

CSR

# CSR Report 2014

**Special Feature**

## Becoming a True Global ICT Partner of Choice around the World



### NTT Communications' CSR

#### Top Message

Our aim is to make a global contribution to society and help achieve sustainable development.

Akira Arima President and CEO



#### CSR Management Platform



### Performance Report

#### CSR Priority Areas and Indexes



#### Contributing to Society

We work toward ensuring information security and improving information and communications technology (ICT) while providing stable, highly reliable information and telecommunications services worldwide



#### Protecting the Environment

We are committed to providing information and telecommunications service solutions that reduce environmental impact, thereby helping to achieve a sustainable society



#### Respecting Our Employees

We maintain high ethical standards in meeting our social responsibilities as a telecommunications professional



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## CSR Report 2014

**Top Message**

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**Our aim is to make a global contribution to society and help achieve sustainable development.**

The global economy was characterized by solid improvements in the United States, while the European economy showed signs of a rebound. However, overall growth was modest in emerging markets and other economic areas. The Japanese economy is in the process of gradually recovering, boosted by government policies.

Against this economic backdrop, many of the world's companies pursued proactive management initiatives, seeking to further shore up competitiveness by entering new markets and investing in new growth fields. As flexible and robust ICT infrastructures support such management efforts,

we believe that ICT will remain essential to Japan's growth strategy.

The NTT Communications Group is working to create a global, seamless management structure appropriate to this dynamic business environment. The ultimate goal of our Vision 2015 business plan is to establish ourselves as the optimal "Global ICT Partner" for customers everywhere in the world.

Moving toward our Vision 2015 objectives, we have positioned fiscal 2013 as the time to accelerate the transformation of our business structure and growth, based on our "Global Cloud Vision." Aiming to firmly align ourselves along the growth trajectory of global cloud businesses, we have worked to develop global, seamless services and enhance our service lineup.

The NTT Communications Group is in business not only because of its valued customers throughout the world, but also thanks to its stakeholders. Looking forward, we intend to continue working to help improve society and achieve sustainable development, by initiating CSR activities worthy of a Global ICT Partner.

A handwritten signature in black ink that reads "Akira Arima". The signature is written in a cursive, flowing style.

President and CEO  
NTT Communications Corporation

## CSR Report 2014

# CSR Management Perspective

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While adhering strictly to all statutory and regulatory requirements as well as the principles of corporate governance, the NTT Communications Group strives to engage in business activities that are in tune with the needs of stakeholders. Endeavoring to contribute to the creation of a sustainable society, we are working diligently to build a sound CSR management Perspective from a wide range of perspectives.

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- Rated "Leader" in Report by Gartner, Inc. in the US Evaluating Global Telecommunications Carriers
- Evaluated as "World Class" in Global Customer Satisfaction Survey for International Data Communications Services by Ocean82, Ltd. in the UK, Receiving Gold Awards in 15 Areas of Measurement
- "Green Grid Data Center Awards 2012" Award for Excellence
- 1st Place in the Communication and Service Category of Nikkei Shimbun's 17th "Environmental Management Survey"

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# Approach to CSR

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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.

**Making Contributions in a Manner that is Unique to the NTT Communications Group**

**NTT Communications' Stance toward CSR**

The NTT Communications Group places the utmost importance on contributing to society in an effective and unique manner. To this end, each and every employee is endeavoring to carry out the Group's CSR policy in their daily business activities based on more specific CSR priority activity targets and the Group's environmental vision.

**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 a Global ICT Partner.

**Priority Activity Policy**

The NTT Communications Group continues to establish specific goals as a part of efforts to carry out its CSR policy. In addition, the Group has put in place a separate environmental vision while implementing other wide-ranging measures in keeping with its distinctive business activities.



**As a Member of the NTT Group**

The NTT Communication Group continues to establish specific goals as a part of efforts to carry out its CSR policy.

[Click here for details on the NTT Group CSR Charter.](#)

**The NTT Group CSR Charter**



**Responsibilities as a Member of Society**

**Our Business Principles**

We define "stakeholders" as all the entities that have relations of any kind with the NTT Communications Group. The term includes not only our customers, business partners and shareholders, but also competitors that our business activities influence, society as a whole and individual employees. Understanding the perspective and earning the trust of our stakeholders are essential to enabling the Group to continue to profit and grow. We shall always be aware of our ties with various stakeholders as we bridge their present and future potential.

**For Customers**

1. From a customer-first perspective, we will provide solutions and services that offer true value.
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 enduring relationships of trust with our customers.

**For Business Partners**

1. We will maximize our cooperation with partners in order to offer the best possible value for our customers.

**For Society**

1. By providing more secure and innovative Internet services, we will contribute to the sound growth of the Internet society.
2. As part of our strong connection with society, we will contribute to global environmental protection.
3. We will understand and respect the cultures and customs of different nations.

**For Competitors**

1. We will abide by rules and compete fairly.

**For Employees and the Workplace**

1. We will recognize individuality and diversity, and mutually protect human rights.
2. We will trust and respect each other and create an environment that is conducive to personal development and fulfillment of our goals.
3. As an ICT company, we will make a maximum effort to protect security.

**For Shareholders**

1. We will disclose information concerning our business performance in a fair, accurate, and timely manner.
2. We will achieve sustainable growth as a company and seek higher benefits for our shareholders.



## Promoting CSR

### Our Business Principle (OBP)

The NTT Communications Group has formulated Our Business Principle (OBP) as a guideline for all of its business activities. As such, this guideline is shared by all employees and partner employees. OBP is a handbook that clearly states the basic principles that employees can turn to whenever they are uncertain about what constitutes correct judgment or behavior in the context of their relationships with various stakeholders. OBP thereby helps employees to remember their beginner's spirit, reflect on personal conduct and take the correct actions.

We will continue to position OBP as the fundamental guideline for CSR activities as we promote these activities going forward.

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

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### Human Rights Policy

As a company that strives to develop and grow in the global market, NTT Communications considers one of its missions to be the creation of a corporate culture that respects human rights. With this in mind, we work diligently to solve human rights issues through our daily business activities.

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### Basic Global Environmental Charter Philosophy

The NTT Communications Group will work actively to protect the global environment and to help bring about an environmentally friendly society. To this end, the Group will endeavor to provide the highest quality services, through every facet of its business activities from development to delivery, and help realize increased benefits for its customers worldwide.

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### Accelerating Global Initiatives

As our customers have continued to expand their activities on the world stage in recent years, our own business model has evolved to incorporate increasingly diverse, cross-border concerns. Under these circumstances, we are accelerating our activities around the world, cognizant of the importance of introducing and expanding global concerns within our CSR activities, as we help create a sustainable society.

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# Promoting Dialogue with Stakeholders

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The NTT Communications Group makes every effort to take into consideration the concerns of its stakeholders in the conduct of its day-to-day activities. Guided by its Business Principle, the Group accordingly engages in management that focuses on stakeholders' needs. At the same time, equal emphasis is placed on CSR activities that draw on direct communications with stakeholders.

## Basic Stance toward Dealing with Stakeholders

### Promoting Opportunities that Harness Feedback from Stakeholders

In promoting dialogue with its stakeholders, the NTT Communications Group is generating opportunities to obtain invaluable input and feedback which it in turn channels through to its ongoing activities. We adopt a flexible approach toward promoting wide-ranging opportunities and topics. This includes issues that are carried over from year to year to designated themes and discussion points. The NTT Communications Group makes every effort to engage in detailed and in-depth dialogue with its stakeholders.

Examples of Communication with Stakeholders

<b>Communication with Customers</b>	We gather feedback from customer satisfaction surveys and take steps to improve satisfaction levels. · Voice of Customer (VOC) Survey, NTT Communications Forum
<b>Communication with Business Partners</b>	We work with our business partners to improve communications quality, thereby improving customer satisfaction with respect to quality. · Arcstar Carrier Forum (ACF), Customer Council, Partner Summit  We published a policy on procurement in accordance with our Guidelines for Green Procurement to ensure fair procurement activities. · Communication with suppliers
<b>Communication with Society</b>	We work to raise awareness of issues and develop a clear understanding of situations by communicating with NPOs and external experts. · Dialogue with stakeholders, various social contribution activities
<b>Communication with Employees</b>	To help maintain and improve motivation among employees, we use an appropriate human resources system, provide a forum for communication with management, and make sure to reflect employees feedback. · Dialogue with the president, KAIZEN Support Line

### Specific Case Study 1: Dialogue with Customers

Obtaining wide-ranging feedback through dialogue with customers to help ensure a steady stream of higher quality products and services is an extremely important management issue. We have established the Voice of Customer (VOC) Survey Program as a Group-wide initiative and are actively promoting its use as a part of our efforts to enhance customer satisfaction and help identify new and innovative services.

### Specific Case Study 2: Dialogue with Prominent Figures

Exchanging opinions (dialogue) with external parties is an important process in helping companies improve their ability to contribute to the creation of a sustainable society. Recognizing this critical factor, top management and frontline employees of the NTT Communications Group regularly exchange opinions with prominent figures. During fiscal 2013, one meeting was held to discuss the globalization of business and CSR activities.

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# External Evaluations

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NTT Communications receives evaluations from members of society for our CSR activities.

**Global Awards and Recognition**

**Designated a “Leader” in Report by International Data Corporation Evaluating Cloud and DC Services in the Asia-Pacific Region**

NTT Communications was designated a “leader” in a December 2013 report on twelve telecommunications carriers offering cloud and data center services in the Asia-Pacific region by International Data Corporation (IDC) in the US. In the report, entitled “IDC MarketScape: Asia/Pacific Next-Generation Telcos: Hosted Cloud and Data Center Services 2013-2014 Vendor Analysis,”\* we earned the highest rating, as “leader,” for both implementation capacity and strategy.

