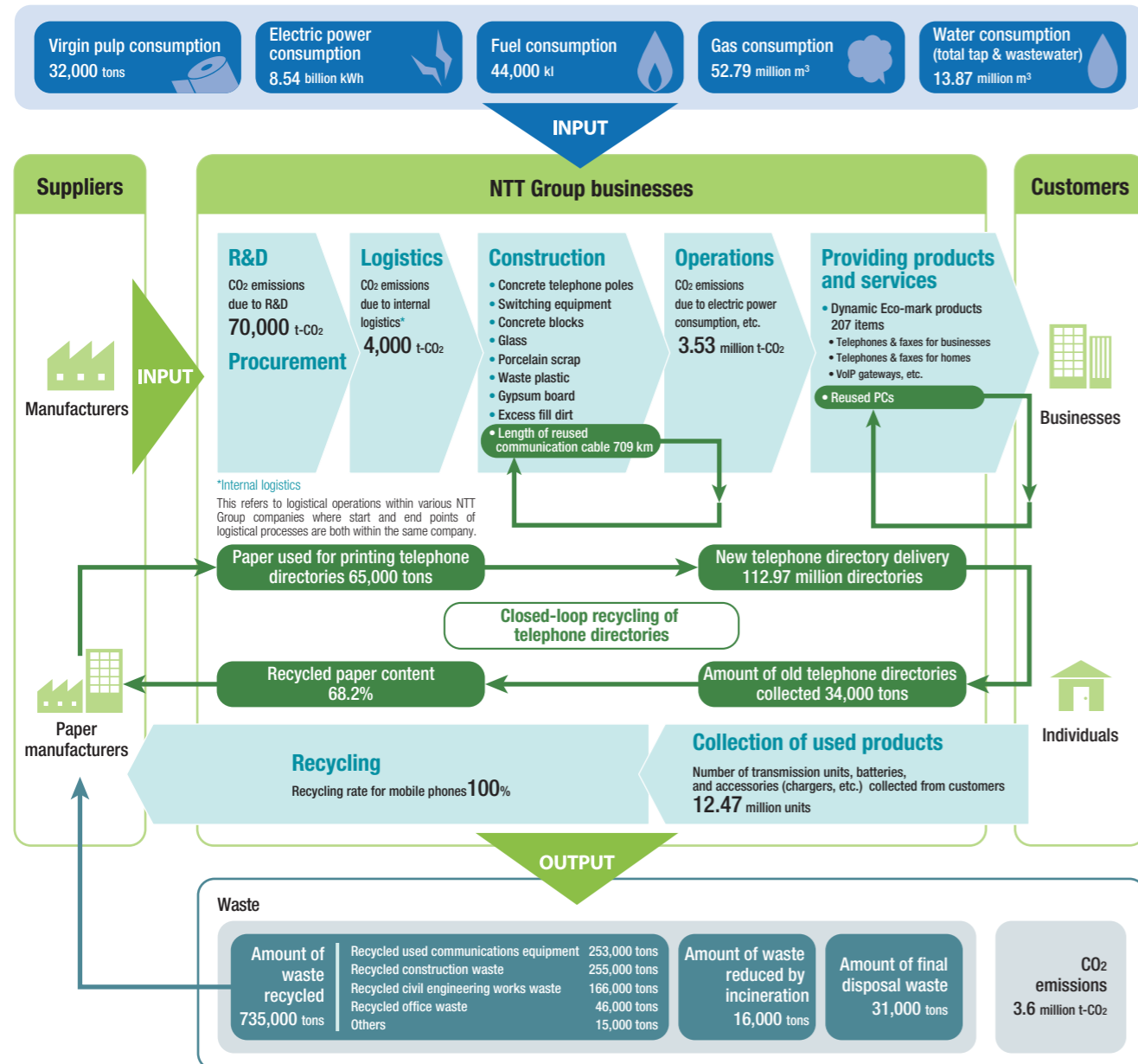| MOE Guidelines categories	Environmental investments (in millions of yen)		Environmental expenses (in millions of yen)		Economic benefits (in millions of yen)			Quantitative benefits (in thousands of tons)		
	FY 2008	FY 2007	FY 2008	FY 2007		FY 2008	FY 2007		FY 2008	FY 2007
(1) Business area costs	7,530	5,290	19,810	24,780						
• Pollution prevention costs	200	120	950	1,410						
• Global environmental conservation costs	7,180	4,660	4,120	9,530	Cost reductions through energy conservation	3,510	4,250	Reductions in CO_2 emissions through energy conservation measures	53	51
					Revenues from sale of recyclable waste	10,420	7,260	Recycled used communications equipment	253	232
• Resource recycling costs	140	500	14,750	13,840	Cost reductions through reusing dismantled communications equipment	27,400	21,680	Recycled construction waste	255	216
					Cost reductions through reusing office waste materials	10	40	Recycled civil engineering works waste	166	141
								Recycled office waste	46	29
								Other recycled items	15	17
(2) Upstream/downstream costs	0	10	4,780	4,810	Revenues from sale of recyclable waste	630	450	Number of communications devices collected from customers (in thousands)	12,470	9,420
					Cost reductions in postal expenses through computerization	4,080	3,010			
(3) Administration costs	80	20	4,910	4,980						
(4) R&D costs	6,170	11,930	12,730	14,810						
(5) Citizenship activity costs	40	0	160	140						
(6) Environmental remediation costs	0	0	0	300						
Total	13,820	17,250	42,390	49,820					46,050	36,690

Environmental Impacts Overview

In order to minimize the environmental impact of NTT Group business operations, we monitor and analyze the types and amounts of resources and energy consumed by various processes, and the environmental impacts they cause.

At the NTT Group, we regularly quantify the environmental impacts of our various business activities, and are striving to reduce them by establishing concrete numerical targets for preventing global warming, reducing waste, and reducing the consumption of paper resources based on the NTT Group Principal Activity Plan Targets.

Of the 3.6 million tons of CO_2 emissions generated by the NTT Group in fiscal 2008, 3.53 million tons (approximately 98%) was derived from business operation-related electricity consumption.

Of the 782,000 tons of waste generated, 735,000 tons (approximately 94%) was recycled, and the remainder was incinerated, resulting in a reduction of 16,000 tons to leave 31,000 tons of final disposal waste.

Each year, the NTT Group issues approximately 112.97 million telephone directories throughout Japan, which translates into 65,000 tons of paper, equivalent to approximately 0.2% of the total amount of paper used in Japan. Of those 65,000 tons, 21,000 tons are from virgin pulp.

INPUT

| Virgin pulp consumption 32,000 tons | Electric power consumption 8.54 billion kWh | Fuel consumption 44,000 kl | Gas consumption 52.79 million m³ | Water consumption (total tap & wastewater) 13.87 million m³ |

INPUT → **NTT Group businesses** ← **Customers**

Suppliers

Manufacturers

INPUT

Procurement

*Internal logistics
This refers to logistical operations within various NTT Group companies where start and end points of logistical processes are both within the same company.

R&D
CO_2 emissions due to R&D
70,000 t-CO2

Logistics
CO_2 emissions due to internal logistics*
4,000 t-CO2

Construction
• Concrete telephone poles
• Switching equipment
• Concrete blocks
• Glass
• Porcelain scrap
• Waste plastic
• Gypsum board
• Excess fill dirt
• Length of reused communication cable 709 km

Operations
CO_2 emissions due to electric power consumption, etc.
3.53 million t-CO2

Providing products and services
• Dynamic Eco-mark products 207 items
 • Telephones & faxes for businesses
 • Telephones & faxes for homes
 • VoIP gateways, etc.
• Reused PCs

Businesses

Paper used for printing telephone directories 65,000 tons
New telephone directory delivery 112.97 million directories

Closed-loop recycling of telephone directories

Recycled paper content 68.2%
Amount of old telephone directories collected 34,000 tons

Paper manufacturers

Individuals

Recycling
Recycling rate for mobile phones 100%

Collection of used products
Number of transmission units, batteries, and accessories (chargers, etc.) collected from customers
12.47 million units

OUTPUT

Waste

| Amount of waste recycled 735,000 tons | Recycled used communications equipment 253,000 tons
Recycled construction waste 255,000 tons
Recycled civil engineering works waste 166,000 tons
Recycled office waste 46,000 tons
Others 15,000 tons | Amount of waste reduced by incineration 16,000 tons | Amount of final disposal waste 31,000 tons | CO_2 emissions 3.6 million t-CO2 |

Efforts to Address Global Warming

With the aim of reducing greenhouse gas emissions and achieving a low-carbon society, the NTT Group is working to reduce CO_2 emissions from its internal business operations and improve energy efficiency in society at large by driving the adoption and spread of ICT services and providing customers with services and products that contribute to environmental management.

Reducing CO_2 emissions from business operations

Principal stakeholders: Customers | Employees* | Business partners

*employees, family, former employees

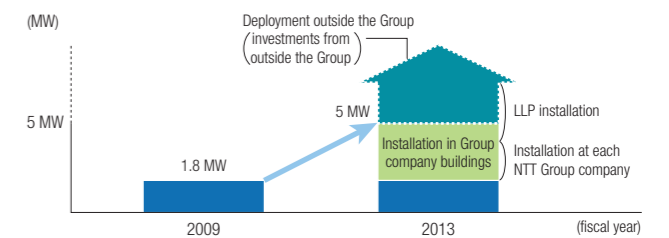### Efforts to reduce electricity consumption NTT Group

Over 90% of the NTT Group's CO_2 emissions are attributable to electrical power consumption by offices and communications equipment. To reduce our demand for electrical power, we are implementing a groupwide Total Power Revolution (TPR) campaign.

Through this campaign, we have been promoting energy management schemes for the 4,000 buildings that our various companies occupy 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. These various initiatives resulted in a saving of 133 million kWh of electricity throughout the entire NTT Group in fiscal 2008 compared with fiscal 2007.

We have also launched a Green NTT initiative for promoting the use of renewable energy such as solar power, and we plan to deploy the equivalent of 5 megawatts of solar power systems by fiscal 2013 under a limited liability partnership called NTT-Green LLP.

Green NTT model for deployment of solar systems etc.

(MW)

Deployment outside the Group (investments from outside the Group)

5 MW
1.8 MW
5 MW
LLP installation
Installation in Group company buildings
Installation at each NTT Group company

2009   2013   (fiscal year)

NTT Group
Group vehicle fleet now includes **554** hybrid and natural gas vehicles (as of March 31, 2008).

NTT EAST
Eco Drive (eco-friendly driving) training sessions were held for workers driving company vehicles.

NTT Group
157 NTT Group companies participated in the Ministry of the Environment's Team Minus 6% project (as of March 27, 2008).

NTT LOGISCO
Curbing CO_2 emissions through joint delivery and modal shifts in transporting cargo

NTT LOGISCO has actively implemented a joint delivery system wherein cargo for multiple customers is combined and delivered using a single vehicle to increase logistics efficiency. We are also promoting a modal shift from road to rail and ferry — cargo transport modes that emit less CO_2 than road transport.

