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 into four sections according to the CSR goals outlined in the NTT Group CSR Charter, namely: 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 Renesmee 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 are also included.

Organization: NTT and the NTT Group companies (NTT 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.

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 2007 Version.

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/

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

About the NTT Group CSR Report 2008 ........................................ 1
Message from the President ..................................................... 2
Outline of the NTT Group ....................................................... 3
NTT Group stakeholders and CSR ........................................... 5
Group CSR management ....................................................... 9
Special feature: Roundtable .................................................... 11
For a groupwide approach to CSR activities .............................. 17

Communication between people and their communities

Close Up: How the NGN is being used ...................................... 23
Moving Toward Ubiquitous Broadband Communications .......... 24
Effective Use of Information Communication Technology (ICT) ....... 26
Enhancing Opportunities for Community Participation .............. 28

Communication between people and the global environment

Close Up: Fighting global warming ......................................... 29
Basic Policies and Management System .................................. 30
Results and Assessments for Goals in Fiscal 2008 ..................... 31
Environmental Impacts Overview .......................................... 33
Efforts to Address Global Warming ....................................... 34
Using Resources Effectively ................................................... 37
Environmental Technology Development ............................... 39
Promoting Environmental Communication ................................ 40
Conserving Nature and Local Living Environments ................. 42

Safe and secure communication

Close Up: NTT Group’s measures for countering disasters .......... 43
Providing Communications Services to Withstand Disasters ...... 44
Creating a Safe and Secure Environment for ICT Users .......... 45
Creating a Sound User Environment ....................................... 47
Improving Customer Satisfaction and Convenience ................. 49

Team NTT communication

Close Up: Citizenship activities ............................................. 51
Promoting Diversity ............................................................ 52
Supporting Work-Life Balance .............................................. 53
Creating a Healthy and Secure Workplace ............................ 54
Supporting Fair Evaluation and Skills Development ................. 55
Citizenship Activities .......................................................... 56

Third party opinion ............................................................ 57
On the third party opinion/Reader feedback ............................. 58
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 CO2 emissions generated by our business activities – 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 CO2 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
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.

Overview of Corporation (As of March 31, 2008)
Name: NTT/COMMUNICATIONS CORPORATION (NTT)
Head office: 2-3-1, Otemachi, Chiyoda-ku, Tokyo 100-8116, Japan
Date of establishment: April 1, 1985
Paid-in capital: JPY 756 billion
Number of employees: 285,896 employees (190,831 employees on a consolidated basis)
Number of consolidated subsidiaries: 476
Website: http://www.ntt.co.jp/about_e/index.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

Operating revenues (in billions of yen)
Operating income (in billions of yen)
Net income (in billions of yen)

NTT Group Report 2008
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**
- Improving network infrastructures to support ubiquitous communications
- Helping customers to reduce, reuse, and recycle
- Promoting appropriate use of information and communications services
- Supporting employee volunteer activities

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
- Increasing employment opportunities
- Raising awareness and spreading information inside and outside the company
- Preparing for disasters

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
- Increasing employment opportunities
- Helping customers to reduce, reuse, and recycle
- Performance-based pay and a range of training opportunities

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
- Ensuring information security
- Support for parents and caregivers

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
- Promoting appropriate use of information and communications services
- Creating services based on universal design

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 CO2 emissions
- Preparing for disasters
- Ensuring information security
- Pursuing customer satisfaction and providing a framework for quality management

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
- Promoting occupational safety and health
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.

The NTT Group 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.

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.

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.

The 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
- Communication between people and the global environment
- Safe and secure communication
- Team NTT communication

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.
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.

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 CSR Report 2008
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.

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.

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.