\* IDC cites NTT Communications’ key strengths as:

1. Leader in network innovation for datacenter and cloud services, with delivery using software defined networking (SDN);
2. Large datacenter footprint enabling NTT Communications to deliver global seamless datacenter services, and
3. Strong capabilities and strategies using advanced network technology.

**Rated “Leader” in Report by Gartner, Inc. in the US Evaluating Global Telecommunications Carriers**

NTT Communications was positioned in the Leaders quadrant of the “Magic Quadrant for Global Network Service Providers” (Magic Quadrant) report<sup>1</sup> published on March 20, 2014, by leading US IT advisory company Gartner, Inc. The report, which evaluated companies providing global networking services, positioned us as a Leader based on both the completeness of our vision and our execution capabilities.

The Leader position indicates the ability to release mature products to meet current market needs as well as the vision to maintain a leadership position even in a changing market. Through concerted initiatives and investment in its own products, companies in this position influence the overall market direction.<sup>2</sup>

<sup>1</sup>1. Gartner, “Magic Quadrant for Global Network Service Providers,” Neil Rickard, Robert F. Mason, March 20, 2014

<sup>2</sup>2. Gartner, “Research Methodology: Magic Quadrant”

**Evaluated as “World Class” in Global Customer Satisfaction Survey for International Data Communications Services by Ocean82, Ltd. in the UK, Receiving Gold Awards in 15 Areas of Measurement**

NTT Communications earned the top-level “World Class” customer satisfaction rating in a report by Ocean82, Ltd., based in Manchester, UK. Ocean82’s 16th “Report on Global Customer Satisfaction Level in Relation to International Data Communications Service Voice of the Customer: Global Data VPN” measures overall customer satisfaction and predicted organic growth.

NTT Communications’ outstanding level of customer satisfaction is also reflected in the Gold Awards it received in fifteen areas of measurement. In addition, the Company earned a World Record for achieving the highest level of billing accuracy in Ocean82’s program.

The report is based on the results of interviews of IT managers and other personnel at more than 1,000 multinational companies. In evaluating customer satisfaction, the report covered six major categories of customer service for global telecommunications carriers - completeness of stated conditions, pricing, network introduction, network operation, customer support and billing - as well as 32 related service attributes.

NTT Communication received Gold Awards for substantially outperforming the average of the companies surveyed in fifteen categories that, in addition to network reliability and local language support, included long-term customer relationships. Only two carriers, NTT Communications and Verizon, received World Class positioning based on both overall customer satisfaction and predicted organic growth.



“World Class” logo



## Environmental Awards

### “Green Grid Data Center Awards 2012” Award for Excellence

NTT Communications won the “Green Grid Data Center Awards 2012” Award for Excellence presented by the “The Green Grid”<sup>\*1</sup>, an NPO devoted to the promotion of energy efficiency improvement for data centers and IT devices, for our efforts toward enhancing the energy efficiency of the data center air-conditioning system and the quality of the center’s thermal environment.

The objective of this Award is to promote the measurement and improvement of resource efficiency at data centers operated by organizations and companies in Japan. The Award was established in 2010. This year marks its third bestowment.

It is awarded, not for the absolute numerical values of energy efficiency indices such as PUE<sup>\*2</sup> and DCiE<sup>\*3</sup>, but for the systematic quantification of energy efficiency using the aforementioned indices before and after the implementation of improvement initiatives, goal setting and planning, sustained improvement initiatives, social contributions, and creativity.

\*1. The Green Grid, established in 2007, is an industry group composed of member companies located around the world that promotes resource streamlining at data centers and in business computing. It does not endorse the products or services of any particular company but rather aims to provide best practice norms, indicators and technology necessary to ameliorate data center resource efficiency from a pan-industry perspective.

\*2. Abbreviation for “Power Usage Effectiveness”

\*3. Abbreviation for “Data Center Infrastructure Efficiency”

### 1st Place in the Communication and Service Category of Nikkei Shimbun’s 17th “Environmental Management Survey”

We were ranked 1st in the “Communication and Service Category” of the Nikkei Shimbun’s 17th “Environmental Management Survey.” This Survey ranks companies with superior environmental management practices based on their responses to a corporate survey. In fiscal 2013, 1,729 manufacturing and 2,461 non-manufacturing sector companies were targeted for the survey to which there were 735 respondents. Non-manufacturing sector companies were judged for their “environmental management promotion system,” “antipollution and biodiversity initiatives,” “resource recycling” and “global warming initiatives.”

NTT Communications earned a top rating with 100 points in the categories of “environmental management promotion systems,” resource recycling” and “global warming initiatives,” and came in at second place, with 97 points, in the category of “antipollution and biodiversity initiatives.” Overall, we received 397 points out of 400 for the No. 1 slot.

Moving forward, we will continue to strengthen our global environmental management efforts in the area of “environmental management promotion systems” and work towards achieving “Green ICT Vision 2020” targets, our medium term vision for environmental issues.

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# Corporate Governance

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

## Corporate governance structure

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

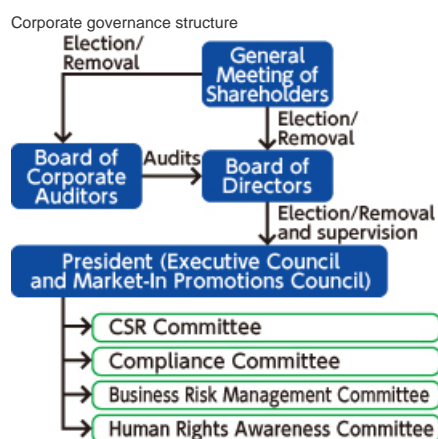
The Board of Directors has sixteen members and is chaired by the president. In principle, the Board meets once a month to make decisions and report on important management issues in compliance with laws and regulations, the Articles of Incorporation, and our Board of Directors' rules.

We appoint internal board members based on their character and professional experience, regardless of their gender or nationality.

The Board of Corporate Auditors is made up of three external auditors. These auditors hold meetings of the Board of Corporate Auditors and audit the execution of directors' duties, and also attend important meetings such as those of the Board of Directors. A dedicated organization and staff facilitates efficient audit operations. The Board of Corporate Auditors cooperates closely with accounting firms and other parties by periodically sharing information on audit plans and results and through similar means, and it is currently working to strengthen the audit structure.

In 2006 we abolished the retirement benefits program for our directors. The remuneration system for internal directors was replaced by a system closely linked to business performance. Remuneration for external directors and corporate auditors is not related to business performance.

We established an Executive Council under the Board of Directors to discuss important management issues for NTT Communications and Group companies, and to aid in accelerating decision-making by the president on operational issues. The Executive Council met 49 times in fiscal 2013. 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 senior executives designated by the president, to address management issues that require specialized expertise. These committees include the CSR Committee, Compliance Committee, Business Risk Management Committee, and Human Rights Awareness Committee. These councils and committees report regularly to the Board of Directors, which deliberates on and oversees their activities.



## Internal Control

In accordance with the new Companies Act which began to be enforced in May 2006, we have formulated a basic policy for the creation of a system of internal controls for the entire NTT Group, and we are in the process of implementing these policies. Concurrently, as a member of the NTT Communications Group, the Board of Directors has resolved to implement the measures necessary for the development of a system of internal controls. We are also working to upgrade and expand internal controls over financial reporting in line with the requirements of the Financial Instruments and Exchange Act, which was enacted in June 2006.

### Basic Approach to an Internal Control System

1. NTT Communications will maintain a system of internal controls, including measures to prevent and minimize losses, to ensure compliance with applicable laws, to enact appropriate risk management, and to carry out proper and efficient business operations.
2. To maintain and assess the effectiveness of the above system of internal controls, NTT Communications has established a Legal and Internal Audit Department. As a monitoring organization, this Department is responsible for regular audits and special audits of high-risk areas common to the NTT Group, in keeping with the standardized auditing criteria of Nippon Telegraph and Telephone Corporation. Necessary steps towards improvement are taken following assessments of the effectiveness of internal controls.
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 development and implementation of the system of internal controls.
5. We will take all necessary steps to comply with Nippon Telegraph and Telephone Corporation's basic policies related to the creation of a system of internal controls.

### Internal Audits

We conduct standardized audits of our internal organizations and Group companies, both in Japan and overseas, primarily through our Legal and Internal Audit Department. These audits prioritize business risks and are aimed at ensuring that businesses are managed in a global, seamless manner. Through these audits, we are working to improve internal controls throughout the entire NTT Communications Group by striving to reduce risk at individual organizations and Group companies while making business improvement proposals.

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# CSR Management

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## 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 Subcommittee and the Global Environmental Protection Sub-committee under the CSR Committee.

The CSR Committee meets twice a year. In fiscal 2013, representatives of thirteen major Group companies attended these meetings. The Committee issues CSR and activity reports, and considers and implements measures aimed at promoting CSR activities.

The Committee will continue to work to foster the NTT Communications Group's CSR initiatives and awareness by holding discussions on a regular basis.



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# Compliance

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## Compliance Ethics Framework

For the NTT Communications Group, compliance goes well beyond merely adhering to laws and ordinances. Therefore, we strive to establish a high level of corporate ethical standards in order to fulfill our social obligations. For this reason, we set up the Compliance Committee in fiscal 2002 and have established lines of responsibility by appointing a director, department, and officials in all business units to oversee corporate ethics. In addition, we provide annual compliance training to all employees and directors, including those at Group companies, as well as other personnel. We also actively conduct internal awareness-raising programs, including surveys on corporate ethics and a call for compliance slogans.