Joint delivery system

Inside LOGISCO Center A
Company A → Company B → Company C
Optimally placed vehicle
Pickup → LOGISCO Center A

Large truck

Inside LOGISCO Center B
Destination A → Destination B → Destination C
Optimally placed vehicle
Delivery → LOGISCO Center B

Terminology

*DC power supply
Using electricity delivered from power companies requires converting the electricity from alternating current (AC) to direct current (DC) or DC to AC depending on type of electronic device. To reduce energy losses that occur during such conversion processes, we supply each floor with electricity in the same DC mode that it is in when it enters transformers.

Efforts to Address Global Warming

Reducing society's environmental impact by offering ICT services

Principal stakeholders: Customers | Government organizations | Industry peers and organizations | Business partners
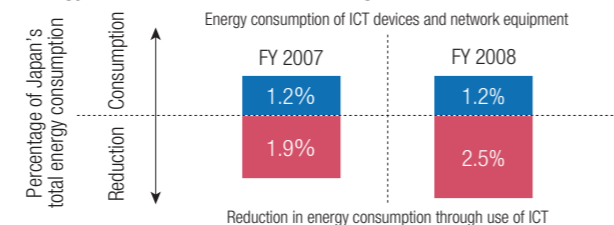
Research and proposals for reducing environmental impact through ICT: Participation in government projects NTT

Despite higher electricity consumption due to the spread of ICT devices, ICT services can reduce the CO_2 emissions of society as a whole by boosting the efficiency of production processes, reducing demand for transportation and delivery, and reducing the need for 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 2008 resulted in energy savings equivalent to 2.5% of the country's energy consumption.

With the enactment of the NTT Group 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. Based on this policy, NTT laboratories evaluate the environmental impact reduction effects of leading R&D products that have been adopted by Group companies, and share their findings with those companies as part of NTT Group environmental management. NTT Information Sharing Laboratory Group is also investigating how ICT can effect mid-to-long term reductions in the environmental impacts.

Energy saved and consumed through ICT

Energy consumption of ICT devices and network equipment

	FY 2007	FY 2008
Consumption	1.2%	1.2%
Reduction	1.9%	2.5%

Percentage of Japan's total energy consumption

Reduction in energy consumption through use of ICT

- Some of the data from fiscal 2007 was amended due to revisions made to the method used to calculate energy consumption.

NTT Communications

CO₂ emissions fell by 120,000 tons annually by connecting different locations with videoconferencing systems

In March 2007, NTT BizLink, a member of NTT Communications Group, measured the environmental impacts of using its Multipoint Video Conferencing Services that can simultaneously connect multiple locations, and found that use of the technology is resulting in a CO_2 emissions reduction of up to 120,000 tons annually. These results were also posted in the Assessment of ICT-Driven Environmental Impact Reduction announced in April 2008 by the Ministry of Internal Affairs and Communications.

CO₂ reductions using Multipoint Video Conferencing Services (for one year for all BizLink customers)

(t-CO₂/year)

Amount of CO₂ emissions

150,000 / 100,000 / 50,000 / 0

Conventional meetings: 123,526

Reduction of 119,313 t-CO₂ (96.6%)

Human travel

Multipoint Video Conferencing Services: 4,213 — ICT equipment

NTT DaTa

Reduces data center power consumption with Green Data Center services

To fulfill its responsibility as Japan's largest data center operator in terms of floor space, NTT DATA launched its Green Data Center service in January 2008 to reduce data center power consumption, promote CO_2 emissions reductions, reduce environmental impact, and increase ICT efficiency. Comprised of IDC, building and design, housing services, and from October 2008, a shared IT platform service, the Green Data Center service is promoting next generation corporate ICT platform strategies and supporting the creation of new corporate value from the perspective of both the environment and ICT.

NTT Communications

CO₂ emissions reduced by 81% compared with use of onsite monitoring personnel

NTT Communications provides an OCN for Monitoring service that uses its OCN network and netcams to enable real-time remote monitoring of shops, works sites, and factories. This service can reduce CO_2 emissions by 81% compared with the use of onsite security and monitoring personnel.

Providing products and services that help customers reduce CO₂ emissions

Principal stakeholders: Customers | Business partners

Contributing to the global environment and corporate management through Green Integration NTT FACILITIES

NTT FACILITIES is developing general engineering services that integrate the three core technologies of IT, energy, and construction to help develop an energy efficient society. To enable more customers to take advantage of our knowledge and expertise, in April 2007, we launched a Green Integration initiative aimed at providing total management solutions encompassing environmental management, environmental impact reduction, and environmental risk mitigation. Under Green Integration, we provide a wide variety of services to help companies achieve sustainability and economic efficiency, ranging from planning support for reducing greenhouse gas emissions to the provision of consultation services for environmental reporting, design of energy efficiency strategies for office buildings and data centers, deployment of large scale solar power systems and use of Japan's Green Power Certification system.

"Green Integration" service menu

Environmental management support
We support customer environmental management from architectural, energy, and facility management perspectives to help improve their corporate environmental value and drive CSR management.
• Environmental consulting
• Environment creation and restoration
• Resource conservation (reduce, reuse, recycle)

Reduction of environmental impacts
We help to reduce the environmental impacts of customer business operations through proposing energy conservation measures, deployment of alternative energy supplies, and boosting the longevity of buildings to reduce resource consumption.
• Global warming strategies (energy conservation, alternative energies)
• Building longevity

Environmental risk strategies
We advise on reducing the generation of hazardous waste materials from business activities and reducing risks to human health and the environment.
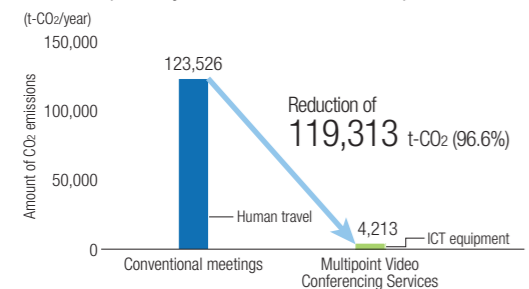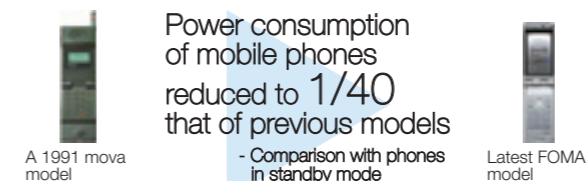• Waste disposal

docomo

Power consumption of mobile phones reduced to 1/40 that of previous models

- Comparison with phones in standby mode

A 1991 mova model

Latest FOMA model

NTT DOCOMO is constantly enhancing the energy efficiency of mobile phones. The latest FOMA[1] model consumes 1/40 of the power consumed by early mova[2] models.

NTT AT — Special paint that reduces the surface temperatures of exterior walls by 10-25°C, even under a scorching summer sun

NTT Advanced Technology in December 2005 launched sales of Surf Cool, a special paint that can reduce the surface temperature of exterior walls by 10-25°C by efficiently reflecting near-infrared rays. In fiscal 2008, Surf Cool was used on elementary school rooftops, chemical storehouse rooftops, factory exterior walls, and parking lots.
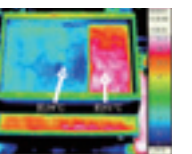
NTT FACILITIES

Launched 1 megawatt solar power pilot schemes in Saku, Nagano Prefecture, and Kochi Prefecture

NTT FACILITIES has teamed up with local companies in two regions to participate in the Solar Challenge initiative held by the Ministry of the Environment since 2006. It is implementing pilot schemes using one-megawatt distributed solar systems for shared use with local governments and private businesses.

NTT FACILITIES

Using Japan's largest CASBEE assessor squad to advise on high environmental performance buildings

CASBEE (Comprehensive Assessment System for Building Environmental Efficiency) is fast becoming the standard for assessing the environmental performance of buildings, and NTT FACILITIES boasts a squad of 205 CASBEE assessors (as of April 2008), more than any other company in Japan. Our assessors use their expertise in CASBEE assessment to provide objective advice on building designs offering superior environmental performance.

Terminology

1. FOMA
NTT DOCOMO's mobile communications service launched in October 2001. This is a 3G service following earlier analog and PDC-based services.

2. mova
Analog (1st generation) mobile phone service launched in 1991. Digital PDC (2nd generation) mobile phone service was launched in 1993.

Using Resources Effectively

Products and services offered by NTT Group companies, along with supporting communication equipment, require periodical upgrading in line with technological advances, life cycle management considerations, and other factors. At the NTT Group, we strive to use resources effectively and reduce waste output by reusing or recycling communications devices and equipment that have been taken out of service.

Reducing waste and promoting reuse and recycling within NTT

Principal stakeholders | Customers | Business partners

Reusing and recycling waste from communications equipment installation/removal
NTT Group

The NTT Group owns a variety of communications equipment used to provide telecommunications services, such as telephone poles, switching equipment, and communications cables. Naturally, such equipment needs to be removed and disposed off when it reaches the end of its service life or is replaced during system upgrades. We promote the use and recycling of such removed communications equipment within the Group, and recycle whenever possible, for example recycling discarded concrete blocks as road building material.

For fiscal 2008, across the entire NTT Group, we recycled 175,000 tons of concrete telephone poles, 23,000 tons of switching equipment, and 29,000 tons of communications cables. These activities resulted in

a recycling rate of 99.9% for all of our communications equipment, achieving zero emissions* for the fourth consecutive year.

Amount and percentage of used communications equipment recycled

(in thousands of tons) (%)

Used communications equipment recycling rate: 98.1, 99.2, 99.5, 99.7, 99.9

Totals: 204 (2004), 221 (2005), 218 (2006), 232 (2007), 253 (2008)

Legend: Used communications equipment recycling rate, Other, Communications cables, Switching equipment, Concrete telephone poles

(fiscal year)

Reducing paper resources required for telephone directories and billing statements
NTT Group

The NTT Group recycles returned telephone directories as paper for new telephone directories. The recycled paper content of new telephone directories has reached 68.2%. Also, as of fiscal 2008, approximately 4.567 million customers subscribe to our Internet billing statement services which allow customers to check their billing statements online, or by e-mail, or mobile terminals, saving approximately 913.2 tons of paper resources annually.

Paper consumption and recycled-paper content of telephone directories

(in thousands of tons) (%)

Recycled paper content: 66.1, 67.3, 69.4, 69.1, 68.2
Paper consumption: 101 (2004), 97 (2005), 81 (2006), 73 (2007), 65 (2008)

(fiscal year)

Paper resource reductions from NTT Internet billing statement services

(in thousands) Reductions (tons)

Number of registrations: 1,675 (2004), 3,044 (2005), 3,582 (2006), 3,985 (2007), 4,567 (2008)
Reductions: 374.5, 560.1, 698.6, 805.2, 913.2

(fiscal year)

docomo **NTT LOGISCO**

13,600 NTT DOCOMO PHS base stations recovered

With the shutdown of NTT DOCOMO's PHS service in January 2008, NTT LOGISCO has recovered approximately 13,600 Kanto region PHS base stations (as of March 31, 2008).