<table>
<thead>
<tr>
<th>Laboratory Group</th>
<th>Patents (No. of applications)</th>
<th>Joint research projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber Communications Laboratory Group</td>
<td>946</td>
<td>21</td>
</tr>
<tr>
<td>Information Sharing Laboratory Group</td>
<td>717</td>
<td>51</td>
</tr>
<tr>
<td>Science and Core Technology Laboratory Group</td>
<td>885</td>
<td>105</td>
</tr>
</tbody>
</table>

R&D overview

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.

<table>
<thead>
<tr>
<th>Laboratory Group</th>
<th>Patents (No. of applications)</th>
<th>Joint research projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber Communications Laboratory Group</td>
<td>946</td>
<td>21</td>
</tr>
<tr>
<td>Information Sharing Laboratory Group</td>
<td>717</td>
<td>51</td>
</tr>
<tr>
<td>Science and Core Technology Laboratory Group</td>
<td>885</td>
<td>105</td>
</tr>
</tbody>
</table>

R&D overview
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 ensure 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.

**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, 2009, 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.

**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).
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.

— 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.

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 critical1,2 IP network 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.

— How are new services such as Fixed-Mobile Convergence (FMC)* being created through the integration of different means of communication? Could you provide an example?

Kanazawa: 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.

Photographs (from the left): Seiya Wakazumii 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 NIPPON TELEGRAPH AND TELEPHONE CORPORATION Masashi Sogo Senior Vice President and Senior Executive Manager, General Affairs Department NTT DAA Corporation

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 critical1,2 IP network 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 solutions 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 telecommunication 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.

Wakoizumi: 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 CO2 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 CO2 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 machines. 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 CO2 emissions. We’re also 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.

“Reducing CO2 emissions through business activities and the effective use of ICT”

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.

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.

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.

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.

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.

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.

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.

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.
Roundtable
For a groupwide approach to CSR activities

Inoue: We use the Japanese word mortainai (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.

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 would 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.

Tamura: The NTT Group sets the right example for society. What are your thoughts on this?

Wakai: 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. Takano suggested – by defining and pursuing common themes within the NTT Group for adapting utilization to reduce the environmental footprint of our business activities.

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: 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) 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.

Koga: Policies and other 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.

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: 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) solutions for various industries. 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: 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.

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.

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.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

SaaS vendors

Software and applications

NGN

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.

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.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

What are NGNs?

An NGN hosts IP networks-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.

NGN

Q

What are NGNs?

An NGN hosts IP networks-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.

NGN

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

SaaS vendors

Software and applications

NGN

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.

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.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

What are NGNs?

An NGN hosts IP networks-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.

NGN

Q

What are NGNs?

An NGN hosts IP networks-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.

NGN

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

SaaS vendors

Software and applications

NGN

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.

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.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

What are NGNs?

An NGN hosts IP networks-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.

NGN

Q

What are NGNs?

An NGN hosts IP networks-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.

NGN

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

SaaS vendors

Software and applications

NGN

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.

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.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.

Advantages to SaaS vendors

SaaS vendors share our SaaS platform, thus reducing costs and making collaboration with other companies easier.
Developing technology for the next-generation network

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 reliability 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 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 Plala**, an NTT Group company, as a commercial service in line with the results of its NGN field trials*.

In addition to conducting basic R&D to develop basic R&D to develop ubiquitous broadband services in line with the results of its NGN field trials, 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 checks or medical consultations. We are also working to develop a telecommunications platform to enable telemedicine 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 remediying metabolic syndrome**

Preventing and remediying metabolic syndrome is receiving much attention recently, and health checks and healthcare advice services with a perspective on the metabolic syndrome started in April 2008. NTT DOCOMO launched a service in April 2008 in partnership with Otera 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.
**Effective Use of Information Communication Technology (ICT)**

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

**Supporting elderly people through ICT and universal design**

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**

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 helping 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 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.

**Creating an environment for those who face difficulty commuting to work**

**Increasing employment opportunities**

**Creating telework opportunities and other new work arrangements using ICT**

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 Com CHIEO 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.

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

NTT NEDOMET, 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.