Looking to the future, based on the NTT Group Corporate Ethics Charter we will continue to take various initiatives to create an environment that enables everyone, from senior executives to all Group employees, to carry out their work duties while adhering to high ethical standards.

## Consultation Hotline

We established the NTT Communications Group Hotline, which can be accessed by Group employees in all countries.

Additionally, 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.

The Corporate Ethics Help Line (Consultation Center) is available to all NTT Group company employees, and serves as an external point of contact and consultation.

Click on <http://www.ntt.com/compliance/> for details regarding the Corporate Ethics Help Line (Consultation Center) (Japanese only)

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## Risk Management

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### 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.

In fiscal 2010 we redesigned our risk management system. At that time we identified 25 material risk categories, and listed them in our Risk Definition Report. We adopted a system to monitor the management status of material risks through audits, while separating risk-related operations and making them more efficient. We will maintain these activities on an annual basis from fiscal 2012 onward, continuing to examine risks for each organization and requesting ongoing consideration and revision of countermeasures. In addition to asking for voluntary evaluations of the status of organizational countermeasures by the heads of all organizations, including directors, and ensuring that no risks have been overlooked, we conduct operational audits of each organization to evaluate the status of risk-related countermeasures. We will also extend these activities to include principal Group companies in Japan as we pursue risk management throughout the NTT Communications Group.

We created a system to collect accurate risk information and ensure proper decision-making in response to potential 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.

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

### Crisis Risk Management

In the aftermath of the Great East Japan Earthquake, society's interest in crisis risk management and the corporate sector's ability to anticipate and respond to large-scale disasters have both risen dramatically. With a renewed awareness of our responsibilities and the need to maintain telecommunication services as an integral part of society's basic infrastructure, we are endeavoring to ensure a speedier response to emergency situations. To this end, we are working diligently to improve our management structure. In addition to ensuring strict adherence with crisis management manuals, we are raising awareness across all departments and divisions through training and various other initiatives. In fiscal 2013, partly in response to the requirements of the Act on Special Measures for Preparedness and Response against Pandemic Influenza and New Infectious Diseases, and from the perspective of ensuring respect for human life, we drew up plans outlining how we would undertake and fulfill our duties as a specified public institution in response to a pandemic. We made progress toward the formulation of a specific business continuity plan (BCP) based on this.

The operation plan outlining our measures for preparedness and response against pandemic influenza and new infectious diseases, prepared in response to this act, is available [here](#).

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## Security Declaration

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

## NTT Communications Security Declaration

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

We regard security as our top priority when providing services to our customers, and we pledge to work with them to achieve optimal 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 employees of our corporate partners 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

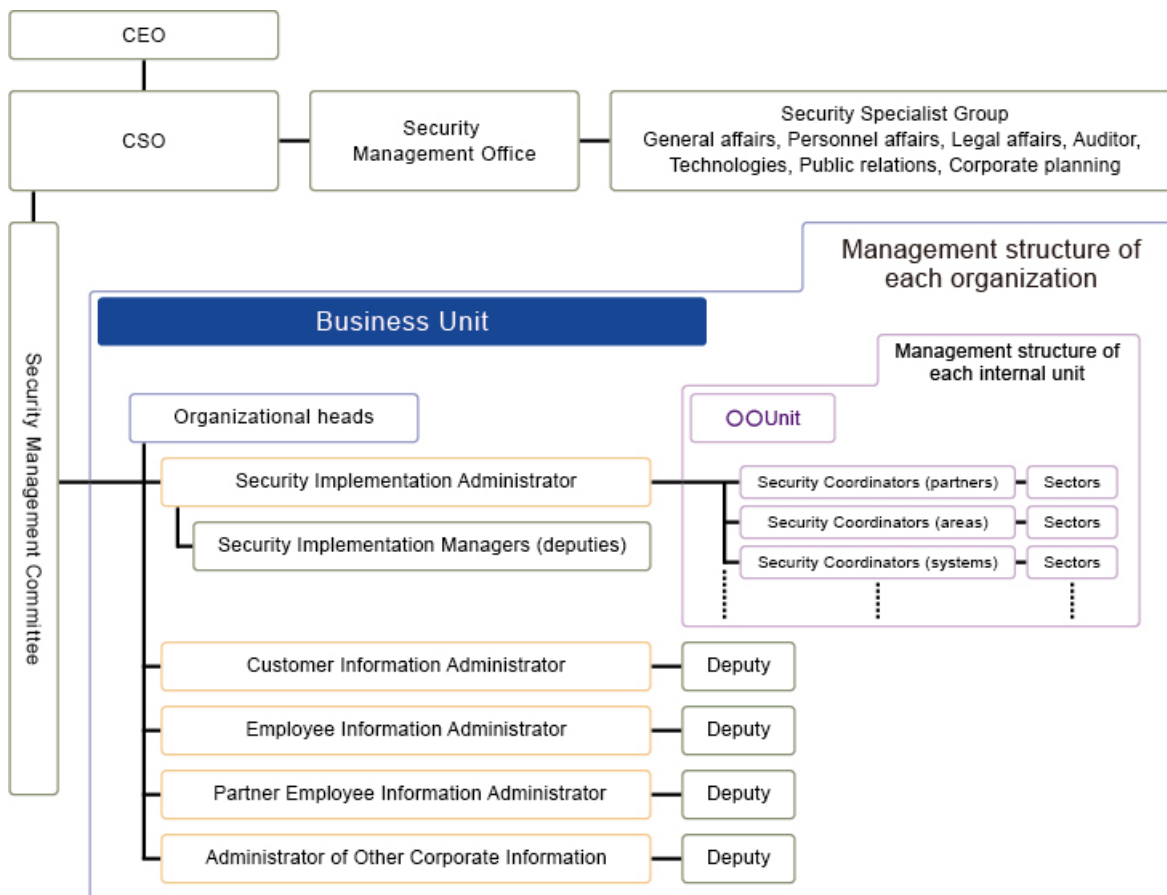
We have established uniform information security management benchmarks and policies in Japan and abroad, in keeping with the requirements of ISO/IEC 27001, the international standard for information security management systems. We regularly monitor compliance and take necessary corrective action as part of our ongoing governance efforts to improve our security management levels. Specifically, we established the Security Management Office under the Chief Security Officer to:

1. Formulate rules and standards and educate all employees
2. Plan and apply Companywide information security policies
3. Monitor compliance with information security regulations and take any necessary corrective action
4. Ensure a unified response to information security incidents. Specially assigned officials in each business unit manage information security. Major initiatives in fiscal 2013:

We carried out a comprehensive check of companywide IT systems. In order to respond to software vulnerabilities, and as part of our efforts to reduce security risks by promoting the WideAngle comprehensive risk-management service throughout the Company, we utilized a vulnerability assessment information distribution Perspective (ISMP) to conduct centralized management of companywide IT systems. In this manner, we introduced a process for security-issue response while also raising the level of our security management in other ways.



Security Management Framework



**Measures 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 with respect to the handling of customer information.

**Third-Party Assessment and Certifications**

As of March 2014, 21 Group companies, comprising nine Group companies in Japan and twelve overseas subsidiaries, have received Information Security Management System (ISMS) certification from external organizations. Eight companies that primarily handle personal information entrusted by customers have obtained Privacy Mark accreditation in recognition of their personal information safeguards.

**Accelerating Initiatives in line with CSR Indices**

The NTT Communications Group has identified efforts to “ensure information security” as one of four priority CSR index areas, and is engaging in appropriate ongoing activities. Among a wide range of activities, the Group is strengthening the reliability of its information handling processes, acquiring and maintaining ISMS certification, and conducting security surveys. We have identified the raising of workplace awareness as an especially important responsibility as an ICT company, and we are actively conducting education and training.



The e-Learning security training screen - we maintain an annual completion rate of 100% for all eligible training participants

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## CSR Report 2014

# Respecting Human Rights

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## Promoting Human Rights Education

In order to create a rich corporate culture with a respect for human rights, in July 1999 the NTT Communications Group put in place a basic human rights education policy, and since then we have continued to actively promote human rights awareness. We also established a Human Rights Awareness Committee, which is charged with the establishment of a corporate constitution that does not tolerate discrimination of any kind and the promotion of human rights education. Among its many duties, the Committee reports on educational activities and deliberates on promotional measures.

### Basic Policy on Human Rights Education

As a company that diligently strives to develop its global business, NTT Communications places the utmost importance on solving human rights issues, including discrimination, as a part of our effort to build a rich corporate culture with a respect for human rights. As we strive to establish a corporate constitution that does not tolerate any form of discrimination, we are working to find solutions to human rights and discrimination issues through every facet of our business activities.

### 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 and temporary staffs equally, out of trust and respect for diversity and individuality. We work to raise human rights awareness by issuing a monthly in-house newsletter that introduces case studies with themes such as workplace communications.

### Human Rights Education Training

All regular employees of the NTT Communications Group, as well as temporary staffs of our corporate partners, must attend classes on human rights in the workplace in order to foster a heightened sense of awareness within each and every employee. In fiscal 2013, we conducted human rights awareness training for all employees, reviewing the importance of human rights as a company. We also sought to cultivate among all our employees a consciousness of ways to avoid communication problems in the workplace becoming obvious. We will continue to heighten employee awareness of human rights issues through such educational programs. Through these efforts, we strive to develop workplaces that do not tolerate harassment, as we promote respect for diversity and acceptance of differences. We will thus continue working to develop even brighter and more energetic workplaces.