Terminology

*Zero emissions
A concept proposed by the United Nations University that calls for reusing all waste materials and by-products from industrial activity as resource inputs for other types of production in order to eliminate waste on a lifecycle basis. The NTT Group considers a recycling rate of 99% or more to satisfy zero emissions conditions.

Helping customers to reduce, reuse, and recycle

Principal stakeholders | Customers | Business partners

Recovering and recycling used telephones and batteries
NTT EAST **NTT WEST**

NTT East and NTT West both collect compact rechargeable batteries (NiCd, Li-ion batteries) from used telephones and cordless phones, toner cartridges used in fax machines, and other materials to reuse as resources. In fiscal 2008, we recovered 4.51 million communications devices, 5.63 million batteries, and 2.33 million chargers and other peripherals from NTT customers.
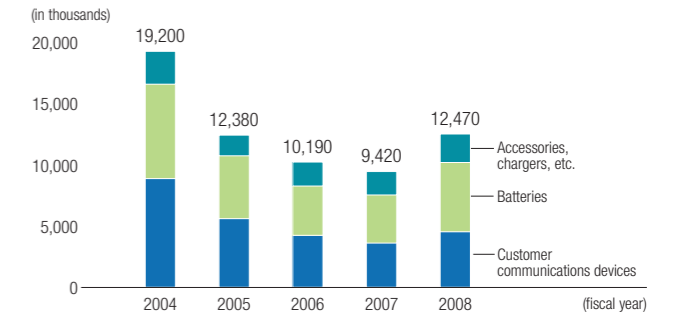
Reselling computers and other IT devices after erasing data
NTT EAST **NTT WEST**

NTT East and NTT West offer an IT Equipment Recovery Service to collect and reuse computers no longer required

by businesses. After completely erasing data stored on internal computer hard disks, the computers are purchased as used computers and reused as commercial products, helping to prevent information leaks, reduce waste and cut disposal costs.
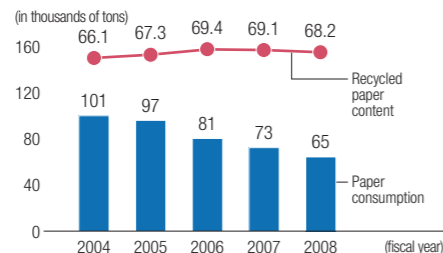
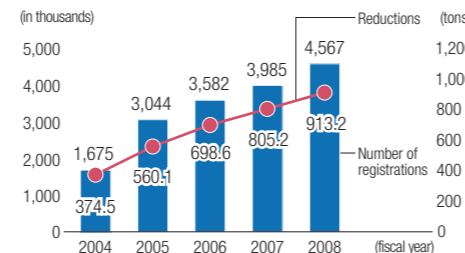**Number of used communications devices and batteries collected**
NTT Group

(in thousands)

Totals: 19,200 (2004), 12,380 (2005), 10,190 (2006), 9,420 (2007), 12,470 (2008)

Legend: Accessories, chargers, etc.; Batteries; Customer communications devices

(fiscal year)
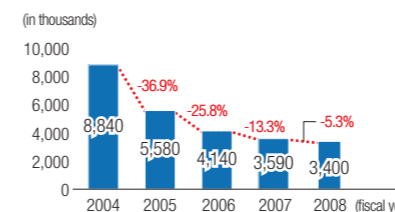
docomo **NTT LOGISCO**

65.34 million used mobile phones collected

NTT DOCOMO collects used mobile phone handsets, batteries, chargers, and other equipment at docomo Shops nationwide. Efforts are also under way to expand collection channels and raise awareness of collection activities. In cooperation with NTT LOGISCO, the company has been placing used mobile phone collection boxes at electronics retail outlets and convenience stores in the Kanto area since 2006.

DOCOMO is striving for 100% recycling of mobile phones. The gold, silver, copper, palladium, and other valuable metal resources in collected mobile phones are all recycled. The plastic used in cases is also utilized for supplementary fuel and recycled plastic.

Customers were called on to recycle their phones in fiscal 2008 through events such as Eco-Products 2007. Local governments, police, and other agencies also cooperated in spreading the word about mobile phone recycling. These efforts resulted in the collection of 3.4 million mobile phone handsets, 4.96 million batteries, and 2.09 million chargers in fiscal 2008. Since fiscal 1999, a cumulative 65.34 million mobile phones have been collected.

Phone collection by the NTT DOCOMO Group over the past five years

(in thousands)

8,840 (2004), 5,580 (2005), 4,140 (2006), 3,590 (2007), 3,400 (2008)
-36.9%, -25.8%, -13.3%, -5.3%

(fiscal year)

NTT DaTa

Paper consumption cut by an average of 20% by using IC cards to restrict printer access

From March 2008, NTT DATA has been offering [u:ma]-G, a solution for enabling different types of smart cards to be read by a single reader. By building this [u:ma]-G reader into printers for user authentication, customers can easily restrict printer access using existing employee passes, reducing paper waste due to mistaken printing jobs, printing of excessive copies, and print jobs being left uncollected by an average of 20%.

NTT LOGISCO

Recovery and recycling of nearly 13,000 tons of confidential documents using SS-BOX

NTT LOGISCO has built a recycling system for the safe and easy collection and processing of unneeded confidential documents. Approximately 13,000 tons of such paper waste was collected for recycling in fiscal 2008 from the 8,100-plus SS-BOXes deployed in companies throughout Japan.

Environmental Technology Development

To help build a sustainable society, NTT Group promotes R&D in environmental technologies on a variety of fronts, such as energy conservation, clean energies, and hazardous materials detection and remediation.

R&D contributions to energy conservation

Principal stakeholders — Customers · Business partners

OSAP, a universal platform for energy conservation in the home and the workplace
NTT

The rapid evolution and spread of network technologies is leading in recent years to the connection through networks of consumer appliances, audio/visual equipment, home fixtures, and sensors as well as computers and other information devices. NTT Cyber Solutions Laboratories is conducting an OSAP (OSGi Service Aggregation Platform) research program aimed at enabling compatibility, interconnectivity, and linked control between all these devices. OSAP is a service platform for centralizing the distribution of applications and services required by home appliances, vehicles, and mobile devices connected to the network. Building this platform into connected devices is expected to help reduce complexity, save space, and cut back on energy expenditures of home and office network environments.

High speed/ultra-low power chip capable of trapping light for one nanosecond
NTT

Research is being conducted around the world to develop technologies for capturing, storing, and slowing down light. In 2006, NTT Basic Research Laboratories became the first in the world to successfully trap and store light for over one nanosecond (one billionth of one second), and slow down the speed of light propagation to less than 1/50,000 of that in air. This new technology will be applied to opto-electronic products such as optical switches, and will in the future enable the development of devices such as ultra-energy efficient photonic information processing chips[1] and optical quantum information processors[2] that operate in the realm of single photons.
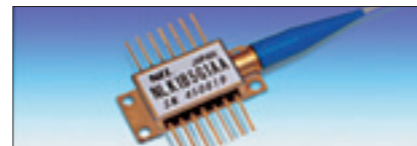

NTT Laser module not requiring cooling system

Laser modules used as core components in optical switching systems are equipped with cooling systems to prevent degraded signal conversion performance due to high temperatures. To eliminate the need for such cooling systems and reduce overall module power consumption, NTT Photonics Laboratories has developed a working laser module that enables stable operation at temperatures even as high as 85°C.

NTT

Developing cheaper, more compact solar panels
through proprietary technologies that deliver sufficient voltage even from a single small cell

In fiscal 2008, NTT Energy and Environment Systems Laboratories successfully developed an integrated circuit for the control component of a proprietary ultra low voltage input booster module to boost voltage generated even by a single photovoltaic cell to a level sufficient to run devices. This technology enables reduction of both the size and cost of solar panels, and can be used in solar powered rechargers for mobile phone and other terminals or in the recharging units of small-scale outdoor solar power supplies.

NTT

Development of an extra long wavelength semiconductor laser light source for advanced medical, environmental, and industrial applications

NTT Photonics Laboratories used its optical communications device expertise to develop a 2.3 μm-plus laser light source in fiscal 2008. Improving the active layer indium composition of the laser using a proprietary design and low temperature growth techniques enables the laser to oscillate at a wavelength of up to 2.33 μm, which was beyond the capabilities of conventional semiconducting laser technology. Since infrared beams over 2 μm can match the absorption spectrum of gases and substances such as glucose found in the human body, such lasers hold out promise for applications such as air pollution monitoring and medical measuring devices.

Terminology

1. Photonic information processing chip
A chip used for complex information processing of ultra-high speed optical signals without the need for signal conversion. Using this chip reduces power consumption since it eliminates the need to convert optical signals into electrical signals for processing.

2. Optical quantum information processor
A processor that relies on the characteristics of photons (the quantum units of light energy) to perform certain high speed operations such as quantum calculations and quantum encryption.

Promoting Environmental Communication

With the aim of extending the reach of environmental protection activities throughout society, in addition to providing outreach activities through online information and various events, the NTT Group also works to raise environmental awareness of Group employees, and conducts various environmental activities with customers, business partners, government agencies, and non-profit and non-governmental organizations.

Raising awareness and spreading information inside and outside the company

Principal stakeholders — Customers · Shareholders/investors · Employees* · Local communities · Business partners

*employees, family, former employees

Special goo Green Label project donates 15% of website revenue
NTT Communications

NTT Resonant, an NTT Communications Group company, posts various local and international news items about the environment on the Kankyo goo section of its goo portal site. Kankyo goo content includes interviews with leaders of companies noted for their efforts for the environment, an environmental education section, and a comprehensive glossary of environment-related keywords.

The site also presents annual Kankyo goo Awards to businesses, government agencies, NPOs, NGOs, universities, independent research and other organizations, and individuals whose efforts to actively disseminate information about environmental protection and community engagement initiatives via the Internet warrant recognition. 16 websites received awards in 2007.

The goo Green Label project was also launched in August 2007 to donate an amount equal to 15% of the revenue generated from use of the goo search engine from the goo Green Label site to organizations working to resolve environmental issues. As of July 2008, a total of 1.35 million yen had been donated to three environmental protection organizations – FoE Japan (international environmental NGO), WWF Japan nature conservation NGO, and Kiyosato Educational Experiment Project (KEEP) Foundation.

Kankyo goo screenshot   goo Green Label screenshot

NTT   **NTT Communications**

Environmental/CSR Reporting Symposium

On December 13, 2007, NTT held an Environmental/CSR Reporting Symposium (with assistance from the Ministry of the Environment and Ministry of the Economy, Trade and Industry). A keynote speech titled "Innovation Strategy-Driven CSR Management" and a panel discussion were followed by the announcement of results of a survey on public awareness of environmental/CSR reporting conducted by goo Research, the Internet survey service operated by NTT Resonant. This symposium, which drew a strong turnout of about 420 participants that filled the venue to capacity, is one example of the way in which the NTT Group strives to engage stakeholders.

