



CSR

# NTT Communications Group CSR Report 2009

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## Editorial Policy

As an information and communications technology (ICT) solutions partner, the NTT Communications Group conducts CSR activities with the aim of contributing to community prosperity and sustainability worldwide by creating new value and resolving problems through provision of telecommunications services. We have issued this report to clearly convey our CSR approach to our stakeholders.

The 2009 report is a further improvement on the booklet/online two-format composition introduced in the 2008 report. By interlinking the two media formats, taking advantage of each format's particular characteristics, we are aiming to provide a sincere, effective and exhaustive account of CSR activity as a whole.

### ● Booklet Version

The booklet version introduces the NTT Communications Group's basic approach to CSR and key CSR activity themes in a format that members of the general public will find easy to read and understand. The booklet also provides a list of CSR indices for an overall picture of the Group's CSR activities, which leads readers who need further information to the online version.

### ● Online Version

In addition to information contained in the booklet, the online version also contains information on specific initiatives relating to financial, environmental and social performance, which are areas important to our stakeholders. An emphasis has been placed on full coverage, providing verification of the CSR activities implemented.

### Methodology for Choosing Key Information for Report

We used the following two-stage process to choose information that is important for the Group, society, and other stakeholders, referring to the materiality requirements of Version 3 of the Global Reporting Initiative's Sustainability Reporting Guidelines.

We augmented the themes of the 2008 report with content required under the Global Reporting Initiative's Application Level B, and the disclosure approaches of other telecommunications companies. We referred to the committee draft of the ISO26000 Social Responsibility guidelines to ensure completeness.

We tested the importance of the above areas in terms of the six assessment items below, presenting particularly important information in the printed report as special features and continuing to disclose other issues on our website to ensure completeness.

### Materiality Assessment Issues

- Issues relating to ongoing CSR impacts, risks, and opportunities that expert individuals and organizations have identified through surveys by the experts of CSR
- CSR issues of significant social interest that the media frequently covers
- Issues that interest stakeholders (in employee and customer surveys and through other initiatives)
- Key organizational issues, notably those relating to our management philosophy, Basic CSR Policy, and Our Business Principles
- Regulatory and voluntary agreement issues covering our organization and operations, notably the Telecommunication Business Law and the rules of the Telecommunications Carriers Association
- Important issues relating to other companies, particularly competitors and companies with outstanding CSR programs

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## Report Profile

### ● Reference Guidelines



Global Reporting Initiative (GRI)  
Version 3.0 of the GRI's Sustainability Reporting Guidelines  
Application level: Self-Declared B

The Ministry of the Environment's Environmental Reporting Guidelines (Fiscal Year 2007 Version) and Environmental Accounting Guidelines 2005

### ● Third-Party Opinion

Each year we have an independent expert provide an opinion to help us improve our CSR activities. Following on from 2007 and 2008, Mariko Kawaguchi, General Manager at the Management Strategy Research Department of Daiwa Institute of Research Ltd., kindly provided her opinion again in 2009.

#### <Report Scope>

This publication presents the CSR activities of NTT Communications and 54 Group companies based on the Group's basic CSR Policy. It also includes specific information on individual Group companies. The report also contains information on green and CSR-based purchasing in businesses outside the above scope in line with management's recognition of the significant impact of supply chain activities on society and the environment.

#### <Period Covered>

April 1, 2008, through March 31, 2009  
(although some content may be outside that timeframe)

#### <Issue Dates>

This report: November 2009  
Previous edition: December 2008  
Next report: November 2010

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## Corporate Information

The NTT Communications Group deploys a wide range of services, with its domestic and international telecommunications services at its core, and delivers business solutions around the world through information and communications technology (ICT).

### NTT Communications Corporation Corporate Information

Name	NTT Communications Corporation
Address	1-1-6 Uchisaiwai-cho, Chiyoda-ku, Tokyo, Japan 100-8019
Date established	July 1, 1999
Paid-in capital	211.7 billion yen (as of March 31, 2009)
Number of employees	8,360 (as of March 31, 2009)
Business	Domestic and international telecommunications services

#### Major organizations of which NTT Communications is a member

Telecommunications Carriers Association Director  
 Japan Network Information Center (JPNIC) Trustee  
 Japan Telecommunications Engineering and Consulting Service Board Member  
 The Association for Promotion of Public Local Information and Communication Board Member  
 IPv6 Promotion Council Board Member

#### Main Group Companies (as of March 31, 2009)

##### Overseas

- Americas  
 NTT America, Inc.  
 NTT do Brasil Telecomunicações Ltda.
- Europe  
 NTT Europe Ltd.  
 NTT Communications Russia LLC
- Asia (excl. Japan) / Oceania  
 HKNet Company Ltd.  
 NTT Australia Pty. Ltd.  
 NTT Com Asia Ltd.  
 NTT Communications (Thailand) Co., Ltd.  
 NTT Communications (Viêtnam) Ltd.  
 NTT KOREA Co., Ltd.  
 NTT MSC Sdn. Bhd.  
 NTT Singapore Pte. Ltd.  
 Shanghai NTT Telecommunications Engineering Co., Ltd.  
 NTT Communications China Co., Ltd.  
 NTT Taiwan Ltd.  
 NTT Communications India Private Ltd.  
 PT.NTT Indonesia

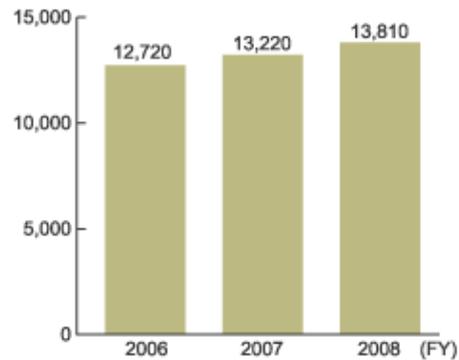
##### Japan

NTT Resonant Inc.  
 NTT Plala Inc.  
 NTT Worldwide Telecommunications Corporation  
 NTTTPC Communications, Inc.  
 NTT BizLink, Inc.  
 NTT World Engineering Marine Corporation  
 NTT Visual Communications System Inc.  
 NTT Com CHEO Corporation  
 NTT NaviSpace Corporation  
 NTT FANET SYSTEMS Corporation  
 NTT Com Technology Corporation  
 Digital Forest Inc.  
 (Among 54 consolidated subsidiaries of NTT Communications, only major subsidiaries are noted above.)

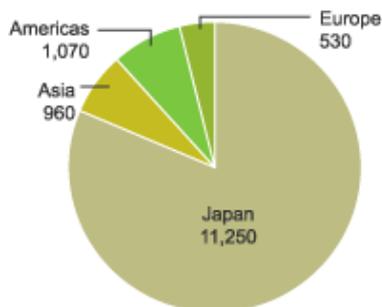
■ Operating Revenues and Operating Income (Non-consolidated)



■ Number of Employees (Group-wide)



■ Number of Employees by Region (Group-wide)



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**Corporate Business**

● Addressing Customers Business Challenges Through Consulting-Based Solutions

The advance of an information-oriented society and globalization of business are creating increasingly diverse business challenges for customers, including cost reductions, productivity improvements and business continuity planning. The NTT Communications Group aims to be an ICT solutions partner offering ongoing support for customers in a wide range of industries in the form of trust and security, managing their ICT-related operations through high value-added solutions tailored to their individual needs. To create services that allow customers to enhance their competitiveness, we offer support with our state-of-the-art ICT solutions, employing network and server infrastructure, as well as fixed-mobile convergence (FMC)\* and data centers.



\* Value-added services merging fixed and mobile communications. They provide environments for seamless communications through dual use of in-house corporate networks and mobile services.

## Global Business

### Connecting the World through Japanese Quality

We support customers in their construction and operation of global ICT environments through overseas bases in 52 cities in 22 countries and regions (as of the end of August, 2009). As one of the world's top Global Tier 1\* providers, we deliver Internet services of the highest quality and safeguard our customers' networks through onestop maintenance and monitoring around the clock, 365 days a year. We will continue to contribute to the global business of customers through world-recognized "Japanese quality."



\*A Global Tier 1 is an Internet service provider (ISP) that can control its own broad-bandwidth global IP backbone without relying on upstream providers.

## Internet Business

### Supporting Essential Internet Environments for Lifestyles and Business

The NTT Communications Group provides ubiquitous, state-of-the-art broadband environments through comprehensive provision of upperlayer services, which are the more familiar forms of ICT. We carry out one-stop operation of high-quality services via the Internet under the "CreativE-Life' for Everyone" concept. These include Internet access services such as OCN and Plala, IP telephony, and music and video content distribution. Through ongoing enhancements, we will always strive to deliver services ever more attractive to the customer, contributing to their safety and peace of mind by making home and business environments more comfortable and enjoyable.



## Top Management's Commitment

### ICT Solutions Partner to “bridge” the Present and a Sustainable Future Society



#### ● Mission of the NTT Communications Group

This year marks the tenth anniversary of NTT Communications. Since its founding in 1999, the Group has gone beyond being a conventional fixedline telephone business in its efforts to expand into the global, IP and solutions businesses, and as of the present it has developed its services to establish seven core business domains.

The business which we are involved in, telecommunications services, also known as information communications technology (ICT), is indispensable to the world today as a social lifeline that supports economic development as well as people's everyday lives. Due to the role that we play in this, we wish to prioritize our basic mission of seeking to “bridge” and “continue to bridge” as well as to continue winning trust as a Group by providing new added value to society at all times.

#### ● Contributing to Society with ICT

The environment facing ICT is continuing to undergo drastic change. Society is presently in the midst of an unprecedented global financial crisis, and the telecommunications industry to which we belong is also currently in the eye of this storm. Amidst all of this, the role that ICT is expected to play is growing increasingly important.

One example is the accelerating globalization of business. In the manufacturing industry of today, the competitiveness of corporations is influenced by the qualitative elements of global operations—procuring optimal parts from around the world, and producing and launching the end product onto the market.

This is supported by a high-quality global network. By maintaining bases within 52 cities in 22 countries and regions (as of the end of August, 2009) we are currently providing a structure that supports global corporations. We can prevent disruptions and rapidly restore services by bypassing certain communication paths even when cables are down due to disasters and other factors. I believe that our mission is to support the business and lives of people everywhere by continuing to connect such Managed Quality Operation with Japanese quality.

I also feel that NTT Communications should take the lead in showing the world that GDP-enhancing national development is possible despite a low birthrate and aging society by making use of Japan's high productivity and quality in ICT. One example of this is to make use of diverse human resources.

Without a doubt there are many women, men and elderly people engaged in child rearing who would like to utilize their skills if they had a means of doing so. I believe that if they were able to work from home such potential skills could be used for society as well as helping to solve the issues of low birthrate and aging confronting it.

In that respect, using ICT is indispensable in improving the productivity and establishing the diverse working styles of individuals. For example, “Biz Communicator” provided by NTT Communications employs IP phones and teleconferencing, enabling you to see the face of the person you are speaking to on the computer.

Furthermore, so long as you are in an environment permitting Internet use, it allows you to work in an environment that approximates an office while maintaining high levels of security even when at home or on an overseas business trip. I believe that providing a ubiquitous environment of this kind allows companies not only to improve the productivity of their employees, but also to make use of human resources while respecting individual working styles.

## ● Protecting the Natural Environment with ICT

ICT is also effective for solving environmental and energy-related issues currently people facing on a global level.

Using teleconferencing and video conferencing as alternatives to meetings that conventionally required business trips enables us not only to cut costs, but also to reduce CO<sub>2</sub> emissions produced by vehicles that accompany the transporting of people. Furthermore, advancing the introduction of teleworking, whereby people work from home, is also expected to curtail CO<sub>2</sub> emissions not only in terms of emissions involved in transporting people, but also by easing traffic congestion. We hope to work toward reducing CO<sub>2</sub> emissions by 40% or more compared to conventional levels through the constant provision of cutting-edge services, including the aforementioned "Biz Communicator," as well as video conferencing system services employing high-quality IP technology.

As part of our initiatives within the Group, we are promoting low energy consumption for telecommunications facilities and data centers, including the introduction of direct current power supplies. In our data centers, we are reducing electrical consumption by 4% compared to conventional levels when ventilating rooms by introducing and operating an efficient air conditioning system that carefully manages temperature by means of heat sensors.

And as a solution for our clients' facilities, we provide "Green Hosting Services." This aims to effectively employ resources and achieve a 20% reduction in CO<sub>2</sub> emissions by implementing virtualization technologies.

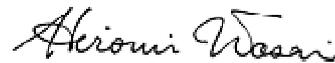
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## ● Training Human Resources that Support CSR

Employing ICT to provide society with cutting-edge solutions, we wish to continue setting the pace in our Group activities as well. In order to do so, we need to thoroughly implement our philosophy of prioritizing the frontlines and earnestly face all of our stakeholders, including our clients. As well as fostering experience gained in the frontlines, I would like to train professional human resources capable of creating new value that can find solutions to the issues confronting our clients and society.

While establishing the goal of forming a recycling-based society that makes use of "forest - rivers (rice paddies) - oceans" and "natural power," we hope to find solutions to both environmental and food shortage issues. While the Chichibu Rice Terrace Revitalization Project is but a small step towards achieving this, it was launched with such a concept in mind. The experience of learning from the frontlines leads to the creation of solutions. The stance that we adopt towards either our customers or nature is the same.

We will unite as a Group to continue providing value that is of benefit to society as an ICT solutions partner. I hope to receive the candid views of all our stakeholders regarding our activities.



**Hiromi Wasai**

President and CEO

NTT Communications Corporation

## CSR

# NTT Communications Group CSR

The NTT Communications Group established its Basic CSR Policy in June 2006. All efforts pursued by employees in line with this policy as part of day-to-day business constitute CSR activity.

## Basic CSR Policy

Our CSR activities aim to contribute to community prosperity and sustainability worldwide by creating new value and resolving problems through the information and communications services we provide as an ICT solutions partner.

### Contributing to Society

We strive to improve our information and communications technologies and provide stable, reliable, and secure communications worldwide, thereby making society safer and more secure. We offer new business models and lifestyles that create new value by enabling people to participate fully in society.



### Protecting the Environment

We safeguard the environment in all our businesses and reduce society's environmental footprint through our telecommunications services.

### Respecting Our Employees

We respect employee diversity and provide workplaces that champion self-fulfillment. We and our partners maintain high ethical standards in meeting our social responsibilities as telecommunications professionals.

NTT Communications established its Basic CSR Policy in keeping with the NTT Group CSR Charter. [You can access the NTT Group CSR Charter at the following website](#)

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## Our Guiding Principles

The NTT Communications Group implements CSR activity based on a set of “guiding principles” stipulating considerations we shall make, as a partner bridging present and future potential and creating new communication value, toward customers, business partners, employees and shareholders, and even competitors and society as a whole, which are also influenced by our business activities. As a partner connecting people to the future and to new worlds, we will continue to strive through business, together with all our stakeholders, toward sustainable development of society in keeping with our Basic CSR Policy.



#### 🔵 Pledge to Customers

- 1 We will provide solutions and services that will truly benefit customers by understanding their needs, rather than taking our current products and services for granted.
- 2 We will act responsibly and with pride as a member of the NTT Communications Group in responding quickly, flexibly, and with integrity to our customers.
- 3 We will establish long-term customer trust.
- 4 We will never betray the trust of our customers.

#### 🔵 Pledge to Business Partners

- 1 We will fully utilize the partnerships we have formed to maximize value for our customers.
- 2 We will select our business partners fairly.
- 3 We will build partner relationships that generate optimal results.
- 4 We will operate with integrity while providing value to our customers.

#### 🔵 Pledge to Competitors

- 1 We will abide by the rules of competition and carry out business in a fair and sincere manner.
- 2 We will further strengthen our own competitiveness by competing fairly.

#### 🔵 Pledge to Society

- 1 We will provide secure and innovative services that contribute to the sound growth of the Internet.
- 2 We will cherish communications with society.
- 3 We will understand and respect the cultures and customs of different nations.
- 4 We will contribute to the development of society and environmental protection.

#### 🔵 Employee and Work Environment Pledge

- 1 We will ensure all employees possess a sense of responsibility as ICT professionals.
- 2 We will recognize individuality and diversity, and protect human rights.
- 3 We will trust and respect each other and create an environment that is conducive to personal development and self-fulfillment.
- 4 We will implement programs to reform our operations.
- 5 We will do our utmost to maintain security as an ICT company.
- 6 We will create dynamic workplaces.

#### 🔵 Pledge to Shareholders

- 1 We will disclose operating results fairly, accurately, and in a timely manner.  
(We disclosed quarterly results in fiscal 2008)
- 2 We will accurately convey our medium- to longterm visions and strategies.  
(We presented these during two results announcements in fiscal 2008)
- 3 We will achieve sustainable growth as a company and seek higher benefits for our shareholders.
- 4 We will not tolerate the misuse of information relating to our business activities which leads to shareholders' loss of profits.

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## Special Feature 1



### Special Feature 1

#### Bridging the World with Japanese Quality

NTT Communications supports world-leading enterprises operating on the global stage through its seamless, high-speed networks and ICT solutions.

#### Offering Total Solutions to Seamlessly Bridge Japanese and International Locations

At the time of its inception, NTT Communications was primarily a domestic long-distance telecommunications carrier in Japan and was just embarking into the international communications market. Since then we have been striving to build brand-new information platforms, a world-wide network infrastructure, and relationships with other carriers, aiming to deliver seamless and comprehensive solutions in both domestic and international markets. Today we are a global carrier offering telecommunications services throughout the world, connecting the Americas, Asia-Pacific and Europe through our networks. In addition to the network services for multi-national customers, as a global Tier 11 provider we also provide IP network services which support the Internet.



The true value that NTT Communications offers is in sustaining the business growth of customers operating on a global scale by providing stable and high-quality ICT infrastructure regardless of the business location.

In order to achieve our aim to assist every customer's varied requirements, NTT Communications offers Total ICT solution services. Major examples of such services include hosting and management services to host customers' ICT systems at our data centers in 29 major business locations<sup>2</sup> worldwide, ICT system design, configuration, operation, and consulting services regarding information security and business continuity planning.

We are committed to expanding our solutions and ICT infrastructure to help resolve customers' business challenges.

1 A Global Tier 1 is an Internet service provider (ISP) group that can control its own broad-bandwidth global IP backbone without relying on upstream providers.

2 As of the end of August, 2009

#### Connecting 159 Countries and Regions with Global Network Services

NTT Communications maintains and enhances reliability of its services, connecting countries in the Asia-Pacific region with each other via multiple undersea cables, with Japan as the hub. We also offer a Russian route cable that connects Japan and Europe at the shortest distance, thus meeting customers' needs for minimal network latency. These backbone cables have allowed us to expand our "Arcstar Global IPVPN Services" (global data network services for enterprise customers) to 159 countries and



regions. The service coverage continues to grow, and we stand ready to respond to the needs and expectations of our customers - Japanese companies doing business globally and multinational companies deploying their key business functions in Japan.

International communications traffic has been rapidly expanding but our networks are highly trusted. For example, whereas the bandwidth for transmissions between the United States and Japan in 2002 was 10Gbps, the capacity now exceeds 200Gbps, a twenty-fold increase to accommodate the jump in demand. Beyond telecommunications network services for enterprises, our global IP network services have become a foundation for Internet services, and we are leading Japanese and other Asian ISPs as one of the leading global Tier 1 providers in the world. Our state-of-the-art services include direct access to our IP backbone, access to the largest IP network in Asia and an IPv4/IPv6 dual service.

### **● Harnessing Japanese Quality on the Global Stage**

Our original intention to offer a global network was to support Japanese enterprises operating overseas. As time went by, non-Japanese enterprises also saw the quality, reliability, as well as global accessibility and coverage of our network, resulting in almost half of our global network service customers now being non-Japanese. Furthermore, the needs and requirements of our non-Japanese customers have extended beyond Japan - at the beginning they required networking between the US headquarters and subsidiaries/partners in Japan, but now they require networking between various other locations, such as the US headquarters and a data-center in Singapore, for example.

Japanese and non-Japanese customers choose our networks due to high quality in three areas. The first area is in our operation. Our Network Operation Centers in Tokyo, New York and London collaboratively manage and monitor all our networks and traffic, 24 hours a day, 365 days a year, predict and prevent problems before they occur, and keep the networks up and running seamlessly between Japanese and international locations at all times. Network throughput and reliability is the second area of quality. Possessing one of the largest IP backbones in the Asia-Pacific region enables us to provide a large-capacity, high-speed service with few delays, while the use of multiple cables makes our service highly reliable. Finally, we offer quality in terms of response to disasters or service failures. In addition to automatic and instantaneous rerouting in the event of trunk failures, we have systems and processes in place to restore our services at a minimum delay after disasters.

One case example is the December 2006 earthquake in Taiwan. When services were disrupted due to the severing of international cables connected to Japan and the United States, our customers were able to resume communications within days of the earthquake after connections were swiftly rerouted via China and Hong Kong. Such flexibility has earned NTT Communications high praise, pointing to the high level of quality and reliability of our services.

### **● Future Challenges and Outlook**

In the world of global networking, advanced international finance transactions, such as derivative trading, require a high degree of security and minimal delays. Also, high-volume/real-time video delivery services, such as live broadcasts of concerts or sporting events, demand networks with higher speeds and broader bandwidths.

To meet those needs, NTT Communications ensures that it constantly enhances its network backbone and maintains a high level of quality in operations. By working together as one, we are committed to building a higher speed, stress-free global network.

The NTT Communications Group is supporting the future of the global networking society by keeping the world connected.

**Staff Comment**

**Koki Ejiri**  
**Assistant Manager**  
**Fiber Network Services Global NW Solutions**  
**Integrated Network Department**  
**Network Business Division**

**Foreign Enterprises Value Japanese Quality Too**

Japanese enterprises used to be the main customers of our services. Since NTT Communications fully entered the global business, we have had more opportunities to bid for global projects. Interaction with foreign-owned enterprises, with whom we have had no previous dealings, has increased and now such customer orders constitute around half of our business. I view this as evidence of the high level of quality that we offer. Competition is fierce and meeting customer requirements is tough, but it is very pleasing and highly satisfying to be chosen on our quality by not only Japanese customers, but also non-Japanese customers as well.

## Special Feature 2

2

Special Issue

### Special Feature 2

## Disaster Preparedness to Ensure Continued Connection

NTT Communications' job is to deliver reliable communications services to customers and make sure society "stays connected." We are making efforts to ensure business continuity in times of unforeseen events such as natural disasters and accidents.

### Our Responsibility for the "Lifelines" of an Information-Driven Society

The NTT Communications Group has a social duty to consistently deliver reliable communications services to customers and to secure the "lifelines" of a sophisticated information-driven society. Acknowledging that inability to continue our own operations in times of disaster or other emergencies will disrupt also customers' operations, we consider business continuity planning (BCP) a priority for management and have worked systematically to build up a risk management framework.



In fiscal 2006, we established the Business Risk Management Committee to consider countermeasures to the various risks faced by corporations. The Risk Management Office within the Network Business Division has played a central role in tackling the operational risks envisaged in the event of a disaster, accident, terrorist attack or other emergency. Over the last few years, we have been focusing on an area which demands urgent attention-preparedness for emergencies such as an earthquake with an epicenter in Tokyo or its environs and an influenza pandemic.

### Preparedness for an Earthquake with an Epicenter in the Tokyo Area

There is apparently a 70% chance of a large earthquake striking Tokyo or its environs within the next thirty years. The Risk Management Office is preparing for such an unprecedented calamity, deploying measures in line with three basic policies: improve network reliability; secure vital communications; and restore services quickly.

We are bolstering readiness with reliability improvements, especially through facility enhancements and redundancy achieved by establishing alternative trunk routes or by duplicating or decentralizing telecommunications facilities. We have thus managed to dramatically decrease the risk of network disruption due to earthquake damage. Disruption to internal phone connections, Internet access, mail servers and other communication tools, which are vital for maintaining information channels in times of disaster even from the customer's perspective, has been mitigated through redundancy. In the event of an actual earthquake, first an Initial Response Headquarters will be set up in the Kansai region. This will serve as a base for gathering and disseminating information on damages incurred. In the Tokyo area, employees belonging to the Disaster Response Headquarters will gather from offices or homes and set up a Tokyo Area Response Headquarters, preferably within 24 hours of the earthquake. After establishment, the headquarters will set about restoring disrupted networks according to a predetermined order of precedence.

Preparedness also requires measures for ensuring the safety of employees. Measures implemented include the introduction of a safety confirmation system to enable swift and reliable confirmation of the safety of employees and their families in times of emergency, drills requiring employees to walk home from work, and distribution of packages containing food and emergency supplies.

**Preparedness for an Influenza Pandemic**

NTT Communications has picked up on issues raised by the Business Risk Management Committee and has been working, since fiscal 2007, to bolster readiness for an influenza pandemic. This has involved the stocking of masks, disinfectant and other supplies, and the implementation of in-house awareness activities and pandemic drills.

In the event of a pandemic, it will be of utmost importance to communicate correct information to employees. We have therefore put in place methods enabling communication between company and employees, launching a “Pandemic Web” which employees can access from home. When urgent notices are posted, employees will be notified by email. This system was used during the H1N1 influenza outbreak in the spring of 2009 to instruct employees to take precautions against infection and to communicate the extent of infection. We are drawing on this experience in order to bolster preparedness for a potential epidemic from autumn.

We have also prepared a nationwide business continuity plan to apply in the event of a pandemic escalating due, for example, to an increase in virulence. During phases in which there is widespread infection, members of business continuation teams will go to work after taking due precautions against infection, for example by checking their physical health prior to departure for work and commuting during non-peak hours. Other employees will be asked to work from home using remote tools to avoid the risk of infection during the commute. We will soon be distributing remote tools and look to make further efforts to improve environments for working from home.

**Preparedness for Main Types of Disaster**

	Large earthquake with an epicenter in the Tokyo area	Avian Influenza A (H5N1)
Damage Envisaged (Japan)	Magnitude (Japanese scale): 7.3 Fatalities: 11,000 People unable to return home: 6.5 million <small>(Source: Damage estimates for an earthquake with an epicenter in the Tokyo area; Cabinet Office, Government of Japan)</small>	Infections: 32 million Hospitalizations: 2 million Fatalities: 640,000 <small>(Source: Pandemic Influenza Preparedness Action Plan of the Japanese Government; Ministry of Health, Labour and Welfare)</small>
Response Style	<b>Resource concentration—Restoration of operations</b> Concentrate human and other resources in the earthquake zone and set about quick restoration of facilities and services.	<b>Resource minimization—Downscaling of operations</b> As the virus would be expected to spread across Japan in virtually one sweep, implement a nationwide plan to downscale operations based on information from the government (WHO, etc.).
Basic Action	<ul style="list-style-type: none"> <li>Disaster Response HQ personnel                             <ul style="list-style-type: none"> <li>Daytime: Go from offices to Disaster Response HQ</li> <li>Nighttime: Go from homes to Disaster Response HQ</li> <li>Establishment of Temporary Response HQ in Kansai</li> </ul> </li> <li>Restoration teams                             <ul style="list-style-type: none"> <li>Implement initial response according to action plans for each team</li> </ul> </li> <li>Regular employees                             <ul style="list-style-type: none"> <li>Walk home having identified safe routes and stay home</li> <li>Return to work when restoration of lifelines allows and engage in restoration activities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Response HQ personnel                             <ul style="list-style-type: none"> <li>Secretariat convenes a meeting of Response HQ personnel based on receipt of information from the government (WHO, etc.)</li> </ul> </li> <li>Business continuation teams                             <ul style="list-style-type: none"> <li>Continue business, focusing on only core tasks</li> <li>Secure the minimum personnel requirement and prevent infection for those personnel (vaccine priority, etc.)</li> </ul> </li> <li>Regular employees                             <ul style="list-style-type: none"> <li>Thorough infection prevention (masks, mouth-rinsing, disinfection, etc.); work from home</li> </ul> </li> </ul>
Ultimate Goal	Follow action plans, delivering human assistance from areas outside the earthquake zone and carry out measures aimed at full restoration of services	Ensure business continuity beyond the pandemic phase, reducing or increasing personnel depending on the influenza cycle, which is said to continue for almost a year.

[Click to enlarge Preparedness for Main Types of Disaster](#)

**Future Challenges and Outlook**

The scope of risks posing a threat to communications is constantly widening in line with changing social conditions. An example is the emergence of cyber attacks. Thus the most pressing issue in business continuity planning is the establishment of a flexible framework for responding to the various risk scenarios.

We will also be looking to establish response manuals and conduct awareness activities to ensure that employees will be able to act in a composed manner in times of emergency.

**Staff Comment**

**Tsutomu Hosokai**  
**Manager**  
**General Affairs Department**

When the influenza epidemic broke out at the beginning of this year, I personally felt real fear knowing that “unexpected events” were occurring. At the same time, I realized that the ability to take proper action would depend upon whether or not we had access to basic information. I want to ensure that we can carry on providing valuable information based on an understanding that the safety of employees is of utmost importance.



**Tatsuo Okada**  
**Manager**  
**Network Systems Engineering**  
**Integrated Network Department**  
**Network Business Division**

When a disaster occurs, the company has to be able to move fast so we can make progress on goals such as restoring services. It all comes down to not what we do when it occurs, but what we did before it occurred. In a sense, you could say our response is finished once the disaster strikes. I believe it is vital to determine exactly what preparations need to be made through cooperation with related organizations.

CSR

## Special Feature 3

3

Special  
Issue

### Special Feature 3

#### Global challenge for the climate change, measures taken by NTT Communications Group

Recently, energy consumption at data centers has been increasing along with the increasing demand for data center business. To name few examples, four major approaches are featured here to represent the NTT Communications Group's Green Data Center service which offers not only secure and reliable services, but also environmentally friendly services to our clients worldwide.

London



#### Jin Zhu

Manager, NTT WT Data Centre Product,  
NTT Europe Ltd.

#### Nicholas Leishman

Manager, NTT Europe Data Centre,  
NTT Europe Ltd.  
Data Center(Slough)

#### Pursuing Green Data Center operations powered totally by renewable energy

Customers often demand high powered facilities, possibly due to the popularization of blade servers and progress with virtual server technology. As the facility power increases, more energy is essential for cooling. Therefore, our engineers examine not only power capacity but also the layout of the facilities, including hot/cold aisle design. So the most suitable options are always made available to improve energy efficiency. Our LD4 data center, in the suburbs of London, is truly a green data center powered 100% by biomass energy sourced from a local renewable energy station. We will continue to implement other such advanced practices.

Photo: Nicholas Leishman

## HongKong



### Steven So

Manager, Solution & Product,  
New Business Division, NTT Com Asia Ltd.  
Data Center(Taipo)

#### **Life Cycle Management focused on the improvement of facilities' efficiency**

Customers' demand for Green ICT policy has become so hot. On the other hand, customers always ask for excessive power more than necessary. In order to keep an optimum balance between capacity, availability and efficiency, we manage our facilities from a Life Cycle perspective focusing in these factors from planning, design, operation to improvement. Our green ICT approach is to maximize resource utilization, adopt energy efficient equipment, and upkeeping equipment performance. We will continue to provide highly reliable services while at the same time we are committed to pursuing energy efficiency.

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## Tokyo



### Toshihiro Takeda

Integrated Network Department  
Network Business Division  
NTT Communications Corporation

#### **Comprehensive environmental consideration put into practice from building to operation.**

TPR, or Total Power Revolution, is set as our principal approach to tackle the global warming issues. We make every effort to improve energy usage efficiency at ICT and data center facilities. Regardless to mention the latest technology, we encompass a wide range of measures right from the building stage, including "green wall".