**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 Nagoya 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.

*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.
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.

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

A We strive to reduce CO₂ emissions from the following two perspectives:

- Reduction of CO₂ emissions generated by NTT Group business operations
- Provision of services that help reduce the CO₂ emissions of society as a whole
- Network data center energy conservation strategies
- Forest conservation activities
- Promotion of energy conservation in our offices and logistical operations
- Promotion of renewable energy use
- Reduction of environmental impacts through products and services
- Promotion of energy conservation in our offices and logistical operations

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 CO₂ emissions generated by our business operations, and providing services that help to reduce the CO₂ 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 CO₂ emissions generated by energy consumption through 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.

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 CO₂ 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 CO₂ 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.
Communication between people and the global environment

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.

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 ¥9.1 hundred million compared with fiscal 2007, but these efforts allowed us to boost the amount of recycled waste by nearly 16,000 tons 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 target for the year.

Amount of final disposal waste¹ 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.

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 reduction goals were still cleared.

1. Scope of data
The companies subject to consolidated environmental 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 2007 report is from April 1, 2007 to March 31, 2008 Data for fiscal 2008 report is from April 1, 2008 to March 31, 2009

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.

These guidelines comply fully with the Environmental Accounting Guidelines 2003 issued by the Ministry of the Environment.
• Environmental conservation expenses are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation expenses are divided into calculations and environmental costs.
• Environmental conservation expenses are calculated 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 CO2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.

1. Scope of data
The companies subject to consolidated environmental 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 2007 report is from April 1, 2007 to March 31, 2008 Data for fiscal 2008 report is from April 1, 2008 to March 31, 2009

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.

These guidelines comply fully with the Environmental Accounting Guidelines 2003 issued by the Ministry of the Environment.
• Environmental conservation expenses are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation expenses are divided into calculations and environmental costs.
• Environmental conservation expenses are calculated 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 CO2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.

1. Scope of data
The companies subject to consolidated environmental 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 2007 report is from April 1, 2007 to March 31, 2008 Data for fiscal 2008 report is from April 1, 2008 to March 31, 2009

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.

These guidelines comply fully with the Environmental Accounting Guidelines 2003 issued by the Ministry of the Environment.
• Environmental conservation expenses are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation expenses are divided into calculations and environmental costs.
• Environmental conservation expenses are calculated 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 CO2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.

1. Scope of data
The companies subject to consolidated environmental 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 2007 report is from April 1, 2007 to March 31, 2008 Data for fiscal 2008 report is from April 1, 2008 to March 31, 2009

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.

These guidelines comply fully with the Environmental Accounting Guidelines 2003 issued by the Ministry of the Environment.
• Environmental conservation expenses are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation expenses are divided into calculations and environmental costs.
• Environmental conservation expenses are calculated 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 CO2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.

1. Scope of data
The companies subject to consolidated environmental 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 2007 report is from April 1, 2007 to March 31, 2008 Data for fiscal 2008 report is from April 1, 2008 to March 31, 2009

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.

These guidelines comply fully with the Environmental Accounting Guidelines 2003 issued by the Ministry of the Environment.
• Environmental conservation expenses are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation expenses are divided into calculations and environmental costs.
• Environmental conservation expenses are calculated 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 CO2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.

1. Scope of data
The companies subject to consolidated environmental 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 2007 report is from April 1, 2007 to March 31, 2008 Data for fiscal 2008 report is from April 1, 2008 to March 31, 2009

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.

These guidelines comply fully with the Environmental Accounting Guidelines 2003 issued by the Ministry of the Environment.
• Environmental conservation expenses are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation expenses are divided into calculations and environmental costs.
• Environmental conservation expenses are calculated 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 CO2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.