### Soliciting Human Rights as well as Regulatory Compliance and Ethics Slogans

Each year we solicit slogans relating to human rights as well as regulatory compliance and ethics in order to increase understanding of human rights issues.

A total of 20,273 entries from 10,524 people, representing an all-time high, were submitted in fiscal 2013. The top prize-winning slogan was: "The positive cycle that comes from a word of appreciation." The slogans are collected from all Group employees, including employees of overseas subsidiaries, temporary staffs, and employee family members. In fiscal 2013, the number of submissions reached record levels.

We hope to increase understanding of human rights by introducing the best slogans to all workplaces so that employees have something close at hand to remind them of human rights and further heighten awareness.

## Human Rights Consultation Helpdesk

In fiscal 2013, we extended the reach of our workplace consultation helpdesk to provide a system whereby employees, including employees of Group companies, temporary staffs and employees of foreign nationality, can easily seek consultation regarding workplace concerns. In the future we plan to be more proactive in addressing potential employee concerns through enhanced training of managers aimed at improving employees' mental health.

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## CSR Report 2014

## CSR Priority Areas and Indexes

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### ■ CSR Priority Areas

- We will consistently engage in activities that garner the trust of society.
- We are working to protect the continued beauty of the planet while supporting the harmonious coexistence of all living things.
- We take great pains to nurture strong ties of mutual trust based on a deep respect for our employees and make every effort to put in place workplace environments that allow employees to fully express their individuality and fulfill their inherent potential.
- We have positioned transparent and sound management as a key priority.

### ■ CSR Indexes 2013–2014

- 2013 CSR Index Results
- 2014 CSR Index Targets

## CSR Report 2014

## CSR Priority Areas

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We have identified four priority areas and have made efforts to implement CSR activities in line with our Basic CSR Policy. Here, I would like to touch on the areas of particular focus for each of our priority areas and our main activities for fiscal 2013.



**Kiyoshi Mori**  
Executive Vice President Chairperson of the CSR Committee

### Area 1: Contributing to Society

We will consistently engage in activities that garner the trust of society.

#### Areas of Particular Focus

- Develop ubiquitous network infrastructure
- Ensure highly stable and reliable mission-critical infrastructure
- Engage in social contribution activities

#### Key Social Issues

- Consumers
- Community participation

#### Main activities for fiscal 2013

- Global rollout of security operations
- Quality Improvement Forum with overseas partner carriers
- NTT America's social contribution activities

#### Other initiatives

[Click here for details](#)

### Area 2: Protecting the Global Environment

We are working to protect the continued beauty of the planet while supporting the harmonious coexistence of all living things.

#### Areas of Particular Focus

- Prevent global warming
- Reduce waste
- Reduce paper consumption
- Preserve biodiversity

#### Key Social Issues

- The environment

#### Main activities for fiscal 2013

- Operating an energy-efficient data center in the UK
- Bringing the Tokyo No. 6 Data Center on line
- Obtain certification for data centers in each country under LEED, the global environmental evaluation standard

#### Other initiatives

[Click here for details](#)

### Area 3: Respecting Our Employees

We take great pains to nurture strong ties of mutual trust based on a deep respect for our employees and make every effort to put in place workplace environments that allow employees to fully express their individuality and fulfill their inherent potential.

#### Area of Particular Focus

- Respect diversity and take steps to promote equal opportunity and other objectives

#### Key Social Issues

- Human rights
- Labor practices

#### Main activities for fiscal 2013

- Develop professional human resources
- Global Human Resource Management (GHRM) initiatives
- Increasing employment of foreign-national students
- Supporting career development for a diverse workforce

#### Other initiatives

[Click here for details](#)

### Area 4: Governance

We have positioned transparent and sound management as a key priority.

#### Area of Particular Focus

- Ensure information security

#### Key Social Issues

- Organizational governance
- Fair business practices

#### Main activities for fiscal 2013

- Bolster vulnerability analyses of information systems
- Implement information security surveys at Group companies and overseas subsidiaries

#### Other initiatives

[Click here for details](#)

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CSR Report 2014

# CSR Indexes 2013-2014

CSR Priority Areas

CSR Indexes 2013-2014

Based on our basic CSR policy, we established indices for the actions we are taking to contribute to society, protect the environment, show our respect to employees, and implement corporate governance. We perform self-assessment on the results of these indices, then revise and improve upon them for the following year.

## 2013 CSR Index Results

We have established new CSR indices since fiscal 2012 that reflect our CSR Priority Activities. Based on indices for each of these four CSR Priority Activities, we will continue to steadily conduct various CSR activities.

Achievement Levels	
Self-Assessment in Four Levels	
☆☆☆☆	: Target not achieved at all
☆☆☆☆	: Target only partially achieved
☆☆☆☆	: Target almost achieved
☆☆☆☆	: Target achieved

Priority Activities	Measures	Qualitative Targets	Achievements	
			Status of Activities	Self-Assessment of Targets
<b>Governance</b>				
Ensure information security	Incorporate privacy mark expertise into regular PDCA cycle	Update internal awareness activities and related regulations, so that by obtaining and updating privacy mark certification, we incorporate the expertise we have cultivated into the PDCA cycle for regular operations.	Continuously adhered to a PDCA cycle for personal information protection (by revising regulations, awareness, audits, etc.), eliminating non-compliance in the area of privacy mark renewal screening by outside institutions (July).	☆☆☆☆
	Continuously raise awareness by implementing training programs	We will reduce incidents by working to enhance awareness through stratified security training programs.  <b>[Quantitative target]</b> Companywide security training and comprehension level measurement 100% of target employee training course enrollment	Security training specific to job role conducted as follows: · Companywide security training and gauging levels of understanding: (Training) October to December; (Gauging) January to February · IRT training for systems managers: February to March · Training for those responsible for implementing security management/managers: February  <b>[Quantitative result]</b> · Training and evaluation of employee understanding: 100% completed · IRT training participants: 92 · Participants in training for security management personnel/managers: 108	☆☆☆☆
	Strengthen management of processes and systems	We will strengthen management of processes for safely handling customer information, bolster vulnerability analyses of information systems and expand such analysis Group-wide.	· Throughout the year, appropriately managed application and approval systems for downloading customer information. · Conducted vulnerability checks of Company and Group company information systems.  <b>[Quantitative result]</b> · Number of download approvals (for the year): 542 · Number of vulnerability checks conducted: 205 systems	☆☆☆☆
	Implement information security surveys	We will conduct security surveys on target companies.	· Added five new companies (NTT Australia & ICT Solutions, DTSI, Net Magic, Gyron, and NTT Com Security Nordis) and conducted surveys of all target companies.	☆☆☆☆

Priority Activities	Measures	Qualitative Targets	Achievements	
			Status of Activities	Self-Assessment of Targets
			<p><b>[Quantitative result]</b></p> <ul style="list-style-type: none"> <li>Surveys conducted (between August and March) at 12 Group companies in Japan and at 23 overseas subsidiaries</li> </ul>	
<b>Contributing to Society</b>				
<b>Develop ubiquitous network infrastructure</b>	Provide Arcstar Universal One	We are working to resolve corporate ICT issues as a next-generation network service to ensure continuous, secure and convenient connectivity with the global cloud. We will strive to enhance convenience by adding functions that will realize global-seamless and cloud-seamless operation.	<p>Network service demand has expanded sharply, owing to the rapid proliferation of cloud services. In response, in May 2013 we added a 100Gbps Ethernet interface response menu to our Arcstar Universal One dedicated Internet line with a complete bandwidth guarantee. The use of three routes—Pacific side, central, and Japan Sea side—contributed to increases in customer network reliability.</p> <p>As a result of the January 2014 acquisition of Virtela Technology Services, a leading US network carrier, we expanded the service area for Arcstar Universal One and promoted advancements in functionality.</p>	<p>★★★★</p> <p>In March 2014 we were designated a "Leader" in a report by Gartner, a leading US IT advisory company, in an evaluation of carriers providing global network services. The report, entitled "Magic Quadrant for Global Network Service Providers," gave us high marks based on our proactive initiatives in expanding our global network service area, and our efforts to make these services more sophisticated through measures such as our acquisition of Virtela.</p> <p>To make things even more convenient for our customers, we will accelerate our initiatives in the direction of integrated global network business with Virtela.</p>
	Provide reliable and secure hosting services	We will provide Perspective services centered on Biz Hosting in order to realize a ubiquitous environment in which devices of all kinds can be reliably, securely and easily connected from any location. We will strive to further upgrade and extend our range of services, in an effort to boost user friendliness.	<p>We expanded service classes for our Biz Hosting Enterprise Cloud private cloud service, increased the number of overseas bases, and acquired certifications (ISMS). For our "Biz Hosting Cloud" public cloud services we introduced a high-security version and enhanced functionality and performance, thereby improving service and convenience.</p> <p>We also earned high ratings in third-party evaluations in Japan and overseas. In the IDC "MarketScape: APAC DC&amp;Cloud 2013" report we achieved the "Leaders" position for the first time. We were also placed in the "Visionaries" position in Gartner's "Magic Quadrant for Cloud-Enabled Managed Hosting APAC 2013." In Nikkei Computer's 18th customer satisfaction survey we ranked first in the public cloud services division.</p>	<p>★★★★</p> <p>In the next fiscal year we will continue to enhance our service lineup and increase convenience.</p>
	Provide Biz Mail cloud computing email service to corporate customers	In addition to initiatives in the previous fiscal year to increase compatibility with smartphones and tablet devices, we made the service compatible with a secure browser that allows customers to work within a secure environment as desired. We also added English-language capabilities to enable use globally, and expanded functionality in a variety of ways, thereby providing a more flexible usage environment.	<p>As part of our efforts to expand functionality needed for internal/external collaboration work, we introduced file sharing and scheduler links (October). We introduced comprehensive customer portal connectivity to improve customer convenience (March). We made our first overseas foray, as we began providing service in Taiwan (March).</p> <p><b>[Quantitative result]</b> Installations: Approximately 200,000 IDs Ordered: Approximately 37,000</p>	<p>★★★★</p>
	Provide highly stable and reliable data centers	We will provide data centers via more than 100 bases across the world. While implementing quality control by means of a unified global standard, we will work toward disaster-resilient data center operations and plan further	We established Nexcenter as a new brand for data center services, and we inaugurated service at the Tokyo No. 6 Data Center and the Hong Kong Financial Data Center. In addition to expanding our data center services globally, we	<p>★★★★</p> <p>In the next fiscal year we will continue to increase the number of our bases and further improve quality.</p>