Besides environmentally friendly facilities, electricity procurement is another important issue. Since May 2009, solar panels have been installed for operation at the Data Center in Tokyo. We are committed to promoting clean energy procurement and advanced system installation for all data centers.

NewYork

**Randy Preble**

Vice President, Finance and Business Operations  
 Enterprise Solutions  
 NTT America, Inc.  
 Data Center(Lundy, Sterling)



**Towards the ultimate objective to improve PUE to meet all customers' requests.**

To become a solution partner, our Green Initiative plays a vital role in competition.

Customers look on our approaches to green data centers and especially our PUE ratings. By introducing a variety of green technology including Air Curtain and Return Ducting, we have reduced our PUE from 1.95 to 1.8 and CO2 emissions by 6,800t. We try to optimize the existing data center functions with new energy savings solutions in a cost effective and safe manner. We offset our ICT infrastructure's carbon footprint through the use of carbon offsets. Besides carbon offsets, we continue to offer wide ranges of solutions to tackle global warming.

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Data center energy consumption region by region

Since FY2008, NTT Worldwide Telecommunications Corporation, in charge of the group's entire global data center operations, has established a power usage management program in all data center business locations. As a step forward, we will place effective practices through measures such as sharing advanced practices in each area and so forth.

Business Area	Electric power consumption (average per month)
Europe	233(kWh)
USA	7,516(kWh)
Asia	14(kWh)
	708(kVA)
Japan	18,934,420(kWh)

\* \* Due to the data availability in each area, data in Asia is presented in kVA.  
 NTT WT manages data for the following 9 data centers:  
 [Europe] Slough, Saint Denis  
 [USA] Sterling, Lundy, Ashburn, Santa Clara  
 [Asia] Taipo, Tai Seng, Cyberjaya2

## Special Feature 4



### Special Feature 4

#### Developing Human Resources to Meet the Needs of Customers

Human resources development at NTT Communications centers on practical experience and teamwork. We want employees to carry out operations of the company using skills they have developed through frontline experience.

##### ● Shifting the Focus of HR Development from the Individual to the Team

Internet usage had been experiencing exponential growth in 1999, the year NTT Communications was established, and individual employees urgently had to acquire skills and knowledge of a high standard in order to meet that demand. To develop IP personnel with Internet skills and knowledge of the required standard, we arranged around 850 different courses and encouraged employees to take them. We also focused on nurturing specialists.



Employees were highly motivated toward acquiring qualifications, and by the end of fiscal 2002, we were employing more than 5,100 skilled IP personnel.

The market matured quickly, however, and there emerged a need for integrated products combining a number of different services. Consequently, our focus on individual specialties in human resource development and administration of the organization was no longer consistent with the needs of the market. Another concern was the draining of skills due to outsourcing of operations.

In 2005, we sought to resolve these issues by shifting the focus of human resource development away from “individuals” and on to “teams.” We even settled on a new image for the “ideal employee”-someone possessing both skills in the Frontline Empowerment and Character Quality. Human resources fitting the description of the “ideal employee” were defined as “professionals.”

##### ● A Framework for Developing “Professionals”

We define “professionals” as people who have acquired specialist knowledge, experience and know-how and who are also able to engage in teamwork with other business units due to awareness of their own position in relation to the overall process and understanding of the various links in the value chain. In addition, they have to be able to exert leadership as they go about the practical side of their jobs.

In fiscal 2007, we commenced professional advancement programs (see diagram on opposite page) with this definition in mind. The programs first require each employee to specify their own “ideal employee” image and to formulate a “career development plan” for achieving that state.

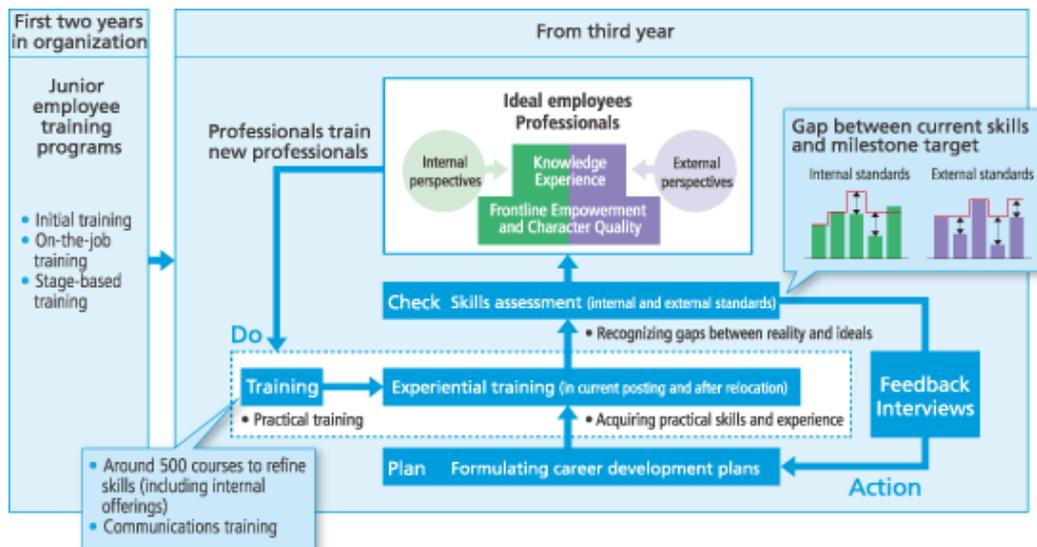
Employees undergo regular “skills assessments” according to both internal and external standards before analyzing from various angles how their current skills match against their ideal state. Those results are then used to determine what job experience and training is required next. For example, an employee hoping to become a professional in the field of technological development might be placed in a maintenance services unit for a fixed period of time in order to gain the practical skills necessary for understanding a customer's perspective.

We have also specified indicators for professionals in each of eight human resource categories, including “product development” and “sales,” which are classified according to business or

occupational field and roles within the value chain. “Milestones” established in four stages are used to measure progress. At the end of fiscal 2008, 91 employees were certified as having reached Milestone 3 (Semi-Professional). Employees' paths to certification are disclosed via intranet so others can refer to them when developing their own career plans.

This system of “professionals” was devised by working groups set up for each of the eight human resource categories and those same working groups monitor the system and pursue trial-and-error improvements. Given that many companies implement top-down personnel measures and skill evaluations, our novel initiative whereby working groups play a lead role in implementing training and human resource development is drawing a great deal of attention.

#### ■ Overview of Professional Advancement Programs



#### ○ Advancing Diversity Management

The Diversity Office was established within the Human Resource Management Department in April 2008 to advance our business strategy of utilizing diverse human resources. The office set to work incorporating human resource diversity into business strategy through diversity management.

We are working to establish work environments where each and every employee can actively harness their abilities, regardless of gender, age, nationality or disabilities, and we are also actively creating many opportunities for employees to develop an awareness of the importance of diversity. Support for involvement by female employees is our foremost issue. To ensure that childbirth and childcare do not cut an employee's career short, we provide assistance for, and hold interviews with, women returning from childcare leave. The NTT Group Female Manager Forum is also convened, attended by female managers from nine NTT Group companies. A wide range of other measures are implemented, including promotion of telecommuting.

Hiring of people with disabilities is another priority. In fiscal 2008, we satisfied the 1.8% statutory disabled employee ratio, but we are still pushing ahead with development of work environments where people with disabilities are able to participate in a broad range of activities. We are increasing the scope of disabled employee involvement through a variety of efforts, including follow-up interviews to check up on progress since joining the company.

Through these initiatives, we aim to become a competitive company where individual employees can perform to the best of their abilities.

#### ○ Future Challenges and Outlook

Two years since their launch, professional advancement programs are fully established with frameworks in place for skills assessment, for example. In fiscal 2009, the third year of the programs, we will put effort into training programs that will lead to greater corporate competitiveness, such as increasing opportunities for the training of employees by employees who

have reached a higher milestone. We will also look into extending programs to Group companies in Japan as well as to overseas affiliates.

Diversity management measures will be clearly prioritized and more effective approaches will be devised. Although difficult, measures will be pursued with the intention of producing results.

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## Staff Comment



**Kyoko Yamamoto**  
**Manager**  
**Human Resource Development Group**  
**Human Resource Management Department**

The benefits of human resource development can only be seen with a view to the long term. Though benefits might not be immediately obvious, we will devote time to developing environments where everyone feels satisfied that they are performing to the best of their abilities. Employees will then be happy and the company will also benefit. In this belief, we will continue to search for ways to promote the professional advancement programs, clearing hurdles as we go.



**Yoko Omachi**  
**Manager**  
**Diversity Promotion Office**  
**Human Resource Development Group**  
**Human Resource Management Department**

Advancement in diversity management requires cultivation of a corporate culture allowing all employees to get involved and a shift in employee mentality. I feel that initiatives such as implementation of e-learning relating to diversity and the distribution of communication handbooks have definitely changed how employees think. I would like to continue developing an organization where every employee can work with enthusiasm.

## Special Feature 5



### Special Feature 5

#### Bridging People Through Social Contribution Activities

NTT Communications conducts social contribution activities as CSR programs allowing active involvement by employees and their families. As well as raising awareness of environmental conservation through hands-on experience, we are promoting interaction with local communities.

### Chichibu Rice Terrace Revitalization Project

#### Encouraging Interaction and Communication with the Community

NTT Communications' CSR programs involve employee participation. They are opportunities for our regular and temporary employees, and their families, to get involved in activities which will teach them about CSR's relevance and allow them to contribute to local communities and environmental conservation. One such program is the Chichibu Rice Terrace Revitalization Project implemented in the municipality of Chichibu, Saitama Prefecture. This activity began in fiscal 2008 and aims to draw attention to environmental conservation, as well as encourage communication, through participation in the revitalization of rice terraces and protection of rare species, for example. The Saitama-based non-profit organization, Chichibu Environmental Association, assists with implementation of this activity.

Tasks ranging from plowing and planting of fields to weeding, harvesting and holding of harvest festivities are carried out on a regular basis (June-November) together with people of the community. Participants also get to experience the nature and culture of the Chichibu area, for example through firefly-watching and dining on local cuisine.

#### Continuity of Activities and ICT Utilization

As well as contributing through this activity to the revitalization of Chichibu's rice terraces and the protection of ecosystems, which include endangered insect species such as the rare Appasus major and the Tokyo salamander, tying up with the community and NPOs has brought to reality CSR programs involving our regular and temporary employees, and their families.

Continuity is an important factor in this sort of activity. The program has been extended in fiscal 2009 to include NTT Communications Group companies. We have recruited about 100 people who will carry out tasks on six occasions between June and November.

We also apply information and communications technology (ICT) to this project. The system enables real-time observation of fields via the Internet, and as the terraces are surrounded entirely by hills, we should also be able to learn about the ecology of small creatures and insects that appear in the fields. It is also possible to gather basic data such as air temperature, humidity and soil temperature. Therefore, we will continue activities using this sort of system with an eye on future contributions to agricultural productivity improvements and environmental education for children.



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### Partner Comment



**Yoshiro Kurosawa**  
Chairman  
Chichibu Environmental Association

This year we commenced various hands-on activities off the fields, such as planting of trees to attract insects, to complement our core activities in the fields. With a broader scope of activities, we hope people will come to learn more about Chichibu's attractions. Chichibu is rich in scenic resources and I hope many people will come to participate while taking in Chichibu's natural setting.

### Participant Comment



**Kazuya Tsunakawa**  
IT Management Service Business Division  
ICT Outsourcing Department

My daughter and I participated in every operation last year and will participate again this year. Every time, my daughter ends up getting covered in mud along with all the other participants' children and seems to be having a great time running in and around the fields. I truly understand now the importance of such a rich suburban natural environment and feel pleased to have been able to contribute, even if just a little, to its conservation.

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## Afforestation Program "Morinosaisei.Com"

### Helping to Regenerate Natural Forest Lost to Development

Another project, "Morinosaisei.Com" got underway in fiscal 2009 and involves planting trees on vacated golf courses where the natural environment has been devastated. The aim of this long-term project is to regenerate a forest that will be a habitat for living things of diverse species and where insects and people can gather. The Chichibu Environmental Association provides guidance and assistance on this initiative, too.

The first planting took place on April 11, 2009. In a section of a vacated golf course in Chichibu, Saitama Prefecture, set aside for NTT Communications as a planting area, 85 participants comprising our regular and temporary employees, and members of their families planted 50 *Rhododendron dilatatum* seedlings. *Rhododendron dilatatum* was selected based on advice from the Chichibu Environmental Association that the tree's flowers contain insect-attracting nectar and blossom every April-May, meaning they could be viewed during the planting period. We had participants purchase the seedlings.

In June, we planted an additional 100 *Rhododendron dilatatum* trees and in September another 150 trees.

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### ICT as a Link to the Future

When planting trees, participants gave each seedling a name and attached a hand-crafted name tag. The tags come with a QR code plate. By scanning the QR code, general visitors can access a mobile phone website to view details of planting activity. Using a login ID and password, those who participated in the planting are able to display the names of the trees they planted, their own names, planting dates and "messages for tomorrow" assigned to the trees. They can also view images indicating tree growth.

We hope that employing ICT in this manner will help employees and family members who participated in the tree planting, especially younger children, to develop an attachment to the forest and foster consideration of nature's importance. The planting has only just begun, but with the support of the Chichibu Environmental Association and people of the local community, we will continue working to rehabilitate environments destroyed at the hands of humanity and regenerate forests as habitats for diverse species of flora and fauna.



## Participant Comment



**Hiroyuki Misumi**  
**OCN Services Department**  
**Net Business Division**

Out under the sun, with sweat on our brows, touching the earth and trees with our own hands, this project allowing family members to regenerate forest together was the perfect opportunity for my children to get a first-hand feel for nature's beauty and importance. I want to return with my family one day to the forest, where insects also gather.



**Kunio Takagi**  
**Enterprise Sales Division II**  
**Area Sales Department**

Gathering leaves, digging holes and planting seedlings with our own hands was a great opportunity for parent and child alike to consider how valuable forests really are. An acorn we planted at our home last year has sprouted and has grown to 30 centimeters. We think it's about time we planted it in a forest somewhere.



**Denji Sakurai**  
**NTT Com CHEO Corporation**

I participated in the forest regeneration project with my cycling friends. The 90km course to Chichibu was perfect for training. Our company is working to increase work opportunities for people with disabilities through home-based employment. I would like to get more involved in activities that make a difference to society.

CSR

## Employee Discussion

### Using ICT to Resolve Social Issues



(From left) Hayato Anan, Yusuke Sasaki, Masakazu Takashiro, Hiroaki Hiramura, Kaori Nakagawa, Senior Executive Vice President Masae Tamura, Nobutake Fujiwara, Masazumi Sanjo, Satoshi Sugimoto and Daichi Kanazawa

What can the NTT Communications Group do to help resolve environmental problems and other issues confronting society? Senior Executive Vice President Masae Tamura and nine new employees discuss the potential of ICT.

#### ○ Awareness of Environmental Issues&ndash;Acknowledging That It Is Your Business

**Tamura** All corporate activities of Group companies, including overseas affiliates, are related to corporate social responsibility. When evaluating a company, it is important to consider CSR in addition to business performance. In Japan, Omi merchants\* long ago developed their “Sanpo-yoshi,” or “good three ways,” philosophy, indicating that their business would benefit the seller, the buyer and society as a whole. CSR activity can be approached from various angles. What are your views on the topic of the moment—the global environment?

**Takashiro** I've been hearing about the environment since I was a child, so I'm very eco-conscious. I am concerned about what the world will be like in fifty years.

**Nakagawa** I distinctly recall being taught about the environment in elementary school. I remember reading a picture book in class about a polar bear crying on the ice. So I've been vaguely aware of environmental matters since I was young. But really, nothing has changed.

**Sanjo** For the last decade or so, we've been told the river in my hometown has the highest dioxin levels for a river in Japan. But I had no idea what that really meant or what we should be doing about it.

**Kanazawa** The environment is probably too broad a subject for people to understand. I think we first need to cultivate awareness of the impact of our own individual actions.

**Sanjo** Yes. “How does it affect me?” The ability to view environmental problems from a personal perspective is crucial when trying to tackle them.

**Tamura** The NTT Group is in the process of formulating a long-term environmental vision for 2020 and plans to announce it in March 2010. NTT Communications will need to take further action on the environment in line with this vision.

#### ○ Reducing Environmental Impact by “Connecting” and Improving Efficiency

**Tamura** Ideally, a corporation's CSR activity involves resolution of social issues through its business. What do you think we can do for the environment as an ICT solutions company?

**Sasaki** Increasing the use of video conferencing to reduce the number of business trips helps save energy. I think our company has an advantage being able to contribute to the environment directly by persisting with services that are part of our main business. We surely have a role in improving the efficiency of social activity by “connecting” people using ICT.

**Takashiro** Consider boxed meals sold by convenience stores as an example in distribution. A large number of boxed meals are thrown out after they expire, but if stores could connect to

networks to enable optimal distribution, they might be able to avoid such wastefulness. I believe technologies for optimizing ICT contribute directly to environmental efforts.

**Anan** As ICT spreads, there are concerns that power consumption will rise, due to sophistication of the equipment, for example. One of our major roles will be to find solutions to those problems through innovation.

**Sugimoto** I think there is still plenty we can do as a company in the network business besides efficiency improvements and optimization. Take environmental education. Networks could be used by schools for field trips to teach children about environmental initiatives in factories, for example.

**Nakagawa** Talking about connecting people to the field, we really want upcoming generations to consider environmental issues from a global perspective. It will surely be important to enable real-time experiential learning and interaction across national boundaries.

**Fujiwara** And not only children. In terms of raising environmental awareness, I wonder if we can't do more to appeal to our customers. For example, we could plant a tree for every X number of people who register with "goo" and allow those people to view how their tree has grown in real time with the resulting amount of CO<sub>2</sub> reductions. The same goes for anything-make it fun and people will naturally begin to see the relevance of environmental issues and, ultimately, take action.

### **❶ Sometimes You Have to Experience to Understand- Meeting Social Needs With ICT**

**Tamura** Not only does ICT contribute to CO<sub>2</sub> reductions, but those technologies offer solutions to various problems confronting society. But in order to accurately identify those social needs, every employee needs to become more sensitive to society. Programs requiring employee participation, such as the Mt. Fuji clean-up and revitalization of rice terraces, at the same time as being social contribution activities, are valuable opportunities for gaining firsthand experience of the world outside the company. You all participated in the Mt. Fuji clean-up as part of your initial training. How did you find it?

**Nakagawa** When I was a university student, I often took part in community clean-ups and while picking up litter I learned something very basic-that it's easy to contaminate the environment, but difficult to restore it to its original state. The same goes for the Mt. Fuji clean-up. Participating with friends and colleagues, you feel a sense of solidarity and accomplishment, and at the same time you gain greater awareness about the environment.

**Sugimoto** I think the whole mentality of participating in activities such as the Mt. Fuji clean-up and wanting to clean up the environment and look after it, or considering the planet and global warming, is wonderful.

**Tamura** Experience is obviously important in any situation. Changing the topic now...Japan's food self-sufficiency ratio (in terms of calories) is currently 40% and the percentage of the population engaged in agriculture has dropped below 4%. Japan is the largest net importer of food in the world. We participate in the rice terraces revitalization project because we want to improve the self-sufficiency ratio and revitalize agriculture. What are your views on Japanese agriculture and food issues?

**Kanazawa** With the workforce aging, the future of Japanese agriculture looks grave. However, young people are starting to take an interest in agriculture and a growing number of people have lost their jobs under the present economic circumstances. I think building systems for linking farms, which are short of workers, with people who wish to give agriculture a go would contribute to developing the agriculture sector and improving the food situation.

**Sanjo** Land and human resources are available, so I think a system like the one Mr. Kanazawa suggested is possible. Introducing ICT for both employment matching and farm operation could surely bring about a more modern, more efficient agricultural industry. And then perhaps more people would wish to engage in agriculture.

**Sugimoto** Newcomers to agriculture will all so lack basic knowledge of the industry so there is bound to be an emerging need to build realtime online education systems using ICT in order to hand down know-how on agricultural techniques.

**Hiramura** I think it would be best to incorporate agricultural education into elementary and junior high school education. Not once in my life until now have I looked upon farming as an occupation. It

is important that people realize that agriculture is a valid job avenue while they are still children. Perhaps city schools and farms could be connected using ICT for children to gain a virtual experience of the attractions of farming.

**Nakagawa** Awareness of food safety issues has grown in the last several years. I now check where food items come from when I go shopping. QR codes have recently been introduced so you can use your mobile phone to call up a photo of the producer or find preparation tips. This is very convenient and gives a sense of security. Building systems enabling such traceability would help fulfill society's demand for safe and reliable food. It might even lead to the growth of Japanese agriculture.

**Tamura** The "R" in CSR refers to "responsibility," which comes from the Latin, "respondere (to respond)." Possessing the determination to respond to issues confronting our society is the starting point for CSR activity. As employees of a corporation trusted by society, I ask that you go about your jobs committed to making a contribution to society using ICT.

\*Omi merchants: Famed merchants from the Omi feudal domain (present day Shiga Prefecture)

## CSR

## 2009 CSR Indices

We established indices for activities based on our basic CSR policy. We will continue to revise and improve our indices in driving forward with CSR.

	Fiscal 2007	Fiscal 2008	Self assessment	Fiscal 2010 targets
<b>Financial Performance</b>				
<b>Parent company management indices</b>				
Operating Revenues	1,154.5 billion yen	1,127.1 billion yen	-	-
Operating income	104.7 billion yen	100.8 billion yen	-	-
Net income	62.7 billion yen	89.0 billion yen	-	-
Capital investment	108.1 billion yen	112.8 billion yen	-	-
<b>Parent company environment management indices</b>				
Environment efficiency index for CO <sub>2</sub> emissions Sales (million yen) / CO <sub>2</sub> emissions (metric tons)	3.37	4.25**	Fair	-
Environment efficiency index for waste processing Sales (million yen) / Final disposal volume (metric tons)	103.2	221.2	Good	-
Environment efficiency index for paper usage Sales (million yen) / Amount of paper used (metric tons)	421.1	380.6	Fair	-
<b>CSR Structure</b>				
Group CSR Committee meetings	3	2	Good	-
<b>Group corporate governance</b>				
Board of Directors meetings	20	19	-	-
Board of Corporate Auditors meetings	17	17	-	-
Executive Council meetings	51	49	-	-
Market-In Promotion Council meetings	51	49	-	-
<b>Group compliance</b>				
Number of classes on compliance in the workplace (number of participants)	557(17,910)	658(21,092)	Good	All group employees
Questionnaire on Corporate Ethics	-	94.7%	-	95%
<b>Contributing to Society</b>				
<b>Faithfully serving our customers</b>				
<b>Initiatives to realize consistent high reliability</b>				

Number of training sessions to create highly skilled engineers (number of participants)	70(540)	93(680)	Good	-
Certification system to create highly skilled operators (number of people certified)	-	15	-	-
<b>Relationships with society</b>				
Group rice terrace revitalization project events (number of participants)	-	7(93)	Good	90
Group Mt. Fuji Cleanup Program events (number of participants)	-	2(161)	Good	160
Friendly Internet classes (number of participants)	4(85)	2(41)	Good	2(40)
Parent company donations	45,530,000 yen	41,760,000 yen	-	-
NTT Com CHEO's CAVA system participants (including home call center staff)	1,630	1,650	Good	-
<b>Relationships with suppliers</b>				
Parent company meetings with suppliers to explain procurement	4	2	-	-
<b>Protecting the Environment</b>				
Group carbon dioxide emissions	358,000 metric tons	287,000 metric tons** (438,000 metric tons)	Poor	370,000 metric tons or less
Telecommunications equipment*	352,000 metric tons	281,000 metric tons** (432,000 metric tons)	Poor	-
Office	6,000 metric tons	6,000 metric tons	Good	-
Group electricity consumption	911.82 million kWh	679.57 million kWh (1,076.99 million kWh)	Poor	-
Telecommunications equipment*	895.25 million kWh	665.34 million kWh (1,062.76 million kWh)	Poor	-
Office	16.57 million kWh	14.23 million kWh	Good	-
Group greenhouse gases emissions (except CO <sub>2</sub> )	176t-CO <sub>2</sub>	404t-CO <sub>2</sub>	-	-
CH <sub>4</sub>	56t-CO <sub>2</sub>	227t-CO <sub>2</sub>	-	-
N <sub>2</sub> O	113t-CO <sub>2</sub>	170t-CO <sub>2</sub>	-	-
HFC	7t-CO <sub>2</sub>	7t-CO <sub>2</sub>	-	-
Group vehicle fuel consumption (gasoline and diesel) compared to the previous year	Up 10%	Up 14%	Poor	-
Group dismantled telecommunications equipment recycling rate	99.6%	99.1%	Good	99% or more
Group construction equipment recycling rate	93.0%	96.0%	Good	-

Designated materials (concrete, timber, rubble, etc)	98.7%	98.9%	Good	99 or more
Other materials	70.9%	79.5%	Good	84 or more
Group office waste recycling rate	58.6%	68.2%	Good	70 or more
Parent company paper consumed per employee (A4 equivalent)	13,919 sheets	12,420 sheets	Good	9,500 sheets
Group water consumption	898,000 cubic meters	840,000 cubic meters	-	-
Group chemical substance management: Amount of PCB stored	3,717 containers	3,717 containers	-	-
Group environmental communications initiatives	2	2	-	-
<b>Respecting Our Employees</b>				
Group number of employees	13,220	13,810	-	-
Japan	10,780	11,250	-	-
Asia (excl. Japan)	820	960	-	-
United States	1,210	1,070	-	-
Europe	410	530	-	-
Parent company number of employees	8,550	8,360	-	-
Men	7,650	7,455	-	-
Women	900	905	-	-
Average age	39.9	40.2	-	-
Average years of service	17.1	17.9	-	-
Number of female managers (as percentage of all appointees to such positions)	52(2.4%)	46(2.6%)	-	-
Percentage of employees with disabilities (as of March 1)	1.44%	1.92%	Good	1.8%***
Number of work-related accidents (while working or commuting)	6	18	Fair	0
Number of people taking maternity leave	71	49	-	-
Number of people taking childcare leave	111	109	-	-
Number of people using special working system to assist childcare	98	120	-	-
Number of people taking leave to care for elderly family members	6	3	-	-
Number of people working reduced shorter hours to care for elderly family members	11	5	-	-
Menu options under ?cafeteria? plan (usage rate)	49(99%)	49(99%)	Good	100%
Meetings for dialog between senior management and employees (number of participants)	11(990)	12(817)	-	-
Experiential learning classes (number of participants)	6(89)	3(86)	-	-
<b>Group</b>				
Classes on human rights in the workplace (number of participants)	557(17,910)	601 (19,774)	Good	All group employees
Human rights issues classes for senior managers (number of participants)	1(45)	1(46)	Good	1
Classes on harassment (number of participants)	1(237)	1(182)	Good	1

Notes: We provided information for self assessments and 2010 targets only where relevant, indicating non-relevant areas with dashes.

Unless otherwise indicated, figures are as of March 31 or for April 1 through March 31.

- \* Data center CO<sub>2</sub> emissions are included under telecommunications equipment
- \*\* The NTT Communications Group included CO<sub>2</sub> emissions from telecommunications equipment belonging to other telecommunications carriers, but housed within its buildings, within calculations prior to and including fiscal 2007. However, calculations from fiscal 2008 onwards only include NTT Communications Group emissions.
- \*\*\* Exclusion rate is applied to calculation.

CSR

## Initiatives for Ensuring Transparent and Sound Management

In order to ensure transparent and sound management, NTT Communications is committed to strengthening its corporate governance, compliance framework, business risk management, and information security.

By promoting corporate social responsibility throughout the entire group, NTT Communications is constantly working to improve its management quality.

### Corporate Governance

#### Basic Stance

NTT Communications considers strengthening our corporate governance and ensuring transparent and sound management to be essential to increase our corporate value while fulfilling our public role as a provider of communications services.

#### Corporate governance structure

We aim to strengthen corporate governance by drawing on the Board of Directors and Board of Corporate Auditors.

The Board of Directors has 15 members, one of whom is an outside director. In principle, the Board meets once a month to make decisions and report on important management issues.

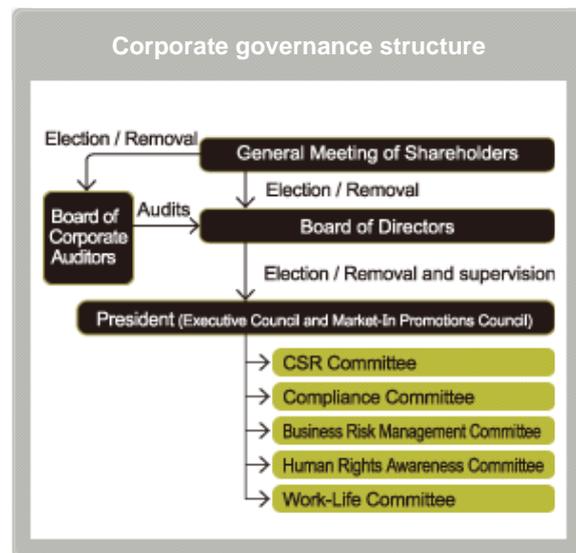
We appoint internal board candidates based on their character and professional experience, regardless of gender or nationality. The principal requirements for external directors are demonstrated supervisory experience and skills

throughout their careers, and appointment is not based on the conduct of business operations.

The Board of Corporate Auditors consists of three members, including two external auditors. The auditors assess the activities of the Board of Directors.

The Board of Corporate Auditors periodically shares information on audit plans and results with accounting firms and is working to strengthen the audit structure.

We abolished our directors' retirement benefits program in 2006. The remuneration of internal directors was replaced with a system closely linked to business performance. The remunerations of external directors and corporate auditors are not related to business performance.



We established the Executive Council under the Board of Directors to discuss important management issues for NTT Communications and Group companies and aid in accelerating decision-making by the president on operating issues. The Executive Council met 49 times in fiscal 2008. The Market-In Promotions Council gathered 49 times during the year to deliberate and report on important individual matters.

We also established committees, chaired by the senior executive vice president, to deliberate individual issues outlined in the management strategies of NTT Communications Group companies. These councils and committees report regularly to the Board of Directors, which deliberates on and oversees their activities.

### Internal Control System

In order to ensure proper business operations, the NTT Communications' Board of Directors has determined a "Basic Approach to the Internal Control System" and devised the necessary measures to be employed by the system. We are bolstering internal control systems for financial reporting in line with Financial Instruments and Exchange Law requirements.

#### Basic Approach to Internal Control System

1. NTT Communications will maintain a system of internal controls, including measures for the prevention and minimization of losses, to ensure compliance with applicable laws, appropriate risk management, and proper and efficient business operations.
2. To maintain and effectively assess the above system of internal controls, NTT Communications has established a Legal and Internal Audit Department. This Department is responsible for regular audits and special audits of high-risk areas common to the NTT Group in keeping with the auditing criteria of Nippon Telegraph and Telephone Corporation.
3. NTT Communications will cooperate with Nippon Telegraph and Telephone Corporation and take appropriate measures to ensure the reliability of its system of internal controls based on the US Public Company Accounting Reform and Investor Protection Act of 2002 (Sarbanes-Oxley Act) Sections 302 (disclosure controls) and 404 (internal control over financial reporting) and Japan's Financial Instruments and Exchange Law.
4. As the chief executive officer, the president will be responsible for ensuring the establishment, maintenance, and operation of the system of internal controls.
5. We will take steps needed to comply with the Nippon Telegraph and Telephone Corporation's basic policy related to the creation of a system of internal controls.