1. Scope of data
The companies subject to consolidated environmental 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 2007 report is from April 1, 2007 to March 31, 2008 Data for fiscal 2008 report is from April 1, 2008 to March 31, 2009

3. Accounting method
• Accounting is based on the NTT Group Environmental Accounting Guidelines.

These guidelines comply fully with the Environmental Accounting Guidelines 2003 issued by the Ministry of the Environment.
• Environmental conservation expenses are expressed in monetary units and conservation benefits in monetary units and physical quantity.
• Environmental conservation expenses are divided into calculations and environmental costs.
• Environmental conservation expenses are calculated 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 CO2 emissions through energy conservation measures are calculated by subtracting actual emissions from estimated emissions in the event that no such measures were taken.
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 CO₂ emissions generated by the NTT Group in fiscal 2008, 3.53 million tons (approximately 98%) was derived from business operations 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 devices and air conditioning equipment and switching to the use of energy-saving DC power supply* for broadband equipment, 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.

The Group has 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.

Reducing CO₂ emissions from business operations

Efforts to reduce electricity consumption

Over 90% of the NTT Group’s CO₂ 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 devices and air conditioning equipment and switching to the use of energy-saving DC power supply* for broadband equipment, 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.

The Group has 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.

NTT Group

Group vehicle fleet now includes 554 hybrid and natural gas vehicles

NNT Group

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

NTT LOGISCO

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

NTT Group

Curbing CO₂ emissions through joint delivery and modal shifts in transporting cargo

NTT LOGISCO has actively implemented a joint delivery system wherein cargos for multiple customers are 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 CO₂ than road transport.

‘DC power supply’ Using electricity delivered from power companies requires converting the electricity from alternating current (AC) to direct current (DC) or vice versa 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.

NNT Group

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

NTT LOGISCO

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

NTT Group

Curbing CO₂ emissions through joint delivery and modal shifts in transporting cargo

NTT LOGISCO has actively implemented a joint delivery system wherein cargos for multiple customers are 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 CO₂ than road transport.

‘DC power supply’ Using electricity delivered from power companies requires converting the electricity from alternating current (AC) to direct current (DC) or vice versa 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.

NNT Group

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

NTT LOGISCO

Eco Drive (eco-friendly driving) training sessions were held for workers driving company vehicles.
Reducing society’s environmental impact by offering ICT services

Research and proposals for reducing environmental impact through ICT: Participation in government projects

Despite higher electricity consumption due to the spread of ICT devices, ICT services can reduce the CO₂ 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 downloading 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.

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 CO₂ 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

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 CO₂ emissions reductions, reduce environmental impact, and increase ICT efficiency. Composed of DCC, 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.

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 CO₂ emissions reductions, reduce environmental impact, and increase ICT efficiency. Composed of DCC, 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.

Energy saved and consumed through ICT

<table>
<thead>
<tr>
<th>Percentage of Japan’s energy consumption</th>
<th>Reducing CO₂ emissions by 81% compared with use of onsite monitoring personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2007</td>
<td>1.2%</td>
</tr>
<tr>
<td>FY 2008</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

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

NTT Communications provides an OCN for Monitoring service that uses its OCN network and by using mobile phones, worksites, and facilities. This service can reduce CO₂ emissions by 81% compared with the use of onsite security and monitoring personnel.

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

NTT Communications provides an OCN for Monitoring service that uses its OCN network and by using mobile phones, worksites, and facilities. This service can reduce CO₂ emissions by 81% compared with the use of onsite security and monitoring personnel.

Providing products and services that help customers reduce CO₂ emissions

Contributing to the global environment and corporate management through Green Integration

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

<table>
<thead>
<tr>
<th>Environmental management support</th>
<th>NTT FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>We support customer environmental management from architectural, energy, and facility management perspectives to help improve their corporate environmental value and drive CSR management.</td>
<td></td>
</tr>
</tbody>
</table>

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 improving 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 strategies

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

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 has implemented pilot schemes using one-megawatt distributed solar systems for shared use with local governments and private businesses.