NTT Group

Seven NTT Group companies take top slots in the 11th Nikkei Environmental Management Survey

11th Corporate Environmental Management Survey (Nikkei Inc.) – Communications/Service Sector –

1st place	NTT Communications		
2nd place	NTT FACILITIES	7th place	NTT COMWARE
3rd place	NTT West		
4th place	NTT DOCOMO		
5th place	NTT East	13th place	NTT DATA

NTT DaTa

Supporting Miyake-jima's recovery and environmental education through MIYAKE-ECO.NET

In July 2005, NTT DATA together with Miyake Village (Tokyo) and the Wild Bird Society of Japan launched the MIYAKE-ECO.NET project to support the recovery of Tokyo's Miyake-jima, an island devastated by the eruption of Mount Oyama in June 2000. (Project administration was transferred to Miyake village at the end of fiscal 2008). In fiscal 2008, a nature class using MIYAKE-ECO.NET content was held at Miyake Village's Public Elementary School with NTT DATA employees serving as instructors.

Promoting Environmental Communication

Conserving Nature and Local Living Environments

Building a sustainable society requires not only reducing the environmental impacts of our business operations, but also the direct protection of nature and local living environments. NTT Group companies engage in environmental conservation activities nationwide, while also protecting the environment and managing environmental risks.

Raising awareness and spreading information inside and outside the company

Principal stakeholders: Customers | Government organizations | Employees* | Business partners

*employees, family, former employees

Participating in Ministry of Internal Affairs and Communications study group, symposiums, and international conferences on environmental issues | NTT

The NTT Group actively participates in projects outside the group to ensure that the fruits of our R&D into environmental technologies will contribute to reducing environmental impacts throughout society. In addition being a regular participant in the Ministry of the Environment's Research Project of Japan Low Carbon Society Scenarios toward 2050 to study and plan long-term scenarios for countering global warming, we participated in the Ministry of Internal Affairs and Communications' Study Group on ICT Policies for Addressing Global Warming, contributing by preparing a report on the impacts of ICT on global warming. In April 2008, NTT Laboratories took part in discussions on the role of ICT in resolving problems of climate change at the Kyoto Symposium on ICTs and Climate Change held by

the Ministry of Internal Affairs and Communications and the International Telecommunication Union Telecommunication Standardization Sector (ITU-T), and NTT is also participating in international initiatives such as the World Business Council for Sustainable Development (WBCSD) and Global Environmental Action (GEA).

Informing the public about the environmental benefits of ICT services | NTT

To help reduce the environmental impacts of society as a whole, the NTT Group is informing its customers of the environmental benefits of ICT services through environmental advertising and other means, including the display of posters touting the environmental benefits of ICT services during the G8 Hokkaido Toyako Summit held in July 2008.

Poster displayed during the G8 Hokkaido Toyako Summit

NTT **Study sessions for environmental personnel using remote interactive learning system**

At the NTT Group, study sessions are held each year for environmental personnel using NTT LEARNING SYSTEMS' MICE remote interactive learning system. The two sessions held in fiscal 2008 in Tokyo and Osaka were attended by 324 personnel.

NTT Group **Raising employee environmental awareness**

To raise employee awareness about the environment, posters promoting Cool Biz and Warm Biz[1] energy conservation dress codes are posted in NTT Group company workplaces. Other awareness activities include the publication of environmental content on company intranets and in CSR newsletters, distribution of eco-cards, and environmental poetry contests.

docomo **Participation in Black Illumination campaign**

NTT DOCOMO participates in the Black Illumination campaign organized by the Ministry of the Environment.

Warm Biz promotional poster (NTT West)

Environmental poem calendar (NTT DATA)

📖 **Terminology**

1. Cool Biz and Warm Biz
Japanese government initiatives to save energy and reduce CO₂ emissions through promoting dress codes that help limit the use of air conditioning

2. Company Forest Program
This program operated by the Forestry Agency division of the Ministry of Agriculture, Forestry and Fisheries aims to develop forest resources through the fixed-rate sharing of revenues from the sale of timber cultivated through private sector and government collaboration. Under the system, participating companies can either pay a portion of the expenses of managing a patch of national forest, or they can plant and manage trees in national forest areas themselves.

3. Green Fund Program
This program allows the collection of donations each year during periods specified by the Minister of Agriculture, Forestry and Fisheries under the name Green Fund based on the Green Fund Law (Japanese Law Number 88, 1995). Proceeds from such funds may only be used to promote forest management and tree planting activities.

Preserve biological diversity

Principal stakeholders: Customers | Employees* | Local communities | Business partners

*employees, family, former employees

Launching the goo Home Project for growing coral in the seas of Okinawa | NTT Communications

NTT Resonant, an NTT Communications Group company, launched the goo Home Project in November 2007. Conducted in cooperation with NPO AQUA PLANET, this project plants one coral fragment in the coastal waters of Chatan in Okinawa Prefecture for every 30 registrants on NTT Resonant's goo Home SNS site. As of July 2008, the project has resulted in 2,000 corals being planted in the seas of Okinawa.

goo Home Project website

Coral reef

170 hectares of DOCOMO Woods established in 37 locations across Japan | docomo

NTT DOCOMO has been implementing the DOCOMO Woods project since 1999 as an environmental protection activity. DOCOMO Woods are forests established by NTT DOCOMO in Japan utilizing resources such as the Corporate Forest[2] and Green Fund[3] programs. Five new locations were established in fiscal 2008 in Yamagata, Fukui, Kyoto, Kumamoto, and Nagasaki, expanding the total area of DOCOMO Woods to approximately 170 hectares in 37 locations as of the end of fiscal 2008.

NTT DOCOMO Group employees and their families get together every year to help maintain DOCOMO Woods, with 44 such events being held in fiscal 2008.

Maintaining DOCOMO Woods

Managing environmental risks

Principal stakeholders: Customers | Government organizations | Local communities | Business partners

Soil contamination and its remediation at the former site of the NTT Ibaraki R&D Center | NTT

A soil survey conducted between January and March 2007 at the former site of our NTT Ibaraki R&D Center (Naka County, Ibaraki Prefecture) found soil contamination levels exceeding permitted levels for arsenic, fluorine, lead, and hexavalent chromium. Remediation work started in October of the same year on areas where contamination was detected, and in approximately four months' time the contaminated soil was removed and site remediated in accordance with the Ibaraki Prefecture Ordinance on the Protection of Local Living Environments. Also, in order to determine the effect on surrounding areas, soil and groundwater samples were tested from neighboring sites, and all samples were found to be within permitted levels.

Addressing asbestos issues | NTT

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 2006 of the Supplementary Provisions to the Ordinance on Prevention of Health Impairment due to Asbestos, we carried out a new survey in fiscal 2008 that revealed the existence of materials containing asbestos in some NTT facilities, and took appropriate measures as stipulated by law.

Establishment of three principles for the appropriate handling of chemicals | NTT

The NTT Science and Core Technology Laboratory Group has established three principles for handling chemical substances: (1) preferential use of chemicals with minimum impact on the environment, (2) use only of necessary chemicals, and (3) use of no more than minimum required amounts.
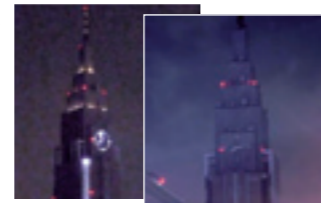
NTT appropriately manages and disposes of chemical substances according to these principles.

Communication between people and their communities

Communication between people and the global environment

Safe and secure communication

Team NTT communication

Safe and secure communication

The NTT Group is committed to providing communications services and creating a user environment offering safety, security, and convenience to all by improving the quality of our products and services with our utmost focus on customer feedback, while tackling the social issues arising from the spread of communications services.
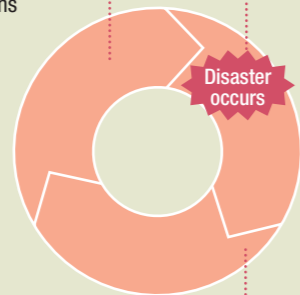
Close Up

Q What measures is the NTT Group taking to prepare for possible disasters?

A Our daily activities focus on three key areas.

1 Enhancement of communications network reliability
- Transmission line multi-routing
- Decentralization of critical communications centers
- Building and securing of communications equipment to withstand disasters

2 Securing of critical communications
- Securing of 110, 119, and 118 emergency number services
- Securing of prioritized calling
- Provision of systems to check on the safety of those in disaster-stricken areas
- Installment of public phones and lending of mobile phones etc.

Disaster occurs

3 Prompt restoration of communications services
- Deployment of disaster response equipment
  Power supply vehicles
  Portable satellite equipment
  Portable mobile base stations
  Emergency portable digital switching equipment

The NTT Group is committed to continuous preparedness against various disasters, with an emphasis on three key areas.

The first of these is the enhancement of communications network reliability. We implement transmission line multi-routing and other measures to build communications networks and equipment in a way that minimizes the impact of disasters on communications services.

The second is the securing of critical communications. In addition to the securing of 110, 119, and 118

emergency number services, we provide ways to check on the safety of others, such as the Disaster Emergency Message Dial (171).

The third is the prompt restoration of communications services in affected areas. For example, during prolonged power outages, power is maintained by power supply vehicles deployed nationwide.

In these ways, the NTT Group provides communications services capable of withstanding disasters as part of the infrastructure that supports our livelihoods and society.

Providing Communications Services to Withstand Disasters

When a disaster strikes, communications services are vital in rescue and restoration operations, and for transmitting emergency information.
The NTT Group is engaged in building systems to ensure the prompt restoration of communications systems and the maintenance and securing of means of communications within and outside the affected area, even when a disaster has caused power outages or our network is inundated with calls or mail to the affected area.

Preparing for disasters

Principal stakeholders: Customers | Government organizations | Local communities

Measures to improve communications network reliability ⏻ NTT Group

The NTT Group has learned many lessons during past disasters that it applies to implement various measures aimed at enhancing the reliability of its communications networks. To prevent the failure of communications services during a disaster, we not only implement transmission line multi-routing, but also design communications equipment, buildings, steel towers, and other facilities to withstand disasters in accordance with predetermined standards.

Securing critical communications ⏻ NTT Group

When a disaster strikes, the telephone system of the affected area is inundated with calls, causing network congestion. Under such conditions, we suppress ordinary phone traffic to secure critical communications services necessary to conduct emergency rescue and restoration operations and keep emergency number services such as 110, 119,

and 118 going.

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

Prompt restoration of communications services ⏻ NTT Group

The NTT Group stations highly mobile disaster response equipment such as power supply vehicles, portable satellite equipment, and portable mobile base stations at locations throughout the country to aid in the prompt restoration of services and securing of critical communications in disaster-stricken areas. In the event of a major disaster, a disaster management headquarters and other emergency structures are also immediately set up and work to promptly restore communications services.