### Internal Audit

Throughout the year, we conduct standardized audits on our internal organizations and group companies, primarily through the Legal and Internal Audit Department.

Through these audits and other improvement measures, we are working to improve internal controls throughout the entire NTT Communications Group by verifying the establishment and operation of internal controls at individual organizations and group companies.

## CSR Committee

The NTT Communications Group has established the CSR Committee in order to promote CSR initiatives. The Committee aims to establish a structure to implement management initiatives from economic, environmental, and social perspectives. We maintain the Social Contribution Sub-committee and the Global Environmental Protection Sub-committee under the CSR Committee.

The CSR Committee met twice in fiscal 2008, with representatives of 19 Group companies attending. The Committee issued CSR and activity reports and resolved on fiscal 2009 activities after discussing issues that it should address.

The Committee will continue working to foster the NTT Communications Group's CSR initiatives and awareness.

**Fostering CSR awareness**

To promote CSR initiatives and foster employee consciousness of CSR throughout the entire NTT Communications Group, we distribute the “Our Business Principles” booklet and card to all NTT Communications employees that clarifies the principles that must be shared to enhance understanding of the Group.



This publication has been an important guideline since we began operations. It defines three key CSR policies outlining how we will go about achieving our responsibilities toward society. As such, we will continue to make fundamental use of Our Business Principles in the implementation of our CSR activities.

[Click here for details on Our Business Principles.](#)

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## Compliance

### Corporate Ethics Framework

For the NTT Communications Group, compliance goes well beyond merely adhering to laws and ordinances. Therefore, we are striving to establish a high level of corporate ethical standards so we can fulfill our social obligations.

For this reason, we set up the Compliance Committee and have appointed a director, department, and officials in all business units to oversee corporate ethics.

Based on the NTT Group Corporate Ethics Charter, we are taking various initiatives to create an environment that enables everyone, from senior executives to all Group employees, to carry out their work duties with high ethical standards.

[Click here for details of the NTT Group Corporate Ethics Charter.](#)

## 📍 Consultation Hotline

We established the NTT Communications Group Hotline, which Group employees in all countries can access.

The NTT Group operates an external consultation and reporting liaison desk, staffed with legal experts. These organizations are part of our commitment to a transparent corporate culture.

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## Business Risk Management

### 📍 Business Risk Management

We established the Business Risk Management Committee to better oversee and cope with major business risk factors capable of impacting the operation of the entire company.

The Committee meets twice a year to assess and formulate policies with members of relevant divisions to safeguard against significant Group risks, among which are such external factors as natural disasters and terrorism, and internal risks, notably dishonesty and scandals.

We created a system to swiftly collect risk information and ensure fast and proper decision-making in response to major risks. If such events occur, we inaugurate the Disaster (Accident)/Risk Response Headquarters, which the president or a senior executive vice president may head depending on the situation.

In May and October 2008, we held disaster drills assuming that all employees had to walk home, with 41 and 45 employees participating, respectively. We also conducted three emergency contact drills. In addition, in March, we held a training on responding to a pandemic H1N1 influenza outbreak.

We will continue to strengthen our systems to eliminate or minimize business risks for the entire Group.

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## Information Security

### 📍 Security Declaration

Because we believe that adhering to strict security management standards will lead to security improvements that will benefit our customers, we have set up the NTT Communications Security Declaration and use it as the basic guideline in conducting our business.

### NTT Communications Security Declaration

Our most important mission, in addition to protecting information that is vital to our customers and providing services they know are safe, is contributing to an enhancement of our customers' security systems.

We regard security as our top priority in providing services to our customers, and we pledge to work with them to achieve optimum security systems.

We will do our utmost to ensure security in all phases of the value chain from technology and service development to establishment and operation.

Furthermore, as Internet professionals, each one of us will raise our capabilities to respond to security-related issues.

#### Three Resolutions

1. We regard security as our top priority in providing services to our customers, and we will do our utmost to enhance their security.
2. As an IT partner entrusted with our customers' vital information, we will work with them at all times to ensure their security.
3. Business partners and contract employees are also important supporting members of NTT Communications. We will therefore collectively strive to ensure our own security.

[Click here for details on our Security Declaration and Information Protection Policy](#)

#### Information Security Management Structure

We have established uniform information security management benchmarks and policies in Japan and abroad, in keeping with the requirements of ISO 27001, the international standard for information security management systems. We regularly monitor compliance and take any necessary corrective action as part of ongoing governance efforts to improve our security management levels.

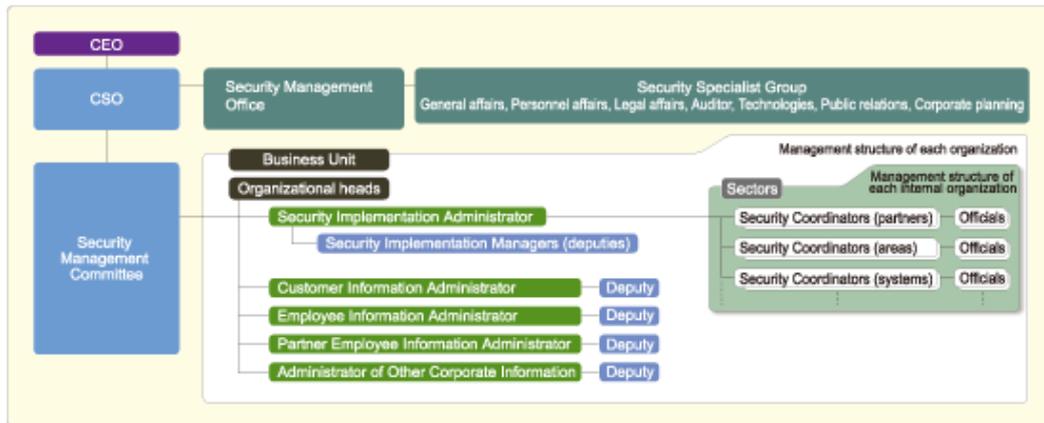
Specifically, the Chief Security Officer established the Security Management Office to:

- (1) Formulate rules and standards and educate all employees
- (2) Plan and apply company-wide information security policies
- (3) Monitor compliance with information security regulations and take any necessary corrective action
- (4) Ensure unified responses to information security incidents

Specially assigned officials in each business unit manage information security based on company-wide policies.

In fiscal 2008, we analyzed the security-related incidents that occurred both within and outside the company and implemented several information security enhancement measures in response.

We will continue to monitor internal and external trends and implement all necessary information security enhancement measures.



[Click here for details on our Security Declaration and Information Protection Policy](#) 

### ● Policies to Protect Customers' Information and Privacy

We comply with the Ministry of Internal Affairs and Communications' guidelines on managing personal information. We conduct regular audits to ensure that vendors handling such information adhere strictly to our security standards.

### ● Third-Party Assessment and Certifications

Seven Group companies have received Information Security Management System certification from external organizations.

Nine have obtained Privacy Mark accreditation in recognition of their personal information safeguards.

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### Maintaining Stable and Reliable Telecommunications Services

We are optimizing our communications network technologies and enhancing service reliability to support a global information infrastructure. We are also working to provide ever more reliable and improved quality services directed at disaster response. By engaging in these activities daily, we are helping to build a more resilient society.

#### Network Technologies and Maintenance Systems for Advanced Information Society

##### Multiple Routes, Redundancy, and 24/7 Monitoring to Ensure Reliability

NTT Communications uses its advanced network technologies and maintenance systems to operate Japan's communications backbone network. We ensure network reliability even in disasters or other emergencies through multiple routes (specifically Okinawa Route 3 and Fukuoka-Yamaguchi Route 3), redundant and decentralized equipment and facilities, and 24/7 network monitoring.

##### Submarine Cable-Laying Technology Also Utilized for Installing Submarine Seismograph

Utilization of Submarine Telecommunications Cable Installation Technology to Install Submarine Seismometer Cable

NTT World Engineering Marine Corporation (NTT-WE Marine) helps install and maintain not only domestic telecommunications cables in Japan but also international telecommunications cables in the Pacific Ocean, Southeast Asia and Indian Ocean regions.



■ Cableship "Subaru"

Our technology to install submarine telecommunications cables has been utilized to install submarine seismometer cables in water at depths of more than 1,000m, right from the time when NTT-WE Marine was known as "NTT Submarine Cable Engineering Center."

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#### Disaster Response

##### Keeping Networks Reliable following Disasters

With the goal of achieving networks that remain reliable even after disasters, we pursue highly flexible and reliable network designs and provision of stable services.

As such, it is essential to establish a sturdy, disaster-resistant network to maintain critical communications if a disaster strikes, and to restore network connections as quickly as possible. We implement various measures in support of these principles. As a specially designated public corporation, in cooperation with national and regional bodies, we make every effort to ensure that the lines of communication stay open during a disaster.

### Disaster Policy Fundamentals

#### 1. Improving Network Reliability

To prevent damage to a part of the information and communications system from spreading to other areas, and improve reliability, measures such as multiple transmission routes, built-in redundant communications systems, and security and power management are employed.

#### 2. Ensuring Crucial Communications

Communications are ensured even during a disaster through secured communications routes with lifeline institutions and a service called "Disaster Emergency Message Dial."

#### 3. Quickly Restoring Communications Services

Preparations have been taken to quickly restore communications equipment and services during a disaster by establishing a disaster prevention system, conducting periodic training, and deploying equipment for use in disaster situations.

### 🔵 Earthquake Early Warning Service

The Earthquake Early Warning system transmits earthquake information, such as estimated magnitude and expected arrival time, even before people feel the actual shaking.

Diverse enterprises have adopted the alert service, including operators of large commercial facilities, condominiums, offices, factories, and schools. These customers link the service to their elevator control and internal broadcasting systems to help ensure swift evacuations and overall safety.

We have also begun offering this service to ordinary homes and individuals, providing solutions that ensure safety and reduce damage from disasters.

### 🔵 MobileConnect Safety Confirmation and Notification Service

We provide the MobileConnect Safety Confirmation and Notification service, which enables companies, national and local government bodies, and other organizations to check on the safety of employees and their families during disasters swiftly. The service notifies such employees of disasters by contacting them through cell-phone, landline phone, or the Web, and asks them to confirm their safety. By swiftly managing the aggregated information, administrators can effectively maintain business continuity.

This service can also be utilized during a pandemic. It allows administrators to identify infected employees, confirm whether a specific employee can report to work, and assess an employee's health condition before he/she reports to work, daily or on a continuous basis, thereby enabling administrators to easily obtain accurate up-dates on situations that change minute to minute. We will continue to improve the scope and functionality of this service to help customers maintain business continuity.

## ● Inauguration of Sapporo Business Continuity Center

In June 2008, NTT Com Technology inaugurated its Sapporo Business Continuity Center, designed to constantly monitor and operate system networks, in Sapporo city, where relatively few natural disasters occur. In addition to monitoring and operating information and communications technology (ICT) systems 24 hours a day, 365 days a year, the Center handles customer inquiries, provides troubleshooting assistance, and supports business continuity planning (BCP).



■ Sapporo Business Continuity Center

Because ICT systems are crucial to corporate activities, data centers have been geographically dispersed as a countermeasure against potential major disasters and terrorism in Japan. However, the manned operation centers that constantly monitor and operate the ICT systems have tended to be concentrated in major metropolitan areas in order to attract a highly skilled workforce, frequently resulting in a single center monitoring dispersed systems.

However, as corporations have come to realize the importance of integrated BCP, the demand for dispersed facilities with respect to operation centers for corporate systems has increased to cope with major disasters and pandemics. It was in response to this demand that we inaugurated the Sapporo Business Continuity Center.

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### Information Security in Telecommunication Services

NTT Communications strives to ensure information security because we put the customer first. Drawing on our ICT experience and technology, we are helping to bring about a network society where customers enjoy greater safety and peace of mind.

#### Combating Viruses and Internet Crime

##### ○ Fighting Malware Through Public-Private Collaboration and ISP Alliances

Public and private sectors joined forces in December 2006 to launch an “anti-bot\* project” (Cyber Clean Center) as a countermeasure against new Internet threats. Under the project, the Ministry of Internal Affairs and Communications, the Ministry of Economy, Trade and Industry, and private Internet service providers (ISPs) such as NTT Communications are jointly pursuing a five-year plan to eradicate bot infections.

The project has had excellent results. Already more than 14 million bot viruses, or 890,000 types, have been gathered, and tools for removing them have been developed and delivered to end users with infected systems. A jump in the number of participating private ISPs from the original eight members to 76 has contributed enormously to the momentum of bot virus eradication efforts and greater awareness and application of those measures. This project involving public and private sectors is a pioneering initiative with no precedent and has attracted much attention at home and abroad.

In fiscal 2008, as in 2007, we sought to increase the effectiveness of anti-bot measures by further cementing ties with private sector ISPs and pursuing dissemination and awareness activities through a variety of channels. We are also actively involved in the development of human resources essential in the fight against malware\*. For example, we have teamed up with universities and other educational or research institutions in support of the Ministry of Education, Culture, Sports, Science and Technology IT specialist program to promote Key Engineers as Security Specialists (IT KEYS) and we joined with the Information Processing Society of Japan to host the Anti-Malware Engineering Workshop used for training people in research of malware countermeasures.

\* Bot: A type of computer virus or malicious program controlled remotely by an attacker to gain unauthorized access to computer terminals. Malicious programs slipped on to a network terminal might be used to distribute email spam or leak information stored on the terminal without the owner's knowledge.

\* Malware: Any software designed with malicious intent, including computer viruses, worms and spyware. The spread of the Internet means programs can now be obtained via networks, putting computers at greater risk of malware infiltration. This has developed into a global social problem.

## ● Enhancing ISP Security Services

Internet service providers (ISPs) have to create environments allowing customers safe and secure access to the Internet. OCN offers a variety of security services bundled into a discount package (“Anshin Select Pack”), while Plala provides a free filtering service that blocks communications originating from Winny, a file-sharing program which has become a major problem.

The Ministry of Internal Affairs and Communications, the Ministry of Economy, Trade and Industry, and private ISPs such as NTT Communications are cooperating on various initiatives for eradicating bot infections through a joint public-private “anti-bot project” launched in December 2006. OCN notifies users whose systems have been infected by a bot and gives them instructions on how to remove them and prevent a recurrence. The ISP is also putting efforts into raising awareness, for example by outlining specific security measures for bot attack prevention on its website and via email newsletters.

Information on security services was made more accessible to customers in April 2008 with details being posted out in addition to existing email guidance. In December 2008, guidance provided on the website was revamped, bolstering efforts to disseminate information and raise awareness, for example by listing measures for preventing infections and explanations on how to remove infections.

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## ● Making the Internet Safe for Children

The “Kids-goo” portal operated by NTT Resonant, Inc. provides information on how to ensure safe Internet use by children, contents that children can enjoy at home or at school, and a search service with a built-in filtering function. The main features are:

1) “Kids-goo” provides a safe and practical search service for children. While employing the same large-capacity search database as the “goo” portal, “Kids-goo” comes with its own filtering function and displays only pages deemed safe from among the large number of search results. Many elementary schools use this service for Internet classes.

2) The portal introduces rules and manners required for safe and secure Internet use through an online picture book. Turning the pages with a mouse, children get to learn the material in a fun manner.

Fiscal 2008 initiatives include the launching of a mobile site in April, enabling mobile phone access to practical content that children can use, learn from or simply enjoy. In September, the “Kids-goo Stick” permanent browser toolbar was released. The toolbar enables the filtering function available on the “Kids-goo” portal to be used via the browser, and link buttons on the toolbar give users easy access to “Kids-goo” content.

We will continue to develop the range of content services we offer to children, guardians, and especially schools, under the “Use, Play, Learn!” theme.

In October 2008, we launched the “Anshin-goo Stick.” The product's functions were enhanced in April 2009, enabling safer and more secure Internet environments for not only children, but teenagers and women as well. We have also held study sessions for guardians at junior high schools to explain filtering and introduce services like the “Anshin-goo Stick.”

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## ● Enhancing Monitoring and Operation for Enterprise Network Security

Zero-day attacks and other network threats that users are unable to cope with themselves have increased in recent years, and more threats are targeting terminals and applications rather than servers and operating systems.

NTT Communications' Security Operation Center (SOC) monitors such new threats 24 hours a day, 365 days a year in order to protect customers' information systems and assist business continuity.



■ Security Operation Center

The Financial Instruments and Exchange Act, commonly known as the Japanese Sarbanes-Oxley Act or J-SOX, is demanding much more vigilant monitoring and regulation from companies to enable sound and effective operation of information systems. The SOC has adapted to these changes and is actively working to ensure the safety and security of information systems belonging to corporate customers.

## ● Improving the Reliability of Internet Routing

NTT Communications is engaged in research and development of BGP route hijacking prevention technologies through involvement in “Research and development for the detection, recovery, and prevention of BGP route hijacking” sponsored by the Ministry of Internal Affairs and Communications.

BGP route hijacking is unauthorized use of the Internet routing information resulting in inconveniences such as website unavailability. To prevent BGP route hijacking, it is necessary to improve the reliability of Internet routing registry (IRR), which hold the routing information, and to put in place systems for preventing unauthorized use of such information.

To achieve such goals, in February 2009, we tested operation of a high-function IRR in three locations—Tokyo, Osaka and Fukuoka—employing database decentralization and load distribution technology. In May 2009, we have developed a function, for routers used by Internet service providers, allowing advance prevention and removal of unauthorized routes through links to IRR databases. We now look to verify the effectiveness of these functions through field tests and will continue research and development to help bring about safer, more secure Internet environments.

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### Using ICT to solve Social Issues

NTT Communications puts effort into the development and deployment of information and communications technology (ICT) to enable provision of a wide range of services. By generating new business models and lifestyles, we are contributing to the creation of a fully-inclusive society.

#### Sound Child Development

##### ○ “.com KIDS ”

Children of today find themselves embroiled in all kinds of accidents and incidents, as well as cases of bullying and complications caused by lack of communication. NTT Com CHEO Corporation runs an ICT-based program called “.com KIDS” which gives children skills for dealing with problems themselves.



■ “.com KIDS ”

The program comprises two main sections, “Safety” and “Study.” The “Safety” section offers children basic knowledge on how to use the Internet safely and teaches about crime prevention and community safety, as well as food safety, through an interactive e-learning experience. In the “Study” section, children use barcodes to print out study sheets. This allows them to learn Japanese, arithmetic and Chinese characters from materials matching their level of proficiency.

The program can also be used as a tool in community school, or other groups attended by students of varying school grades, as well as by community volunteers.

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#### Child Safety Confirmation

##### ○ KIDS PASS

NTT Com CHEO offers an ASP(Application Service Provider) based child protection service called “KIDS PASS.” When a child holds an IC card over a card reader, installed near an entrance to a school building, school gates or foyer, an email is sent to a mobile phone or PC belonging to the child's guardians to announce their arrival at, or departure from, school. The system also allows blanket distribution of urgent notifications, regarding suspicious persons or typhoon information, for example.



■KIDS PASS

The service was launched in June 2008 for a total of 3,000 children attending 19 participating public elementary schools in the city of Kodaira, Tokyo, through a business model project of the Ministry of Internal Affairs and Communications. Parents commented that they were conversing more with their children and that they were able to better prepare for their children's return.

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## Creating a Fully-Inclusive Society

### ● “.com Master” Internet Certification for ICT Personnel Development

Rapid expansion of the Internet and dramatic advancements in ICT have created many more situations, both in the business world and the lives of individuals, demanding standards that enable objective evaluation of ICT skills. The “.com Master” (Dot Com Master) Internet certification program is an ICT skills certification program operated by NTT Communications since 2001. The program assesses the ability of human resources to apply their ICT skills in society, assigning four grades-Basic, Single Star, Double Star and Triple Star.

Approximately 260,000 people had taken examinations by March 2009 with around 87,000 people passing. The certification is being used to provide evidence of ICT skills in job-hunting and business settings. The program has been incorporated into corporate ICT personnel development systems and ICT learning curriculums of universities and vocational training schools.

NTT Com CHEO operates “CAVA” (.com Advisor and Valuable Agent), an IT support business run by personnel certified with a .com Master Single Star grade or higher. The system serves as a bridge between participants' newly-acquired skills and practical application in work.

### ● “CAVA” Home-Based Call Center Operations

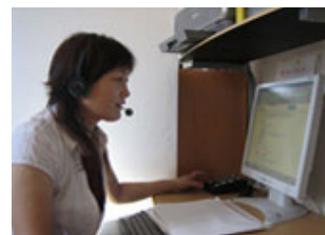
CAVA (.com Advisor and Valuable Agent) is a new Internet-based teleworking style for people certified as a .com Master with ICT skills. Personnel located anywhere in the country may work at any time they choose between 9 a.m. and 9 p.m. depending on their lifestyle, providing a support service for our IT-based society. The system, which taps female and elderly resources, currently employs more than 1,000 operators across Japan.

CAVA features and 2008 achievements are as follows.

- 1) CAVA offers employment opportunities to people wishing to work from home, thereby contributing to greater opportunities for housewives and senior citizens. The number of calls taken (in home-based call center operations) during fiscal 2008 increased by 30% compared to the previous fiscal year.
- 2) A combination of telephone support services and on-site support services provides greater work opportunities for individuals regardless of where they live. The number of CAVA operators will be increased further to accommodate demand for the service.



Operator-senior citizen



Operator-housewife



Operator-individual business

3) Recruitment and training for CAVA personnel are implemented owner monthly. Personnel are able to participate in training nationwide at home (remote) via the Internet.

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### Faithfully Serving Our Customers

We make a genuine effort to respond to the voice of the customer and work hard to improve and maintain our services to ensure greater convenience and peace of mind. Placing importance on communication with customers at all times will help us to build up long-term relationships of mutual trust.

#### Improving Customer Satisfaction

##### ○ Voice of Customer Surveys

NTT Communications carries out “voice of customer” surveys and uses findings to enhance the quality of services and make process improvements relating to the provision of customer service. In fiscal 2008, we received responses from around 2,000 companies.

Although our evaluation had improved on the whole from the previous year, areas in which we struggled to make progress included “service commencement processes” for domestic networks, “service during launch” in system installation and construction, and “presentation” during sales activity. These areas of relatively-low improvement require urgent attention.

Issues identified through surveys are discussed on a regular basis in company-wide projects, which determine and execute initiatives for bringing about solutions. Specific examples of improvements during fiscal 2008 include integration of customer centers responding to service disruptions and proactive notification of disruptions.

Improvement activities will be strengthened further to ensure that customers feel a sense of security when using our services.

##### ○ “Action! OCN”–Quickly Addressing Customer Needs

The “Action! OCN” initiative allows us to respond quickly to direct requests from customers of OCN personal services, making improvements to ensure that customers will continue to be satisfied. We have also signed up more than 130,000 OCN subscribers as evaluators who regularly assess services.

The customer's perspective is incorporated into ongoing efforts to improve customer satisfaction. Improvements made through this initiative are reported via the Action! OCN site.

Examples:

- “When it comes to security measures, I don't know where to begin”  
⇒ Enhanced the “OCN Anshin Web” site for security measures, making it easier to understand (September 2008)

- “The webpage explaining procedures for closing accounts does not display cautions”  
⇒ Displayed cautions (October 2008)
- “I want to check if I have new messages from the OCN page”  
⇒ Enhanced OCN toolbar functions (November 2008)
- “Please make email subject headings clear so I know when an email is from OCN”  
⇒ Revised subject heading notation (May 2008)

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### ● Further Satisfaction With 99.999% Service Availability

Painstaking improvements to OCN services ensure that all subscribers have access to a user-friendly Internet environment.

Our Internet backbone, Japan's largest, allows us to maintain the quality of line infrastructure for our services. We also secure backup routes to ensure connection in times of disaster, supporting emergency communications and other transmission needs.

As of March 2009, the service availability of OCN personal services was 99.999%. We will continue to monitor lines around the clock in order to maintain line quality.

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### ● Advanced Services for Convenience and Peace of Mind

NTT Communications seeks to improve customer satisfaction through advanced services that provide convenience and peace of mind.

For greater convenience and peace of mind when using email services, “My Address Plus” allows customers to select a generic JP domain of their choice (xxx.jp) for email addresses and blog URLs, to restrict incoming messages to only those from designated addresses, and also to use separate addresses for different purposes.

“OCN Kids Care” for parents and children blocks access to harmful Internet sites, helping to protect children and promote proper PC usage.

The “DoTV” Internet service for television enriches customers' lifestyles and offers greater convenience by facilitating shopping, information gathering and trial reading of magazines via television sets.

“OCN IPv6” was one of the world's first IPv6 access services for general users. As a solution to the exhaustion of IPv4 addresses, the need for IPv6 technology is growing.

NTT Communications will continue to develop and deliver cutting-edge Internet services in order to provide even greater customer satisfaction.

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### ● Acquiring certification for the IT service management international standard “ISO/IEC20000-1: 2005”

In April 2009, NTT Communications acquired certification in ISO/IEC 20000-1: 2005, the international certification standard for IT service management, derived from the British Standard, BS 15000-2. The ISO/IEC 20000-1: 2005 standard, issued in 2005, defines a system operation management procedure in 13 processes and incorporates the concept of the PDCA cycle.

Our goal in introducing this management process was to ensure high-quality operation management and improve customer satisfaction, both of which are NTT Communications operating policies. We first acquired certification for our large-scale private network management service

being offered to corporate customers. We plan to acquire certification in other areas as well, in order to provide our customers greater peace of mind in utilizing our IT services.

### ● Pursuing “Managed Quality Operation”

NTT Communications is striving to reform processes and improve service quality to enable provision of services the customer will trust and be satisfied with.

In the area of enterprise data communications services, we have commenced a “one-stop management service” encompassing integrated monitoring of networks through to equipment on customer premises, as well as detection and notification of service disruption and recovery. We are also bolstering proactive and one-stop maintenance services, for example by expanding the range of services to which network disruption notification and recovery are actively applied.

Other ongoing initiatives include developing professional human resources using practical training methods and certification, and also adopting a maintenance focus for management and suggestions for improvement offered from a customer's perspective.

We will provide formidable, ongoing support for the customer's business by stepping up our pursuit of quality in maintenance services, making improvements not only to networks, but to all facets of services, including people and organization.

### ● External Recognition

In 2009, the Hikari TV video distribution service provided by NTT Plala received MM Research Institute's top award in the Home Video Distribution Service Category of the Next-Generation Network Products and Services segment. Hikari TV was launched in March 2008 as a high-quality-picture video distribution service providing video-on-demand, multi-channel broadcasting, and IP retransmission for terrestrial digital media broadcasting to home TVs. In awarding the top prize, MM Research Institute acknowledged Hikari TV's name recognition, reliability, advanced features, affordable pricing, ease of use, and future potential, as a service that could form the core of a broadband and ubiquitous network society.

Additionally, NTT Plala's ISP service, “Plala,” was ranked highest in the ADSL segment\* for the third consecutive year according to the Japan High-Speed Internet Service Provider (ISP) Customer Satisfaction Study conducted by J.D. Power Asia Pacific, an international marketing information firm specializing in customer satisfaction research. “Plala” also received the top rating in the Best ISP Award Category in a survey conducted by RBB Today, one of the largest broadband information sites in Japan.

\*Source: J.D. Power Asia Pacific 2006-2008 Japan High-Speed Internet Service Provider Customer Satisfaction Study based on responses from 4,000 private ADSL subscribers.

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## Responsible Public Relations and Advertising

### ● Formulation of Advertising Regulations

Sophistication and diversification of services and pricing schedules in recent years mean advertising needs to be made easier to understand.

To give customers peace of mind when selecting and using services, NTT Communications has been striving to ensure reliability of advertising in keeping with voluntary standards and guidelines for telecommunications advertising established by the Council for the Promotion of Telecommunication Service Improvement. In November 2008, we formulated and commenced enforcement of regulations on advertising.

Specifically, the regulations define materials requiring examination, designate personnel responsible for carrying out examinations and clarify the examination process. The examination framework and processes have thus been strengthened.

As well as complying with laws such as the Act Against Unjustifiable Premiums and Misleading Representations, NTT Communications will make further efforts to consider the customer's standpoint when engaging in advertising and other public relations and promotional activity.

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### **Universal Design Initiatives**

NTT Communications is pursuing an ongoing initiative to optimize its official websites.

In fiscal 2007, we overhauled our website development and operation guidelines, revising dozens of regulations to improve accessibility, including in relation to audio browser compatibility. In fiscal 2008, we commenced initiatives for improving our global website.

Additional effort will be made to enforce these regulations to ensure that our websites are accessible to all users.

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## **Responsibility for Delivering High-Quality Services**

### **Adoption of Service Level Agreements (SLA)**

Service level agreements (SLA) establish the quality of a service to be delivered to customers as well as usage fee discounts to apply if that quality level is not reached.

NTT Communications applies the most stringent SLAs in the industry to enterprise network services such as e-VLAN, Arcstar IP-VPN and GIGASTREAM, thereby guaranteeing continual provision of top-quality services. In December 2008, we introduced Japan's first guaranteed bandwidth SLA for the GIGASTREAM Premium Ether service.

SLA parameters and criteria will be revised as necessary in order to improve customer satisfaction.

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### **Forum Emphasizes Service Quality and Customer Satisfaction for Global Data Communication Services**

NTT Communications and 17 major international telecommunications companies discussed how to enhance NTT Com's global network-service quality and customer satisfaction during the annual Arcstar Carrier Forum held in Tokyo in February.

The Arcstar Carrier Forum is a conference we have convened annually together with partner corporations from around the world since 2000 for the purpose of improving quality in the operation and delivery of international network services.

These efforts contributed to NTT Communications winning the Platinum Award for ranking highest in terms of overall customer satisfaction in the Voice of the Customer: Global Data VPN report issued in April 2008 by Telemark Services (head office: Manchester, UK). The eight international carriers were considered for awards.

Through initiatives like the Arcstar Carrier Forum, NTT Communications has improved service quality and strengthened customer satisfaction, and we will persist with efforts to raise the overall standard of our global network, including expansion of the area of activity.

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### Our Relationship with Society

NTT Communications tries to be a sound corporate citizen by seeking to coexist with society as a sustainable company, making contributions to society not only through business but by pursuing a broad range of social contribution activities.

#### Basic Approach to Social Contribution

##### ○ Social Contribution Activity of NTT Communications

NTT Communications implements a wide range of social contribution activities through which we are contributing to the enrichment of society. The spheres of activity are diverse and include international cooperation; environmental conservation; health, medical care and welfare; regional development; child development; and learning, arts, culture, sports and social education.