Telephone 

<table>
<thead>
<tr>
<th>NTT FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launches 1 megawatt solar power plant schemes in Saku, Nagano Prefecture, and Kochi Prefecture</td>
</tr>
<tr>
<td>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 has implemented pilot schemes using one-megawatt distributed solar systems for shared use with local governments and private businesses.</td>
</tr>
</tbody>
</table>

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 is assisting its rating of 305 CASBEE buildings (as of April 2008), more than any other company in Japan. Our assessors use the expertise in CASBEE assessment to provide objective advice on design strategies and options to improve energy efficiency performance.

<table>
<thead>
<tr>
<th>NTT FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Japan’s largest CASBEE assessor squad to advise on high environmental performance buildings</td>
</tr>
</tbody>
</table>

| 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. |

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 has implemented pilot schemes using one-megawatt distributed solar systems for shared use with local governments and private businesses.

<table>
<thead>
<tr>
<th>NTT FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launches 1 megawatt solar power plant schemes in Saku, Nagano Prefecture, and Kochi Prefecture</td>
</tr>
<tr>
<td>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 has implemented pilot schemes using one-megawatt distributed solar systems for shared use with local governments and private businesses.</td>
</tr>
</tbody>
</table>

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 is assisting its rating of 305 CASBEE buildings (as of April 2008), more than any other company in Japan. Our assessors use the expertise in CASBEE assessment to provide objective advice on design strategies and options to improve energy efficiency performance.

<table>
<thead>
<tr>
<th>NTT FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Japan’s largest CASBEE assessor squad to advise on high environmental performance buildings</td>
</tr>
</tbody>
</table>

| 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. |
Communication between people and the global environment

Using Resources Effectively

Products and services offered by NTT Group companies, along with supporting communication equipment, require periodic 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 and recycling waste from communications equipment installation/removal

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 of 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

<table>
<thead>
<tr>
<th>Year</th>
<th>(thousands of tons)</th>
<th>Used communications equipment recycling rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>204</td>
<td>98.1</td>
</tr>
<tr>
<td>2005</td>
<td>231</td>
<td>99.2</td>
</tr>
<tr>
<td>2006</td>
<td>218</td>
<td>99.5</td>
</tr>
<tr>
<td>2007</td>
<td>252</td>
<td>98.7</td>
</tr>
<tr>
<td>2008</td>
<td>(fiscal year)</td>
<td>98.9</td>
</tr>
</tbody>
</table>

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 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.

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

From March 2008, NTT DATA has been offering an IC card-a solution for enabling different types of smart cards to be read by a single reader. By building this [IC card-]reader into printers for user authentication, customers can easily restrict printer access using existing employee passkeys, reducing paper waste due to mistaken printing jobs, printing of excessive copies, and print jobs being left uncollected by an average of 25%.

*Zero emissions A concept proposed by the United Nations University that calls for reusing all waste materials and by-products from industrial activity as resources inputs for other types of production in order to eliminate waste on a lifecycle basis. The NTT Group considers a recycling rate of 99.9% or more to satisfy zero emissions conditions.

NTT Group CSR Report 2008
Communication between people and the global environment

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

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

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

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 1/500,000 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 and optical quantum information processors that operate in the realm of single photons.

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.

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

In fiscal 2006, 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 solar panel to a level sufficient to drive devices. This technology enables reduction of both the size and cost of solar panels, and can be used in solar powered rechargeers for mobile phones and other terminals or in the recharging units of small-scale outdoor solar power supplies.

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

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.

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

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 “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.

Environmental/CSR Reporting Symposium

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

In July 2005, NTT DATA together with Miyake Village (Tokyo) and the Miyake-jima Village Social Education Group launched the MIYAKE-ECO.NET project to support the recovery of Miyake-jima, an island devastated by the eruption of Mount Opaan in June 2000. (Project administration was transferred to Miyake-jima Village at the end of fiscal 2008). In fiscal 2008, a nature class using MIYAKE-ECO.NET content was held at Miyake-jima Village’s Public Elementary School with NTT DATA employees serving as instructors.
Communication between people and the global environment

Promoting Environmental Communication

Raising awareness and spreading information inside and outside the company

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

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 counteracting 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

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 Gil Hokkaido Toyoko Summit held in July 2008.