Priority Activities	Measures	Qualitative Targets	Achievements	
			Status of Activities	Self-Assessment of Targets
		developments and expansion.	<p>worked to enhance service levels and quality. We also earned high ratings in third-party evaluations in Japan and overseas.</p> <ul style="list-style-type: none"> <li>- We were named Data Center Service Provider of the Year in the 2013 Frost &amp; Sullivan Japan Excellence Awards.</li> <li>- We received the comprehensive grand prix in the Data Center Category in 7th ASP SaaS Cloud Awards 2013.</li> <li>- We received the Best Service Award in the data center division in the Nikkei BP 8th Cloud Ranking.</li> </ul>	
	Provide mobile connect safety confirmation and notification service	<p>This service is an effective means of ensuring business continuity in the event of an emergency such as a natural disaster or influenza outbreak. Aiming to provide services that customers can securely access in the event of such an emergency, we will work to adapt the service to various situations in which it may be utilized, while further upgrading and increasing related functions.</p> <p><b>[Quantitative target]</b> We will increase capacity by 10 fold and improve services taking into consideration how our services were affected in the wake of the Great East Japan Earthquake.</p>	<p>With the aim of furthering peace of mind for our customers, we continued in our efforts towards steady improvement. We made improvements in searches for registration conditions, the content of emails confirming registration, and the display of email delivery results and administrator functions (October).</p> <p><b>[Quantitative result]</b> Installations: Approximately 760,000 IDs ordered: Approximately 54,000</p>	★★★★
	Provide reliable and secure OCN services	We will constantly strive to upgrade and expand services so that all customers, irrespective of age group, can reliably access an Internet environment.	<p>In August 2013, we launched five different service plans for NTT DOCOMO's OCN Mobile One LTE-compatible mobile data communication service, which were differentiated by communication capacity and speed. In December 2013 we became the first company to conduct sales in convenience stores. In March 2014, we also launched OCN Hikari Mobile Wari with the OCN Hikari Service. Through efforts such as these we made steady efforts to reinforce our services in response to customer feedback.</p> <p>As part of our participation in ACTIVE, a government-private-sector malware countermeasure support project, we enhanced the malware site warning functionality of our OCN Toolbar in November 2013. Also, in March 2014, in collaboration with the National Police Agency and the Internet Content Safety Association, we introduced a new initiative to prevent the spread of child pornography using file-sharing software.</p>	<p>★★★★ In the area of service enhancements, we worked to extend our OCN Mobile One service and also worked to increase awareness of MVNO, which enable all our customers to enjoy easy access to the Internet from anywhere.</p> <p>In the area of information security, we worked to create an environment in which people can use the Internet with confidence, through malware countermeasures and measures to prevent the spread of child pornography. Nevertheless, unauthorized OCN ID access in July 2013 led to the possibility of some 4 million OCN ID email addresses and encrypted passwords being leaked, necessitating a prompt response to such vulnerabilities.</p>
Ensure highly stable and reliable mission-critical infrastructure	Develop disaster-resilient networks	<p>We seek to build an even more disaster-resilient society by providing high-quality ICT services through multiple transmission routes, the distributed location of important communication centers and other initiatives in preparation for emergencies.</p> <p>We will examine ways to enhance the reliability of our relay Perspective network through multiple-route switching functions introduced by new optical wavelength remote-switching technology, as well as continue implementing</p>	In Japan, we built relay communication routes to the existing Osaka route and the once isolated Wakasa Bay route. Globally, we built and started operating the ASE and increased routes to Asia.	★★★★ We will continue to maintain disaster-resilient Perspective facilities that can minimize the effects of relay route damage in response to the latest hazard updates and official announcements, and quickly restore

Priority Activities	Measures	Qualitative Targets	Achievements	
			Status of Activities	Self-Assessment of Targets
		necessary measures along with hazard updates such as earthquakes centered on the Tokyo metropolitan area and the Nankai Trough.		services in the affected areas.
	Measures to address major natural disasters and similar events (zero accidents)	<p>We will upgrade disaster drills assuming hypothetical scenarios, including a major natural disaster extending to the Tokyo metropolitan area and rolling blackouts. We will refine and entrench crisis management processes in close cooperation with central and local governments.</p> <p><b>[Quantitative target]</b> Annual drills</p>	<p>On April 22, we conducted a companywide disaster drill putting disaster response personnel in place, based on a hypothetical earthquake with an epicenter in the Nankai Trough. This drill involved response personnel from thirteen principal companies in the NTT Communications Group, and it was the first such drill to incorporate intragroup information sharing. We are introducing improvements based on issues that came to light during the drill. In the second half of the fiscal year, we prepared charts outlining measures needed for emergency recovery, assuming an earthquake under the Tokyo metropolitan area.</p> <p><b>[Quantitative result]</b> Conduct drills once a year</p>	<p>★★★★ In a situation where the exact scenario was not revealed, people involved in the drills obtained and communicated relevant information to headquarters. Furthermore, cooperation between damage control teams during the drill were in line with our expectations in the event of an actual disaster, and companies involved in the drill performed essentially according to expectations.</p> <p>We also finished preparing charts outlining measures needed for disaster recovery, assuming an earthquake under the Tokyo metropolitan area.</p>
	Implement network surveillance 24 hours a day, 365 days a year	<p>We will provide surveillance of services for customers (networks, Internet, cloud computing, hosting, and voice services, etc.) at all times, while promoting seamless global responses.</p> <p><b>[Quantitative target]</b> Reduction in number of long-term failures · In Japan: 140/year · Overseas: 500/year</p>	<p><b>Japan</b> (1) Reduced long-term failures in Communications equipment (2) Shortened time to dispatch maintenance personnel for subscribers (3) Promoted prompt arrangement of cutoff alarms (4) Used 0 reports to prepare for on-site arrangement</p> <p><b>Overseas</b> (1) Escalation of long-term circuit control on a failure front (2) Standardization of the failure response process through the introduction of the Navi tool and RBA (3) Early-stage alarm confirmation through integrated NMS introduction (4) Continuous individual quality improvements for specified lines prone to frequent long-term failures (5) Continuous collaborative improvement efforts with 6 core carriers and ALPJ for China</p> <p><b>[Quantitative result]</b> Cases in fiscal 2013 resulting in long-term malfunction (From April to February) · Japan: 143 network cases/year Other: 28 cases/year · Overseas: 485 cases/year</p>	<p>★★★★ With regard to networks in Japan, the number of cases in which NTT Communications was the source of failure increased, and we came in slightly higher than our target. However, performance was below that of the previous year. For cloud services, the number of failures was substantially higher than targeted, owing partly to expansion of services. Overseas, we trended toward a slight increase over the previous year's results. In the next fiscal year, we will further reinforce carrier management. Both in Japan and overseas, we will work to reduce extended-period failures.</p>
	24-hour, year-round monitoring to ensure reliability and security of corporate information systems (SOC)	<p>Corporations are being increasingly called upon to monitor and control the sound and effective operation of information systems. In this context, we will actively work to ensure the reliability and safety of the corporate information systems we are contracted to service, with 24-hour, 365 days-a-year operations, as we address a variety of changes in society.</p> <p><b>[Quantitative target]</b> "Not to be disclosed" unauthorized access detection first contact within 15 minutes</p>	<p>We are reporting on unauthorized access detection trends and quality on a weekly and monthly basis to achieve quality targets.</p> <p><b>[Quantitative result]</b> Attaining 100% annual target of "no disclosure" unauthorized access detection first contact within 15 minutes</p>	<p>★★★★ Certain parts of the plan were delayed, but initiatives were undertaken and are in progress.</p>