#### Basic Principles for Social Contribution Activity

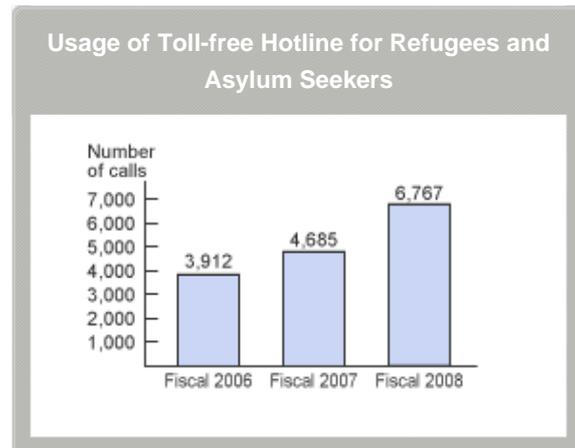
Sustainability	We conduct lean but lasting activities over the long term.
Efficiency	We engage in cost-effective activities for ease of continuity.
Due Diligence	We carefully assess whether prospective donations will truly benefit society.
Global Perspective	We contribute both to Japan and to the international community.
Skills	We utilize services and employee abilities developed through information distribution for the benefit of society

## Serving Local and International Communities

### Support for Establishment and Operation of Toll-free Hotline for Refugees and Asylum Seekers

The number of people seeking refuge in Japan after escaping war or persecution in their home countries is rapidly increasing. Ministry of Justice Immigration Bureau figures reveal that the annual number of refugee applicants reached a record 1,599 in 2008, climbing from the 300-400 applications per year received up to 2005.

The non-profit organization, Japan Association for Refugees, as an implementing partner of the Japan Office of the United Nations High Commissioner for Refugees (UNHCR), provides general assistance to refugees who have sought asylum in Japan according to their individual needs. The association is marking the tenth anniversary of its establishment in 2009.



NTT Communications commenced operational support for the toll-free hotline for refugees and asylum seekers (Tel: 0120-477-472) in April 2006. During fiscal 2008, our third year supporting the hotline, more than 560 calls were fielded on average each month, and a total 6,767 calls were received over the year, a 40% increase from fiscal 2007.

In January 2009, we opened a second line to cope with the growing number of calls as many people had commented that despite wanting to discuss refugee-related procedures and health matters, they had trouble getting through. Now more than 700 calls are received each month as a result with people making inquiries immediately on arrival at a Japanese airport or calling from distant locations such as Nagoya and Osaka.

Due to the recent weakening of the economy, an increasing number of calls are from refugees with financial difficulties. The hotline has therefore become a valuable means of communication for those who cannot even afford the cost of a visit to the Tokyo office. NTT Communications wishes to continue contributing to society like this through its main business.

### Support for HR Development Programs in Asia

The BHN\* Association was founded as a designated non-profit organization with the objective of bridging the digital divide in worldwide telecommunications. Since 1992, the association has been providing emergency assistance to disaster zones around the world, including telecommunications assistance



■ Participants in the 2008 program



■ BHN Human Resource Development Program

following the Chernobyl disaster and telecommunications, as well as humanitarian assistance, to medical facilities in Asia, for example in Myanmar, Laos, Malaysia and Afghanistan.

The association has also gained international recognition as the only NGO to specialize in activities in the area of telecommunications such as support for human resources development and exchange in the telecommunications field involving young people across Asia. In the area of human resources development, the association runs the annual BHN Human Resources Development Program for the purpose of nurturing qualities and expertise in young people who are expected to become leaders in the telecommunications industry in Asia.

Trainees are invited through related government authorities and corporate controlling departments in the various countries. Each year, up to ten trainees are selected from nominated applicants. Training is then implemented in two sessions. The fiscal 2008 (11th) program, participated in by eight future executive candidates from Cambodia and other Asian nations, was held over five weeks from November 2008 at a university in Malaysia and then over another four weeks from May 2009 in Tokyo. The 11th program ended in June 2009, bringing the total number of participants, from 12 different countries, to 82.

The NTT Communications Group actively supports this program by providing financial assistance, teaching staff and assistance in other facets of the program. So far 39 employees have been dispatched as teaching staff. The NTT Communications Group would like to continue its support for activities of the BHN Association.

\* BHN: Basic human needs (i.e. food, clothing, shelter, primary education, healthcare and other infrastructure). The association employs the term in its name as it considers telecommunications to be a vital component of BHN.

### ○ Promoting Fair Trade

Fair trade coffee has been available at some NTT Communications Group corporate cafeterias since December 2006.

Starting in fiscal 2008, fair trade merchandise has been sold in-house, coinciding with events such as Christmas, Valentine's Day and White Day. In some offices, merchandise was made available not only to NTT Communications Group employees, but to all employees of the NTT Group.

By promoting awareness of fair trade mechanisms and products among customers and employees, we hope to encourage them to contribute to the world directly.

### ○ Exchanging Plastic Bottle Caps for Vaccine Donations

As a social contribution activity in which all employees can get involved, the NTT Communications Group sponsors and supports NPO Ecocap Movement's "Bottle Caps to Fund Vaccines for Children in the Developing World" campaign.

The campaign involves collecting plastic bottle caps for recycling. Eight hundred caps is equivalent to 20 yen, which is enough to purchase a polio vaccine for one child. Vaccines are delivered to children in developing nations. The campaign contributes not only to society but also to protection of the environment as it helps to reduce the amount of CO<sub>2</sub> emitted during incineration of caps as waste (800 caps = 6,300g).



■ "ECOMA Wood" building materials made from plastic bottle caps

Employees of the NTT Communications Group have been participating since February 2007 and the help of workers' unions was enlisted from fiscal 2008. By June 2009, we had collected a total of 1,178,852 caps. Group company, NTTPC Communications, Inc., also donates bottle caps directly to a recycler. These are used to make building materials designed to promote environmentally-friendly landscapes and recycling, and which are employed in rooftop greening projects, for example.

### ● Donations for Disaster Relief Via “Chocom” e-Money Service

“Chocom” is an electronic money service enabling even the smallest online payments. NTT Communications uses “Chocom” to collect donations following disasters. Donations are delivered to disaster victims through the Mainichi Social Welfare Foundation (Tokyo).

#### ■ Donations for Disaster Relief (Fiscal 2008)

Period	Details	Amount
May 8 - June 30, 2008	Myanmar cyclone relief funds	¥216,800
May 15 - June 30, 2008	Sichuan earthquake relief funds	¥330,600
December 1 - 25, 2008	Year-end charity	¥9,600
March 1, 2008 - April 30, 2009	Relief funds for refugees overseas	¥22,800

### ● Participation in “chokotto ikoto program”

NTT NaviSpace Corporation, which operates the “Patora” interactive point earning and ranking information website, has been participating in the “chokotto ikoto program” run by eBANK Corporation since October 2008. Registered Patora users include many housewives in their 30s or 40s who have few opportunities to donate through corporations or other organizations. One of Patora's objectives is therefore to assist social contributions by housewives.

Under the “chokotto ikoto program,” funds are automatically paid to designated charity organizations whenever the eBANK payment system is used. As a participant in this program, NTT NaviSpace donates funds (equivalent to 10 yen for every point) each time Patora users change points into cash using eBANK, twice yearly in even amounts to the Japan Guide Dog Association, the Japan Marrow Donor Program, Plan Japan, the Japan Cancer Society and Médecins Sans Frontières Japan.

NTT NaviSpace assumes responsibility for the donated funds, allowing Patora users to participate in the program simply by exchanging their points into cash. A total ¥138,600 was accumulated between October 2008 and March 2009 and was donated toward the end of June 2009.

#### ■ Breakdown of Donations

Organization	Amount
Japan Guide Dog Association	¥27,720
Japan Marrow Donor Program	¥27,720
Plan Japan	¥27,720
Japan Cancer Society	¥27,720
Médecins Sans Frontières (MSF) Japan	¥27,720
<b>Total</b>	<b>¥138,600</b>

## Contributing to Society Through Websites

NTT Resonant Inc. undertakes various social contribution activities through the “goo” internet portal.

NTT Resonant has been running its Pink Ribbon Campaign since 2005. The campaign aims to eradicate breast cancer, which afflicts more than one in 20 Japanese women, including an increasing number of young women. As well as communicating basic knowledge about breast cancer and the importance of screening, support is provided for efforts in prevention and early detection.



■Pink Ribbon Campaign 2009

On October 1, 2008, the “goo Pink Label” search engine was opened for the Pink Ribbon Campaign 2008. October was designated a focal month for the Pink Ribbon Campaign and a portion of revenues from Web searches during the month were donated to the Japan Fund for Breast Cancer, a Japan Cancer Society fund helping in the fight against breast cancer.

Through operation of its “goo Green Label” search engine, NTT Resonant will continue donations to a large number of environmental protection organizations and also pursue social contribution activities in a wide range of areas, including ongoing support for the Pink Ribbon Campaign.

## Community-Friendly Internet Classes

The NTT Communications Group hosts community-oriented Internet classes (Easy Internet program) as a social contribution activity involving employee participation.

The tenth such session consisted of two classes, dealing with how to make the most of the Internet and how to create a blog. The classes were attended by 20 people from Saitama Prefecture who either work for or have an interest in non-profit organizations. Sixteen Group company regular and temporary employees took part as volunteers.

## In-house Confectionery Sales Via Community Workshop for Disabled Persons

Confectionery made through a community workshop for people with disabilities has been sold within the NTT Communications Group since fiscal 2003, coinciding with events such as Christmas, Valentine's Day and White Day. This well-established initiative enables employees to make a contribution in the area of social welfare simply by purchasing delicious, low-priced confectionery, thereby supporting the independence of disabled persons. The initiative will be continued as an enjoyable and accessible activity.

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### Our Relationship with Government

We help make the Internet safer and more secure by collaborating in governmental research and development and educational programs.

#### Participation in Public Policy Programs

##### ○ Participating in e-Net Caravan

Private telecommunications organizations, the Ministry of Internal Affairs and Communications, and the Ministry of Education, Culture, Sport, Science, and Technology formed e-Net Caravan, an initiative providing education about safe Internet usage targeting children, students, parents and teachers. NTT Communications is actively involved, dispatching teaching staff, in principle, free of charge. Teaching staff were dispatched for 24 programs in fiscal 2008.

##### **Number of lecturers dispatched during fiscal 2008**

- Number of lecturers: 7 (excluding repetitions)

##### **Number of children, students, parents, teachers and others attending courses**

- Children and students: approx. 3,000
- Parents, teachers and others: approx. 1,600

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### Our Relationship with Suppliers

NTT Communications strives to build equitable ties with suppliers and all other business partners to ensure transactions are entered in fairness and good faith.

#### Promoting Fair Transactions and Procurement (CSR Procurement)

##### ○ Promoting Fair Transactions

NTT Communications is eager to earn the trust of society. In our relationships with business partners, we place primary importance on building ties which are acceptable and beneficial to both parties, who partake in transactions on an equal footing based on mutual respect for the other's position. In building a relationship of trust, it is important to clarify the roles and responsibilities of each party while respecting one another's corporate culture and practices. As professionals in the industry, we do not pursue benefit or convenience solely for ourselves, but seek growth together with our business partners through mutual stimulation and encouragement.

##### ○ Basic Procurement Policy

NTT Communications has to procure high-quality services and products in an economical and timely manner to be able to maximize competitiveness as a corporation, respond flexibly to customer demands and make continual improvements to our own services. NTT Communications therefore engages in fair and competitive procurement activities within the global market based on three basic procurement policies.

1. Procure in an open and transparent manner according to business needs;
2. Give all suppliers, Japanese or overseas, an equal opportunity to compete for our business;
3. Apply global standards and market principles to procure competitive services and products matching our business needs;

##### ○ Procurement Office Initiatives

The Procurement Office within the Corporate Planning Department centrally manages procurement operations and supply agreements and carries out supply chain management to streamline and optimize procurement processes.

We assess the environmental activities of all suppliers of products and obligate them to observe our Guidelines for Green Procurement. We also seek understanding and cooperation through supplier group study sessions. Two study sessions were held during fiscal 2008.

## Promoting Green Procurement

### ○ Guidelines for Green Procurement

NTT Communications issued the second version of its Guidelines for Green Procurement in January 2006. As we aim to reduce environmental impact along the entire supply chain, the guidelines incorporate awareness toward environmental conservation into criteria for supplier assessment. Around 400 suppliers had been assessed as of May 2009.

### ■ Status of Green Purchasing

	Fiscal 2006	Fiscal 2007	Fiscal 2008
<b>Green procurement of goods excluding office supplies (1,000 units)</b>	2,840	47,770	2,760
<b>Green purchasing of office supplies (1,000 units)</b>	670	760	580

Scope: NTT Communications (unconsolidated)

### ○ Purchasing Policy for Printing/Copying Paper

NTT Communications formulated a purchasing policy for office printing and copying paper in October 2006 after reviewing our recommendation of paper made from 100% recycled stock in light of environmental changes in the papermaking industry, including a shortage of waste paper resources and escalation in woodchip and crude oil prices, as well as revisions to guidelines issued by the Green Purchasing Network.

After environmental impact and cost comparisons of three environmentally-friendly paper products (with 100%, 70% and 50% recycled content), we decided to recommend use of office paper made from 50% recycled stock and 50% plantation timber.

### ○ Power Source-Based Guidelines for Choosing Equipment

NTT Communications' general policy when installing new or additional equipment within in-house telecommunications machine rooms is to install equipment operated by direct current. The Power Source-Based Guidelines for Choosing Equipment were formulated to explain key pointers and processes for equipment selection to network designers.

Compared to alternating current (AC), the use of direct current (DC) allows for simplicity, and therefore greater reliability, of power supply equipment, and has environmental benefits, for example in terms of energy savings, due to low conversion loss.

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### Basic Approach to Environmental Protection and Environmental Management

To help bring about an environmentally-friendly society and ensure that the Earth remains in a healthy state for future generations, we will make efforts to strengthen the framework of the NTT Communications Group for environmental management and will aggressively pursue protection of the global environment in all processes pertaining to all our business activities, including procurement, disposal of waste and social contribution activities.

#### Basic Philosophy on Environmental Protection

##### ○ NTT Communications Group Global Environmental Charter

The NTT Group has established the NTT Group Ecology Program 21 and NTT Group Global Environmental Charter to promote group-wide consideration and action, from a global perspective, relating to environmental protection. This philosophy and policy form the basis for the NTT Communications Group Global Environmental Charter, which is being disseminated among employees of the Group as a set of guidelines for implementation of environmental protection activities.

## NTT Communications Group Global Environmental Charter

**Our Basic Philosophy** The NTT Communications Group will actively pursue conservation of the global environment and help to bring about an environmentally-friendly society through all facets of its creation and provision of high-quality services benefiting customers across the globe.

**Our Basic Policy** The following policies apply to all our business activities.

### 1. Fulfillment of corporate responsibilities

We will comply with all domestic and overseas laws and regulations relating to environmental conservation as a matter of course and we will endeavor, having assessed the environmental impact of our business activities, to prevent pollution of the environment and seek continual improvements based on established targets in areas including energy and resource conservation and waste reduction.

### 2. Support initiatives for an environmentally friendly society

We will, through the development and provision of information-sharing platforms relating to environmental conservation and recycling as well as networking services enabling teleworking and other new lifestyle approaches, help to bring about a society with a low environmental impact which is friendly to people and to the Earth.

### 3. Contribution to the environment through social interaction

We will endeavor to support day-to-day environmental protection activities in partnership with local communities and government authorities.

### 4. Disclosure of environmental information

We will disclose environmental information and engage in relevant communication both internally and externally.

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## Long-Term Vision Regarding Environmental Protection

### ○ A Vision for the NTT Communications Group's Future

The NTT Communications Group has established a Long-Term Vision Regarding Environmental Protection representing the future state of the Group's environmental conservation and protection activities and has drawn up a medium- to long-term plan for actualizing this vision. Taking advantage of our ICT capabilities we will steadily implement the plan, deploying initiatives that benefit the environment and people in partnership with customers, business partners, governments, educational institutions, and non-governmental and non-profit organizations.

### NTT Communications Group Long-Term Vision Regarding Environmental Protection

In our view, humanity has a duty to turn the Earth back into a place where humans and all other living things are able to coexist indefinitely. To restore the Earth to such a state, first there needs to be a shift in values across society, for example in political, economic, educational and cultural spheres. Instead of exalting material wealth, we must put priority on preserving the natural environment. For there to be a shift in values, allowing the world to embark on change, it is of utmost importance that people around the world engage in dialogue and gain mutual understanding.

We will take advantage of the global reach of our telecommunications networks and the latest ICT advances to provide platforms enabling the exchange and sharing of knowledge which is unevenly distributed across the world, and also to support communication among people around the globe. In this way, we can help to bring about a sustainable, spiritually-rich society.

The NTT Communications Group will join hands with industry, governments, academia and communities around the world to pursue this vision.

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## Medium- to Long-Term Plan-Initiatives that Benefit the Environment and People

### ● Medium- to Long-Term Plan: Linking People to the Earth

The NTT Communications Group will contribute to the creation of a new, sustainable society, helping to curb the impact of human production and consumption on the global environment through effective application of ICT and promotion of “green ICT”, the aim of which is to minimize the environmental impact of ICT itself. Specifically, we will be offering environmental solutions in five areas: gathering of environmental information; processing and analysis of environmental information; environmental impact reductions; environmental education and awareness and creation of new economic systems for a recycling-based society.



#### ■Gathering of environmental information

- Assessing the natural environment (air, oceans, rivers, soil, vegetation, wildlife, etc.)
- Assessing environmental impact (plants, offices, housing, transport, etc.)

#### ■Processing and analysis of environmental information

- Analysis of environmental information (categorization and problem finding)
- Analysis of materials in products (identification of products containing hazardous substances defined under the RoHS Directive and other regulations)
- Environmental accounting (real-time tabulation of cost reductions and social costs)
- Energy supply forecasts (short-term forecasts for biomass and other natural energy)

#### ■Reduction of environmental impact

- Control of facilities with environmental impact (automatic control of facilities including air-conditioning, lighting and elevators)
- Consultation on reduction of environmental impact (support for ISO certification and formulation/implementation of environmental impact reduction measures)
- Promotion of reuse and recycling (provision and operation of websites supporting trade and exchange of disused items)
- Provision of alternatives (electronic provision of goods and services and reduction of movement or transportation of goods and people)

#### ■Environmental education and awareness

- Provision of environmental information (disclosure of information in a readily-accessible manner)
- Provision of educational services (provision of venues and information for basic environmental learning)
- Sharing of knowledge and expertise (opinion exchange and sharing of experience with communities in relation to environmental issues)

### ■ Creation of new economic systems for a recycling-based society

- Creation of incentives for environmental conservation (return profits to corporations, groups and individuals contributing to environmental impact reductions)
- Recycling promotion and countermeasures to illegal waste dumping (integrated management from manufacturing to disposal with consideration toward resource recycling)
- Sharing of property (booking and administration of transportation, offices and housing to enable sharing among multiple corporations, groups or individuals)

[Click here for more information on "Green ICT"](#)

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## Medium- to Long-Term Plan-Environmental Impact Reduction Initiatives, Targets and Achievements

### ○ Environmental Impact Reduction Initiatives, Targets and Achievements

In working to reduce the environmental impact of all our business activities, we have set targets to pursue in the areas of energy conservation and global warming prevention measures, waste reduction and recycling, and reduction of paper resource consumption.

Initiatives in energy conservation and global warming prevention relating to telecommunications facilities include procurement conforming to guidelines on energy-efficient ICT equipment and active installation of gas air-conditioning systems.

Until fiscal 2007, the NTT Communications Group tabulated the power consumption of telecommunications equipment installed in company-owned buildings (including power used by equipment belonging to other telecommunications companies and power used for colocation services in data centers), offices and other such facilities. Since fiscal 2008, we have been tabulating power consumption in line with amendments to the Act on the Rational Use of Energy, which took effect in April 2009. Specifically, we have improved the accuracy of power consumption measurements for company-owned buildings and have expanded the scope of tabulation to include NTT Communications equipment installed in buildings owned by other parties (including power used for colocation services in data centers). CO<sub>2</sub> is calculated in terms of net emissions.

In fiscal 2009, we will be seeking further environmental impact reductions, for example by installing solar power systems as a source of clean energy.

Environmental measures in offices involve all employees and are implemented through the Office Environmental Working Group, which was formed during the consolidation, from February 2008, of office buildings housing the Enterprise Sales Divisions. Specific measures include the removal of personal wastebaskets, the introduction of multifunction printers integrated with IC card systems and a transition to paperless meetings. In fiscal 2009, we will work to visualize data on electricity, paper and waste to gain an understanding of the current situation and confirm the effects of measures while seeking further environmental impact reductions alongside improvements to the efficiency of business processes.

The NTT Communications Group will also be formulating medium- to long-term CO<sub>2</sub> emission reduction targets (for fiscal 2020) toward the end of fiscal 2009.

## Environmental Impact Reduction Initiatives, Targets and Achievements

		Fiscal 2008 Target (**)	Fiscal 2008 Achievements (**)	Assessment	Fiscal 2009 Initiatives	Fiscal 2010 Targets
CO2 emissions (*)	Telecom. equipment	Target: 358,000t-CO2 or less (358,000t-CO2 or less)	281,000t (432,000t) ·Closed wireless relay stations (51 sites) ·Upgraded air-conditioning systems (160 units; saving 1,097t-CO2) ·Raised machine room air-conditioning settings (550 units; saving 630t-CO2) ·Replaced inefficient inverters (60 units) ·Replaced inefficient rectifiers (100 units) ·Developed DC power sockets for IP equipment, etc. ·Implemented power-saving measures (including those in line with Tokyo Metropolitan Government measures)		Target: 303,000t-CO2 or less ·Install gas air-conditioning systems (10 units; saving 390t-CO2) ·Close wireless relay stations (27 sites; 300t-CO2) ·Upgrade air-conditioning systems (170 units) ·Raise machine room air-conditioning settings (550 units) ·Replace inefficient inverters (190 units) ·Replace inefficient rectifiers (60 units) ·Implement power-saving measures (including those in line with Tokyo Metropolitan Government measures) ·Solar power systems (157,000kWh; saving 59t-CO2) ·Switch to DC power for communications equipment (saving 480t-CO2)	370,000t-CO2 or less
	Offices		6,000t-CO2 ·Instilled habit of turning off unnecessary lights ·Preset air-conditioning temperature to 28°C		Target: 5,700t-CO2 or less ·Instill habit of turning off unnecessary lights ·Lower blinds on Friday evenings ·Preset air-conditioning temperature to 28°C	
	Recycling rate for dismantled telecom. equipment	Target: At least 99%	99.1% · Improved recycling rate for waste fiber-optic cables (rate: 97%)		Target: At least 99% ·Improve recycling rate for waste plastic and demolition waste, etc. (target: at least 80%)	At least 99%

Waste					·Promote recycling of fire-tight covers (FTC) (***)	
	Recycling rate for construction waste	Target: Specified materials: At least 99% Other: At least 74%	Specified materials: 99% Other: 79% ·Improved recycling rate for construction waste ·Zero waste taken directly to final disposal sites ·Outsourced to contractors with high recycling rates		Target: Specified materials: At least 99% Other: At least 81% ·Boost efforts to reduce final disposal ·Zero waste taken directly to final disposal sites ·Outsource to contractors with high recycling rates	Specified materials: At least 99% Other: At least 84%
	Recycling rate for office waste	Target: At least 63.0%	68.2% (total waste: 3,342t) ·Visualized waste volumes for each organizational unit ·Reinforced sorting of recyclable waste paper ·Created/displayed posters specifying waste sorting categories ·Stepped up educational activities of the Office Environmental Working Group		Target: At least 69% ·Visualize best practices from among individual units ·Expand scope of removal of personal waste baskets ·Standardize in-house waste sorting categories	At least 70%
Paper usage (office paper, A4 size equivalent)	Target: 12% reduction /person (12,300 sheets /person)	11% reduction /person (12,420 sheets/person) ·Increased information-sharing by electronic means ·Increased use of videoconferencing		Target: 12% reduction/person (10,900/person) ·Visualize paper usage (double-sided/bulk printing rates) ·Visualize best practices from among individual units ·Increase use of videoconferencing	40% reduction /person (9,500 sheets /person) from fiscal 2006	

Self-assessment:  Good progress  Basically on target  Slightly behind target

(\*) The CO2 emission coefficient is 0.378kg-CO2/kWh.

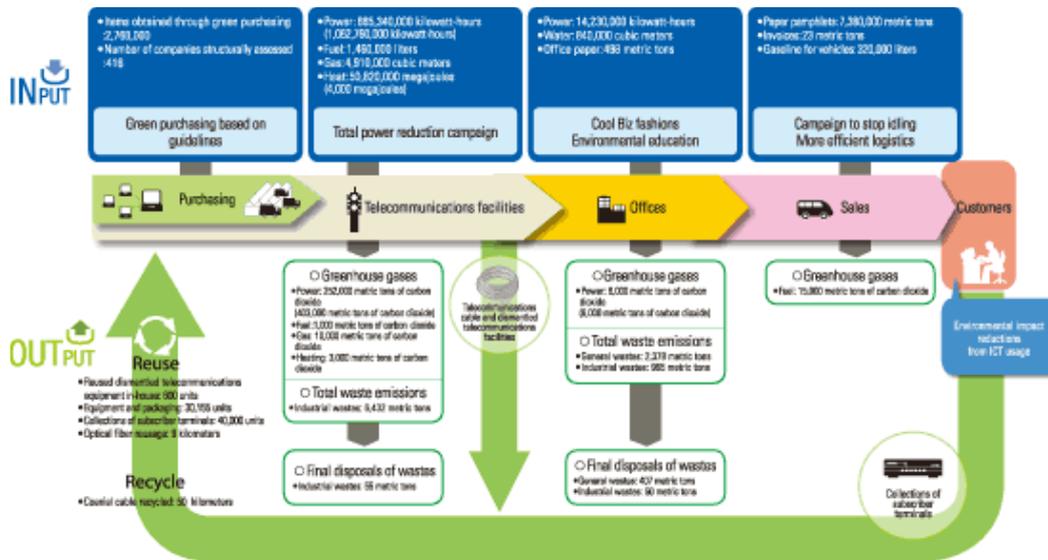
(\*\*) Figures in parentheses represent the volume of CO2 emissions calculated using methods applied in fiscal 2007 and are provided as reference for comparison/evaluation against fiscal 2008 targets established in fiscal 2007.

Calculations up to fiscal 2007 included CO2 emissions due to power consumption by equipment of other telecommunications companies installed in buildings owned by NTT Communications.

(\*\*\*) Fire-tight covers (FTC) are used to protect communication cables from fire.

## Environmental Impact of Business Activities

### Inputs and Outputs of NTT Communications Group in Fiscal 2008



\* Figures in parentheses represent combined CO<sub>2</sub> emissions and electricity usage of the NTT Communications Group and other carrier companies located in our buildings.

[Click here to view an enlarged diagram summarizing inputs and outputs of the NTT Communications Group for fiscal 2008](#)

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## Environmental Protection Framework

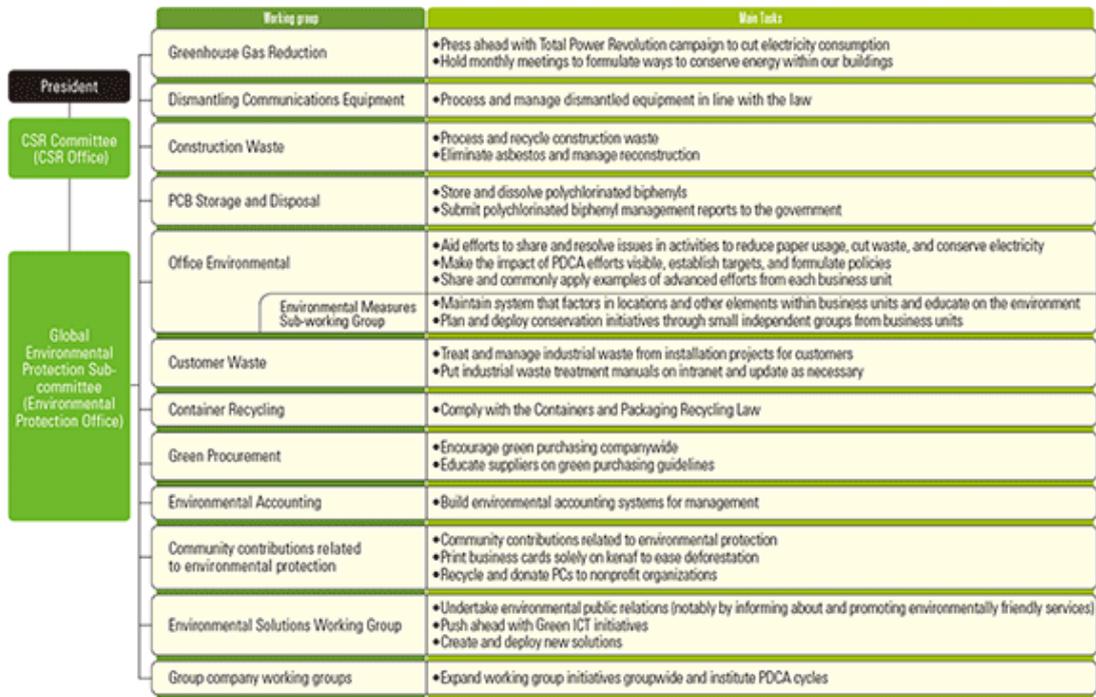
### Group-wide Strengthening of Environmental Management

Units from the president down act together on environmental issues through specific working groups established for the purpose of advancing ongoing environmental protection activities.

NTT Communications' Global Environmental Protection Sub-committee ordinarily convenes twice a year to coordinate Group-wide activities and information-sharing. Broad-ranging activities are prescribed and include efforts to reduce greenhouse gases and enhance environmental solutions.

The Office Environmental Working Group, established in 2007 to strengthen environmental measures in offices, and its Environmental Measures Sub-working Group which promotes activities within individual business divisions, have made steady progress in implementing activities, instigating PDCA (plan-do-check-act) cycles initially for the Hamamatsucho Office in Tokyo. The scope of activities has been expanded within our Tamachi Office since relocation there in December 2008.

■Environmental Protection Framework



[Click here for an enlarged diagram showing the environmental protection framework](#)

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ISO 14001 Certification

● ISO 14001 Certification Status and Auditing

Five companies within the NTT Communications Group had acquired ISO 14001 certification as of March 31, 2009.

Through contracts with outside environmental consultants, certified departments and companies undergo internal audits once a year to ensure appropriate implementation of environmental management and continual improvements that will allow a steady reduction of the environmental impact of business activities. Regular reviews and renewal examinations are also undertaken by an independent certification body. Outstanding issues are thus identified and remedies are swiftly taken. Besides initiatives centering on reduction of office paper and electricity usage and promotion of waste recycling, we are pursuing the following measures as part of our contribution to the creation of an environmentally-friendly society.