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 Raising employee environmental awareness

To raise employee awareness about the environment, posters promoting Cool Biz and Warm Biz - 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.

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, started 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.

Launch the goo Home Project for growing coral in the seas of Okinawa

NTT DOCOMO, 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.

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.

Preserve biological diversity

170 hectares of DOCOMO Woods established in 37 locations across Japan

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 and Green Fund 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.

Managing environmental risks

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

A soil survey conducted between January and March 2007 at the former site of our NTT Ibaraki R&D Center (Naka City, 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

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

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.
Safe and secure communication

The NTT Group is committed to providing communications services and creating a user environment offering safety, security, and convenience by all 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
   - Installation of public phones and lending of mobile phones etc.

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

Measures to improve communications network reliability

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

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

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.

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.

NTT Group disaster response systems and solutions

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>tsunami Talk (emergency broadcasts)</td>
<td>This service enables municipal authorities to use simtelphone (FETS phone service) to broadcast public announcements or report a state of emergency, to local residents during disasters, and also allows communications between residents. (Available since September 2009)</td>
<td>NTT East NTT West</td>
</tr>
<tr>
<td>Anshin Hotto (Best Life) service for Hikari Denwa optical fiber telephone service</td>
<td>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)</td>
<td>NTT East NTT FACILITIES</td>
</tr>
<tr>
<td>TS-1800</td>
<td>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 2008)</td>
<td>NTT East NTT FACILITIES</td>
</tr>
<tr>
<td>Power outage assistance (“Power of Life”) for Hikari Denwa optical fiber telephone service</td>
<td>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)</td>
<td>NTT East NTT FACILITIES</td>
</tr>
<tr>
<td>Emergency Earthquake Alert Service</td>
<td>This service provides immediate emergency information about earthquakes issued by the Japan Meteorological Agency transmitted through nationwide IPv6 multicast. (Full service available since July 2005)</td>
<td>NTT Communications</td>
</tr>
<tr>
<td>Team Evacuation</td>
<td>This service enables municipalities to immediately contact residents in evacuation areas to ensure their safety. (Available as a service package available until January 2007 to include all dialing area codes)</td>
<td>NTT Advanced Technology</td>
</tr>
<tr>
<td>Mindlink (telephone contact system)</td>
<td>This service enables organizations to immediately contact employees and check on their safety by means of their mobile phones and land lines. (Available since January 2008)</td>
<td>NTT West NTT East</td>
</tr>
<tr>
<td>Mindlink (telephone contact system)</td>
<td>This service enables organizations to immediately contact employees and check on their safety is the event of a disaster. (Available since May 2008)</td>
<td>NTT West NTT East</td>
</tr>
</tbody>
</table>

Anshin Hotto (“breathe safely”) service

UFS unit used with the Anshin Hotto (“breathe safely”) service

Videophone unit for Team Evacuation

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

Communication between people

Communication between stakeholders

Safe and secure communication

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.
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

For safe, anxiety-free use

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

New world record for “integer factorization” used to verify security of public key cryptography

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 factoring 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 factored 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.

Development of simple authentication technology using paper

Using paper cards containing watermark 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.

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 2009.

R&D on remote video monitoring

We are engaged in R&D aimed at addressing both accuracy and privacy protection issues for 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.

Ensuring information security

NTT-CERT provides security support for NTT Group companies

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

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.

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

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, personal, 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 redescribing their efforts to train employees in the proper handling of information, and introducing software to prevent the leak of confidential information.

Provision of confidential document recycling service

A dedicated secure 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 (disassembled). A “confidential document destruction (dissolution) certificate” is issued after processing.