Priority Activities	Measures	Qualitative Targets	Achievements	
			Status of Activities	Self-Assessment of Targets
		Success rate: 99.8% or better per year		
Engage in social contribution activities	Number of participations in CSR activities such as regional beautification	We aim to achieve this target by implementing various clean-up programs and other activities, and tying them into NTT Group initiatives.  [Quantitative target] 600 participants	Participated in simultaneous cleanup of areas in Chiyoda Ward a total of two times: total of 334 people Organized cleanup of building vicinity by rugby team (monthly) 55 people x 12 = 660 Western Japan Sales Headquarters (once): 30 people  [Quantitative result] 1,024 people	★★★★ Initiatives were undertaken and are in progress according to plan.
	PET bottle caps	We will promote Ecocap activities as part of a concerted initiative throughout the NTT Group.  [Quantitative target] 1,580,000 caps	Continue Group-wide Ecocap activities  [Quantitative result] 721,539 caps (Breakdown) In offices: 702,330 caps; at rugby pitches: 19,209 caps	★★★★
<b>Global Environmental Protection</b>				
Preventing global warming	Reduce CO2 emissions	Reduce CO2 emissions from communications and office buildings thanks to energy-saving measures by the NTT Communications Group.  [Quantitative target] 294,000t-CO2 or less	· Introduction of energy-saving solutions for air conditioning (such as SmartDASH) in nine buildings, for a cumulative total of 28 buildings, getting closer to our target of a 20% reductions · Continuous energy-saving measures at office buildings  [Quantitative result] 273,000t-CO2 (Emissions coefficient: 0.33kg-CO2)	★★★★
Reducing waste	Reduce final waste volume	The NTT Communications Group will reduce the final waste disposal rate of industrial waste (office waste, dismantled communications equipment, construction waste) by implementing measures to improve recycling rates.  [Quantitative target] Office waste: 76%	· Promotion and appropriate understanding of thermal recycling · Perform inspection of final processing site  [Quantitative result] 81%	★★★★
Reduce paper resources	Reduce paper consumption	The NTT Communications Group reduced the amount of paper it uses by introducing integrated machines and improving printing methods.  [Quantitative target] 8,500 sheets/year/person	· Understood the number of paper sheets used by each individual and analyzed the necessity of paper use · Sought usage case studies for projectors and other ICT devices  [Quantitative result] 6,841 sheets/year/person	★★★★
<b>Respecting Our Employees</b>				
Respect diversity and take steps to promote equal opportunity and other objectives	Promote diverse working styles by extending work-related reforms across the Company	In response to the issue of workplace productivity raised in an all-employee survey, make a sustained effort to achieve process improvements.  [Quantitative target] Improve "workplace productivity" evaluation in all-employee survey	Deployed secure Biz Mobile Connect secure browser for all employees.  [Quantitative result] Increase after proactive recommendation of Biz Mobile Connect = 917 (as of March 31, 2014)	★★★★
	Enhancing support for balancing child raising/nursing care responsibilities and careers	Conducting support activities to enable career continuation, ensuring that both men and women can work enthusiastically by enabling a balance between work and childcare and nursing-care responsibilities.	(1) Held a seminar on supporting the balance between work and childcare responsibilities for employees returning from healthcare leave (June) (2) Held a seminar on returning from leave for employees currently on childcare leave (February) (3) Held life event (pre-natal) consultations (May, June and December) (4) Held training for short-term employees (February)  [Quantitative result] Total participation by 165 people, comprising (1) 46 people, (2) 17 people, (3) 32 people and (4) 70 people.	★★★★

Priority Activities	Measures	Qualitative Targets	Achievements	
			Status of Activities	Self-Assessment of Targets
	Improve the statutory disabled employee ratio	Moving toward the new statutory employment rate of 2.0%, conduct activities throughout the entire NTT Communications Group aimed at increasing the employment rate.  [Quantitative target] Statutory employment rate of 2.0%	To meet the statutory employment rate of 2.0%, continued proactive recruiting efforts for the NTT Communications Group as a whole.  [Quantitative result] NTT Communications: 1.98% Groupwide: 1.60% (As of June 1)	★★★★
	Expand personnel exchanges on a global scale	We will energize personnel exchanges on a global scale by stepping up various initiatives, such as a program to dispatch primarily younger and mid-career employees as overseas trainees, and the secondment of employees of overseas subsidiaries to Japan.  [Quantitative target] Maintain or increase the previous fiscal year's trend toward an increase in the number of secondments and hostings (target: 100 people)	From July 2013, we have steadily seconded trainees from NTT Communications to overseas Group companies. Also, we hosted employees from overseas Group companies on a short-term and long-term basis.  [Quantitative result] Personnel seconded overseas by NTT Communications: 81; personnel from overseas companies hosted on short-term basis: 24	★★★★ In addition to increasing the number of people seconded from NTT Communications, by increasing contact with people overseas we fostered employee motivation. We also introduced term flexibility to facilitate the hosting of more personnel from overseas.
	Improve ratio of women in management positions	Continue with measures and activities that are underway with the aim of increasing the percentage of female managers.  [Quantitative target] Increase the "career mindedness" assessment by female employees in companywide questionnaires.	Continued mentoring activities. Held four OpenCafe meetings as seminars by mentors for women (including in West Japan and for new employees).  [Quantitative result] Questionnaire results indicate an improvement in the career-mindedness of female employees, to nearly on par with male employees (conducted in February 2014).	★★★★

### 2014 CSR Index Targets

Priority Activities	Measures	Targets	
		Qualitative Targets	Quantitative Targets
<b>Governance</b>			
Ensure information security	Continuous Privacy Mark accreditation	Address new issues with regard to changes in privacy mark screening standards, revise related regulations, and complete fifth updates.	--
	Continuously raise awareness by implementing training programs	We will reduce incidents by working to enhance awareness through stratified security training programs.	Ratio of eligible people attending Companywide security training/having their level of understanding measured: 100%
	Strengthen management of processes and systems	We will strengthen management of processes for safely handling customer information, bolster vulnerability analyses of information systems and expand such analysis Group-wide.	--
	Implement information security surveys	We will expand information security surveys to include targeted companies.	--
<b>Contributing to Society</b>			
Develop ubiquitous network infrastructure	Provide Arcstar Universal One	We are working to resolve corporate ICT issues as a network service to ensure continuous, global, secure and user-friendly connectivity to the cloud. We will strive to enhance convenience by adding functions that will realize global-seamless and cloud-seamless operation.	--
	Provide reliable and secure hosting services	Provide a backbone service centered on Biz Hosting in order to offer an environment that is safe, secure, and seamlessly connected. Work to expand and further enhance our service lineup in the future.	--
	Provide Biz Mail cloud computing email service to corporate customers	Continue to adapt to increasingly diverse working styles, more vigorous global business, and ongoing overseas business development in order to provide value for customers in Japan at overseas bases, as well as for overseas customers. Continue to augment functionality.	APAC area: July target North America: October target
	Provide highly stable and reliable data centers	We will provide data centers via more than 140 bases across the world. While implementing quality control by means of a unified global standard, we will work toward disaster-resilient data center operations and plan further developments	--

Priority Activities	Measures	Targets	
		Qualitative Targets	Quantitative Targets
		and expansion.	
	Provide mobile connect safety confirmation and notification service	In response to changing usage scenarios, increase value for smartphone use. Also, given the increasing importance of response to various natural disaster risks, work to improve functionality from the standpoint of providing disaster information.	Release of smartphone app: May target
	Provide reliable and secure OCN services	We will constantly strive to upgrade and expand services so that all customers, irrespective of age group, can reliably access an Internet environment. Reinforce security risk management, such as by utilizing MSS for global IP address retention systems, compliance with service interruption procedure manuals when software vulnerabilities are detected, and updates of registration content.	--
<b>Ensure highly stable and reliable mission-critical infrastructure</b>	Develop disaster-resilient networks	We will examine ways to enhance the reliability of our relay Perspective network through multiple-route switching functions introduced by new optical wavelength remote-switching technology, as well as continue implementing necessary measures along with hazard updates such as Tokyo metropolitan area and Nankai Trough epicentered earthquakes, etc.	--
	Measures to address major natural disasters and similar events (zero accidents)	Assuming hypothetical earthquakes in the Nankai Trough and directly under the Tokyo metropolitan area, perform checks of necessary activities for emergency recovery, improve the content of charts outlining recovery measures, and conduct disaster-response drills for restoration cases and in response to planned electrical outages. Also, augment and establish crisis management processes for liaising with government and municipal bodies. Enhance liaisons within the NTT Communications Group.	Annual drills
	Implement network surveillance 24 hours a day, 365 days a year	We will constantly monitor customer services (networks, Internet, cloud, hosting, voice service, etc.) to promote global-seamless operations.	Reduction in number of long-term failures · In Japan: 140/year · Overseas: 500/year
	24-hour, year-round monitoring to ensure reliability and security of corporate information systems (SOC)	Enhance and strengthen services that contribute to safe and secure corporate information systems in response to a growing number of increasingly sophisticated security threats.	--
<b>Engage in social contribution activities</b>	Participate in community beautification programs and other social contribution activities	We aim to achieve this target by implementing various clean-up programs and other activities, and tying them into NTT Group GTN initiatives.	1,980 participants
	Promote Ecocap Movement	We will promote Ecocap activities as part of a concerted initiative throughout the NTT Group.	1,490,000 caps
<b>Global Environmental Protection</b>			
<b>Preventing global warming</b>	Reduce CO2 emissions	Reduce CO2 emissions from communications and office buildings thanks to energy-saving measures by the NTT Communications Group.	279,000t-CO2 or less (Emissions coefficient: 0.33kg-CO2)
<b>Reducing waste</b>	Reduce final waste volume	The NTT Communications Group will reduce the final waste disposal rate of industrial waste (office waste, dismantled communications equipment, construction waste) by implementing measures to improve recycling rates.	Office waste: 84%
<b>Reduce paper resources</b>	Reduce paper consumption	The NTT Communications Group will reduce the amount of paper it uses by introducing integrated machines and promoting the use of tablets at meetings. Work to reduce paper use by holding paperless meetings and slimming meeting programs by one-eighth.	8,500 sheets/year/person
<b>Respecting Our Employees</b>			
<b>Respect diversity and take steps to promote equal opportunity and other objectives</b>	Promote diverse working styles by extending work-related reforms across the Company	In response to the issue of workplace productivity raised in an all-employee survey, make a sustained effort to achieve process improvements.	We will improve assessments of workplace productivity in companywide employee questionnaires.
	Enhancing support for balancing child raising/nursing care responsibilities and careers	We will conduct support activities so that men and women can continue their careers as they joyfully work while providing child and family care at home.	--
	Improve the statutory disabled employee ratio	To achieve the statutory employment rate of 2.0%, continue recruitment activities throughout the entire NTT Communications Group.	Statutory employment rate: 2.0%

Priority Activities	Measures	Targets	
		Qualitative Targets	Quantitative Targets
	Expand personnel exchanges on a global scale	Increase the number of companies involved in both seconding and hosting employees. Enhance program follow-up during secondment and hosting, concentrating on more effective personnel interaction.	NTT Communications will continue to second approximately 80 people overseas and to host around 20 people from overseas.
	Improve ratio of women in management positions	Continue mentoring and seminar activities by female managers, working to increase employee career-mindedness.	As companywide questionnaire results have shown an improvement in the career-mindedness of female employees, continue to maintain this improvement.