ISO 14001-certified Company

ISO 14001-certified Company		Date of Certification	Status of Initiatives	
			Main Initiatives Contributing to an Environmentally-friendly Society	Related Company Websites
NTT Communications Corp.	System Engineering Dept.	March 2004	<ul style="list-style-type: none"> <li>·Environmentally-considerate proposals/designs</li> <li>·Appropriate disposal of industrial waste</li> <li>·Raising of employee environmental awareness through annual seminars, etc.</li> </ul>	<a href="#">Click here for details on the NTT Communications Group's environmental protection activities</a>
	Procurement Office	October 1999	<ul style="list-style-type: none"> <li>·Twice-yearly clean-up of Donguri Park, Tokyo</li> <li>·Twice-yearly market for sale of disused household items; proceeds go to the Environmental Restoration and Conservation Agency</li> </ul>	

			·In-house and external seminars	
NTT World Engineering Marine Corp.	July 2001		·Appropriate disposal of industrial waste ·Corporate member of Team Minus 6% program ·Reduction of fuel consumption through energy-efficient passage of cables	<a href="#">Click here for details on environmental initiatives</a>
NTTPC Communications, Inc.	November 2003 November 2007 (company-wide)		·Vaccine donations to developing nations based on number of drink bottle caps delivered to a charity organization ·Installation of tea dispenser requiring personal cups ·Environmentally-friendly data center employing solar power, DC power supply and rooftop greenery	<a href="#">Click here for details on ISO 14001 certification</a> <a href="#">Click here for details on NTTPC Communications environmental activities</a>
NTT BizLink, Inc.	March 2007 (company-wide)		·Corporate member of Team Minus 6% program and Green IT Promotion Council ·Training of ISO 14001 auditors ·Campaign promoting green ICT and environmental protection	<a href="#">Click for details on NTT BizLink environmental protection activities</a>
NTT FANET SYSTEMS Corp.	April 2007		·Provision of equipment/systems for reducing environmental impact ·Setting of environmental targets ·Promotion of green purchasing	<a href="#">Click here for details on our environmental policy</a>

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## Environmental Accounting

### Cost and Economic Benefits Associated with Environmental Conservation Activities

NTT Communications tabulates environmental conservation cost (categories corresponding to business activities) and economic benefit associated with environmental conservation activities (real financial impact) in line with Environmental Accounting Guidelines 2005, issued by the Ministry of the Environment, and NTT Group Environmental Accounting Guidelines.

Total environmental conservation cost in fiscal 2008 was approximately 1,815 million yen, consisting of around 977 million yen in investments and around 838 million yen in expenses. This represents an increase of around 255 million yen compared to the previous fiscal year. A major factor contributing to the increase was the roughly 220 million yen rise in capital investment relating to Multiunit Air-Conditioning Systems (MACS).

Economic benefit associated with environmental conservation activities in fiscal 2008 was approximately 1,900 million yen, decreasing by around 1,649 million yen compared to the previous fiscal year due to dramatic declines in both revenues from sales of cables and other items and reductions in new item purchases generated by equipment reuse. This was despite around 117 million yen in increased benefits through reductions in postal and paper costs due to Mypage.\*

\* Mypage

A service providing notification via the Internet and/or email of billing information relating, for example, to NTT Communications telephone charges, and which also allows receipt display and printing. By using the Internet and email to notify customers of billing information instead of conventional printing and postage, it is quicker and easier for customers to locate relevant information. This contributes to protection of not only paper resources, but also energy resources required for printing and delivery.

**Environmental Conservation Cost-Categories Corresponding to Business Activities (Million yen)**

Category		Key measures	Investment		Expenses	
			2007	2008	2007	2008
(1) Business area cost			727.5	977.1	737.0	735.0
Breakdown	1. Pollution prevention costs	·Asbestos removal and disposal, etc. ·Oil tank facility for engine generator	166.8	197.3	343.1	289.1
	2. Global environmental conservation costs	·Maintenance expenses for air-conditioning facilities for machinery rooms ·Air-conditioning facilities for machinery rooms	560.6	779.7	103.8	107.0
	3. Resource circulation costs	·Waste disposal and reuse expenses	0	-	289.9	338.8
(2) Upstream/Downstream costs		·Mypage system improvements	-	-	20.0	35.6
(3) Administration costs		·Greening of buildings; usage fees for environmental information system	-	-	42.8	36.8
(4) R&D costs		·NTT Communications' portion of holding company's environmental R&D expenses	-	-	32.1	29.9
(5) Social activity costs		·Donations to environmental conservation organizations	-	-	0.5	0.5
(6) Environmental remediation costs			-	-	-	-
Total			727.5	977.1	832.5	837.9

**Economic Benefit Associated with Environmental Conservation Activities (Real Financial Impact) (Million yen)**

		2007	2008
Revenue	Revenues from sales (cables, metal scrap, etc.)	845.0	339.5
Cost reductions	Reductions in new item purchases generated by equipment reuse	2,341.9	1081.9
	Decrease in postal and paper costs from utilization of Mypage	362.1	479.4
Total		3,549.0	1900.8

\* Target period: April 1 - March 31

Scope: NTT Communications Corporation only

Tabulation and disclosure: Figures were tabulated in line with the Ministry of Environment's Environmental Accounting Guidelines 2005 and NTT Group Environmental Accounting Guidelines. Expenses include personnel expenses but exclude depreciation.

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## Environmental Education

### ○ Initiatives in Environmental Education

Environmental awareness activities and environmental education, offered to all employees according to job type and description, have purposely been incorporated into CSR training and we are always seeking new ways to raise employee awareness of environmental matters. We have also been extending the scope of participation to include not just employees, but also their families and business partners.

In fiscal 2008, we commenced awareness activities for suppliers and organized sessions for explaining the Guidelines for Green Procurement to six Group companies.

NTT Communications will continue to implement CSR training as a means of raising the environmental awareness of employees.

### Objective/Level-Based Training

- Training for Senior Management  
Executives receive education teaching them foremost about current issues affecting the global environment and social changes. They also learn about the environmental effects of Group business and gain insight into environmental initiatives by offices after acknowledging their current environmental impact. Executives thus acquire awareness of environmental issues and management as well as understanding of the immediate need for office environmental activities.
- Training for CSR Leaders (personnel promoting environmental conservation in each workplace)  
To encourage actual implementation of environmental initiatives in offices, courses were held to offer insight into the current environmental impact of offices and suggest approaches for related activities. Study sessions were also held to address specific themes, such as disposal of industrial waste. In fiscal 2009 we will be looking to develop the knowledge base and mentality of CSR leaders, for example by encouraging those personnel to sit the Certification Test for Environmental Specialists (Eco Test).
- Training for Regular Employees  
Participation in Mt. Fuji clean-up activities and revitalization of the Chichibu Rice Terraces, which are part of the Group's social contribution, help to raise environmental awareness and we are expanding such programs to enable participation by both regular and temporary employees of Group companies as well as their families. Units at the frontline of sales held their own study sessions relating to environmental solutions.

#### Training Implemented in FY2008

Target Group	Training Type	Occasions	Total Participants
Executives	·Training for senior management	1	42
CSR leaders	·Meeting of Administrative Managers ·Routine Office Environmental Working Group meetings	4 10	400
Company/partner employees and families	·Mt. Fuji clean-up activities	2	161
Group company employees and families	·Chichibu Rice Terraces Revitalization Project	7	93

### Suggestions for Environmental Improvements in Offices

The benefits of environmental education can be observed in tasks performed by individual employees. Prime examples would be the environment-related "kaizen" improvements suggested by employees.

- Enforce the habit of turning off lights
- Enforce the use of designated temperature settings for office air-conditioning
- Removal of personal waste baskets
- Revise sorting categories for shared office waste receptacles
- Printer toner savings

## Topics

**Recognition for Our  
Environmental  
Initiatives****-2nd Eco-Friendly Printing Awards-Environmental/CSR Reports 2008:  
Excellence Award**

The Eco-Friendly Printing Awards hosted by the Eco-Insatsu Kenkyu-kai, an association engaged in research focused on environmental considerations in printed publications, were first held in 2007. In the 2nd Eco-Friendly Printing Awards-Environmental/CSR Reports 2008, NTT Communications won an excellence award for *NTT Communications Group CSR Report 2008*.

**-Cannes Lions International Advertising Festival-Promo Lions Silver  
Award**

The "goo Home PROJECT," an initiative involving the planting of coral in the sea off Okinawa implemented via the "goo" Internet portal, run by NTT Resonant Inc., won a silver award in the Promo Lions (sales promotion) section at the Cannes Lions 2008 International Advertising Festival. The award recognized a novel effort that sought to link the Internet and the real world, under the globally-relevant theme of the environment, using a social networking service.

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**Basic Approach to Environmental Protection and Environmental Management**

[Global Warming Prevention](#) | [Reduction of Waste](#)

[Prevention of Environmental Pollution](#) | [Biodiversity Conservation](#)

[Reducing Environmental Impact Through Our Services](#)

[Timeline of Environmental Protection Activities](#) | [Site Data](#)

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CSR

## Protecting the Global Environment

- ▶ [Basic Approach to Environmental Protection and Environmental Management](#)
- ▶ [Global Warming Prevention](#)    ▶ [Reduction of Waste](#)
- ▶ [Prevention of Environmental Pollution](#)    ▶ [Biodiversity Conservation](#)
- ▶ [Reducing Environmental Impact Through Our Services](#)
- ▶ [Timeline of Environmental Protection Activities](#)    ▶ [Site Data](#)

### Global Warming Prevention

Although the advancement and spread of ICT are adding convenience to lifestyles and business, the increase in power consumption by ICT-related equipment is placing enormous pressure on the environment. The NTT Communications Group's employees are responding with painstaking energy efficiency improvements and other initiatives, as they progress as a team toward voluntary company targets set for telecommunications equipment, which account for around 98% of total CO<sub>2</sub> emissions from business activities, through to energy savings by offices.

#### Communications Equipment Initiatives

##### ○ Fiscal 2008 Initiatives

NTT Communications is vigorously pushing ahead with power savings under the "Green of ICT" concept. Through improvements to equipment inside data centers and telecommunications buildings, as well as to operating methods, we enable efficient operation of ICT equipment that boasts high-reliability and high-quality, and yet has a minimized environmental impact. Efforts in fiscal 2008 included procurement of energy-efficient ICT equipment and improvements to air-conditioning efficiency through the adoption of next-generation systems. The NTT Group had installed 1.8-megawatt power generation systems run on natural energy at 112 locations by the end of fiscal 2007 and in May 2008 announced the "Green NTT" program for promoting use of natural energy, especially solar power systems. The NTT Group is targeting installation of 5-megawatt solar power systems by 2012. The NTT Communications Group is actively increasing natural energy use at telecommunications buildings and data centers, partly by installing solar power systems. We commenced operation of such a system at a data center in Tokyo in May 2009.

Other initiatives included the closure of 51 wireless relay stations, upgrading of air-conditioning systems, raising of machine room air-conditioning settings and switching to DC power for communications equipment.

##### ○ Fiscal 2008 Achievements and Outlook for Fiscal 2009

Since fiscal 2008, the NTT Communications Group has been tabulating results in line with amendments to the Act on the Rational Use of Energy, which took effect in April 2009. Specifically, we have improved the accuracy of power consumption measurements for company-owned buildings and have expanded the scope of tabulation to include NTT Communications equipment installed in buildings owned by other parties (including power used for data center collocation services). CO<sub>2</sub> is calculated in terms of net emissions.

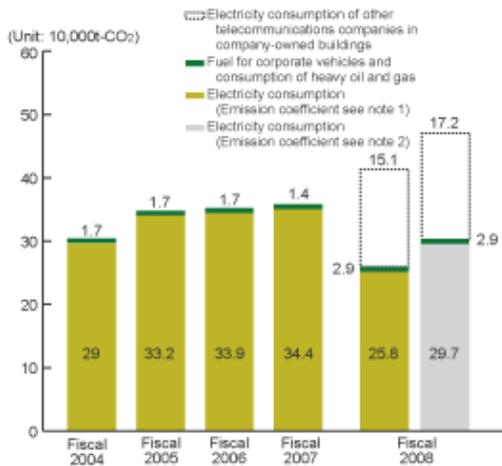
CO<sub>2</sub> emissions from telecommunications equipment increased by 80,000 tons (approx. 23%) in fiscal 2008 compared to emissions measured in fiscal 2007 as we expanded the scope of tabulation to include data centers not housed in our own buildings and also because of higher

power consumption resulting from a strong data center business. Despite an increase in office space, office CO<sub>2</sub> emissions stayed roughly level at 6,000 tons as a result of measures such as turning off lights.

Emissions of greenhouse gases other than CO<sub>2</sub> were as follows. CH<sub>4</sub> (methane) emissions were equivalent to 227t-CO<sub>2</sub>, an increase of 171t-CO<sub>2</sub> from fiscal 2007; N<sub>2</sub>O (nitrous oxide) emissions also increased, rising 57t-CO<sub>2</sub> to 170t-CO<sub>2</sub>; HFC emissions stayed level at 7t-CO<sub>2</sub>. Purchased power was 1.08 billion kWh, an increase of around 0.17 billion kWh from fiscal 2007. We operated three cogeneration systems in fiscal 2008, no change from fiscal 2007. Power generated using clean energy sources was 11.5 million kWh, an increase of 120,000kWh from fiscal 2007.

Total CO<sub>2</sub> emissions in fiscal 2008 were 438,000t-CO<sub>2</sub>, exceeding the 358,000t-CO<sub>2</sub> target. In fiscal 2009, we will continue improvements to equipment and operating methods for telecommunications buildings and data centers and expand utilization of solar power systems and other clean energy sources. An important challenge will be extending measures to offices around the world and Group companies.

**CO<sub>2</sub> Emissions from Business Activities**

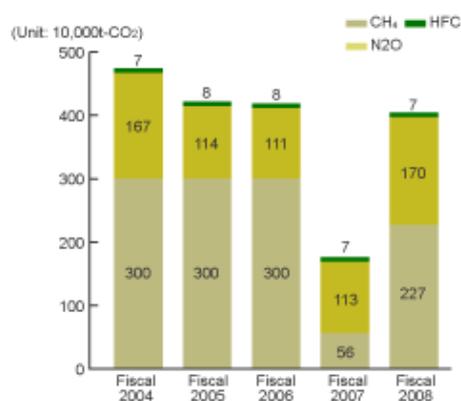


\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

Note 1: The CO<sub>2</sub> emission coefficient in the olive bars is 0.378kg-CO<sub>2</sub>/kWh.

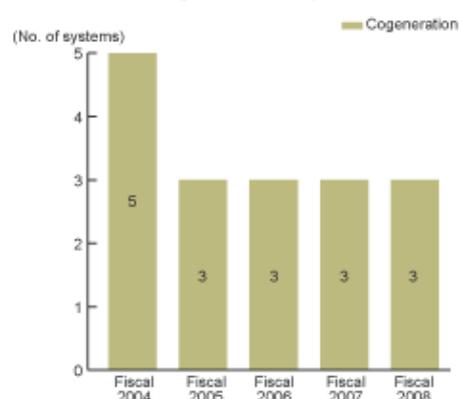
Note 2: The CO<sub>2</sub> emission coefficients used in the gray bar are from electric power companies.

**Other Greenhouse Gas Emissions (Converted to CO<sub>2</sub>)**



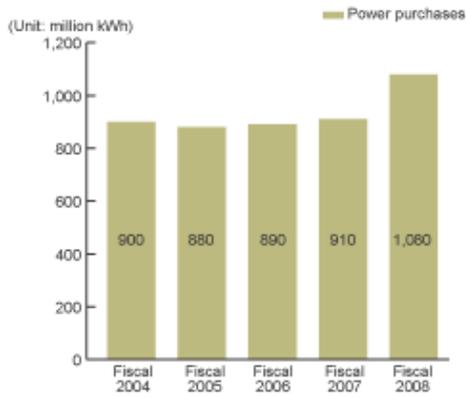
\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

**Number of Cogeneration Systems**



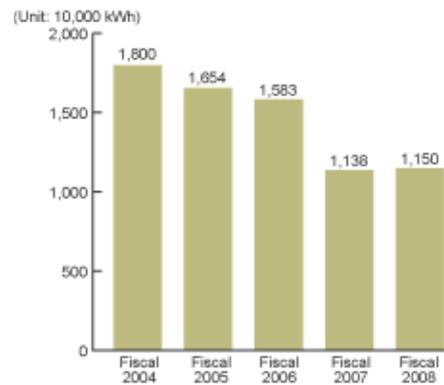
\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

■ Power purchases



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

■ Green energy generation



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

Introduction of Solar Power Generation System

In May 2009, we started operating a 162-kilowatt power generation system at a data center in Tokyo employing solar panels installed on the roof. The system is expected to generate around 170,000kWh per year. This is NTT Communications' first full-scale solar power system and we expect it to cut annual CO2 emissions by 64.5 tons. Power generated by the system provides some of the power supply for air-conditioning systems and offices. We will gradually introduce solar power systems to other buildings and disclose information on power generation.



■ Solar panels installed at a data center in Tokyo

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Transportation Initiatives

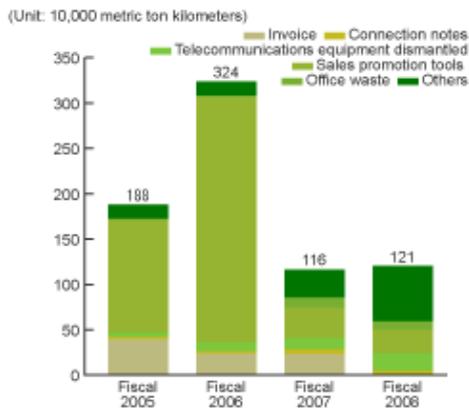
● Electronic Billing Initiative

The revised Act on the Rational Use of Energy implemented in April 2006 requires that parties providing and seeking transportation services endeavor to save energy. We annually audit transportation volume based on invoices, sales promotion tools, and office waste. We voluntarily seek ways to streamline transportation, such as reducing the number of transportation trips, the volume of items transported and the transportation distance, and otherwise enhance logistics.

We have cut the use of transportation by promoting the convenience of our online billing information service. In addition, to further reduce transportation, we have made the Internet our standard means of invoicing since September 2008 instead of mailing billing statements (mainly for individual users of OCN Internet services).

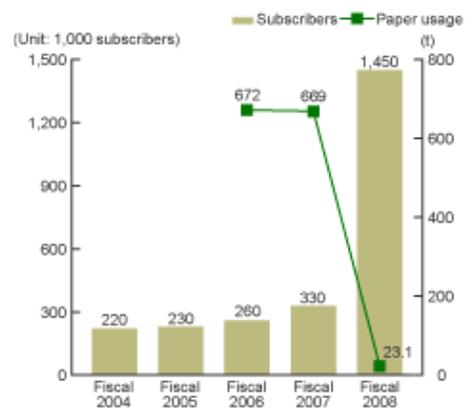
As a result of continued efforts to encourage use of online billing services, which includes provision of billing statements and receipts via Mypage the number of Mypage subscribers jumped to 1.45 million, an increase of around 1.12 million people from fiscal 2007. The number of OCN subscribers receiving electronic statements via Mypage or email increased to around 4.2 million. This contributed to a major reduction in the amount of paper used. Paper usage was 23.1 tons in fiscal 2008, a reduction of around 97% from the 669 tons in fiscal 2007. The volume of billing statements mailed fell dramatically (by approx. 220,000 ton-kilometers) and transportation of sales promotion tools and office waste also decreased. However, switching to electronic billing created a need, albeit temporary, for delivery of documentation required for changing payment methods (automatic transfer application forms; approx. 610,000 ton-kilometers included in "Others" category). Total transportation of goods was 1.21 million ton-kilometers, a year-on-year increase of 50,000 ton-kilometers.

**■ Goods Transportation Volume under Revised Act on the Rational Use of Energy**



\* Scope: NTT Communications Corporation (unconsolidated)

**■ Number of Mypage Subscribers and Paper Usage for Billing Statements**

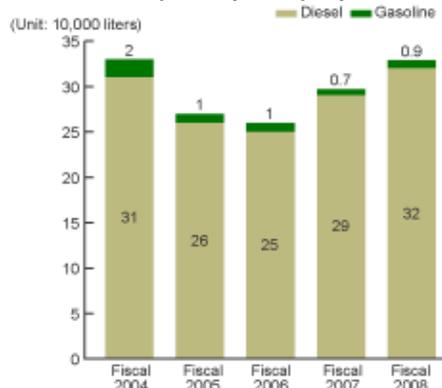


\* Scope: NTT Communications Corporation (unconsolidated)

**○ Initiatives Relating to Company Vehicles and Cable-Laying Vessels**

New initiatives by NTT Communications in fiscal 2008 included the introduction of hybrid vehicles. Gasoline and diesel consumption by company vehicles was 320,000 liters and 9,000 liters respectively, with gasoline consumption increasing by 30,000 liters and diesel consumption increasing by 2,000 liters compared to fiscal 2007. Contributing factors include a larger number of vehicles and an increase in the distance traveled by special-purpose vehicles.

**■ Fuel Consumption by Company Vehicles**



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

NTT World Engineering Marine Corporation, which engages in laying of submarine cables and maintenance of emergency generators, has been carrying out efforts to reduce fuel consumption (reduce CO2 emissions) by its cable-laying vessel Subaru since fiscal 2007. By establishing methods for efficient operation based on electric propulsion (propulsion using generated electricity to power propeller motors), the company managed to reduce the amount of fuel consumed for passage and operations by around 10%.



■Cableship "Subaru"

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## Office Initiatives

### ○ Environmental Protection Activities in Offices

In February 2008, we launched an environmental program at our offices to involve all employees in reducing the environmental impact of our operations.

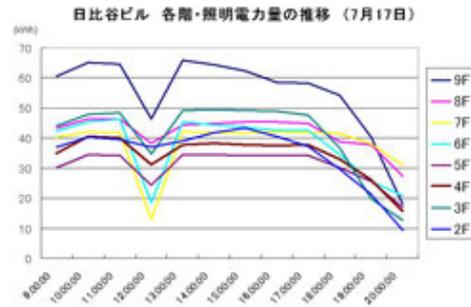
The Office Environmental Working Group, established last year to strengthen office environmental measures involving all employees, and its Environmental Measures Sub-working Group, which promotes activities within individual business divisions, have led efforts to develop autonomous cycles for implementation of day-to-day efforts, such as turning off unnecessary lighting, reducing paper usage and improving waste recycling rates. This was done initially for offices in Hamamatsu-cho, Tokyo. The same activities were adopted by our Tamachi office after relocation there in December 2008.

In keeping with a policy of first attending to one's immediate surroundings, we sought to totally eliminate wastefulness in areas in which we are personally involved through concrete energy and resource conservation efforts. These included using posters to appeal to employees to turn off all unnecessary lighting and increasing the use of videoconferencing. Use of videoconferencing systems for meetings was promoted at overseas as well as Japanese offices. Videoconferencing was being used 450 times a month on average at the beginning of fiscal 2009 (May-June), 60 times more than the monthly average for fiscal 2008 (390 times).

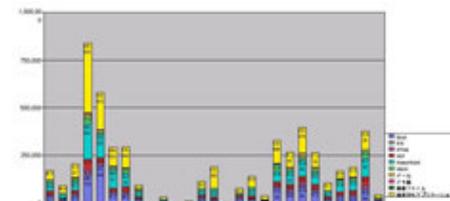
We are creating an Office Environmental Data Visualization Website that will enable visualization, for each office building and organizational unit, of paper usage, power consumption for different applications such as automated office equipment, lighting and air-conditioning, and also waste recycling rates. The website will be used for analyzing the current situation when deliberating on measures and for confirming effects after implementation, thereby stimulating execution of autonomous PDCA cycles. The website will also be enhanced to enable sharing of best practices among organizational units.



Office Environmental Data Visualization Website



Power Consumption for Lighting According to Time of Day (by Floor)



Number of Sheets Printed and Printout Types (by Organizational Unit)



Waste Emissions and Recycling Rates (by Building)

In order to raise employee awareness further, we have distributed the Home Energy Management System (HEMS) developed by NTT Energy and Environment Systems Laboratories. Employees will assist in demonstration testing of the effects and applications of this tool, which is used for visualizing household power consumption and CO<sub>2</sub> emissions. The NTT Communications Group will continue to play an active role in efforts to expand the system's use.



HEMS base unit



HEMS satellite unit (distribution board type)



■ User screenshot

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## Global Warming Countermeasures Together With Society

### Green ICT, Team Minus 6% and Carbon Offset Christmas Trees

To promote “Green ICT,” an idea advocated by NTT Communications, we created and distributed the Green ICT Solutions Guide for corporate customers. This guide explains the relationship between ICT and global warming and provides case examples to describe specific services relating to “Green of ICT,” for reducing ICT’s impact on the environment, and to “Green by ICT,” for reducing environmental impact by using ICT to improve efficiency. We will push ahead with Green ICT as a means of protecting the global environment, working together with customers on utilizing ICT to bring about environmental impact reductions.

Five Group companies participate in Team Minus 6%-NTT Communications Corporation, NTTPC Communications, Inc., NTT Resonant Inc., NTT Plala Inc. and NTT BizLink, Inc. Efforts pursued include “Cool Biz” campaigns (employees dress down in summer to reduce use of air-conditioning) and a “3-up, 4-down” initiative, whereby employees use the stairs for ascending up to three floors or descending up to four floors. NTT Resonant continually promotes participation in Team Minus 6% through its “eco-goo” portal.

In December 2008, NTT Communications supported an idea put forward by Hibiya-Kadan by brightening up Hibiya, Hamamatsu-cho and Tamachi buildings with Christmas trees employing clean energy, making use of the Green Power Certification System.

[Click here for more details on "Green ICT" solutions](#)



■Hibiya Office



■Hamamatsu-cho Office



■Tamachi Office

### 🟢 Planting Rooftop Gardens to Reduce Environmental Impact

We are using rooftop gardens (see note 1) on our data center and other facilities to reduce the heat island effect (see note 2) as part of our green ICT efforts.

These gardens also shield buildings from heat and reduce the power consumption of air-conditioning systems. Another benefit is that they improve living environments and beautify views because they clean the air by absorbing CO<sub>2</sub> and discharging oxygen.

In fiscal 2008, we continued fiscal 2007 efforts to plant Sedum creeping plants on the rooftops of data center buildings in Tokyo. As of May 2009, we had planted an area of 1,263m<sup>2</sup>. This has contributed to an annual CO<sub>2</sub> reduction of around 35 tons.



■Rooftop garden installed on a data center building in Tokyo

Notes:

1 Rooftop gardens

Cultivating such gardens is one way of improving living environments. Evapotranspiration from plants lowers ambient temperatures and blocks heat, helping cut a building's energy consumption.

2 Heat island effect

This phenomenon refers to summer urban temperatures rising several degrees because of heat from asphalt surfaces, buildings, air conditioner, and car exhausts raises urban temperatures. The term describes the notion that cities appear as islands of heat in thermal images compared with surrounding rural areas.

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## Reduction of Waste

The NTT Communications Group is making a concerted effort to minimize environmental impact through the reduction of waste generated by business and office activities and the improvement in reuse and recycling rates.

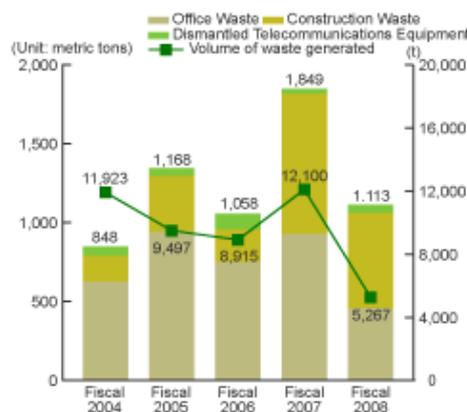
### Waste Reduction and Recycling Initiatives

#### ○ Fiscal 2008 Initiatives

The NTT Communications Group is working to reduce volumes of dismantled telecommunications equipment, construction waste and office waste and is promoting reuse and recycling.

The volume of final disposal waste in fiscal 2008 was 1,113 tons, down 735 tons from fiscal 2007 due to improved recycling rates for construction and office waste. The volume of waste generated was 5,267 tons, down 6,833 tons from fiscal 2007 due to a decrease in the total volume of dismantled telecommunications equipment.

■ NTT Communications Group Final Disposal Waste and Total Waste Generation



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

#### ○ Recycling of Dismantled Telecommunications Equipment

We upgrade telecommunications equipment and cables to provide more reliable, higher-quality services. We promote the reuse or recycling of most of the equipment and cables we remove during upgrades, quantifying and properly discarding the rest.

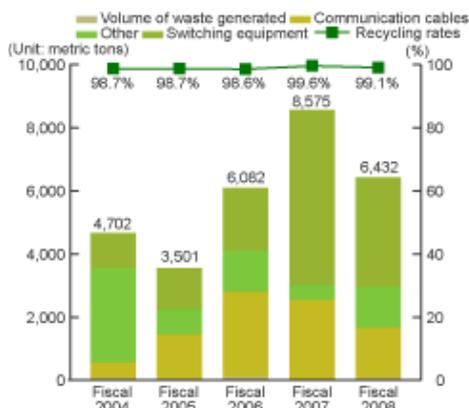
In fiscal 2008, we kept looking for ways to use cables, packaging and other dismantled items in-house, for example in other projects, and expanded the range of items reused. We reused dismantled telecommunications equipment (600 items), found uses for non-operating inventory (30,155 units of equipment packaging, etc.), reused fiber-optic cables (9km) and recycled coaxial

cables (50km). The total volume of dismantled telecommunications equipment in fiscal 2008 was 6,432 tons, a decrease of 2,143 tons from fiscal 2007 due to fewer large jobs involving dismantling of wireless relay stations. The volume recycled was 6,377 tons, achieving a 99.1% recycling rate, thereby meeting the fiscal 2008 target of 99% or higher. The length of waste fiber-optic cable recycled was 9km, down 15km from fiscal 2007 as fewer items matched the required length or number of fibers and because of fewer occasions for reuse.

We are now seeking to improve recycling rates for dismantled equipment with high plastic, glass or ceramic content and will be focusing on recycling of fire-tight covers (FTC) \*.

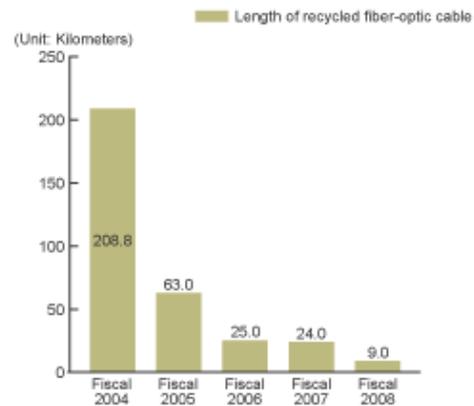
\* Fire-tight covers (FTC) are used to protect communication cables from fire.

■ Total Volumes and Recycling Rates of Dismantled Telecommunications Equipment



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, and only NTT Communications Corporation prior to fiscal 2006.

■ Length of Recycled Fiber-Optic Cable



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, and only NTT Communications Corporation prior to fiscal 2006.

### ○ Recycling of Construction Waste

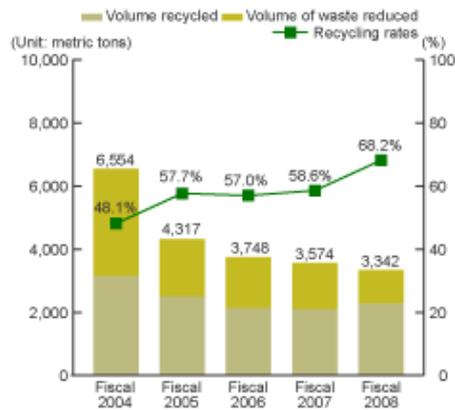
In order to continue offering customers highly reliable services, we are rebuilding old facilities and implementing expansion and remodeling to accommodate rising demand.

The volume of construction waste generated during fiscal 2008 was 14,139 tons, a 733-ton increase from fiscal 2007. Approximately 96% of that waste was recycled. The recycling rate for concrete and other specified materials improved to 98.9% (fiscal 2008 target: at least 99%) from 98.7% of the previous year as resource recycling was incorporated into plans for construction jobs from initial stages and due to jobs being outsourced to contractors with high recycling rates. The recycling rate for waste other than specified materials was 79%, above the fiscal 2008 target of at least 74%.

We are pushing ahead with ongoing efforts to promote reduction of final disposal waste, reduce the amount of waste taken directly to final disposal sites to zero, and outsource jobs to contractors with high recycling rates.