⏻ **NTT Group**

Diversified disaster response assistance

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

Videophone unit for Tsunagete-Talk

UPS unit used with the Anshin Hotto ("breathe easy") service

Mobile phone screen image of the emergency contact and safety confirmation system

NTT Group disaster response systems and solutions

Name	Description	Organization
Tsunagete-Talk (announcement broadcasts)	This service enables municipal authorities to use videophone (FLET'S phone series) to broadcast public announcements or report a state of emergency to local residents during disasters, and also allows communications between residents. (Available since September 2008)	NTT Advanced Technology NTT East NTT West
Anshin Hotto ("breathe easy") service for Hikari Denwa optical fiber telephone service	This backup power supply service uses uninterruptible power supply (UPS) units to ensure uninterrupted Hikari Denwa optical fiber telephone services even during power outages. (Available since March 2007)	NTT East NTT ME NTT FACILITIES
Power outage Anshin ("peace of mind") service for Hikari Denwa optical fiber telephone service	This backup power supply service uses uninterruptible power supply (UPS) units to ensure uninterrupted Hikari Denwa optical fiber telephone services even during power outages. (Available since November 2006)	NTT West NTT NEOMEIT
Emergency Earthquake Alert Service	This service provides immediate emergency information about earthquakes issued by the Japan Meteorological Agency transmitted through nationwide IPv6 multicast. (Full service available since July 2007)	NTT Communications
Emergecall emergency contact and safety confirmation system	This service enables organizations to simultaneously contact employees and check on their safety in the event of a disaster or other emergency. A new version available from February 2007 includes added functionality for the automatic transmission of earthquake and tsunami information from weather and disaster response sources to registered users.	NTT Advanced Technology

Creating a Safe and Secure Environment for ICT Users

With the ever-increasing exchange of confidential information using communications services, the NTT Group is actively engaged in R&D in the area of information security technology in order to enable our customers to use our services safely and securely. We also strive to improve security protection in corporate activities through the development of sensor technologies, etc.

Safe and secure communications through R&D *

Principal stakeholders — Customers / Business partners

For safe, anxiety-free use
NTT Group

The NTT Group is engaged in R&D in high-level encryption technologies, security, and other fields to prevent acts that compromise the security of communications networks, and create a safe user environment.

New world record for "integer factorization" used to verify security of public key cryptography
NTT

Public key encryption, which involves the pairing of two keys for encryption and decryption of information, is a widely used encryption method for ensuring the security of confidential information exchanged over the Internet. NTT Information Sharing Platform Laboratories announced in May 2007 that through joint research with the University of Bonn, Germany, it had set a new world record for "integer factorization" used to verify security of RSA encryption, the de facto standard in public key encryption.

Under RSA encryption, the product of a large integer (composite number) is used as the key, and security is based on the difficulty in factorizing the integer. In a large-number integer factorization experiment undertaken to ascertain the security and strength of RSA, integer factorization of a special-type composite number without a small factor and exceeding 1,000 bits was achieved for the first time in the world.

Estimating how large a composite number can be factorized based on the current integer factorization technology and calculation power makes it possible to set the period for updating the RSA encryption key length and provide a safe and strong encryption system for the future.

Ensuring information security

Principal stakeholders — Customers / Employees* / Business partners

*employees, family, former employees

NTT-CERT provides security support for NTT Group companies
NTT

NTT-CERT, operated by the NTT Information Sharing Platform Laboratories, is an organization that works with security managers and systems administrators to handle security threats and provide technological support within the NTT Group.

In fiscal 2008, we adopted a diagnostic security risk management system that we had been developing since fiscal 2006. We have also been engaged in planning and implementing security training programs for employees, and enhancing cooperation between telecommunications equipment security engineers within the NTT Group.

ISMS and PrivacyMark certifications
NTT Group

As a framework for managing information, protecting secrecy, and preventing information leaks, NTT Group companies are working to achieve Information Security Management System (ISMS) certification. We are also working to achieve PrivacyMark (P-Mark) certification, which recognizes the provision of a system for proper handling of personal information.

Further, NTT DATA has achieved a first for domestic system integrators by publishing an Information Security Report 2008, which reports the details of its activities for promotion of information security.

Information Security Report

NTT

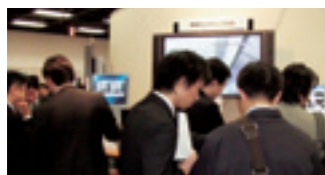## Development of simple authentication technology using paper

Using paper cards containing watermarked photos or logos, we have developed a platform for simple authentication when entering or leaving the office, etc. This is cheaper than using IC cards as these cards can be created on regular paper using a commercially available printer.

Paper card for authentication

NTT

R&D on remote video monitoring

We are engaged in R&D aimed at addressing both accuracy and privacy protection issues in remote monitoring operations. We have developed technologies to ascertain the direction of people's heads and privacy protection technologies such as the ability to selectively apply mosaic to moving objects, and have showcased these at exhibitions with a view to commercialization.

Demonstrating the technologies at an exhibition

NTT

Firefox 3 employs homegrown Japanese Camellia encryption algorithm

Camellia (developed through collaboration with Mitsubishi Electric Corporation), an encryption algorithm featuring world-class security and performance, is the first encryption algorithm developed in Japan to have been adopted by Linux and other major open source software. Its widespread use as an international platform technology was further boosted by its adoption into the Firefox 3 web browser, released around the world in June 2008.

Communications encrypted with Camellia

NTT Group

Initiatives for 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 and prevent leaks. Each Group company is also undertaking its own activities to ensure thorough protection of personal information.

Group company	Examples of major activities
NTT East	• Installation of a system restricting output to external storage media for office terminals (approximately 75,000 terminals as of March 31, 2008) • Utilization of a dedicated tool verifying that no work-related information exists on current or past employees' home PCs while also ensuring that file-swapping software such as Winny is not being used
NTT West	• Limitation of business terminals used for output to external storage media • E-mail delivery system configuration (e-mail can be sent to an external recipient only if a copy is also sent to a superior's address.)
NTT Communications	• Reviewing of regulations and systems, training of all staff, submission of written pledge/measurement of performance, and implementation of periodic checkups and monitoring • Requiring of approval to download customer information and implementation of information lifecycle management, including in outsources • Use of tools to control authorization for handling customer information, such as writing information to external storage media on an individual basis, and implementation of periodic revisions
NTT DATA	• Installation of a solution (Total Security Fort) on all PCs used in operations (approximately 30,000 terminals) as a measure against information leaks by restricting writing to external storage media such as USB memory (2005), use of thin clients for PCs used away from company premises, introduction of e-mail filtering (2007), etc.
NTT DOCOMO	• Implementation of system enhancements to restrict the print-screen function and the displaying of the customer's address on customer information management system terminals
NTT FACILITIES	• Implementation of mass inspection of home PCs of all employees including group directors as well as submission of written confirmation, while also requesting submission of the same written confirmation from affiliates and outsources
NTT COMWARE	• Implementation of checkups for information leak prevention, such as by having full-time employees, temporary staff, and affiliated organizations, etc. submit a written pledge to comply with regulations (from November to December 2006, from July to September 2007)
NTT Urban Development	• Servicing and operation of related regulations such as revision of the Information Security Management Regulations and establishment of the Rules on the Management of Customers' Personal Information

NTT Group

Enhancing measures to stop information leaks and prevent reoccurrence

In fiscal 2008, several information leak incidents occurred, such as the external leakage of business-related files removed from company premises without authorization by a former employee (NTT East), and the use, perusal, and external leakage of customers' personal information by a retail agency staff member (NTT DOCOMO). Group companies take such incidents very seriously and have strengthened measures to prevent a reoccurrence, such as by redoubling their efforts to train employees in the proper handling of information, and introducing software to prevent the leak of confidential information.

NTT LOGISCO

Provision of confidential document recycling service

A lockable security box called an "SS-BOX" is installed in customers' offices, and after confidential materials are discarded, the locked box is taken to a processing plant where the contents are completely destroyed (dissolved). A "confidential document destruction (dissolution) certificate" is issued after processing.

Confidential document destruction (dissolution) certificate

Creating a Sound User Environment

The NTT Group is working to resolve various social issues arising from the spread of Internet and mobile phone use. Our aim is to educate the public on the appropriate use of communications services, and also to create a safe and secure user environment through improvements in equipment and services.

Promoting appropriate use of information and communications services

Principal stakeholders: **Customers** | **Government organizations** | **Employees*** | **Local communities**

*employees, family, former employees

Focusing on education of children, parents/guardians, and school personnel
NTT Group

The Internet and mobile phones have become important tools in our society, but their spread has also given rise to a range of social issues related to their inappropriate and unethical use. In recent times, children are increasingly exposed to the Internet and mobile phones, and resulting contact with harmful content has led to an increase in incidents in which they fall victim to crime and other kinds of trouble. One way in which the NTT Group is addressing such issues is to organize educational activities designed particularly for children and for parents/guardians and school personnel responsible for protecting children.

Summer holiday events held for elementary school children to learn to use services correctly and appropriately
NTT Group

Continuing on from fiscal 2007, the NTT Group held "NTT Dream Kids Net Town 2007" summer holiday events where children have fun experiencing first-hand how a communications network operates and also learning about our latest networks. (NTT East, NTT West, NTT Communications, NTT DATA, and NTT DOCOMO participated.)

In fiscal 2007, these events were held only in Tokyo and Sendai, but in fiscal 2008, Sapporo, Osaka, and Fukuoka events were added. We also launched an interactive learning website to enable those unable to participate in these events in person to study the same content online.

e-Net Caravan protects children from trouble
NTT Group

We provide instructors for e-Net Caravan, an initiative sponsored by the Ministry of Internal Affairs and Communications, and the Ministry of Education, Culture, Sports, Science and Technology that aims to protect children from Internet-related trouble. We also hold lectures on safe use of the Internet by children for parents/guardians and school personnel throughout the country.

e-Net Caravan website

Mobile Phone Safety Program classes attended by approximately 700,000 students
docomo

Under the Mobile Phone Safety Program, instructors are dispatched to elementary, junior, and high schools nationwide to educate children on mobile phone manners and how to avoid trouble. Since the program was launched in 2004, approximately 4,600 classes have been held nationwide, with a total attendance of 700,000 as of the end of March 2008.