[▶ CSR Priority Areas](#)

[▶ CSR Indexes 2013–2014](#)

CSR Report 2014

# Becoming a True Global ICT Partner of Choice around the World

Conducting business in accordance with its CSR Policy, NTT Communications strives to resolve societal issues and contribute to sustained development.

- ▼ Contributing to Society
- ▼ Protecting the Environment
- ▼ Respecting Our Employees

## Contributing to Society One-Stop ICT Environments with Globally Consistent Management Services

In support of our “Global Cloud Vision,” NTT Communications launched an ICT management service called “Global Management One” in November 2013. Operating across the entire ICT environment for companies developing global operations, “Global Management One” supports globally consistent services, quality and prices, while substantially reducing the burden on corporate systems departments and the costs associated with ICT management operations.



**Societal Perspective**

**Globalization Increasing the Burden of Operating Internal Company Systems**

As companies expand their operations globally, increasing the number of their facilities and conducting M&A activities, corporate systems departments are faced with the challenge of covering an increasing scope of operations, with ICT management operations becoming a growing burden. Often these departments must configure and operate unique systems for different lines of business, countries, regions or facilities. In addition, internationally the turnover of ICT personnel and operations that depend on individual skills and expertise present growing security risks.

These burdens and risks make it difficult for ICT personnel to carry out operations in a strategic manner. This situation presents an opportunity for total operation services that incorporate security measures.

## Global Management One Characteristics

- **Providing a one-stop service that spans the entire ICT environment**

Engineers at NTT Communications draw on their wealth of experience in operations management to provide one-stop support across the entire ICT environment - from applications to clouds and networks - for customers whose operations span the globe. We also tailor the service to match a company's particular ICT environments and applications, minimizing their operational costs when they adopt the system.

- **Automating operational processes and accelerating activity from system failure detection through recovery**

Automation reduces human error and substantially speeds up response to system failure. By taking advantage of the service's automation platform, operational processes from failure detection through recovery are efficiently automated, allowing a reduction of up to 60% in trouble tickets\*.

- **Providing service through multiple operation centers spread around the world**

We use operation centers around the world to provide broad-ranging services in multiple languages, around the clock and throughout the year.

\* An overview and structure of failure information management systems used with large-scale system maintenance management and for customer service, in which various failure information management data (tickets) are recorded to determine process status.

## CASE STUDY

### Total ICT Environment Support for Company A, Which Is Developing Its Global Business at 400 Locations Worldwide

Company A wanted to increase the efficiency of their global ICT operations. By providing this company with total ICT environment support, NTT Communications' Global Management One reduced the cost of setting up their global ICT environment.

#### Customer Requests

#### “To Drastically Reducing the Number of Management Issues Accompanying Globalization”

M&A activity resulted in an increased number of worldwide bases for Company A, which conducts operations at 400 locations around the world. However, the ICT environments produced by these M&A activities varied widely, differing by business division and location. Also, the existence of different security environments in different countries and regions led to various issues as the number of locations increased.

To address this situation, Company A needed to integrate and optimize its global ICT environment and introduce a system of ICT governance based on consistent security policies. At the same time, the company could benefit from a one-stop service that was able to respond flexibly to differing needs at individual facilities.

## Solution

### Standardizing ICT Environments and Resolving Operational Issues in Individual Countries and Regions

Global Management One allows for the modularization of individual services, enabling the customer to choose the particular services necessary to manage and operate ICT environments based on individual site needs. Also, since this service is compliant with the international ITIL standard, Company A was able to take advantage of seamless and high-quality global services at a low cost. Using operation centers across the world to provide a multilingual helpdesk, we were able to offer the company's employees the reassurance of responding to their needs in their native language, providing peace of mind as they carried out their regular operations.





## Background Commentary

One of the strengths of this project was its broad range, ranging from data center configuration to the provision of network, cloud and security services. As our customer had facilities located around the world, staff from various departments at NTT Communications' global bases (in Asia, the Americas and Europe) took part.

The involvement of numerous staff members and the provision of wide-ranging services on a global scale posed a number of issues, but we addressed these challenges and resolved problems through discussion and communications that extended beyond individual locations.



**Masahiro Yoshida**  
Group 7, Sales  
Division 4



## Acquiring LEED, the Global Environmental Evaluation Standard, at Data Centers in Various Countries

As part of its efforts to reduce the environmental impact of the data centers it operates in countries throughout the world, NTT Communications promotes the acquisition of LEED\*1, a global standard for green building certification.

\*1 An acronym for Leadership in Energy and Environmental Design, LEED is a certification system for entire buildings promoted by the US Green Building Council.

## Nexcenter



### Societal Issues

#### Making High Environmental Performance a Data Center Selection Standard

As customers throughout the world demonstrate their understanding of environmental impact reduction and as they introduce initiatives to achieve this objective, they are increasingly looking at strong environmental performance as well as reliability as a crucial factor in their choice of data centers, which consume large amounts of energy. One selection criterion is LEED\*1, a global standard for green building certification. In its efforts to reduce the environmental impact of its data centers around the world, NTT Communications is promoting the acquisition of LEED certification. We are also targeting "green ICT," which is linked to customer satisfaction as well as cost reduction.

**Solutions Adopting Leading-Edge Environmental Impact-Reduction Technologies**

**● Air Conditioning**

We are working to visibly display the temperature inside server rooms. We are also introducing measures to reduce the amount of energy used in cooling, promoting measures such as SmartDASH<sup>2</sup>, which automatically controls temperatures; Aisle Capping<sup>3</sup>, which improves cooling efficiency by dispersing waste heat from air conditioning and ICT equipment; and outdoor air cooling, which uses cold air from outdoors to efficiently cool ICT equipment.

\*2 SmartDASH is a registered trademark of Vigilent Corporation of the United States.

\*3 Aisle Capping is a registered trademark of NTT Facilities, Inc.

**● Lighting**

We are reducing the amount of energy used for lighting by employing LEDs and motion sensors.

**● Other measures**

We are encouraging the use of solar power, wind power and other forms of natural energy. To decrease AC/DC conversion loss, we are adopting high-voltage direct current (HVDC) to more efficiently supply power to ICT equipment, and we are using rotary uninterruptible power supplies (UPSs) with low power loss.

**FILE CASE STUDY**

**Environmental Impact Reduction Measures and Promotion of the Greening of Data Centers**

We are adopting a wide range of new mechanisms and systems at data centers around the world, reducing the amount of energy used in facility operations, conserving resources and increasing the planting of greenery – all with the aim of reducing our environmental impact.

**Basic Certification-Standard Categories**

**Reducing the Environmental Impact of Buildings and Facilities**

**Greening Rooftops**

Planting greenery on rooftops helps to insulate buildings from the sun's heat, reducing the amount of energy needed for cooling.



**Providing Green Spaces**

In addition to preserving greenery and natural ecosystems, the transpiration effect of plant life helps to curtail rising temperatures.



**Promoting the Use of Bicycles, Electric Vehicles and Public Transportation Systems**

By providing bicycle parking spaces and installing electric vehicle charging spaces in parking lots, we are promoting the use of vehicles that reduce environmental impact.



**Basic Certification-Standard Categories**

**Efficient Use of Water Resources**

**Water-Permeable Paved Surfaces**

Enabling rainwater to pass into the ground facilitates its flow back into groundwater.



**Using Well Water and Rainwater to Conserve Water Resources**

We use well water and recycled water for cooling in our air conditioning systems. Rainwater is used to water plants.



**Basic Certification-Standard Categories**

Energy

**Promoting the Use of Renewable Energy**

We promote the use of solar power generation, solar heating and wind power generation.



**Basic Certification-Standard Categories**

Raw Materials and Resources

**Environmental Responsiveness of Buildings**

We use recycled materials inside buildings and in office interiors. We recycle wood and other materials used in the transport of materials and equipment.



**Respecting Our Employees** **Expanding Personnel Interchange on a Global Scale**

With the 2011 launch of Vision 2015, our new business plan, it became even more essential for the NTT Communications Group to cultivate and promote a global human-resource policy to help develop seamless operations in Japan and overseas.

By pursuing initiatives such as hiring non-Japanese students at overseas facilities, accepting secondments to Japan, and conducting overseas training programs, we have increased the level of employee interaction on a global scale. These moves have been part of diversity management efforts to ensure corporate management that leverages the skills, individual strengths and values of a diverse set of employees.