## ■ Total Office Waste and Recycling Rates



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

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## Reducing Paper Usage and Recycling

### ○ Reducing Usage of Paper for Business Purposes

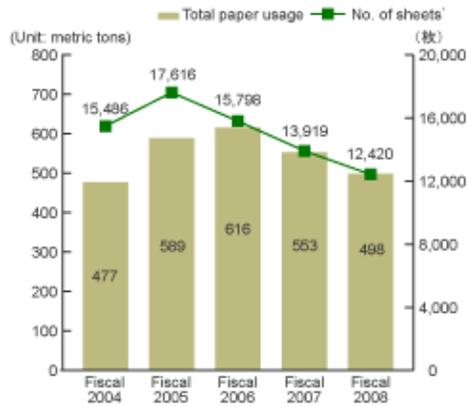
NTT Communications is working to reduce usage of all kinds of paper for business purposes, including office paper and paper for printing customer billing statements.

In fiscal 2007, we introduced “paper usage per regular employee” as an indicator for reductions of office paper usage. In fiscal 2008, IC cards were introduced for multifunction printers to help reduce unnecessary printing. Specifically, we developed a tool for measuring the number of sheets used, as well as double-sided and bulk printing rates, from printing logs of printers fitted with IC card authorization functions. We managed to reduce paper usage by ascertaining and analyzing paper usage in detail for each person and department. Multifunction printers equipped with IC card authorization are also being used, together with an in-house “printer security” service for preventing information leaks, to improve security and to encourage use of scanning and electronic conversion of incoming faxes. NTT Communications also actively recommends “printer security” services to customers as a cost reduction solution.

Equipping meeting rooms with projectors and promoting their use also contributed to a reduction in paper usage in fiscal 2008. Paper usage (office paper, A4 size equivalent) was 12,420 sheets/person (fiscal 2008 target: 12,300 sheets/person), 1,499 sheets fewer than fiscal 2007.

In fiscal 2009, we will pursue more effective efforts through multifunctional printer usage, taking into account how tasks are performed, and also further encourage information-sharing by electronic means and videoconferencing as we aim to achieve our 12% year-on-year reduction target. We also provide document management and services to customers.

■ Total and Per-Employee Office Paper Usage



\* Office paper usage per regular employee only includes NTT Communications Corporation.

\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

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### Prevention of Environmental Pollution

The NTT Communications Group is taking various steps to prevent actualization of a broad range of environmental risks stemming from business activities, such as environmental pollution and hazardous substance leaks. Measures include improvements to facilities and methods of operation, bolstering of management, and education and training.

#### Initiatives for Preventing Environmental Pollution

##### ○ Compliance with Laws and Regulations Relating to the Environment

The NTT Communications Group devotes itself to ensuring legal compliance and proper risk management while liaising closely with other corporations of the NTT Group. Legislation of all kinds, including environmental laws and ordinances, emissions standards and the PRTR Law\*, is fully communicated to related departments, and independent guidelines have been established for in-house application. We are also enhancing compliance education.

We were not involved in any litigations or legal violations pertaining to environment-related accidents, infringements, fines or complaints during fiscal 2008. The Group will continue to make concerted efforts to ensure legal compliance.

\*PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

##### ○ Managing PCB Storage

PCBs, or polychlorinated biphenyls, used to be widely applied as an insulating material in electrical equipment. The NTT Communications Group possesses a lot of electrical equipment which is central to its telecommunications facilities and as such is in possession of a large quantity of PCBs. We therefore make sure to store PCBs in a proper manner. As a policy for PCB storage, we have put in place a set of guidelines prescribing early detoxification treatment as well as methods for ascertaining conditions and management when use of equipment containing PCBs is to be continued.

NTT Communications was confirmed to be in possession of 3,718 systems containing PCBs in fiscal 2008 and will continue to carry out thorough management of items stored and in use while working toward formulation of a medium-term plan targeting proper PCB processing.

■ PCBs in Our Possession

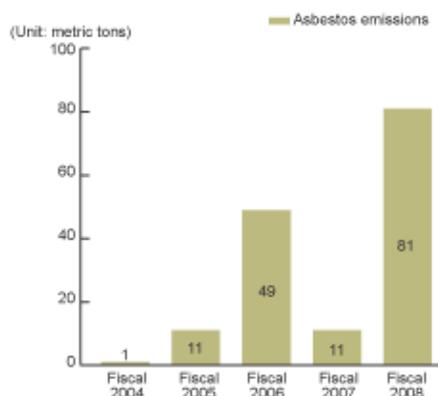
		Fiscal 2004	Fiscal 2005	Fiscal 2006	Fiscal 2007	Fiscal 2008
Transformers (units)	Stored	0	0	0	1	1
	In use	2	2	5	4	4
High-voltage capacitors (units)	Stored	0	0	0	8	8
	In use	0	0	0	1	1
Low-voltage capacitors (units)	Stored	22	22	22	0	0
	In use	38	38	32	0	0
Ballasts (units)	Stored	5,091	5,097	2,709	3,702	3,703
	In use	4	0	0	1	1
Carbonless paper (kg)	Stored	0	0	0	0	0
	In use	0	0	0	0	0

\* Scope: NTT Communications Corporation (parent-only)

○ Asbestos Countermeasures

Asbestos countermeasures for buildings and offices involved implementation of airborne asbestos surveys of buildings for which asbestos had been spray-applied to confirm that levels did not exceed statutory limits, which were revised in September 2006. In fiscal 2008, total asbestos emissions were 81 tons, increasing 70 tons from fiscal 2007. The dismantling of two buildings was responsible for the increase. As of the end of fiscal 2008, a total of 370 tons of asbestos-containing building materials was confirmed in five buildings (14,792m<sup>2</sup>) nationwide. One of those buildings (401m<sup>2</sup>) will be dismantled during fiscal 2009. We are going to continue systematic implementation of appropriate measures such as removal, containment or enclosure of asbestos in buildings where it is present in line with manuals issued by the Japan Construction Occupational Safety and Health Association and individual local authorities.

■ Asbestos Emissions



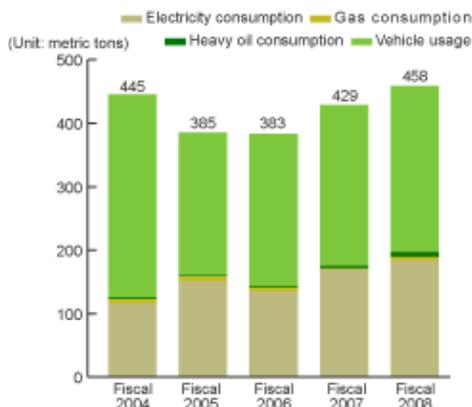
\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

○ Air Pollution

Emissions from sources of air pollution released during the business activities of the NTT Communications Group include NO<sub>x</sub> emissions, 57% released during operation of vehicles used for business purposes and 37% released during electrical power generation, and SO<sub>x</sub>, most of which is released during electrical power generation.

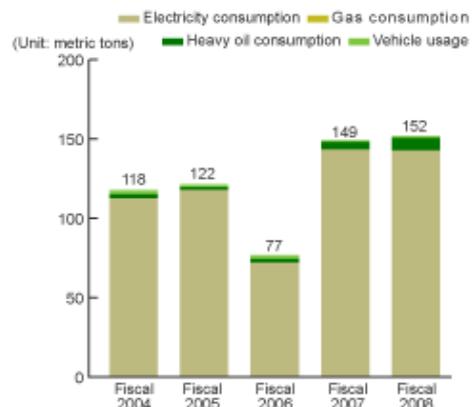
NOx emissions during fiscal 2008 were 458 tons, a 29-ton increase from fiscal 2007. SOx emissions were 152 tons, a 3-ton increase from fiscal 2007.

**■ NOx Emissions**



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

**■ SOx Emissions**

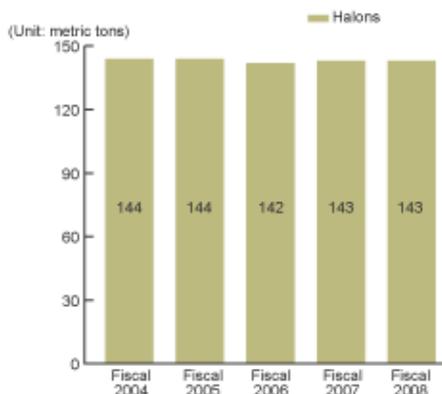


\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

**○ Countermeasures to Ozone-Depleting Substances**

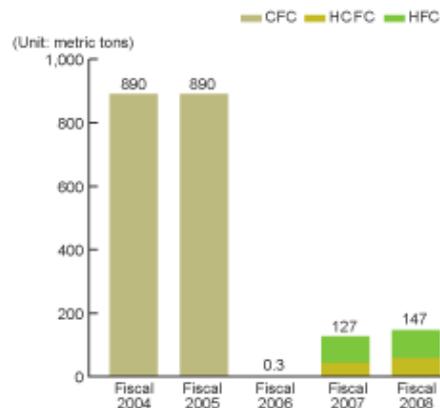
The NTT Communications Group is working to reduce emissions of ozone-depleting substances. The volume of specified halons used in fire-extinguishing equipment in fiscal 2008 was 143 tons, no change from fiscal 2007. The volume of specified chlorofluorocarbons (CFCs) used in air-conditioning systems in fiscal 2008 was 147 tons, an increase of 21 tons from fiscal 2007.

**■ Volume of Specified Halons Used in Fire-Extinguishing Equipment**



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

**■ Volume of Specified CFCs Used in Air-Conditioning Systems**



\* The scope of tabulation was 11 NTT Communications Group companies in fiscal 2008, 12 Group companies for fiscal 2006 and 2007, 7 Group companies for fiscal 2005, and only NTT Communications Corporation prior to fiscal 2005.

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### Biodiversity Conservation

Together with global warming prevention, the preservation of ecosystems, where living things co-exist in an intricate balance, has recently developed into a major environmental challenge influential to the creation of a sustainable society.

The NTT Communications Group makes an effort to avoid affecting ecosystems through business activities such as the construction and dismantling of wireless relay stations within nature reserves. We also engage broadly in awareness activities and dissemination of information through the “eco-goo” portal of Group company, NTT Resonant Inc., on which a special biodiversity website was set up early on.

#### Considerations During Wireless Relay Station Construction and Dismantling

##### ○ Caring for Nature Reserves

As of March 31 2009, 24 of our 102 wireless relay stations for telecommunications and broadcasting networks were in national parks. We carefully consider biodiversity requirements in building micro-roads that we need to patrol and maintain these facilities, adhering strictly to the law and our own environmental assessment techniques.

We endeavor to prevent ecological damage and reduce our environmental impact in maintaining our wireless relay stations.

##### ○ Following Guidelines

We have produced wireless relay station construction plans after surveying the distributions of plant, bird, and insect life, and other habitat distribution factors to prevent biodiversity damage. If identifying animals and plants on the World Conservation Union’s Red List of endangered species, we contact third-party government bodies and nonprofit organizations to ensure that our construction plans do not affect biodiversity. In surveying, planning, designing, and working on relay station sites and roads, we will continue to adhere to our guidelines to safeguard nesting areas, animal paths, and vegetation.

## Awareness Activities Through Provision of Information

### ④ “eco-goo” Biodiversity Website and Other Initiatives

Biodiversity measures are being strengthened in Japan. For example, the government formulated the Third National Biodiversity Strategy of Japan in 2007 and passed the Basic Act on Biological Diversity in 2008. In 2010, which has been designated International Year of Biodiversity, the 10th Conference of the Parties to the Convention on Biological Diversity (COP 10) will be held in Aichi Prefecture.

NTT Resonant took the lead in setting up a special biodiversity site on its Japanese “eco-goo” portal in January 2008. The site uses a test and other features to convey information about biodiversity in a straightforward manner.

In April 2009, NTT Resonant joined the Japan Business Initiative for Conservation and Sustainable Use of Biodiversity (JBIB) and looks to enhance the information available through collaboration with the NTT Group and a wide range of corporations in the run-up to the International Year of Biodiversity in 2010.



[“eco-goo” biodiversity website screenshot](#)

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## Reducing Environmental Impact Through Our Services

The NTT Communications Group employs ICT solutions to create and provide new value and collaborates with customers to lower society's overall impact on the environment.

As a business, we offer environmental impact reduction solutions, which involve reducing the environmental impact of ICT itself, and we are also actively engaged in awareness activities and provision of information, for example via websites.

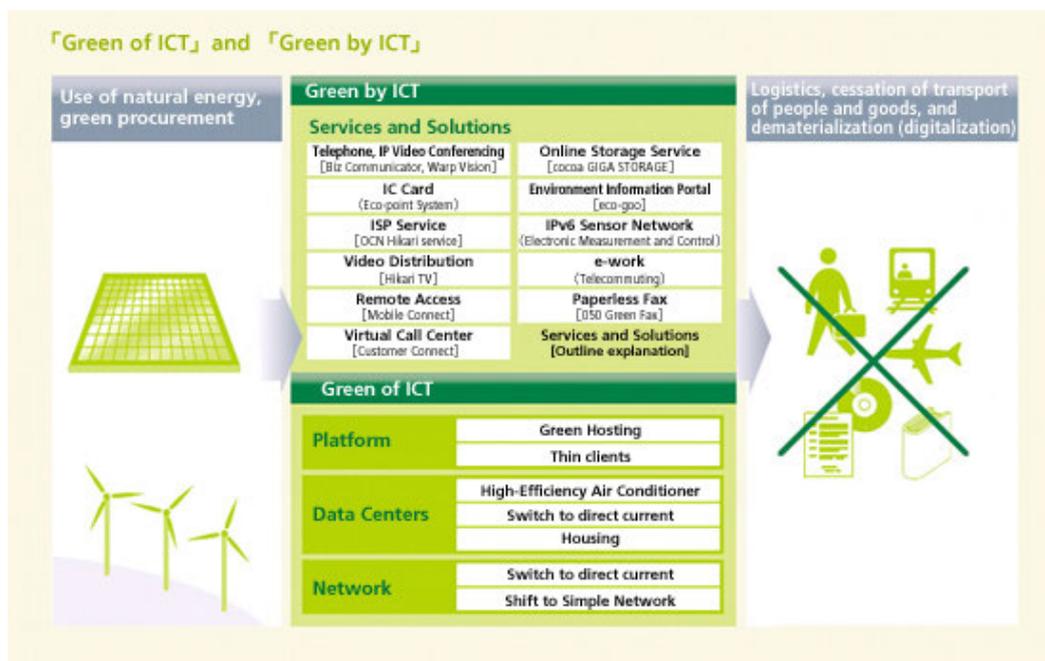
### Green ICT

#### Green ICT Initiatives

“Green ICT” involves aiming to reduce the environmental impact of ICT itself and utilizing ICT effectively to advance environmental impact reductions and environmental protection activities.

The former component?reducing the environmental impact of ICT itself?we call “Green of ICT.” Specifically, this involves efforts to reduce negative environmental factors by improving the power efficiency of ICT equipment and recycling resources. The latter component we call “Green by ICT,” which involves using ICT to reduce environmental impact and increase positive environmental factors, for example by improving efficiency in movements of people and goods.

#### Green ICT



[Click here to view an enlarged diagram summarizing Green of ICT and Green by ICT](#)

[Click here for more details on “Green ICT”](#)

## Environmental Impact Reduction Solutions

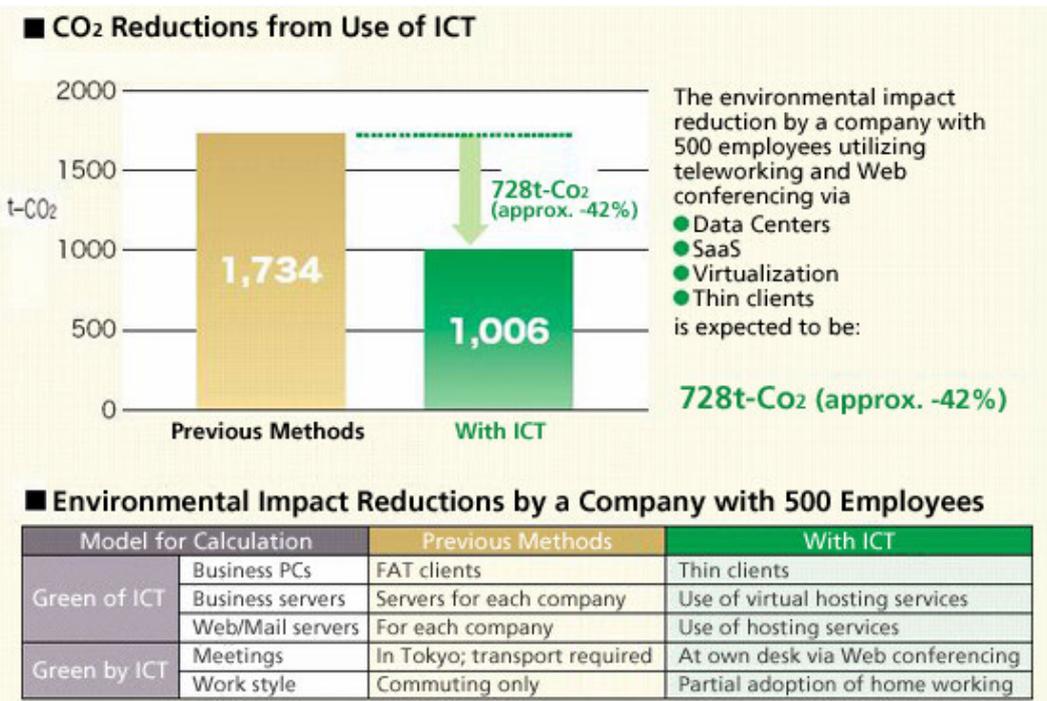
### ● Biz Communicator

“Biz Communicator” is an ASP/SaaS service that provides essential business tools. Remote tools enable users to control an office PC from an external PC, like a thin client environment. When users insert a USB flash drive provided by Biz Communicator into an external PC, they can check and send email, edit files and access business systems on their office PCs while outside the office or on a business trip. Users are thus able to respond to clients and write reports without having to return to the office, meaning they can use time more efficiently. Communication tools enable users to use IP telephony, teleconferencing and Web conferencing via a PC. This allows users to attend meetings without having to travel, thereby facilitating swift decision-making and sharing of information. Such environments enabling people to do business from anywhere at anytime generate enormous improvements in business efficiency.



■ Biz Communicator Usage Diagram

Biz Communicator is the foremost product of our Green ICT solutions that provides users with thin client applications, teleworking and Web conferencing functions. In the case of a company with 500 employees adopting Green ICT solutions and hosting services, centered around Biz Communicator, the environmental impact reduction benefit would be a CO<sub>2</sub> emissions reduction of around 730 tons, or approximately 42%.

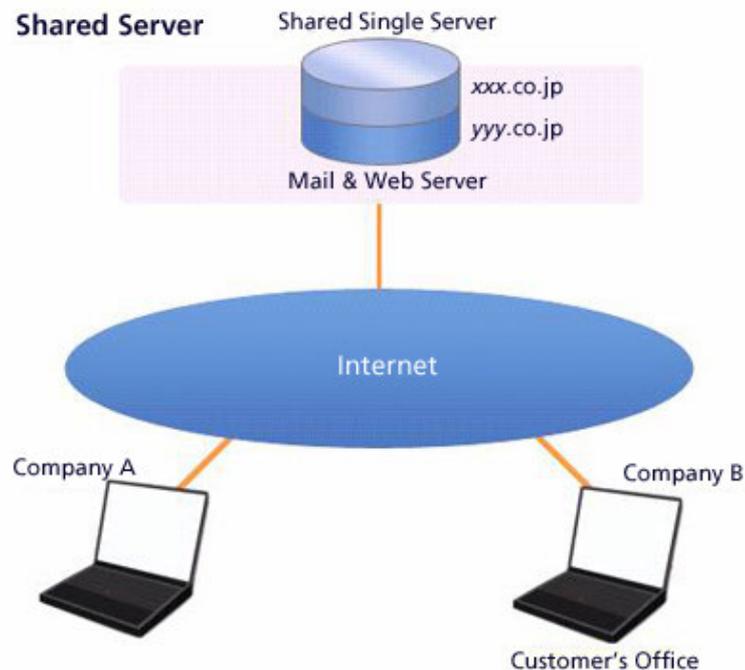


### ● Mail & Web Services

Under its Shared Server service, NTT BizLink, Inc. maintains and operates shared servers at a data center, enabling easy, low-cost access to highly-reliable, high-performance servers. The service is suited for business support applications such as hosting a website or emailing under an original domain.

For example, ten customers would be able to share one server rather than use ten different servers. This contributes to server consolidation, space savings and efficiency improvements for air-conditioning systems and monitoring. The resulting environmental impact reduction benefit for one year would be a CO<sub>2</sub> emissions reduction of around 6 tons.

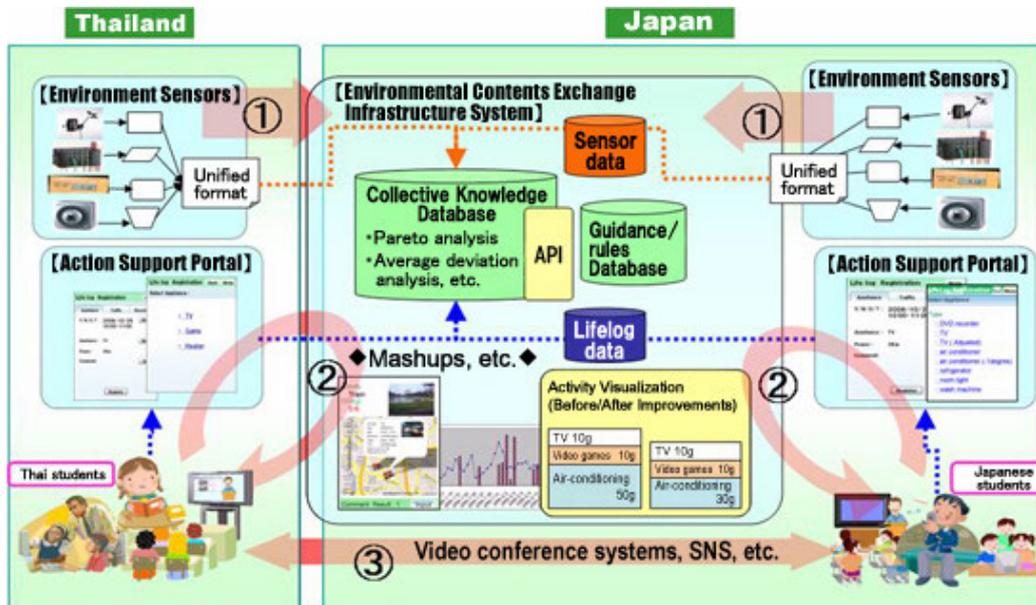
#### ■ Mail & Web Services



#### ○ Advanced ICT Joint Experiments for the Formation of an International Telecommunications Hub

The NTT Communications Group is actively engaged in infrastructure and technological development, which is essential for the spread of ICT. One such program, “Advanced ICT Joint Experiments for the Formation of an International Telecommunications Hub,” has been pursued since 2003 under contract with the Ministry of Internal Affairs and Communications as part of the Japanese government’s Asia Broadband Program.

Activities we have undertaken so far include market validation for electronic commerce, establishment of basic technology for an international Internet exchange (IX), and telemedicine and distance education experiments in order to construct readily-accessible platforms. While utilizing and improving on these results, in fiscal 2008, we have been focusing on the globally-relevant environmental theme in generating new value for the Asia region, with Japan at its center, using Japanese ICT technology. Aiming also to contribute to the creation of an environmentally-conscious society that leads to sustainable growth, we carried out joint international experiments with objectives to clarify issues relating to the environmental ICT infrastructure function of generating environmental data application scenarios and to promote environmental application of ICT through environmental awareness activities from the perspective of international collaboration.



**Verification 1: Collection of sensor data**  
**Verification 2: Collection and visualization of lifelog data from action support portals**  
**Verification 3: Reciprocal cross-border environmental awareness activities**

■Diagram showing demonstration testing



■Environmental awareness activities

(From left, Japan: Senior High School Attached to Kyoto University of Education, Hyogo Prefectural Nishinomiya-Imazu Senior High School, Thailand: Chulalongkorn University Demonstration Secondary School)

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## Awareness Activities and Information Provision for Environmental Impact Reductions and Environmental Protection

### ● Green Biz-IT

“Green Biz-IT” is the environmental section of the “Biz-IT” website we operate for sole proprietors and small to medium-sized enterprises. Through the site, we join with small to medium-sized enterprises in consideration of environmental activities under the key themes, of “eco”, “small and medium-sized business” and “IT.”

Main content:

1. Explanation of current environmental issues in simple terms
2. Explanation of the fact that environmental measures can lead to company growth
3. Introduction of simple environmental activities, including reduction of promotional costs by using the Web and bottle cap collection to promote recycling and donate vaccines
4. Introduction of environmental activities by Biz-IT personnel in blog format
5. Interviews with small to medium-sized enterprises engaged in environmental activities

■Biz-IT



●Click here for more details on "Biz-IT" 

■Green Biz-IT



●Click here for more details on "Green Biz-IT" 

○ “eco-goo,” “goo Home PROJECT” and “goo Green Label”

NTT Resonant Inc. provides a variety of services based around its “eco-goo” portal, which was one of the first environmental websites in Japan.

eco-goo

This portal encourages people to rediscover the relationships between people and nature and pursue environmentally considerate lifestyles. The portal presents environmental news, CSR information, interviews with top executives from companies engaging in ecological initiatives, environmental education and glossaries, and information that is useful for environmental management and business practices.

Every year, NTT Resonant presents the eco-goo Awards to companies and groups that engage in activities to protect the environment and serve society. Other recipients are individuals who disseminate useful environmental information through the Internet.



[eco-goo](#) 

“goo Home PROJECT” and “goo Green Label” Search Engine? Contributing to Environmental Protection Together with Users

The “goo Home” social networking service was launched on October 11, 2007. In November that year, we commenced the “goo Home PROJECT” whereby one head of coral is planted in the sea off Chatan, Okinawa for every 30 new subscribers. More than 2,000 heads of coral had been registered by May 2008.

The “goo Green Label” search engine, an initiative whereby we donate a portion of revenues from Web searches to environmental protection organizations, is celebrating its third anniversary in 2009. So far we have donated a total of 9.45 million yen to eleven organizations.

In May 2008, we commenced operation of a version of the “goo Green Label” search engine for mobile phones, giving users the chance to partake in environmental protection anywhere at anytime.



[goo Home PROJECT](#) 



[goo Green Label Search Engine](#) 

## OCN ECO Plus Initiatives

The “OCN ECO Plus” environmental information website enables us to inform customers about areas of particular concern to them and supports our initiatives to tackle environmental problems and contribute to social and regional progress.

Why are environmental activities necessary? What kind of environmental and social activities are there? OCN ECO Plus introduces issues concerning nature and the environment, as well as the various ways corporations and other organizations are combating those issues. The site helps users to smoothly incorporate ecological ideas into their own lives.



[OCN ECO Plus](#)

OCN ECO Plus serves as a bridge between individuals as well as between individuals and corporations or organizations, and a base from which to promote initiatives of all parties. By expanding this community of like-minded people, we will continue efforts to improve our global and social environments.

## Environmental Label System for Solutions

The NTT Group is exploring the idea of an “environmental label” system for self-certification of environmentally-friendly ICT solutions and services. To qualify, ICT solutions and services will have to achieve CO<sub>2</sub> reductions of at least 15%, as assessed through objective evaluation of environmental impact reduction benefits\*.

\* Evaluation of environmental impact reduction benefits of solutions

CO<sub>2</sub> emissions created during the use of an ICT solution will be evaluated in line with life cycle assessments (ISO 14040 series) and compared with CO<sub>2</sub> emissions created without the solution (i.e. using conventional methods).

The difference will be the quantitative evaluation of the solution's environmental impact reduction benefit.

This evaluation method conforms to Japan Forum on Eco-Efficiency guidelines for ICT environmental efficiency evaluation. Results and criteria for evaluations will be disclosed.

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### Timeline of Environmental Protection Activities

Fiscal | **2008**

- Feb.18 **7th NTT Communications Group Global Environmental Protection Subcommittee Meeting**
- Mid Dec. **Office environmental measures commenced after relocation to Tamachi Office:**  
As with the Hamamatsu-cho Office, enhanced employee efforts to cut paper usage, improve the office waste recycling rate and save power (OA, lighting and air-conditioning) were commenced.
- Aug.27 **6th NTT Communications Group Global Environmental Protection Subcommittee Meeting**
- Jun.13 **Environmental seminar at Interop Tokyo 2008:**  
Introduced Green ICT trends and NTT Communications case examples.
- Jun.6 **Public environmental seminar:**  
Outside lecturers spoke about marine environment issues and utilizing ICT to reduce environmental impact.
- Jun.5 **Energy-savings through power systems began at telecommunications buildings and data centers:**  
The NTT Group commenced measures for introducing and promoting use of DC power supply systems and new technology development (high-voltage DC power supply systems).  
[View the press release for more details](#) ☞
- May.26 **Power Source-Based Guidelines for Choosing Equipment formulated:**  
We formulated guidelines in which our basic policy on purchasing and upgrades for our in-house telecommunications equipment rooms is to deploy equipment that runs on DC. The guidelines explain the key points and processes that network designers should note in choosing equipment.
- May.16 **NTT Communications to Use Internet as Primary Means of OCN Invoicing**  
We will continue to reduce energy consumption in the transportation of paper and billing statements through Internet delivery of charge details.  
[View the press release for more details](#) ☞
- May.2 **NTT Green LLP to be Established to Promote Solar Power Systems and Other Environmental Contributions:**  
The NTT Group will advance its "Green NTT" global warming prevention program, which will involve installation of 5-megawatt solar power systems by 2012 and establishment of a new limited liability partnership, NTT Green LLP, to promote use of solar power systems and other natural energy sources within the NTT Group.  
[View the press release for more details](#) ☞

Fiscal | **2007**

- Feb.20 **5th NTT Communications Group Global Environmental Protection Subcommittee Meeting**
- Early Feb. **Relocation to environmentally-friendly Hamamatsu-cho Office began:**  
Enhanced employee efforts to cut paper usage, improve the office waste recycling rate and save power (office automation, lighting and air-conditioning) were commenced.
- Jan.28 **Office Environmental Working Group established:**  
We set up a new working group through which we will enhance office environmental measures involving full employee participation.
- Dec.1 **First in Communication Services Category of Nikkei Environmental Management Survey**  
In 2007, the Nikkei Environmental Management Survey ranked us first for the second consecutive year in its Communications and Service Industries category. We will continue to tackle global warming, recycle, and cut paper usage so we can reach our medium- and long-term objectives.
- Oct.12 **Minister of Environment's Container and Packaging 3R Promotion Award for Excellence in Regional Liaison and Collaboration**  
In fiscal 2007, our Adachi Econet business won the Minister of Environment's Container and Packaging 3R Promotion Award for Excellence in Regional Liaison and Collaboration. The unit works with Tokyo's Adachi Ward on environmental initiatives, one of which is a PET bottle collection effort.
- Sep.26 **Environmental Solutions Working Group established:**  
We set up a new working group through which we will promote environmental impact reductions using ICT.
- Aug.30 **4th NTT Communications Group Global Environmental Protection Subcommittee Meeting**

Fiscal | **2006**

- March **Employee training implemented using e-learning:**  
NTT Communications extensively trains employees and business partner personnel in CSR. We provided all these people with e-learning. We will continue providing training to raise employee awareness about CSR issues.
- Feb.14 **3rd NTT Communications Group Global Environmental Protection Subcommittee Meeting**
- Dec.1 **First in Communication Services Category of Nikkei Environmental Management Survey**  
In 2006, the Nikkei Environmental Management Survey ranked us first in its Communications and Service Industries category. We will aggressively pursue additional efforts to strengthen environmental management and improve recycling rates across the entire NTT Communications Group.
- October **Guidelines for Buying Office Paper**  
NTT Communications used to recommend 100%-recycled office paper. In light of environmental changes in the papermaking industry, we established a policy of purchasing only office paper made of 50% recycled stock and 50% afforested tree pulp. We will continue to aggressively promote purchasing of environmentally-friendly products.