Internet Safety Workshops for elementary school children
NTT EAST

Workshops are held at elementary schools to inform children about skills and manners for trouble-free utilization of communications in the age of ICT. Approximately 20,000 children have attended these workshops since they began in fiscal 2007.
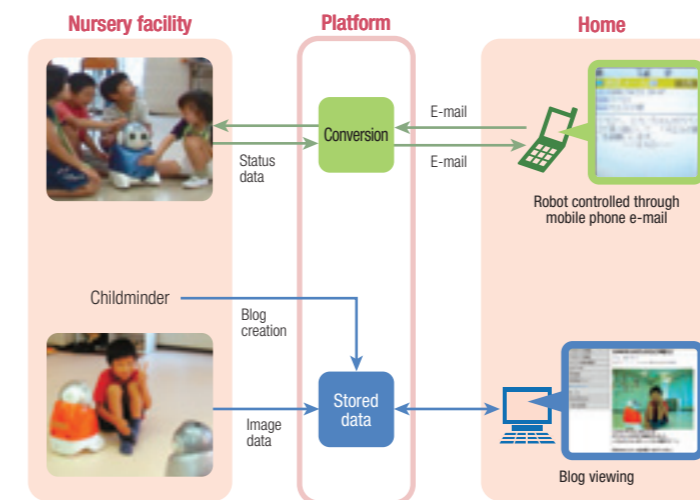
A safe portal site for children
NTT Communications

This portal site has been designed to enable children to search the Internet safely by employing filtering functions to ensure that only appropriate search results are displayed. A mobile phone version was also launched in April 2008.
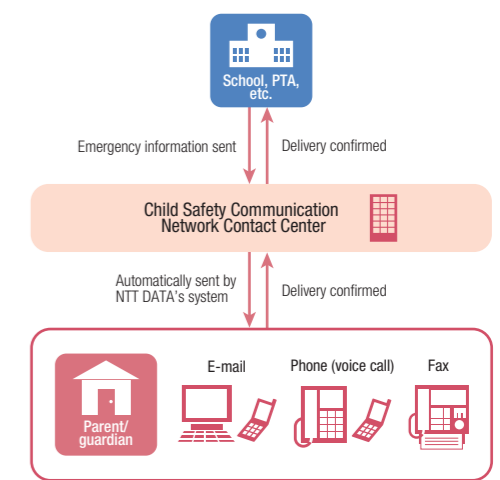
Providing services to ensure child safety

Principal stakeholders: **Customers** | **Local communities**

To ensure the safety of children in a changing social environment
NTT Group

Children today face a rapidly changing environment in which they are increasingly falling victim to crime. Protecting children has thus become a major challenge for parents/guardians, schools, and entire communities.

NTT Group companies are focusing resources on various initiatives to ensure the safety of children. For example, we offer mobile phones equipped with protection alarms and GPS functions that allow parents/guardians to pinpoint their child's whereabouts, a system using RFID tags to keep track of children arriving at or leaving school and inform parents by e-mail, and services for schools to simultaneously send emergency messages to the phones, faxes, e-mail addresses, mobile phones, etc. of every parent or guardian.

Promoting the use of filtering services
docomo

To create a safe environment for mobile phone use by minors, NTT DOCOMO provides filtering services on all i-mode handsets to restrict access to inappropriate sites, etc. From February 2007 a new initiative was introduced to inform all new mobile phone subscribers, irrespective of age, of these services and encourage their use for minors. Service names were also changed to promote greater awareness among junior and high school students. Further to this, from February 2008, the Access Restriction Service has been enabled by default for minors newly subscribing to i-mode. Parents/guardians are informed of this setting and asked if they wish it to be disabled.

有害サイトから子供を守る！

Protect Children from Inappropriate Internet Sites! campaign logo

Meru-Robo Digital Log child monitoring system
NTT

A child monitoring system has been developed utilizing technology for controlling robots from mobile phones. This system enables parents/guardians to use a mobile phone to control a robot from a remote location and check on the well-being of their children through images taken by the robot and sent as video e-mail, and to send messages to their children that are read out by the robot. We are currently conducting field tests with nursery facilities, with a view to offering this system commercially.

Nursery facility — Platform — Home
Status data — Conversion — E-mail / E-mail — Robot controlled through mobile phone e-mail
Childminder — Blog creation — Stored data — Image data — Blog viewing

FairCast Child Safety Communication Network
NTT DATA

Since 2006, a service has been provided for schools to simultaneously inform all parents/guardians and school personnel about the cancellation of school sports or other events, suspension of classes, closing of school due to the issue of alerts and so forth. Such information can be received through e-mail, phone (voice call), or fax.

School, PTA, etc.
Emergency information sent — Delivery confirmed
Child Safety Communication Network Contact Center
Automatically sent by NTT DATA's system — Delivery confirmed
Parent/guardian — E-mail / Phone (voice call) / Fax

Improving Customer Satisfaction and Convenience

To provide telecommunications services that satisfy our customers, the NTT Group constantly strives to improve its technologies and product and service quality. We are also applying universal design concepts to develop user-friendly products and services.

Pursuing customer satisfaction and providing a framework for quality management

Principal stakeholders: Customers | Employees*

*employees, family, former employees

Creating products and services that satisfy our customers — NTT Group

NTT Group companies provide customers with various means for providing feedback, and uses customer suggestions and requests to improve business activities, develop services, and enhance customer satisfaction (CS).

NTT FACILITIES
CS Magazine

NTT DOCOMO
CS report

We also work to foster a CS mindset in our employees, with each company implementing its own activities to promote CS improvement.

Building a quality management structure — NTT Group

In order to improve and upgrade products and services to meet the needs of our customers, the NTT Group is building a quality management structure through implementing such initiatives as acquisition of ISO 9001 quality management certification.

NTT EAST / NTT WEST / docomo

350,000 customer opinions received yearly

We have established customer consultation centers that welcome customer opinions and requests in addition to product, service, and repair inquiries. Our customers can also reach us through our website and by e-mail.

NTT DATA / docomo / NTT FACILITIES / NTT COMWARE

Fostering a CS mindset in employees

We work to foster a CS mindset in our customer service staff and other employees. Each of our Group companies also implements its own activities, such as holding customer service contests, awarding commendations to employees who have contributed to CS improvement, sharing successful CS improvement case studies, and exchanging ideas with CS leaders of other companies.

NTT Communications

Using customer feedback to upgrade services

The OCN Internet service website is equipped with a system for customers to submit opinions and requests. The feedback received is used to upgrade services, and details of the upgrades made are published on the website.

Creating services based on universal design

Principal stakeholders: Customers | Government organizations

Creating products and services that are accessible to everyone — NTT Group

The NTT Group recognizes that the aging of society makes it even more essential that communications services are easily accessible to any and every user. We educate our employees in universal design concepts and do our utmost to create products and services that can easily be used by the elderly, people with disabilities and all others.

Release of the world's first fully-automated subtitle production system for live news broadcasts — NTT Communications

In January 2008, NTT Communications launched the world's first trial of a Fully Automated System for TV News Subtitles for live news broadcasts. The system enables subtitles to be easily added to live news broadcasts in as little as 10 seconds' preparation time, and without requiring operation personnel during broadcast.

Approximately six million people in Japan currently suffer from hearing loss due to hearing impairments or aging. The Ministry of Internal Affairs and Communications has accordingly established guidelines aimed at ensuring that all programming with certain exceptions is equipped with subtitles by fiscal 2018. Anticipating this need, the new system uses an auto-delivery system to enable real-time delivery of pre-registered news copy as subtitles with minimum display time-lag for the viewer.

Subtitles displayed in real time

NTT

Checking website accessibility

Hanamaru Checker is a tool that we have developed to check website accessibility. A trial service is now available on the NTT Cyber Communications Laboratory Group website. This site is also voice browser-enabled for access by the visually impaired.

Hanamaru Checker

docomo

Bone conduction receiver-microphone launched to aid hearing

The Sound Leaf Plus bone conduction receiver-microphone has been launched as a communications tool to help mobile phone users suffering from hearing loss due to aging or hearing impairment. This device enables the other party's voice to be clearly heard even in noisy locations by sending vibrations through the bones in the skull directly to auditory nerves.

docomo

A mobile phone that embodies safety, simplicity, legibility, and user-friendliness

Further improvements have been made to the Raku-Raku PHONE, with a focus on design, features, and functions that make it even easier for anyone to use. We will continue to improve the user-friendliness of our handsets through the formulation of universal design guidelines and other measures.

docomo

Received Prime Minister's Award for activities centered on the concept of universal design

The DOCOMO Hearty Style initiative inspired by universal design concepts won the Prime Minister's Award in the 2007 Barrier-Free Contributors Awards. In addition to developing handsets that are universally accessible, DOCOMO was highly praised for its overall efforts in universal design, including initiatives such as barrier-free access to DOCOMO Shops, Videophone-based customer support, and user manuals in braille and audio form.
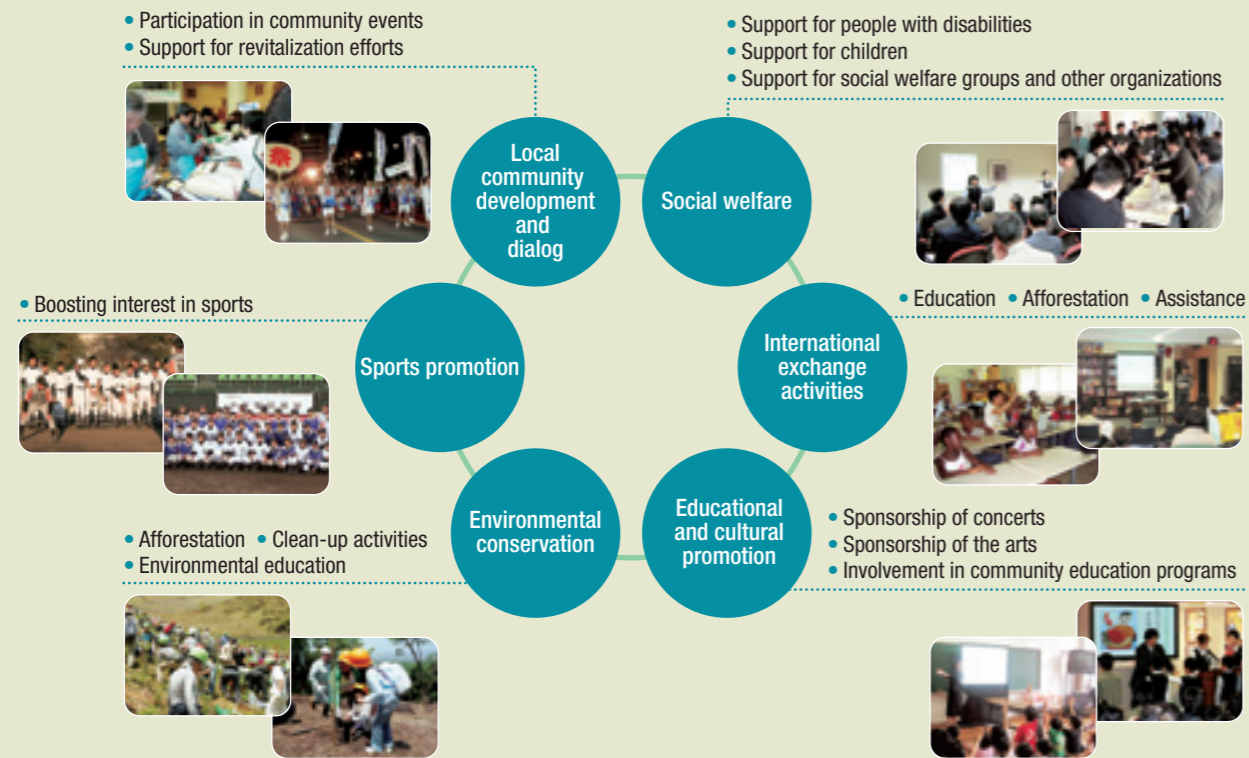
Team NTT communication

The NTT Group strives to create a workplace in which every employee, including those on a temporary or contract basis, feels confident working as a member of Team NTT. We are also committed to building close ties with local communities in which we serve through citizenship activities that engage those communities.