Documentation management system

A dedicated confidential document recycling service system is provided to all Group companies, including NTT East. Confidential documents are sent to a recycling center using an internal network and are completely destroyed (by incineration). A “confidential document destruction (dissolution) certificate” is issued after processing.
Safe and secure communication

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

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

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

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 2008, 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.

Providing services to ensure child safety

To ensure the safety of children in a changing social environment

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

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.

E-Net Caravan protects children from trouble

We provide instructions 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.

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

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.

Meru-Robo Digital Log child monitoring system

A child monitoring system has been developed utilizing technology for controlling robots from mobile phones. This system enables parents/guardians 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.

FairCast Child Safety Communication Network

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.
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.

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

Creating products and services that satisfy our customers

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).

Building a quality management structure

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.

Creating services based on universal design

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.

Safe and secure communication

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.

We educate our employees, family, former employees, customers, employees*1, and our organizations and the global environment on how to use the service, the service’s functions, and its operation personnel during broadcast.

To enhance customer satisfaction (CS), 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).

Creating products and services that satisfy our customers

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).

Building a quality management structure

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.

Creating services based on universal design

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.

Safe and secure communication

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.

We educate our employees, family, former employees, customers, employees*1, and our organizations and the global environment on how to use the service, the service’s functions, and its operation personnel during broadcast.

To enhance customer satisfaction (CS), 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).

Creating products and services that satisfy our customers

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).

Building a quality management structure

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.

Creating services based on universal design

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.

Safe and secure communication

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.

We educate our employees, family, former employees, customers, employees*1, and our organizations and the global environment on how to use the service, the service’s functions, and its operation personnel during broadcast.

To enhance customer satisfaction (CS), 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).

Creating products and services that satisfy our customers

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).

Building a quality management structure

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.

Creating services based on universal design

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.

Safe and secure communication

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.

We educate our employees, family, former employees, customers, employees*1, and our organizations and the global environment on how to use the service, the service’s functions, and its operation personnel during broadcast.

To enhance customer satisfaction (CS), 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).
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
- Afforestation

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 elements 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.

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

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 Group

Employment in the NTT Group

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

NTT Group

Percentage of employees with disabilities: 1.93%

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

NTT Group

Accepting researchers from around the world

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

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

Benefits for child care and nursing care exceeding legally mandated levels

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

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child care leave</td>
<td>Available to parents of children less than three years old. Leave can be taken for 3 to 6 weeks per year up to three years after a child’s birth or adoption.</td>
</tr>
<tr>
<td>Nursing care leave</td>
<td>Available to parents of children of high-school age or younger. Leave can be taken for up to 3 months per year.</td>
</tr>
</tbody>
</table>
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

Boosting employee motivation and satisfaction with the evaluation process

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

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 skills, 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.

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.

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.

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 centers, 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.
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, 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.

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.

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.
Environmental considerations taken in the publication of this report

Paper:
This report uses Forest Stewardship Council (FSC)-certified paper that includes fiber from responsibly managed forests certified by the FSC.

Ink:
100% vegetable ink free of volatile organic compounds (VOCs) was used to prevent air pollution.

Printing:
This report was printed using the CTP method, which reduces the environmental impacts of printing by eliminating the need for film and accordingly developing fluid.
A waterless printing method that does not require use of solutions containing harmful materials was employed in printing this report.
This report was printed in accordance with the Purchasing Guidelines for Offset Printing Services established by the Green Purchasing Network (GPN).

Binding:
A type of EVA hot melt adhesive designed to facilitate recycling was used for binding this report. Please cooperate in recycling when you no longer need this report.

Packaging and shipping:
Low impact packaging and shipping methods including simplified packaging are used for shipping individual reports and other purposes.

Color Universal Design:
This publication has received certification from the non-profit Color Universal Design Organization (CUDO) for the use of colors that are easy for most people to view, irrespective of their individual color perception abilities.

[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.