- Aug.21 **2nd NTT Communications Group Global Environmental Protection Sub-committee Meeting**
- July **Eco-point system established in Adachi Ward, Tokyo:**  
 NTT Communications started operating a PET bottle collection system (Econet Point IC Card, point counting service) as part of the Adachi Ward Econet Program. We will continue contributing to the advancement of resource recycling in communities.
- Jun.21 **Public environmental seminar:**  
 Personnel from NTT Communications and the Ministry of Economy, Trade and Industry introduced the latest legislation and regulations as well as case examples for management of hazardous chemical substance content in products.
- May **Otemachi Building an excellent example under Tokyo CO2 Emission Reduction Program:**  
 Our main building, the Otemachi Building, was introduced on the website of the Tokyo Metropolitan Government as an excellent case example under the Tokyo CO2 Emission Reduction Program. The building was selected from among around 1,000 large business establishments.

## Fiscal | 2005

- Mar.6 **Briefing on revised Guidelines for Green Procurement for suppliers:**  
 A briefing was held in order to explain the revised Guidelines for Green Procurement to around 150 suppliers.
- Feb.16 **1st NTT Communications Global Environmental Protection Sub-committee Meeting**
- Dec.2 **Second in Communication Services Category of Nikkei Environmental Management Survey**  
 In 2005, the Nikkei Environmental Management Survey ranked us second in its Communications and Service Industries category. We will actively engage in environmental management, strengthening environmental management frameworks for the entire NTT Communications Group and implementing activities to take us closer toward fiscal 2010 targets.
- Aug.10 **10th NTT Communications Global Environmental Protection committee meetings**

## Fiscal | 2004

- Feb.25 **GTC-ECO(R) service commenced:**  
 NTT Communications, in collaboration with providers of chemical information and analytical services, commenced a one-stop service offering general assistance with green procurement and chemical substance content analysis to manufacturers of electrical and electronic equipment in order to aid compliance with the RoHS Directive and other international regulations on chemical substances.
- Feb.17 **9th NTT Communications Global Environmental Protection committee meetings**
- Dec.11 **Eighth in Communication Services Category of Nikkei Environmental Management Survey**  
 In 2004, the Nikkei Environmental Management Survey ranked us eighth in its Communications and Service Industries category. We will actively engage in

- environmental management, enhancing environmental education and clarifying long-term targets.
- Mid Nov. **Employee Environmental Awareness Survey:**  
We surveyed levels of environmental awareness among employees of the entire NTT Communications Group, including employees of overseas subsidiaries. The results are to be reflected in activities in the next fiscal year and thereafter.
  - November **Long-term vision established**  
[View the section on the Long-Term Environmental Vision](#)  
**Medium- to Long-Term Plan established**  
[View the section on the Medium- to Long-Term Plan](#)
  - Late Aug. **Long-Term Environmental Vision Project established:**  
A working group was formed comprising employees engaged in jobs relating to environmental protection and employees interested in environmental protection recruited through a call for participants. The group discussed the current and future state of the world and formulated a long-term vision after considering how NTT Communications could contribute. [View the section on the Long-Term Environmental Vision](#)
  - Jul.27 **8th NTT Communications Global Environmental Protection committee meetings**

## Fiscal | 2003

- Mar.25 **NTT Communications Receives ISO14001 Certification**  
Solutions Business Division IT Business Promotion Department receives ISO 14001 Certification
- Feb.23 **7th NTT Communications Global Environmental Protection committee meetings**
- Dec.22 **Recycled PC donations:**  
We donated 550 recycled PCs the company no longer required to 76 schools nationwide via the NGO Global Environmental Action.
- Dec.10 **Forty-eighth in the Non-manufacturing Category of the Nikkei Environmental Management Survey**  
In 2003, the Nikkei Environmental Management Survey ranked us forty-eighth in the communication services category and seventh in the Communications and Service Industries category.
- Mid Oct. **Employee Environmental Awareness Survey:**  
We surveyed levels of environmental awareness among employees of the entire NTT Communications Group, including employees of overseas affiliates. The results are to be reflected in activities in the next fiscal year and thereafter.
- Oct.1 **Participation in recycled PC donation ceremony:**  
We donated recycled PCs the company no longer required to elementary, junior high and high schools via the NGO Global Environmental Action at a PC donation ceremony hosted by the town of Uchiko, Ehime Prefecture. The ceremony was held on the date of enforcement for recycling law amendments.
- Jul.29 **Company-wide campaign promoting PC and server reuse launched:**  
A company-wide policy of reusing unneeded PCs and servers where possible was formulated and introduced. Security considerations are made before recycling a PC or server, for example by fully wiping data from hard disks to prevent leaks of confidential information.

- Jul.8 **6th NTT Communications Global Environmental Protection committee meetings**

## Fiscal | 2002

- Jun.27 **5th NTT Communications Global Environmental Protection committee meetings**

## Fiscal | 2001

- Jul.9 **WebBilling service launched:**  
We commenced a “paperless” service, using a website and email, to notify customers of billing information for telephone charges.
- Jul.3 **4th NTT Communications Global Environmental Protection committee meetings**
- May.1 **“e-Transit” vehicle tracking service launched**
- Mar.25 **Green purchasing label service launched for “.com Co-Buy” electronic procurement marketplace:**  
A green purchasing label service for environmentally-friendly products listed on electronic catalogs was introduced for the “.com Co-Buy” B2B e-commerce service. The initiative is both an appeal to businesses, asking for consideration toward environmental protection when engaging in commercial transactions, and a way to get behind corporate green purchasing activities.

## Fiscal | 2000

- Mar.8 **3rd NTT Communications Global Environmental Protection committee meetings**  
A summary of working group activities was provided and priority issues were defined.
- Jan.24 **Kenaf business cards adopted:**  
As a way to contribute to forest protection, we introduced employee business cards printed on 100% non-wood paper made using kenaf.
- Oct.3 **2nd NTT Communications Global Environmental Protection committee meetings**
- May.19 **Environmental self-checks commenced:**  
To ensure stringent compliance with environmental legislation in keeping with the NTT Communications Group Global Environmental Charter, routine self-checks are carried out by all organizational units as a way to raise awareness of environmental issues.

## Fiscal | 1999

- Oct.28 **NTT Communications receives ISO 14001 Certification.**  
Materials Department receives ISO 14001 Certification.
- Sep.3 **1st NTT Communications Global Environmental Protection committee meetings**

A framework for promotion of environmental protection activities by NTT Communications was established and environmental protection themes to be addressed by the company as a whole were identified.

● September

**NTT Communications Guidelines for Green Procurement established**

●

Jul.1

**NTT Communications Corporation founded  
Environmental Protection Office established**

**NTT Communications Group Global Environmental Charter established:**

When NTT Communications was founded, the Environmental Protection Office was set up to actively promote environmental protection activities. In addition, the NTT Communications Group Global Environmental Charter was established as a set of guidelines for implementation of environmental protection activities.

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[Basic Approach to Environmental Protection and Environmental Management](#)

[Global Warming Prevention](#) | [Reduction of Waste](#)

[Prevention of Environmental Pollution](#) | [Biodiversity Conservation](#)

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## CSR

## Protecting the Global Environment

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### Site Data

#### Planning and Reporting for Measures against Global Warming / Reporting System for Measures against Global Warming

\* All PDF files are available only in Japanese, as originally submitted to the relevant municipal Government.

#### ○ Tokyo Metropolis

- ▶ [NTT Communications Site 0923](#) [PDF: 504KB]
- ▶ [NTT Communications Site 0924](#) [PDF: 454KB]
- ▶ [NTT Communications Site 0925](#) [PDF: 450KB]
- ▶ [NTT Communications Site 0926](#) [PDF: 449KB]
- ▶ [NTT Communications Site 0927](#) [PDF: 458KB]
- ▶ [NTT Communications Site 0928](#) [PDF: 463KB]
- ▶ [NTT Communications Site 0929](#) [PDF: 450KB]
- ▶ [NTT Communications Site 1326](#) [PDF: 454KB]
- ▶ [NTT Communications Site 1327](#) [PDF: 453KB]

#### ○ Yokohama City

- ▶ [NTT Communications Yokohama A Building \(Plan Document\)](#) [PDF: 135KB]
- ▶ [NTT Communications Yokohama A Building \(Report\)](#) [PDF: 261KB]
- ▶ [NTT Communications Yokohama B Building \(Plan Document\)](#) [PDF: 136KB]
- ▶ [NTT Communications Yokohama B Building \(Report\)](#) [PDF: 166KB]
- ▶ [NTT Communications Yokohama C Building \(Plan Document\)](#) [PDF: 276KB]
- ▶ [NTT Communications Yokohama C Building \(Report\)](#) [PDF: 256KB]

#### ○ Saitama Prefecture

- ▶ [NTT Communications Saitama A Building](#) [PDF: 141KB]

#### ○ Nagano Prefecture

- ▶ [NTT Communications Nagano Building \(Plan Document\)](#) [PDF: 97KB]
- ▶ [NTT Communications Nagano Building \(Report\)](#) [PDF: 102KB]

● Nagoya City

▶ [NTT Communications Nagoya A Building](#)  [PDF: 187KB]

▶ [NTT Communications Nagoya B Building](#)  [PDF: 183KB]



In order to read PDF documents, you need Adobe Reader.

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[Basic Approach to Environmental Protection and Environmental Management](#)

[Global Warming Prevention](#) | [Reduction of Waste](#)

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CSR

## Respecting Our Employees

- ▣ [Respecting Diversity and Creating a Positive Work Environment](#)
- ▣ [Respecting Individuality and Human Rights](#)

### Respecting Diversity and Creating a Positive Work Environment

As a global organization, NTT Communications aims to help solve social issues in various countries. Toward this goal, we are developing a human resources development policy that respects diversity and fosters employee individuality and skills and are creating a work environment that empowers our employees.

#### Human Resources Development and Evaluation

##### ○ Human Resources Development Policy

We launched our HRM policy in April 2006 to draw on employee experience and encourage teamwork.

This policy encourages continuous improvement, by defining ideal employees and desired skills, assessing individuals' skills to identify areas needing improvement, and creating an effective job assignment and training plan to close the skill gap.

We hired 201 people in fiscal 2008 under a collective recruiting system, initially assigning new employees to worksites that deal directly with customers. In the future, we will continue to implement activities to develop human resources based on the HRM policy.

##### HRM Policy

<b>The ideal employee</b>	An on-site professional who draws on technical skills and experience to proudly serve customers, proactively makes and executes decisions as a team player, and optimizes added value through the team.
<b>Recruiting policy</b>	Recruit diverse people who will strengthen the competitiveness of the NTT Communications Group by supporting its globalization and managing changes in its business structure.
<b>Assignments and training</b>	Ensure professional advancement through experience by instituting a program to cultivate professionals who are proactive from a company-wide standpoint and fully utilize their skills in their area of expertise while broadening knowledge, and transfer employees across sections so they can amass experience throughout the value chain.
<b>Goal-setting and personnel evaluation</b>	Use a simple framework to strengthen daily communication between managers and subordinates, set goals from the bottom up, and optimize teamwork.

##### ○ Training Systems

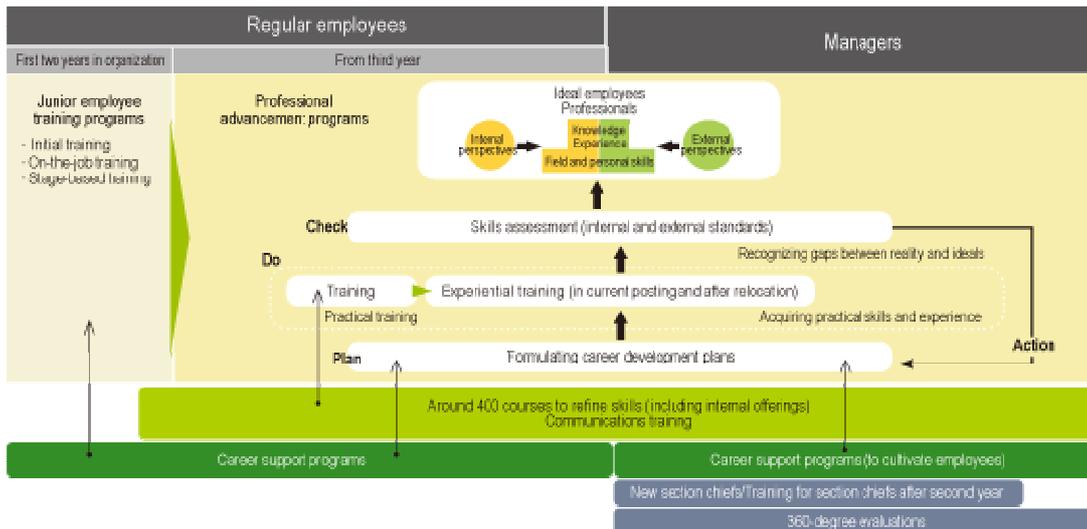
We improve employee skills and encourage career development through an array of training programs.

We provide rotational training for new employees, mainly in business units that deal directly with customers. The goal here is to cultivate customer-oriented mindsets and encourage these employees to gain objective perspectives on individual operations.

After the junior training period, employees move to the professional human resources development program, where they discuss their career development plans with supervisors and choose courses accordingly.

We develop practical and systematic training menus, partly based on employee survey results.

**■ Overview of Training Programs**



[Click here for an enlarged diagram of our training system.](#)

**Number of Employees Trained**

	January through December 2006	January through December 2007	January through December 2008
<b>Employees undertaking group training</b>	6,091	6,173	4,052
<b>Employees trained at external facilities</b>	3,071	3,194	2,827

**○ Top Management Involvement in Training Programs**

We also hold training classes for second-year employees, new section chiefs, new managers, and second-year managers opportunities to reflect upon what they have learned so far. We offer opportunities for our senior executives to participate in the trainings and discuss management issues directly with employees.

Participants greatly value the discussions about management specifics. We will arrange more such gatherings in the years ahead.

**Meetings for Dialog Between Senior Management and Employees**

	Fiscal 2006	Fiscal 2007	Fiscal 2008
<b>Meetings for dialog</b>	10	11	12
<b>Number of participants</b>	720	990	817

**Internal Job Posting System**

We established this system to provide employees challenging opportunities to maximize their potential in a wide range of fields.

NTT Communications Group and other companies in the NTT Group post new internal positions around three times annually. This system has proved particularly popular among younger employees who are in the early stages of career development.

We will continue to use this system to help employees build their careers and energize the entire organization.

**Employee Transfers**

	Fiscal 2006		Fiscal 2007		Fiscal 2008	
	Number of applications	Number of transfers	Number of applications	Number of transfers	Number of applications	Number of transfers
<b>Within NTT Coms Group</b>	117	52	140	71	40	19
<b>To other NTT Group companies</b>	-	54	152	108	163	69

**Personnel Evaluation**

To further motivate our employees, we introduced a performance evaluation and compensation system that values results. This system places importance on fairness and transparency, and does not tolerate discrimination of any kind, including, for example, gender-based discrimination.

Accurately assessing employees' performance against their goals is a crucial aspect of this system. Therefore, after voluntarily setting their own goals and assessing their results, employees participate in semiannual performance review meetings with their supervisors to ensure agreement on the results of their job performance evaluation.

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## Fostering Diversity

**Promoting Greater Participation of Women**

We established the Diversity Office within the Human Resource Department in April 2008, as part of a management strategy of fostering the talents of a wide range of people.

One of the office's tasks is to help female employees advance their careers. For example, we have external lecturers speak at seminars in an effort to support employees in returning to work from childcare leave, present role models, and are building a cross-departmental female employee network. We also provide support for employees who are balancing career and childrearing.

In fiscal 2008, the Diversity Office held the NTT Group Female Manager Forum, providing female employees the opportunity to connect with female executives within the NTT Group. While the number of female managers and employees has been increasing every year, it is still relatively small. By presenting these role models and increasing opportunities for face-to-face dialogue, we hope to help female employees develop their careers.

**Number of female managers (section manager or higher)**  
(% of all managers)

Fiscal 2006	Fiscal 2007	Fiscal 2008
39(2.1%)	52(2.4%)	46(2.6%)

(Data from: NTT Communications only)

**Number of Total Employees and New Employees**

	Fiscal 2006	Fiscal 2007	Fiscal 2008
<b>Number of employees</b>	8,750	8,550	8,360
<b>Male</b>	7,900	7,650	7,455
<b>Female</b>	850	900	905
<b>New employees</b>	211	212	201
<b>Male</b>	148	148	146
<b>Female</b>	63	64	55

(Data from: NTT Communications only)

**○ Obtaining Kurumin Mark**

In April 2005, we launched a three-year action plan for childcare assistance and have been working to promote various initiatives to help our employees balance their professional and private lives. We received Kurumin mark certification in 2008 in recognition of our endeavors.

With the goal of receiving Kurumin mark certification again in 2011, we launched our second action plan for childcare assistance, covering April 2008 through March 2011. In fiscal 2008, we continued to take various initiatives, including measures to assist our employees in balancing their professional lives with childrearing, and to increase awareness and understanding of the various support systems available to employees.



### ○ Employment of People with Disabilities

To promote workplace diversity, we promote the hiring of physically and mentally challenged people.

In fiscal 2008, we increased our employment of people with disabilities to the statutory rate of 1.8% of our workforce. Our endeavors include following up with these employees after they join us and conducting trainings to help all our employees better understand our policies on people with disabilities.

We will continue to take initiatives to meet our medium-term goal of reaching 1.8% of our workforce.

\* Exclusion rate is applied to calculation

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### ○ Retaining Employees Who Reach Retirement Age

We introduced the Career Staff System, which allows employees reaching the mandatory retirement age of 60 to continue working if they wish, until they reach 65.

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## Creating Employee-Friendly Workplaces

### ○ Balancing Work and Home Lives

We are taking active steps to build more satisfying workplaces and help our employees balance their professional and private lives.

The Work-Life Committee consisting of management and union representatives pushed ahead with initiatives to cut hours. Steps taken by the Committee in fiscal 2008 included regular distribution of an e-newsletter to all employees, distribution of a handbook on proper work hours, and holding of outside seminars.

In August 2007, we also introduced a telecommuting (work-from-home) system to help employees better balance their work and private lives. This system is intended for employees caring for children or elderly relatives and allows them to work from home up to 2 days a week using a thin-client PC loaned to them by the company. Currently, some 110 employees are taking advantage of this system.

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### ○ Helping Employees Fulfill Professional and Private Commitments

To make sure that having a child or caring for children or elderly relatives does not interfere with career development, we established a system of vacations, leaves, and shortened workweeks to help employees balance their professional and private commitments.

In fiscal 2008, we fostered in-house understanding of our system by utilizing NTT-Life+, a website that assists employees caring for their children and elderly relatives. The information on this website can be accessed from home by employees who are on childcare leave, thereby helping them prepare to return to work.

In March 2009, the NTT Group created and issued a Communication Handbook, which was distributed to all NTT Communications employees. This Handbook is designed to help foster understanding of the various work modes that may suit individual employees' career stages, by ensuring smooth communication among supervisors, the workplace, and employees.

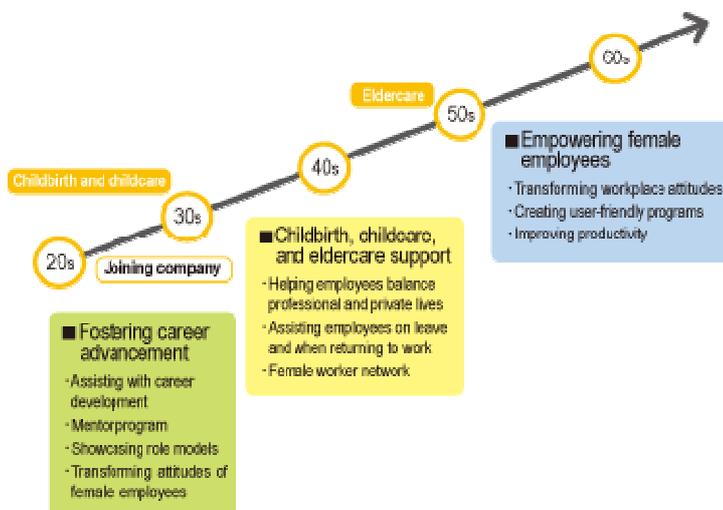
Our goal is to address employees' concerns about career development and create a workplace environment that encourages employees to utilize the various support programs available within the company. To accomplish this, we plan to implement various measures, including holding one-on-one meetings with employees and providing them with opportunities to hold dialogues with employees who possess longer experience.

**Overview of Support Programs and User Numbers**

Program	Overview	Number of users		
		Fiscal 2006	Fiscal 2007	Fiscal 2008
<b>Maternity leave</b>	From 6 weeks before and 8 weeks after childbirth	57	71	49
<b>Childcare leave</b>	Leave for up to 3 years after childbirth	99	111	109
<b>Special working system to assist childcare</b>	4, 5, or 6 hour workday to accommodate childcare until the end of the school year in which the child reaches the age of 8 (until end of the third year of elementary school)	93	98	120
<b>Eldercare leave</b>	To care for elderly family members, employees may take leave of up to 93 days as designated by law, plus an additional 15 months under company rules for care of the same person	3	6	3
<b>Reduced working hours for eldercare</b>	To care for elderly family members, employees may work reduced hours for up to 93 days as designated by law and work for only 4, 5, or 6 hour a day for up to 33 months under company rules for care of the same person	1	11	5

(Coverage: NTT Communications only)

**Strategic initiatives for female employees**



**Seminar on childcare leave and work return support**



### Supporting Volunteer Activities

We believe that being exposed to a variety of value systems inside and outside the workplace will help vitalize both our employees and our corporation. Therefore, we instituted a volunteer leave system and encourage our employees to make use of it for volunteer activities.

Because we want to help build a corporation and workforce on which society can rely, we support and promote the participation of our employees' in social contribution activities. To encourage each employee to become active in at least one volunteer activity, we introduced the Social Contribution Point System in fiscal 2008. In this system, employees submit reports on the social contribution activities they undertook voluntarily. These activities are then converted into points, based on which the company will donate money to selected NPOs.

#### Number of Employees Using Our Volunteer Leave System

Fiscal 2006	Fiscal 2007	Fiscal 2008
42	51	74

### Occupational Safety and Mental Healthcare

We are implementing various measures to secure occupational safety based on creating work environments that ensure the health and safety of our employees.

To create healthy and comfortable work environments, we are training “mental health keepers” whose role is to tend to employees' mental health on the job. We also offer various other services, including counseling for high-risk employees and employee consultation desks provided inside and outside the organization in addition to “stress-check corners.” In fiscal 2008, 260 employees were certified as mental health keepers, bringing the total number to 600. Approximately 570 employees received counseling.

To create healthy and comfortable work environments, we plan to expand the scope of services we offer. By creating and distributing a handbook summarizing the key points of maintaining employee mental health, and by providing overviews of the various programs to managers and training them in their use, we hope to build a management structure that is ready to swiftly deal with any crisis.

#### Number of Work-related Accidents (while working or commuting)

Fiscal 2006	Fiscal 2007	Fiscal 2008
6 (working 2 / commuting 4)	6 (working 2 / commuting 4)	18 (working 17 / commuting 1)

### Cafeteria Plan

We offer various benefits to all employees equally throughout their time in our organization to cater to varying lifestyles and needs.

Our “cafeteria plan” provides extensive menu options, and we also provide life design education and consultation.

In fiscal 2008, we offered 49 menu items as in fiscal 2007. Approximately 170 employees attended life design seminars, and approximately 300 employees received consultations. We will continue enhancing our programs and menus to make them employee-friendly.

## 🍊 Activities at Group Companies in Japan

### NTT PC Communications

To spotlight role models in CSR-related activities and reward voluntary actions by employees, NTT PC Communications has introduced the President's Award Program for CSR activities, comprehensively supporting bottom-up CSR activities.

In fiscal 2008, the President's Award was given to the following three activities:

1. Company-wide obtainment of ISO 14001 certification and eco projects by commercializing "green" products.
2. Improvements in customer satisfaction and security through call center consolidation, as a result of business office consolidation.
3. Support for employees to balance work and family commitments through restructuring of work environments.

We are committed to spreading and establishing the CSR culture throughout the entire company.

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#### **Respecting Diversity and Creating a Positive Work Environment**

##### Respecting Individuality and Human Rights

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## CSR

## Respecting Our Employees

- ▶ [Respecting Diversity and Creating a Positive Work Environment](#)
- ▶ [Respecting Individuality and Human Rights](#)

### Respecting Individuality and Human Rights

We are committed to building an open work environment that respects human rights. We maintain a highly ethical corporate structure that abhors discrimination and respects diversity and individuality.

#### Relationships with Employees

##### ○ Applying Employee Feedback

We communicate closely with employees because we seek to build a pleasant and motivating corporate culture. Our goal is to swiftly reflect ideas from employees in management and business processes by enabling them to feel free to send proposals directly to us.

As part of that commitment, we launched the Kaizen (Continuous Improvement) Office in July 2006. We also instituted a Direct Line program for dealing with constructive proposals from employees beyond organizational and supervisory boundaries. These proposals and their solutions are shared on the Kaizen Portal. In fiscal 2008, we instituted the Kaizen awards system to attract more proposals and to recognize those who submit outstanding proposals and those who implement them.

We received around 420 proposals through the end of March 2009. We will continue endeavoring to build an employee-responsive environment that allows employees to voice their concerns and permits a wide variety of ideas to be reflected in process improvements in a timely manner.

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#### Respecting Ethics and Human Rights

##### ○ Promoting Human Rights Education

As a global corporation, NTT Communications Group considers one of its missions to be creating a corporate culture that respects human rights, and works to solve human rights-related problems, including discrimination of any kind. To ensure that our corporate culture does not engage in, cause, or tolerate discrimination, one of our basic policies is to solve human rights issues through our daily business activities. We have also established the Human Rights Awareness Committee, to promote human rights education activities for our employees, as well as employees of other Group companies and suppliers.

##### Program Details

- Human rights education leadership seminar
- Company-wide seminars on human rights in the workplace
- Human rights education as part of group-level classes (classes for new managers, new section chiefs, and new employees, etc.)

- Soliciting human rights slogans
- Classes on sexual and power harassment
- Senior manager seminars
- Experiential learning
- Operation of Harassment Hotline
- Participation in external human rights education classes
- Issuance of the SHS E-Newsletter

**○ Maintaining a Business Structure that Respects Human Rights**

Human rights are a vital focus for NTT Communications. We aim to maintain a corporate structure that abhors discrimination and fosters bright and energetic workplaces. We treat our regular employees and temporary staff equally, out of trust and respect for diversity and individuality.

**○ Human Rights Education**

All Group regular and temporary employees must attend classes on human rights in the workplace at least once annually. Participants gain basic knowledge about discrimination and how to prevent it. Directors and executives attend an annual class on discrimination and other human rights issues. Such classes heighten their awareness of discrimination and foster a corporate culture that does not engage in, cause, or tolerate discrimination.

An external expert gives an annual lecture on sexual and power harassment. We distribute a monthly e-newsletter to all regular and temporary employees that highlights examples of workplace harassment in an effort to raise awareness about the issue.

We will continue to heighten employee awareness of human rights issues through our educational programs.

**?Participants in Human Rights Programs**

	Fiscal 2006	Fiscal 2007	Fiscal 2008
<b>Classes on harassment</b>	213	237	182
<b>Classes on human rights in the workplace</b>	17,789	17,910	19,774
<b>Human rights issues classes for senior managers</b>	42	45	46

**○ Soliciting Human Rights as well as Regulatory Compliance and Ethics Slogans**

We solicit human rights as well as regulatory compliance and ethics slogans every year to increase understanding of human rights issues.

In fiscal 2008, we received nearly 20,000 slogans, far surpassing the number received in fiscal 2007. We gave awards to five parent business units for nine slogans and chose the following two for the top prizes.



■ Human rights and regulatory compliance and ethics memo pad



■ Human rights and regulatory compliance and ethics calendar

We increase daily awareness of human rights issues by distributing daily pad calendars or memo pads featuring these selected slogans to all worksites.

**○ Experiential Learning**

We conduct an annual experiential learning program to deepen employee understanding of persons with disabilities and the elderly. Employees wear eyeshades, move around in wheelchairs, and simulate the experiences of old age. In fiscal 2008, we held this program on December 12, 15, and 17.



■ Wearing eyeshades



■ Riding in a wheelchair

We received a lot of positive feedback from participants, notably:

- “When I wore eyeshades, I realized how difficult it is to walk straight.”
- “Sitting in a wheelchair lowered me to the eye level of a senior citizen. I understood the difficulty older people face.”
- “I realized how important it is to view the situation from the viewpoint of the person who requires assistance.”
- “It was an unusual experience that gave me a true feel for what it is like to move around freely.”

**?Participants in Our Experiential Learning Program**

	Fiscal 2006	Fiscal 2007	Fiscal 2008
<b>Eyeshades</b>	37	44	44
<b>Moving around in wheelchairs and simulating the experiences of old age</b>	43	45	42

[Respecting Diversity and Creating a Positive Work Environment](#)  
[Respecting Individuality and Human Rights](#)

## Third-Party Opinion

### Mariko Kawaguchi

General Manager of the Daiwa Institute of Research Ltd.'s Management Strategy Research Department



Ms. Kawaguchi joined Daiwa Securities in 1986 after completing a Master's degree in public finance and environmental economics at Hitotsubashi University's Graduate School. She transferred to the Daiwa Institute of Research in 1994. She has been a member of the Tokyo Metropolitan Government's Environmental Council, a committee member for the Kanagawa Industrial Vitalization Conference, an Environmental Businesswomen member for the Ministry of the Environment, a member of the Sustainability Japan Forum's council, and a director and executive committee member of the Social-Investment Forum Japan. She has also been a part-time instructor at Aoyama Gakuin University. She is a chartered member of the Security Analysts Association of Japan.

This is the third year in which I have commented on your report and your CSR policy and strategy have become gradually more defined over that time.

In particular, your position on CSR came across clearly this year by focusing on the Top Management's Commitment and five Special Features in the booklet and shifting detailed information to the online version.

Specific initiatives relating to your basic mission to continually provide "connection," or to "bridge," as mentioned in the Top Management's Commitment, are introduced in Special Feature 1 and 2. I was unexpectedly surprised to read that the NTT Group, previously operating only in Japan, was now using the quality of its service to gain competitive advantage for business expansion overseas. Japan is known for its manufacturing industry, but Japanese electronics and other manufactured items are losing ground to Chinese and Korean products in foreign markets. It is very encouraging, however, to see you steadily drawing customers to your communications services in overseas markets employing a typically Japanese attention to detail. Of course, such attention to detail demands enormous employee determination and diligence behind the scenes and it will be important for you to pay due consideration to employee work-life balance.