Close Up

Q What kinds of citizenship activities is the NTT Group implementing?

A The NTT Group carries out numerous activities that address the needs of local communities. These activities can be divided into the following six categories.

- Participation in community events
- Support for revitalization efforts

- Support for people with disabilities
- Support for children
- Support for social welfare groups and other organizations

- Boosting interest in sports

- Education ● Afforestation ● Assistance

- Afforestation ● Clean-up activities
- Environmental education

- Sponsorship of concerts
- Sponsorship of the arts
- Involvement in community education programs

Local community development and dialog

Social welfare

Sports promotion

International exchange activities

Environmental conservation

Educational and cultural promotion

Even before "citizenship" became a corporate buzzword, NTT had been committed to activities that benefit communities throughout Japan, and has put priority on fostering close relationships with local communities as a good corporate citizen. In 1991, the NTT Group formulated its social contribution activity policy to provide a framework for organizing both ongoing citizenship activities and other activities that call for its involvement.

Principles put forth by the policy specify that activities should address community needs, be sustainable without placing undue burdens on employees, and include elem-

ents that enable NTT employees to participate voluntarily. The NTT social contribution activity policy divides citizenship activities into the following six categories: local community development and dialog, social welfare, international exchange activities, educational and cultural promotion, environmental conservation, and sports promotion.

Guided by the NTT social contribution activity policy, we are striving to broaden the scope of our citizenship activities to encompass all NTT Group companies, and we remain committed as Team NTT to the ongoing success of all such activities.

Team NTT communication
Promoting Diversity

The low birthrate and aging population, increasing numbers of baby boomers who are reaching retirement age, and other demographic changes in Japan are altering the employment environment. In line with these changes, the NTT Group is implementing various measures to diversify its workforce and actively recruit employees irrespective of age, sex, nationality, or disability.

Creating a diverse workplace

Principal stakeholders **Employees***

*employees, family, former employees

The Diversity Promotion Office, sharing information among NTT Group companies ⊙ NTTGroup

The NTT Group has been striving to create a diverse workplace in which employees are recruited irrespective of sex, age, race, nationality, disability, or other such factors. In October 2007, NTT established a Diversity Promotion Office to further bolster workplace diversity efforts, with similar diversity promotion measures slated to be in place in other NTT Group companies by April 2008.

The Diversity Promotion Office strives to create a workplace atmosphere that empowers all employees so that they may play active roles in the company. To share information and policies on a group-wide basis, the Office uses NTT's intranet to introduce female employees who are seen as role models to other employees, and to disseminate information about work-life balance. The

Diversity Promotion Office also organizes seminars and publishes and distributes educational pamphlets on the role of workplace communication and how employees can work more effectively.

NTT CLARUTY employees at work (left: self-help device, right: scanning)

NTT's Intranet

⊙ NTTGroup
Employment in the NTT Group

The NTT Group actively recruits female employees and promotes gender equality, aspiring to be an enterprise in which all employees have equal opportunities irrespective of gender. As a result of these efforts, the proportion of female employees and managers at NTT has been growing over the years.

Women 5,676	Men 31,797

Total employees[1]
37,473

Women 195	Men 6,546

Management level employees[1]
6,741

Women 374	Men 1,135

New employees[2]
1,509

The above data represents NTT and five core NTT Group companies: NTT East, NTT West, NTT Communications, NTT DATA, and NTT DOCOMO. **1.** As of March 31, 2008 **2.** As of April 1, 2008

⊙ NTTGroup
Percentage of employees with disabilities: **1.93**% (as of June 1, 2008)

The NTT Group has been working to actively recruit and expand employment opportunities for people with disabilities through such initiatives as the establishment of special subsidiary company NTT CLARUTY in 2004.

⊙ NTTGroup
Approximately **7,700*** retirement-aged employees able to continue working
*Yearly average number of employees in fiscal 2008

The NTT Group has since 1999 operated a continuing employment system that allows retirees to continue to work until the age of 65 if they wish, and many employees have made use of this system.

⊙ NTT dōcomo
Accepting researchers from around the world

Laboratories of the NTT Group employ many researchers of different nationalities, and also open their doors to researchers and trainees from overseas through guest researcher programs and internships.

In fiscal 2008 NTT employed:
- 19 employees who are foreign nationals (NTT and NTT DOCOMO)
- 28 contract researchers (NTT)
- 56 trainees accepted through internship programs (NTT)

Supporting Work-Life Balance

The NTT Group aspires to make it possible for all of its employees to achieve a balance between their careers and personal lives in tune with individual life stages so that, in addition to careers, they may enjoy a diversity of lifestyles in terms of family, community involvement, and other lifestyle choices. To this end, we have initiated numerous measures to support our employees in their responsibilities as parents and caregivers, and works to provide exceptional employee benefits to enrich their working lives.

Support for parents and caregivers

Principal stakeholders Employees*

*employees, family, former employees

Benefits for child care and nursing care exceeding legally mandated levels

NTT Group

The NTT Group believes in the importance of balancing careers with private life, and has long offered child care and nursing care benefits that go beyond legally mandated levels. To help address Japan's low birthrate and aging population, we also place no limits on the number of dependents that employees may claim in calculating the amount of their family allowance.

In 2008 we implemented a rehiring program for employees who previously left their careers to devote themselves to child rearing, and we instituted paid leave for those who are raising children of high-school age or younger and for those undergoing fertility treatment. In addition to continuously enhancing such measures for better work-life balance, we have also created the NTT Group Child Care and Family Care Support site on the NTT intranet to provide a range of information including details of benefits available to employees, how they may take advantage of those benefits, and experiences of others who have accessed such benefits.

Key benefit programs

	Program	Description
Child care	Child care leave	Available to parents of children less than three years old
Child care	Reduced working hours	Allows parents to limit their workday to 4, 5, or 6 hours until the end of the fiscal year in which the child enters third grade.
Child care	Re-employment of those who have left careers to raise children	Available subject to approval to employees who have submitted an application for re-employment within three years after their resignation and while the child is in third grade or under
Child care	Child care support service	A variety of benefits are available, such as discount coupons for drop-off and pick-up of children at daycare centers.
Family care	Nursing leave	Up to 18 months of leave to provide family nursing care
Family care	Reduced working hours	Allows those with family members in need of nursing care to limit their workday to 4, 5, or 6 hours, for up to three years.
Family care	Nursing care support service	Discount coupons that can be used to pay care providers
Other	Maternity leave	Paid maternity leave (not applicable to employees on probation)
Other	Flexible use of unused annual leave for child care, family nursing care, or fertility treatments	Applicable also to sabbatical leave, volunteer work, or recurrent education
Other	Leave to take care of family members	For each instance, up to five days of leave is available to care for a family member who is ill or giving birth.
Other	Compensation for use of assets accumulated under employee savings scheme	Provides compensation when a withdrawal is made from an employee savings scheme for specific purposes such as child care and education.

NTT Group

Awarded the Kurumin Mark

In April 2008, NTT was awarded the Kurumin Mark, a certification provided by Ministry of Health, Labor and Welfare, in recognition of the achievements of its efforts to support child rearing by company employees. The Kurumin mark has also been awarded to other NTT Group companies.

NTT Group companies that have earned the Kurumin Mark include: NTT, NTT East, NTT West, NTT Communications, NTT DATA, NTT DOCOMO, and NTT COMWARE

NTT DATA

Telework now part of business operations

In February 2008, NTT DATA began full-scale integration of telework into its business operations following telework trials conducted from July 2006. NTT DATA plans to increase the number of employees with telework arrangements to boost productivity and choice of work style.

docomo

Multipurpose room for use by female employees during and after pregnancy

NTT DOCOMO Hokkaido has established a multipurpose room within its offices for use by female employees during and after pregnancy. The company plans to continue actively implementing other such ways to make it easier for employees to balance work and family obligations.

NTT Group

A cafeteria-style menu listing assorted employee benefits

The NTT Group operates a cafeteria plan that offers employees a selection of benefits to choose from in line with their individual lifestyle needs. The cafeteria plan features options in a wide range of categories including health promotion and asset accumulation plans, child and nursing care options, and benefits related to housing. And to further help employees with life design, we offer life design training, a lifestyle information portal site, and counseling services to help employees design life plans.

Creating a Healthy and Secure Workplace

Workplace stress and illness stemming from overwork have increased considerably in recent years to become a serious social issue. The NTT Group aspires to create a vibrant workplace for all employees, and is committed to safeguarding both the mental and physical health of employees through health management and occupational safety and health measures.

Promoting occupational safety and health

Principal stakeholders Employees*

*employees, family, former employees

Helping employees to manage their health for the prevention, and early detection and treatment of illness

NTT Group

Recognizing the importance of proper employee health management, including the prevention, and early detection and treatment of illness, the NTT Group makes counseling available to employees, provides healthcare services, implements measures to prevent illness caused by overwork, and encourages employees to actively monitor and manage their health.

We have in recent years been putting special priority on mental health issues, and provide preventative programs such as mental health assessment through the NTT intranet, outside counseling, and mental health seminars.

Screenshot of mental health assessment questionnaire

We also provide workplace managers with training to help them maintain effective communication with their employees and detect changes in the well-being of their employees early on.

Promoting occupational safety and health in line with workplace needs

NTT Group

The NTT Group has established workplace safety regulations that clearly specify its obligations with respect to maintaining safety management systems and ensuring employee safety throughout the organization.

With workplace safety and health needs in mind, safety and health committees have been set up in NTT Group companies to consider and carry out workplace inspections, safety improvements, and measures to promote employee safety and health.

NTT FACILITIES

Safety and Health Day observed on the 15th of every month

Since May 2004, NTT FACILITIES has designated the 15th of every month as Safety and Health Day to further enhance its efforts to promote safety and health through workplace meetings, "no overtime" days, and other means of raising employee awareness of safety and health issues.

NTT COMWARE

Health Management Guidebook

Recognizing the importance of prevention, and early detection and treatment of illnesses, NTT COMWARE provides all employees with guidance on health issues and educates them about the importance of maintaining good health through its health management center. It also publishes and distributes to all managers its Health Management Guidebook which brings together important information related to maintaining good health.

NTT 都市開発 NTT Urban Development Co.

Employee Assistance Program provides counseling to help relieve anxiety.

In addition to the already available employee health consultation conducted by industrial physicians and other specialists, NTT Urban Development also began offering the Employee Assistance Program (EAP) in October 2007 to help employees and their families deal with their worries and anxieties. EAP offers employees easy and confidential access to counselors and other specialists from outside of the company without the knowledge of superiors and others in the company.

Supporting Fair Evaluation and Skills Development

In addition to enhancing employee performance, the NTT Group is keenly aware of its responsibility to build employee competency and support career development, and it spurs employee motivation through fair job performance evaluation and active support for employees to develop their abilities.

Performance-based pay and a range of training opportunities

Principal stakeholders — Employees*

*employees, family, former employees

Boosting employee motivation and satisfaction with the evaluation process
NTT Group

The NTT Group operates personnel management and pay systems that raise employee motivation by focusing on performance. This performance-based pay system requires accurate evaluation of the goals that employees set themselves, and their success in meeting those goals. Our performance evaluations accordingly utilize Challenges Worksheets as tools for employees to set their workplace goals and review their performance, and to promote employee-manager communication.

To foster employee satisfaction with its performance evaluation process, boost motivation, and help employees develop their abilities, we use a 360 degree feedback process to obtain evaluations based on observations of managers, peers, and subordinates. We also provide training in performance evaluation techniques and online guidance to help employees better understand personnel issues and the pay system.

In-house recruitment program empowers ambitious employees
NTT Group

In addition to refining our performance-based pay system, we strive to motivate our employees and encourage them to show initiative, purpose, and self-discipline in fulfilling their duties by providing strong support for their efforts to develop their abilities.

In addition to field-specific group training, we provide many other training opportunities including e-learning materials, distance learning courses, in-house certification of skill levels, and support for earning qualifications. In order to provide ambitious employees with the opportunity to seek new challenges, we also run in-house recruitment programs such as the NTT Group Job Challenge and NTT Group Venture programs.

NTT Group
Responding to employee ambitions through various company programs

We make in-house recruitment information available via the NTT intranet and distribute brochures for distance learning courses within the NTT Group. Employees who are on leave can take distance learning courses from home to help them make a smooth return to work.

NTT Group Job Challenge screenshot

NTT Group Venture screenshot

Brochure featuring distance learning courses

docomo
Global OJT program for dispatching employees to overseas companies

NTT DOCOMO operates a Global OJT program that dispatches employees to companies overseas. In fiscal 2008, the Global OJT program sent six employees for roughly six-month terms to companies in the U.S.A., Spain, China, and elsewhere.

NTT WEST
Opportunities for non-permanent customer service personnel to become full NTT West employees

To expand opportunities for various people to fulfill their ambitions, NTT West Group has introduced an employment system that enables non-permanent personnel employed in call center, customer home maintenance services, and other customer service operations run by Group companies NTT MARKETING ACT, the IT-MATE companies, and the HOMETECHNO companies (previously NEOMEIT Services) who show exceptional skills to become full NTT West employees.

Citizenship Activities

The NTT Group engages in a wide range of citizenship activities that involve all NTT Group personnel including temporary and contract employees as well as partners and former NTT employees.

Supporting employee volunteer activities

Principal stakeholders — Employees* — Local communities

*employees, family, former employees

Supporting volunteer activities through education, provision of information, and volunteer leave systems
NTT Group

All NTT Group company personnel, including temporary and contract employees as well as partners and former NTT employees who endorse NTT Group CSR activities, participate in our citizenship activities as members of Team NTT. We also believe that volunteer activities help to foster a broader worldview and consideration for others, and all NTT Group companies accordingly endeavor to give full support to employee volunteer efforts.

NTT employees volunteering their time to sell products made by people with disabilities

Key programs in support of volunteer activities

- **Volunteer gift program**
  This program provides goods from the volunteer's company to facilities etc. where the volunteer has been active over a long period of time.
- **Matching gift program**
  Under this program, NTT Group companies support employees' fund-raising and charity activities by matching donations made by employees.
- **Volunteer leave system**
  This system enables employees to take extended leave for volunteer activities in line with life design plans or for personal growth.

NTT
Holding science events for children

To stimulate interest in the sciences among children, the NTT Information Sharing Laboratory Group holds yearly science-based events designed to introduce the history of communications technology and latest research achievements to children. These events include a Children's Hands-On Science Class with an emphasis on practical science projects, and a Science Study Tour for Children (co-sponsored by the Institute of Electronics, Information and Communication Engineers) that takes participants of a tour of the exhibition hall, museum, and laboratory facilities.

Fiscal 2008 participants
Science Study Tour for Children
August 1, 2007: 82 participants
Children's Hands-On Science Class
August 22, 2007: 35 participants

NTT Group
Denyukai activities

Members of NTT Group's Denyukai, a club for former NTT employees, are involved in a wide range of volunteer activities as members of Team NTT.

Teaching calligraphy at nursing homes

NTT Group
Over 50,000 participate in Operation Clean Environment

Every year the NTT Group sponsors Operation Clean Environment litter cleanup activities throughout the country in cooperation with residents of local communities in which NTT serves. In fiscal 2008, over fifty thousand volunteer NTT Group employees and their families participated in these activities.

NTT Group
Participating in Kodomo 110 programs to help children

The NTT Group participates in Kodomo 110 programs that offer protection to children who feel threatened and promptly alert police, schools, and parents/guardians. As part of these efforts we place stickers on company vehicles informing children that they can seek help from the drivers when they feel the need.

Third party opinion

Hiroji Tanaka

President and Professor at Tokyo College of Transport Studies (previously Professor at Rikkyo University graduate school), Executive Director of the Japan Society for Business Ethics Study, Lecturer (concurrent) at Nihon University, Senior Research Associate at Business Ethics Research Center, member of the Ministry of Economy, Trade and Industry/Japanese Standards Association's Japanese National Committee for ISO Working Group on Social Responsibility and Group Leader of its Case Study Working Group

The NTT Group CSR Report 2008 provides an easy-to-grasp overview of the Group's CSR activities, which are based on a structure that supports sound corporate conduct, and are guided by the NTT Group CSR Charter. Various improvements have been made in this year's report to make it even more accessible and easy to understand. It is an attractive source of information for stakeholders, with a number of excellent features that deserve special mention.

Firstly, it has clearly been put together with stakeholders in mind. It is vital in the present day for CSR reports to disclose information that stakeholders demand and expect in an appropriate and easily understandable form. The design of the NTT Group's CSR Report shows that the Group is paying attention to who it needs to communicate which information to. Novel touches like highlighting relevant stakeholders – customers, business partners, employees, local community, shareholders/investors, government organizations, and so on – at the top of each section are an excellent way of engaging stakeholders.

Secondly, this report has been designed to enable readers to grasp the CSR activities of the NTT's Group companies at a glance. Because the NTT Group is made of a number of business segments, each run by major Group companies, it is imperative to present the roles and business activities of those segments and Group companies in an organized manner to provide an overall view of the NTT Group. Information on specific CSR activities of each company has been selected in terms of importance, and each article is headed by a company name alongside the title. This report also explains the role and responsibility of the holding company which oversees the whole Group. These efforts meet the demands and expectations of all the stakeholders while also encouraging Group company employees to address the specific demands of the various stakeholders of the whole NTT Group.

Thirdly, the Group augments this printed report with more information on its website. Providing information regarding CSR activities in both printed and online forms is important in terms of helping stakeholders to better understand and use the information. In general, the website addresses wider stakeholder needs by providing information that could not be included in the printed report.

The NTT Group should maintain its stance of providing information on its CSR activities, focusing in particular on the seven core themes cited in ISO 26000, the new international standard on social responsibility to be published in September 2010, namely organizational governance, human rights, labor practices, the environment, fair operating practices, consumer issues, and community involvement and development. I hope to see the NTT Group swiftly assess its current status in terms of these seven themes, draw up a plan to address any outstanding issues, and implement that plan in a comprehensive manner.

CSR Report 2008
On the third party opinion

In designing this CSR 2008 Report, we took pains to clearly identify the target and source of the information provided, so that it would be easy to understand the NTT Group's many CSR activities in terms of which stakeholders are involved and which companies are performing which activities.

Professor Hiroji Tanaka kindly commented that we as a Group should assess the current status of this report and our activities in terms of the seven core themes in the ISO 26000 standard to be published in September 2010, and then draw up and implement a plan to address any outstanding issues in a comprehensive manner. We are grateful for his invaluable advice, and we hope to address issues going forward while encouraging dialog with our stakeholders and sharing best practices within the Group. The NTT Group will continue to work as one to contribute to the creation of a sustainable society through promoting CSR activities based on our CSR Charter.

Kaoru Kanazawa, Senior Executive Vice President
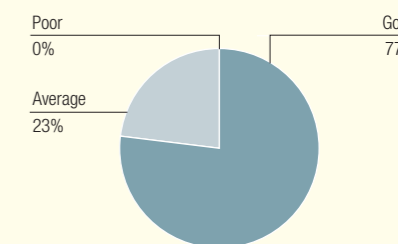NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Editor's note:

We designed this NTT Group CSR Report 2008 to be as readable as possible based on feedback from our stakeholders. We are deeply indebted to Professor Hiroji Tanaka and all those who so generously offered their ideas and opinions regarding its design and content. We shall put the feedback from our stakeholders to use in future NTT Group CSR activities.

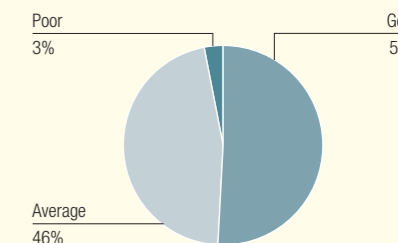NIPPON TELEGRAPH AND TELEPHONE CORPORATION
CSR Promotion Office
October 2008

1. Overall

Poor 0% Good 77% Average 23%

2. Understandability

Poor 3% Good 51% Average 46%

3. Amount of information

Not enough 0% Too much 18% Average 82%
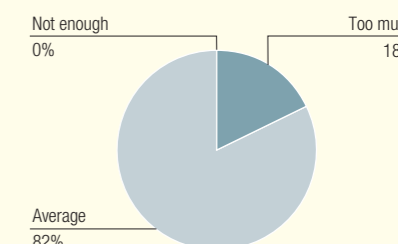
4. Readability
(design, font size, graphs, etc.)

Poor 3% Good 67% Average 30%
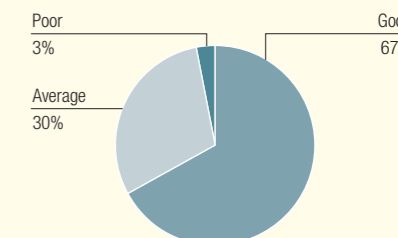
http://www.ntt.co.jp/csr_e/

Detailed information pertaining to NTT Group CSR activities can be accessed via our website.
We are grateful for any comments or suggestions that we receive through the website.

NTT Group
CSR Report 2008

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[About the cover page]
The four spherical objects on the cover page represent communication between people and their communities, communication between people and the global environment, safe and secure communication, and Team NTT communication.