"Connection" is a theme which has broad significance for society. I know this overlaps with the crux of the NTT Communications Group Long-Term Environmental Vision established in 2004, which is disclosed online, but the current global economy is having to undergo a paradigm shift away from growth-driven economics, based on an idea of no limitations, and toward a new style of capitalism that accepts the Earth's environmental restrictions. Economic activities must be engaged in order to pursue happiness as opposed to material wealth. And concepts that will be important to that pursuit are "communities" and "connecting." People are supposedly happiest when they are able to sense that they are fulfilling a role within the community while being connected to others. In the past, this "connecting" would have been limited to areas in physical proximity, but modern information and communications technology (ICT) has succeeded in stretching across time and space and turning the planet into a single community. ICT has become the fundamental infrastructure for fostering awareness among people of our connection as fellow citizens of Earth. Your basic mission to provide "connection," or to "bridge," goes much deeper than the mere business sense linking together a worldwide communications network and ensuring that connections withstand disasters and other obstacles-and encompasses support for the sustainability of global society as a whole. I hope you will disseminate such meaning through your Group along with your Long-Term Environmental Vision. Doing so ought to raise employee motivation and give depth to your CSR activities.

In regard to the environmental problems, Special Feature 3 describes your global initiatives for preventing global warming. Although it was possible to gain an overall idea of initiatives carried out at each location, there was unfortunately no mention of any broad environmental strategy. Power consumption was shown, but only for the single fiscal year, and so it was not clear how you intend to apply that information to strategies for tackling climate change. There are large variations in the approaches that each nation is taking toward climate change and therefore it will be essential to

formulate a long-term strategy that reflects differences between, for example, Europe, with its advanced measures, and the United States and China, which will be required to step up efforts. In the discussion between Senior Executive Vice President Masae Tamura and new employees, I read that the NTT Group is going to formulate a long-term vision for 2020 next year, 2010. I look forward to seeing what strategies and policies NTT Communications will devise as one of the more global companies within the larger Group.

The Special Feature on human resources touches on diversity management. Development of professional human resources is indeed a vital area contributing to employee motivation and to service quality improvements. Regarding women and people with disabilities, we are given specific measures, but how do overseas offices tackle this area? There are surely many things to be learned in this field from Europe and the United States. I would suggest you could develop a flexible approach, one that might involve learning from best practices in the West.

The feature on social contribution covered your participation in the Afforestation Program and the Rice Terrace Revitalization Project. President Wasai wrote, "While establishing the goal of forming a recycling-based society, . . . the experience of learning from the frontlines leads to the creation of solutions." Indeed, ICT business and primary industry may seem far removed, but the convergence of the two could reveal some new social needs and business opportunities. Abandoned farmland and devastation of forests are also major issues for Japan. At present, the gist of your exercises is to provide opportunities for a portion of employees to experience nature, through volunteer planting of rice fields, for example. I believe if you continue and expand these activities, there is potential for new social business models that would go beyond the scope of social contribution activities.

In the booklet, CSR strategy was clearly set out in the Special Features. CSR management, however, in terms of targets and actual achievements, seemed difficult to grasp, integrated onto a single list of CSR indices. The performance report, which has been moved to the Web version, seemed too detailed, making it difficult to understand how PDCA cycles are executed for each CSR theme. You might also want to consider including in the booklet for future reports a brief summary of how PDCA is performed for each main theme. In particular, it is already common knowledge that ICT helps reduce environmental impact, but by how much can ICT reduce society's CO<sub>2</sub> emissions? As an ICT company, your social responsibility in this area is comparable to your responsibility for ensuring "connection." Regarding climate change, you will be formulating a new long-term CO<sub>2</sub> reduction plan next fiscal year and I hope you will put forward a strategy stipulating concrete medium- and long-term reduction targets.

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## ○ Response

Ms. Kawaguchi has been evaluating our activities for three years now, from fiscal 2006, providing the "Third-Party Opinion" for our CSR Report. Honest opinions from a third party are essential if we are to instill greater value into our activities. We will seek improvements in areas Ms. Kawaguchi has pointed out.

One area Ms. Kawaguchi mentioned was environmental strategy. Based on NTT Group medium- to long-term targets, we will put forward, and set out to achieve, our own medium- to long-term targets and strategies as befitting an ICT company.

In the area of diversity, we are working to develop human resources with both skills in "Frontline Empowerment" and "Character Quality" and will be enhancing these efforts further.

In fiscal 2008, we commenced CSR activities involving employee participation based on the natural cycle-mountain to river to sea. Those activities included Afforestation Program and the Rice Terrace Revitalization Project. In fiscal 2009, we have been enhancing those activities using ICT. By firmly establishing CSR activity, and implementing measures at Group companies both in Japan and overseas, NTT Communications will continue its contribution toward creation of a sustainable society as is demanded by our various stakeholders.



**Masae Tamura**  
Group CSR Committee  
Chairman and Senior  
Executive Vice President  
of NTT Communications

## CSR

# G3 GRI Content Index

G3 Disclosure	Description	Reported Information
<b>1 Strategy and Analysis</b>		
1.1	Statement from the most senior decisionmaker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	· <a href="#">Top Management's Commitment</a>
1.2	Description of key impacts, risks, and opportunities.	· <a href="#">Top Management's Commitment</a> · <a href="#">NTT Communications Group CSR</a>
<b>2 Organizational Profile</b>		
2.1	Name of the organization.	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.2	Primary brands, products, and/or services.	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.4	Location of organization's headquarters.	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.6	Nature of ownership and legal form.	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.8	Scale of the reporting organization, including: · Number of employees; · Net sales (for private sector organizations) or net revenues (for public sector organizations); · Total capitalization broken down in terms of debt and equity (for private sector organizations); and · Quantity of products or services provided.	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
2.9	Significant changes during the reporting period regarding size, structure, or ownership including: · The location of, or changes in operations, including facility openings, closings, and expansions; and · Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations).	Not applicable
2.10	Awards received in the reporting period.	· <a href="#">Improving Customer Satisfaction</a> · <a href="#">Responsibility for Delivering High-Quality Services</a>
<b>3 Report Parameters</b>		
<b>Report Profile</b>		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	· <a href="#">Report Profile</a>
3.2	Date of most recent previous report (if any).	· <a href="#">Report Profile</a>
3.3	Reporting cycle (annual, biennial, etc.)	· <a href="#">Report Profile</a>
3.4	Contact point for questions regarding the report or its contents.	· Back Cover

<b>Report Scope and Boundary</b>		
3.5	Process for defining report content, including: · Determining materiality; · Prioritizing topics within the report; and · Identifying stakeholders the organization expects to use the report.	<a href="#">·Editorial Policy</a>
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	<a href="#">·Report Profile</a>
3.7	State any specific limitations on the scope or boundary of the report.	<a href="#">·Report Profile</a>
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	<a href="#">·Report Profile</a>
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	<a href="#">·Report Profile</a>
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/ acquisitions, change of base years/periods, nature of business, measurement methods).	<a href="#">·Report Profile</a>
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	<a href="#">·Report Profile</a>
<b>GRI content index</b>		
3.12	Table identifying the location of the Standard Disclosures in the report.	This table
<b>Assurance</b>		
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	<a href="#">·Third-Party Opinion</a>
<b>4 Governance, Commitments, and Engagement</b>		
<b>Governance</b>		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	<a href="#">·Corporate Governance</a>
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	<a href="#">·Corporate Governance</a>
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	<a href="#">·Corporate Governance</a>
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	<a href="#">·Corporate Governance</a>
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	<a href="#">·Corporate Governance</a>
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	<a href="#">·Corporate Governance</a>
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	<a href="#">·Corporate Governance</a>
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	<a href="#">·NTT Communications Group CSR</a>
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	<a href="#">·Corporate Governance</a>
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	<a href="#">·Corporate Governance</a>

Commitments to External Initiatives		
4.11		Explanation of whether and how the precautionary approach or principle is addressed by the organization. <ul style="list-style-type: none"> <li>· <a href="#">Business Risk Management</a></li> </ul>
4.12		Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses. <ul style="list-style-type: none"> <li>· Team Minus 6% etc.</li> </ul>
4.13		Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>· Has positions in governance bodies;</li> <li>· Participates in projects or committees;</li> <li>· Provides substantive funding beyond routine membership dues; or</li> <li>· Views membership as strategic.</li> </ul> <ul style="list-style-type: none"> <li>· <a href="#">Corporate Information</a></li> <li>· <a href="#">Corporate Business</a></li> </ul>
Stakeholder Engagement		
4.14		List of stakeholder groups engaged by the organization. <ul style="list-style-type: none"> <li>· <a href="#">NTT Communications Group CSR</a></li> </ul>
4.15		Basis for identification and selection of stakeholders with whom to engage. <ul style="list-style-type: none"> <li>· <a href="#">NTT Communications Group CSR</a></li> </ul>
4.16		Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group. <ul style="list-style-type: none"> <li>· <a href="#">Special Feature 5</a></li> <li>· <a href="#">Employee Discussion</a></li> <li>· <a href="#">Faithfully Serving Our Customers</a></li> <li>· <a href="#">Our Relationship with Society</a></li> <li>· <a href="#">Our Relationship with Government</a></li> <li>· <a href="#">Our Relationship with Suppliers</a></li> <li>· <a href="#">Respecting Diversity and Creating a Positive Work Environment</a></li> <li>· <a href="#">Respecting Individuality and Human Rights</a></li> </ul>
4.17		Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. <ul style="list-style-type: none"> <li>· <a href="#">Improving Customer Satisfaction</a></li> <li>· <a href="#">Relationships with Employees</a></li> </ul>
5 Management Approach and Performance Indicators		
Economic		
		Disclosure on Management Approach <ul style="list-style-type: none"> <li>· <a href="#">Top Management's Commitment</a></li> </ul>
aspect: Economic Performance		
EC1	CORE	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments. <ul style="list-style-type: none"> <li>· <a href="#">Financial Information</a></li> <li>· <a href="#">2009 CSR Indices</a></li> </ul>
EC2	CORE	Financial implications and other risks and opportunities for the organization's activities due to climate change. <ul style="list-style-type: none"> <li>-</li> </ul>

EC3	CORE	Coverage of the organization's defined benefit plan obligations.	-
EC4	CORE	Significant financial assistance received from government.	-
<b>aspect: Market Presence</b>			
EC5	ADD	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	-
EC6	CORE	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	<a href="#">·Our Relationship with Suppliers</a>
EC7	CORE	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	-
<b>aspect: Indirect Economic Impacts</b>			
EC8	CORE	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	<a href="#">·Maintaining Stable and Reliable Telecommunications Services</a> <a href="#">·Information Security in Telecommunication Services</a>
EC9	ADD	Understanding and describing significant indirect economic impacts, including the extent of impacts.	-
<b>Environmental</b>			
		Disclosure on Management Approach	<a href="#">·Basic Approach to Environmental Protection and Environmental Management</a>
<b>aspect: Materials</b>			
EN1	CORE	Materials used by weight or volume.	<a href="#">·Environmental Impact of Business Activities</a>
EN2	CORE	Percentage of materials used that are recycled input materials.	<a href="#">·Environmental Impact of Business Activities</a>
<b>aspect: Energy</b>			
EN3	CORE	Direct energy consumption by primary energy source.	<a href="#">·Global Warming Prevention</a>
EN4	CORE	Indirect energy consumption by primary source.	<a href="#">·Global Warming Prevention</a>
EN5	ADD	Energy saved due to conservation and efficiency improvements.	<a href="#">·Global Warming Prevention</a>
EN6	ADD	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	<a href="#">·Global Warming Prevention</a>
EN7	ADD	Initiatives to reduce indirect energy consumption and reductions achieved.	<a href="#">·Global Warming Prevention</a>
<b>aspect: Water</b>			
EN8	CORE	Total water withdrawal by source.	<a href="#">·Environmental Impact of Business Activities</a>
EN9	ADD	Water sources significantly affected by withdrawal of water.	-
EN10	ADD	Percentage and total volume of water recycled and reused.	-
<b>aspect: Biodiversity</b>			
EN11	CORE	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	<a href="#">·Biodiversity Conservation</a>

EN12	CORE	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	-
EN13	ADD	Habitats protected or restored.	-
EN14	ADD	Strategies, current actions, and future plans for managing impacts on biodiversity.	· <a href="#">Biodiversity Conservation</a>
EN15	ADD	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	-
<b>aspect: Emissions, Effluents, and Waste</b>			
EN16	CORE	Total direct and indirect greenhouse gas emissions by weight.	· <a href="#">Environmental Impact of Business Activities</a>
EN17	CORE	Other relevant indirect greenhouse gas emissions by weight.	· <a href="#">Environmental Impact of Business Activities</a>
EN18	ADD	Initiatives to reduce greenhouse gas emissions and reductions achieved.	· <a href="#">Global Warming Prevention</a>
EN19	CORE	Emissions of ozone-depleting substances by weight.	· <a href="#">Prevention of Environmental Pollution</a>
EN20	CORE	NO, SO, and other significant air emissions by type and weight.	· <a href="#">Prevention of Environmental Pollution</a>
EN21	CORE	Total water discharge by quality and destination.	-
EN22	CORE	Total weight of waste by type and disposal method.	· <a href="#">Reduction of Waste</a>
EN23	CORE	Total number and volume of significant spills.	-
EN24	ADD	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	-
EN25	ADD	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	· <a href="#">Biodiversity Conservation</a>
<b>aspect: Products and Services</b>			
EN26	CORE	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	· <a href="#">Reducing Environmental Impact Through Our Services</a>
EN27	CORE	Percentage of products sold and their packaging materials that are reclaimed by category.	-
<b>aspect: Compliance</b>			
EN28	ADD	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	· <a href="#">Prevention of Environmental Pollution</a>
<b>aspect: Transport</b>			
EN29	ADD	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	· <a href="#">Global Warming Prevention</a>
<b>aspect: Overall</b>			
EN30	ADD	Total environmental protection expenditures and investments by type.	· <a href="#">Environmental Accounting</a>

Labor Practices and Decent Work			
		Disclosure on Management Approach	<ul style="list-style-type: none"> <li>· <a href="#">Respecting Diversity and Creating a Positive Work Environment</a></li> <li>· <a href="#">Respecting Individuality and Human Rights</a></li> </ul>
<b>aspect: Employment</b>			
LA1	CORE	Total workforce by employment type, employment contract, and region.	<ul style="list-style-type: none"> <li>· <a href="#">Corporate Information</a></li> <li>· <a href="#">Corporate Business</a></li> </ul>
LA2	CORE	Total number and rate of employee turnover by age group, gender, and region.	<ul style="list-style-type: none"> <li>· <a href="#">Respecting Diversity and Creating a Positive Work Environment</a></li> </ul>
LA3	ADD	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	<ul style="list-style-type: none"> <li>· <a href="#">Creating Employee-Friendly Workplaces</a></li> </ul>
<b>aspect: Labor/Management Relations</b>			
LA4	CORE	Percentage of employees covered by collective bargaining agreements.	-
LA5	CORE	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	-
<b>aspect: Occupational Health and Safety</b>			
LA6	ADD	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	-
LA7	CORE	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	<ul style="list-style-type: none"> <li>· <a href="#">Creating Employee-Friendly Workplaces</a></li> </ul>
LA8	CORE	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	<ul style="list-style-type: none"> <li>· <a href="#">Creating Employee-Friendly Workplaces</a></li> </ul>
LA9	ADD	Health and safety topics covered in formal agreements with trade unions.	-
<b>aspect: Training and Education</b>			
LA10	CORE	Average hours of training per year per employee by employee category.	<ul style="list-style-type: none"> <li>· <a href="#">Human Resources Development and Evaluation</a></li> </ul>
LA11	ADD	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	<ul style="list-style-type: none"> <li>· <a href="#">Human Resources Development and Evaluation</a></li> </ul>
LA12	ADD	Percentage of employees receiving regular performance and career development reviews.	<ul style="list-style-type: none"> <li>· <a href="#">Human Resources Development and Evaluation</a></li> </ul>

aspect: Diversity and Equal Opportunity			
LA13	CORE	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	<a href="#">·Fostering Diversity</a>
LA14	CORE	Ratio of basic salary of men to women by employee category.	-
Human Rights			
		Disclosure on Management Approach	<a href="#">·Respecting Individuality and Human Rights</a>
aspect: Investment and Procurement Practices			
HR1	CORE	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	-
HR2	CORE	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	-
HR3	ADD	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	<a href="#">·Respecting Individuality and Human Rights</a>
aspect: Non-Discrimination			
HR4	CORE	Total number of incidents of discrimination and actions taken.	-
aspect: Freedom of Association and Collective Bargaining			
HR5	CORE	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	-
aspect: Child Labor			
HR6	CORE	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.	Not applicable
aspect: Forced and Compulsory Labor			
HR7	CORE	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	Not applicable
aspect: Security Practices			
HR8	ADD	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	<a href="#">·Respecting Ethics and Human Rights</a>
aspect: Indigenous Rights			
HR9	ADD	Total number of incidents of violations involving rights of indigenous people and actions taken.	Not applicable
Society			
		Disclosure on Management Approach	<a href="#">·Compliance</a> <a href="#">·Our Relationship with Society</a>
aspect: Community			
SO1	CORE	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	-
aspect: Corruption			
SO2	CORE	Percentage and total number of business units analyzed for risks related to corruption.	-
SO3	CORE	Percentage of employees trained in organization's anti-corruption policies and procedures.	<a href="#">·2009 CSR Indices</a>
SO4	CORE	Actions taken in response to incidents of corruption.	-

<b>aspect: Public Policy</b>			
SO5	CORE	Public policy positions and participation in public policy development and lobbying.	<a href="#">·Our Relationship with Government</a>
SO6	ADD	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	-
<b>aspect: Anti-Competitive Behavior</b>			
SO7	ADD	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.	-
<b>aspect: Compliance</b>			
SO8	CORE	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	Not applicable
<b>Product Responsibility</b>			
		Disclosure on Management Approach	<a href="#">·Policies to Protect Customers' Information and Privacy</a> <a href="#">·Faithfully Serving Our Customers</a>
<b>aspect: Customer Health and Safety</b>			
PR1	CORE	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	<a href="#">·Faithfully Serving Our Customers</a> <a href="#">·Information Security in Telecommunication Services</a>
PR2	ADD	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	-
<b>aspect: Product and Service Labeling</b>			
PR3	CORE	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	-
PR4	ADD	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	-
PR5	ADD	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	<a href="#">·Improving Customer Satisfaction</a>
<b>aspect: Marketing Communications</b>			
PR6	CORE	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	<a href="#">·Responsible Public Relations and Advertising</a>
PR7	ADD	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	-
<b>aspect: Customer Privacy</b>			
PR8	ADD	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	-
<b>aspect: Compliance</b>			
PR9	CORE	Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.	Not applicable

**Standard Disclosures under Global Reporting Initiative Telecommunications Sector Supplement for NTT Communications Group Corporate Social Responsibility Report 2008**

Indicator		Reported information
<b>Internal Operations</b>		
<b>Investment</b>		
IO 1.	Capital investment in telecommunication network infrastructure broken down by country/region.	· <a href="#">Special Feature 1: Bridging the World with Japanese Quality</a>
IO 2.	Net costs for service providers under the Universal Service Obligation when extending service to geographic locations and low-income groups, which are not profitable. Describe relevant legislative and regulatory mechanisms.	-
<b>Health and Safety</b>		
IO 3.	Practices to ensure health and safety of field personnel involved in the installation, operation and maintenance of masts, base stations, laying cables and other outside plant. Related health and safety issues include working at heights, electric shock, exposure to EMF and radio frequency fields, and exposure to hazardous chemicals.	· <a href="#">Creating Employee-Friendly Workplaces</a>
IO 4.	Compliance with ICNIRP (International Commission on Non-Ionising Radiation Protection) standards on exposure to radiofrequency (RF) emissions from handsets	-
IO 5.	Compliance with ICNIRP (International Commission on Non-Ionising Radiation Protection) guidelines on exposure to radiofrequency (RF) emissions from base stations.	-
IO 6.	Policies and practices with respect to Specific Absorption Rate (SAR) of handsets.	-
<b>Infrastructure</b>		
IO 7.	Policies and practices on the siting of masts and transmission sites including stakeholder consultation, site sharing, and initiatives to reduce visual impacts. Describe approach to evaluate consultations and quantify where possible.	-
IO 8.	Number and percentage of stand-alone sites, shared sites, and sites on existing structures.	-
<b>Providing Access</b>		
<b>Access to Telecommunication Products and Services: Bridging the Digital Divide</b>		
PA 1.	Policies and practices to enable the deployment of telecommunications infrastructure and access to telecommunications products and services in remote and low population density areas. Include an explanation of business models applied.	-
PA 2.	Policies and practices to overcome barriers for access and use of telecommunication products and services including: language, culture, illiteracy, and lack of education, income, disabilities, and age. Include an explanation of business models applied.	· <a href="#">Information Security in Telecommunication Services</a> · <a href="#">Using ICT to Solve Social Issues</a> · <a href="#">Faithfully Serving Our Customers</a>
PA 3.	Policies and practices to ensure availability and reliability of telecommunications products and services and quantify, where possible, for specified time periods and locations of down time.	· <a href="#">Maintaining Stable and Reliable Telecommunications Services</a> · <a href="#">Information Security in Telecommunication Services</a>
PA 4.	Quantify the level of availability of telecommunications products and services in areas where the organisation operates. Examples include: customer numbers/market share, addressable market, percentage of population covered, percentage of land covered.	· <a href="#">Special Feature 1: Bridging the World with Japanese Quality</a>

PA 5.	Number and types of telecommunication products and services provided to and used by low and no income sectors of the population. Provide definitions selected. Include explanation of approach to pricing, illustrated with examples such as price per minute of dialogue/bit of data transfer in various remote, poor or low population density areas.	-
PA 6.	Programmes to provide and maintain telecommunication products and services in emergency situations and for disaster relief.	<ul style="list-style-type: none"> <li>- <a href="#">Special Feature 2: Disaster Preparedness to Ensure Continued Connection</a></li> <li>- <a href="#">Maintaining Stable and Reliable Telecommunications Services</a></li> </ul>
<b>Access to Content</b>		
PA 7.	<p>Policies and practices to manage human rights issues relating to access and use of telecommunications products and services. For example:</p> <ul style="list-style-type: none"> <li>- Participation in industry initiatives or individual initiatives related to Freedom of Expression</li> <li>- Legislation in different markets on registration, censorship, limiting access,</li> <li>- Interaction with governments on security issues for surveillance purposes</li> <li>- Interaction with national and local authorities and own initiatives to restrict criminal or potentially unethical content.</li> <li>- Protecting vulnerable groups such as children.</li> </ul> <p>Explain how such policies and practices are adapted and applied in different countries.</p>	<ul style="list-style-type: none"> <li>- <a href="#">Information Security in Telecommunication Services</a></li> <li>- <a href="#">Using ICT to Solve Social Issues</a></li> <li>- <a href="#">Faithfully Serving Our Customers</a></li> <li>- <a href="#">Our Relationship with Society</a></li> </ul>
<b>Customer Relations</b>		
PA 8.	Policies and practices to publicly communicate on EMF related issues. Include information provides at points of sales material.	-
PA 9.	Total amount invested in programmes and activities in electromagnetic field research. Include description of programmes currently contributed to and funded by the reporting organisation.	-
PA 10.	Initiatives to ensure clarity of charges and tariffs.	-
PA 11.	Initiatives to inform customers about product features and applications that will promote responsible, efficient, cost effective, and environmentally preferable use.	- <a href="#">Faithfully Serving Our Customers</a>
<b>Technology Applications</b>		
<b>Resource Efficiency</b>		
TA 1.	Provide examples of the resource efficiency of telecommunication products and services delivered.	- <a href="#">Reducing Environmental Impact Through Our Services</a>
TA 2.	Provide examples of telecommunication products, services and applications that have the potential to replace physical objects (e.g. a telephone book by a database on the web or travel by videoconferencing)	- <a href="#">Reducing Environmental Impact Through Our Services</a>
TA 3.	Disclose any measures of transport and/or resource changes of customer use of the telecommunication products and services listed above. Provide some indication of scale, market size, or potential savings.	- <a href="#">Reducing Environmental Impact Through Our Services</a>
TA 4.	Disclose any estimates of the rebound effect (indirect consequences) of customer use of the products and services listed above, and lessons learned for future development. This may include social consequences as well as environmental.	<ul style="list-style-type: none"> <li>- <a href="#">Information Security in Telecommunication Services</a></li> <li>- <a href="#">Using ICT to Solve Social Issues</a></li> <li>- <a href="#">Faithfully Serving Our Customers</a></li> </ul>
TA 5.	Description of practices relating to intellectual property rights and open source technologies.	-

## CSR

## Environmental report Guideline contrast table

Items		Reported Information
<b>1)Basic Information (BI)</b>		
BI-1	CEO's statement	· <a href="#">Top Management's Commitment</a>
BI-2	Fundamental requirements of reporting	
BI-2-1	Organizations, periods and areas covered by the reporting	· <a href="#">Report Profile</a> · <a href="#">Editorial Policy</a> ·Back Cover
BI-2-2	Boundary of the reporting organization and coverage of environmental impacts	· <a href="#">Editorial Policy</a>
BI-3	Summary of the organization's business (including management indices)	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a>
BI-4	Outline of environmental reporting	
BI-4-1	List of major indicators	· <a href="#">Corporate Information</a> · <a href="#">Corporate Business</a> · <a href="#">Prevention of Environmental Pollution</a> · <a href="#">Environmental Impact of Business Activities</a> · <a href="#">Global Warming Prevention</a> · <a href="#">Reduction of Waste</a> · <a href="#">2009 CSR Indices</a>
BI-4-2	Summary of objectives, plans and results regarding environmental initiatives	· <a href="#">Medium- to Long-Term Plan-Environmental Impact Reduction Initiatives, Targets and Achievements</a>
BI-5	Material balance of organizational activities (inputs, internal recycling, and outputs)	· <a href="#">Environmental Impact of Business Activities</a>
<b>2)Information and Indicators that Describe the Status of Environmental Management (MPI = Management Performance Indicators)</b>		
MP-1	Status of environmental management	
MP-1-1	Environmental policy in organizational activities	· <a href="#">Basic Approach to Environmental Protection and Environmental Management</a>
MP-1-2	Status of environmental management systems	· <a href="#">Basic Approach to Environmental Protection and Environmental Management</a>
MP-2	Status of compliance with environmental regulations	· <a href="#">Prevention of Environmental Pollution</a>
MP-3	Environmental accounting information	· <a href="#">Environmental Accounting</a>
MP-4	Status of environmentally conscious investment or financing	· <a href="#">Medium- to Long-Term Plan-Environmental Impact Reduction Initiatives, Targets and Achievements</a>
MP-5	Status of supply chain management for environmental conservation	· <a href="#">Our Relationship with Suppliers</a>
MP-6	Status of green purchasing or procurement	· <a href="#">Our Relationship with Suppliers</a>
MP-7	Status of research and development of new environmental technologies and DfE	· <a href="#">Global Warming Prevention</a>
MP-8	Status of environmentally friendly transportation	· <a href="#">Global Warming Prevention</a> · <a href="#">Environmental Impact of Business Activities</a>
MP-9	Status of biodiversity conservation and sustainable use of biological resources	· <a href="#">Biodiversity Conservation</a>
MP-10	Status of environmental communication	· <a href="#">Basic Approach to Environmental Protection and Environmental Management</a>
MP-11	Status of social contribution related to the environment	· <a href="#">Basic Approach to Environmental Protection and Environmental Management</a>
MP-12	Status of products and services that contribute to the reduction of negative environmental impacts	· <a href="#">Reducing Environmental Impact Through Our Services</a>

<b>3)Information and Indicators that Describe the Status of Activities for Environmental Impacts and Reduction Measures (OPI = Operational Performance Indicators)</b>		
<b>Inputs</b>		
OP-1	Total amount of energy input and reduction measures	· <a href="#">Medium- to Long-Term Plan-Environmental Impact Reduction Initiatives, Targets and Achievements</a> · <a href="#">Environmental Impact of Business Activities</a> · <a href="#">Global Warming Prevention</a>
OP-2	Total amount of material input and reduction measures	· <a href="#">Medium- to Long-Term Plan-Environmental Impact Reduction Initiatives, Targets and Achievements</a> · <a href="#">Environmental Impact of Business Activities</a>
OP-3	Amount of water input and reduction measures	· <a href="#">Environmental Impact of Business Activities</a>
<b>Internal recycling</b>		
OP-4	Amount of materials recycled within an organization's operational area	· <a href="#">Medium- to Long-Term Plan-Environmental Impact Reduction Initiatives, Targets and Achievements</a> · <a href="#">Environmental Impact of Business Activities</a>
<b>Outputs</b>		
<b>(Products)</b>		
OP-5	Total amount of manufactured products or sales	-
<b>(Discharge and emissions)</b>		
OP-6	Amount of greenhouse gas emissions and reduction measures	· <a href="#">Medium- to Long-Term Plan-Environmental Impact Reduction Initiatives, Targets and Achievements</a> · <a href="#">Environmental Impact of Business Activities</a> · <a href="#">Global Warming Prevention</a>
OP-7	Air pollution, its environmental impacts on the living environment, and reduction measures	· <a href="#">Prevention of Environmental Pollution</a>
OP-8	Amount of release and transfer of chemical substances, and reduction measures	· <a href="#">Prevention of Environmental Pollution</a>
OP-9	Total amount of waste generation and final disposal and reduction measures	· <a href="#">Waste Reduction and Recycling Initiatives</a> · <a href="#">Environmental Impact of Business Activities</a>
OP-10	Total amount of water discharge and reduction measures	· <a href="#">2009 CSR Indices</a>
<b>4)Information and Indicators that Describe the Status of the Relationship between Environmental Considerations and Management (EEI = Eco-efficiency indicator)</b>		
EEI	Information and indicators for occupational health and safety	· <a href="#">2009 CSR Indices</a>
<b>5)Information and Indicators that Describe the Status of Social Initiatives (Chapter 4) (SPI = Social Performance Indicators)</b>		
SPI	Status of Social Initiatives	
-1	Information and indicators for occupational health and safety	· <a href="#">Respecting Diversity and Creating a Positive Work Environment</a>
-2	Information and indicators for employment	· <a href="#">Respecting Diversity and Creating a Positive Work Environment</a>
-3	Information and indicators for human rights	· <a href="#">Respecting Individuality and Human Rights</a>
-4	Information and indicators for contributions to local communities and society	· <a href="#">Our Relationship with Society</a>
-5	Information and indicators for corporate governance, corporate ethics, compliance and fair trade	· <a href="#">Corporate Governance</a> · <a href="#">Compliance</a>
-6	Information and indicators for personal information protection	· <a href="#">Information Security</a>
-7	Information and indicators for the broad range of consumer protection and product safety	· <a href="#">Information Security in Telecommunication Services</a>
-8	Economic information and indicators for an organization's social aspects	· <a href="#">2009 CSR Indices</a>

-9	Information and indicators for other social matters	<ul style="list-style-type: none"><li>· <a href="#">Maintaining Stable and Reliable Telecommunications Services</a></li><li>· <a href="#">Using ICT to Solve Social Issues</a></li><li>· <a href="#">Faithfully Serving Our Customers</a></li><li>· <a href="#">Our Relationship with Government</a></li></ul>
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