**Societal Perspective:**

**Drawing on Diverse Values and Capabilities in Corporate Management**

We feel that being able to draw on a strong cadre of global personnel is vital to our ability to sustain growth and respond flexibly to a business environment that is undergoing rapid and dynamic change. However, as Japan experiences a falling birthrate, the working population will inevitably shrink. At the same time, an increasingly global society and economy require Japanese society and Japanese companies to adopt flexible strategies that are in harmony with the rest of the world and ensure their survival. For various reasons, we are compelled to change. In order to become a truly global ICT partner of choice, meeting the needs of customers developing businesses on a worldwide scale, we need to foster a corporate culture embracing the values and capabilities that only a diverse personnel body can offer.

**Our Response****“Global One Team” is Our Key Message in Utilizing Global Personnel**

We have adopted the slogan “Global One Team” to represent our efforts to promote global human-resource management. The slogan embodies our goal of going beyond the point of view of individual countries and regions to more fully understand international differences in values and perspectives and ensure corporate management that utilizes diverse human resources.

We are looking beyond the Japanese labor market as we conduct recruiting efforts aimed at hiring diverse, well-qualified personnel from around the world. In addition to foreign exchange students studying at Japanese universities and Japanese people who have graduated from universities abroad, we target potential employees in the growing markets of Asia by taking part in local job fairs and university recruiting drives.

We are also expanding our exchange program, hosting employees of overseas subsidiaries for secondment to Japan for six-month or two-year stays, and sending employees from Japan to overseas subsidiaries for business training. Through efforts such as these, we are encouraging deeper interaction among Company personnel. We have dispatched young employees to work overseas since July 2011 as part of a program to cultivate personnel who are comfortable in a global setting.

**CASE STUDY****Encouraging Development of New Services through Interaction among Personnel from Different Countries**

By using global human resource management to promote greater interaction among personnel, we are giving our employees opportunities to come in contact with new cultures and values. We believe that encouraging these experiences in diverse settings contributes to our overall mission of helping to create an abundant society that delivers peace of mind through internationally seamless ICT activities.

**Comment from an Employee with Overseas Training Experience**

During my fifth year working at the Company I was dispatched as a trainee to a subsidiary in Thailand, where I was involved in the establishment of branches in neighboring countries. I had looked forward to opportunities for overseas training since I first joined NTT Communications, and when I actually had the experience of working with the NTT Group, which is on the front lines of overseas business it made me realize that I wanted to be part of the drive for international business at the NTT Group. One of the most positive aspects of the experience was how it fostered an understanding of the local market, making me feel that I could help augment value-added services and develop my knowledge at headquarters. Since returning to Japan I have mainly focused on launching cloud services in Europe and the United States. If I hadn't had this overseas experience, I would probably have been restricted to a more limited Japanese perspective concerning these services. I hope to have the chance to go overseas again and work with people in different parts of the world in developing and deploying services.

**Mei Sakurai**

Joined the Company  
in 2007

**Comment from an Employee from Outside Japan**

I had an interest in the telecommunications industry, and when NTT Communications came to South Korea to recruit I decided to join the company, with the plan of learning Japanese after I started. I had wanted to take part in work that had a global dimension, and through my involvement in corporate sales I had the opportunity to introduce the Company's business to customers when they came to Japan. My current work is a fairly good match to my original goals. There are no barriers to internal communications, and my fellow workers talk to me freely. In the future I would like to help the Company expand its overseas business by getting involved in work for companies based in other countries, not just Japan.

**Hyunjae So**

Joined the Company  
in 2013



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### Comment from an Employee at an Overseas Subsidiary

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A friend of mine who worked at NTT Communications in Vietnam told me that this was a vibrant company where you could expand your skills—a place where you had the chance to make something of yourself. After working for seven years as an engineer, I asked to be transferred to sales so that I could help further contribute to the company's success. With the aim of broadening my experience, I took advantage of the short-term secondment program, which provided an opportunity to work at headquarters for half a year. My experience in Japan was unexpected, but in a good way. Many of my Japanese team members were able to communicate in English, and I was surprised to learn about programs for hiring people from other countries and about the number of women in management positions. I think there are strong possibilities to further increase this level of diversity and human resource interaction. If we do, I think we will be better able to offer new services from a global perspective that more closely meet local needs.



**Quang Tran**

Joined the Company  
in 2006

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## CSR Report 2014

# Contributing to Society

Under our Basic CSR Policy, we work toward improvements in information and communication technology (ICT) and ensuring information security, and provide stable, highly reliable information and telecommunications services worldwide. Furthermore, through the provision of new business models, we contribute to the creation of a society in which all kinds of people can participate.



## ▶ Maintaining Stable and Reliable Telecommunications Services

- Providing Arcstar Universal One
- Global Cloud Vision
- Providing Data Centers that Promote Safety and Security
- Participating in Businesses around the World
- Construction Begins on Asia Submarine-Cable Express, a High-Reliability Cable that will Link the Asia Region
- The World's Largest Internet Infrastructure Supporting a Stable Network Environment
- Submarine Cable-Laying Technology
- Achieving Managed Quality Operations (Highly Reliable Maintenance Services)

## ▶ Using ICT to Solve Social Issues

- Implementing Disaster Prevention and Public Media Fields Tests
- Providing a School System Perspective Using Cloud-Based Education Support Services to the Yokohama City Board of Education
- Providing OCN IPV6 Services
- "CAVA" Home-Based Call Center Operations
- Health Enhancement Assist Service Joint Field Trial

## ▶ Our Relationship with Society

- NTT Communications' Social Contribution Activities
- Contributing to Society through Websites
- Group Social Contribution Activities through CSR Programs
- Ecocap Movement and NTT Green Team
- Contributing to Local Communities and Preservation of the Natural Environment
- NTT America's Social Contribution Activities
- Participating in TABLE FOR TWO
- Encouraging Employees to Donate Received Gifts
- Cleanup Activities
- "JOLLY'S magazine," a Site about Training Seeing-Eye Dogs
- Social Contributions by NTT Communications' Rugby Team
- Core Business Initiatives Addressing the Great East Japan Earthquake
- Serving Produce from Areas Affected by the Great East Japan Earthquake in Our Employee Cafeterias

## ▶ Ensuring Stable and Reliable Services as Critical Infrastructure

- Keeping Networks Reliable Following Disasters
- Providing Services that Underpin Business Continuity
- Sapporo Business Continuity Center
- Enhancing Monitoring and Operations for Enterprise Network Security
- Enhancing ISP Security Services
- Display of the Symantec Safe Site
- Promoting BYOD while Enhancing Security for Smartphones with Biz Mobile Connect
- DDoS Attack Countermeasure Initiatives

## ▶ Contributing to a Healthy ICT Society

- Strengthening Web Search Service Provider Suicide Prevention Measures
- The ACTIVE Project to Support Malware Countermeasures through Collaboration between Public and Private Sectors
- Providing a Safe Internet Environment for Children
- Measures Aimed at Blocking Child Pornography Sites
- ICT Supporter
- ".com Master" Internet Certification for ICT Personnel Development

## ▶ Faithfully Serving Our Customers

- Conducting VOC (Voice of the Customer) Surveys
- Service Improvements Based on OCN Customer Feedback
- Evaluations of NTT Plala Educette
- Simultaneous Acquisition of ISO 14001 and OHSAS 18001 Certification
- Formulation of Advertising Regulations
- Universal Design Initiatives
- Providing Service Level Agreements (SLAs)
- Quality Improvement Forum with Overseas Partner Carriers

▣ [Our Relationship with Suppliers](#)

- Basic Policy on Procurement
- Promoting CSR Procurement
- Procurement Department Initiatives
- Avoiding Conflict Minerals

## CSR Report 2014

# Maintaining Stable and Reliable Telecommunications Services

- ▶ Maintaining Stable and Reliable Telecommunications Services
- ▶ Ensuring Stable and Reliable Services as Critical Infrastructure
- ▶ Using ICT to Solve Social Issues
- ▶ Contributing to a Healthy ICT Society
- ▶ Our Relationship with Society
- ▶ Faithfully Serving Our Customers
- ▶ Our Relationship with Suppliers

NTT Communications uses its advanced network technologies and maintenance systems to provide reliable telecommunications services both in Japan and globally. We ensure network reliability even during disasters and other emergencies.

Specifically, we ensure telecommunications reliability and provide stable services by increasing capacity and enhancing the reliability of our communication routes, through redundant and decentralized equipment and facilities and with around-the-clock monitoring throughout the entire network.

## Providing Services that Help Realize an Evolving Ubiquitous Society

### Providing Arcstar Universal One

Cloud services are quickly becoming an integral component of the growth strategies of companies. Turning to network services, reliable and secure outsourcing environments that are compatible with a full-scale cloud era are also attracting significant attention and increasing expectations.

NTT Communications began operations for Arcstar Universal One, a high-quality, highly reliable cloud-based optimized network service, in May 2011, subsequently rolling out the service seamlessly in Japan and overseas.

With the addition to NTT Communications' global IP backbones of the high-capacity undersea optic cable Asia Submarine-cable Express, which came online in August 2012, successful steps have been taken to expand the Company's highly reliable global network service. In January 2014, we acquired Virtela Technology Services Incorporated, a leading US network carrier. Combining the two companies' network services expanded our area of operation to 196 countries and regions. In addition, leveraging Virtela's strength in Network Functions Virtualization (NFV) of LAN equipment allowed us to shift previously configured storage, servers and other network equipment to the cloud, thereby increasing flexibility and convenience and creating highly reliable networks.

In May 2014, we also began providing Arcstar Universal One Virtual, an optional service for Arcstar Universal One that makes use of network virtualization technologies, in the process becoming the first telecommunications carrier to utilize such technology. This technology involves the creation of an overlay network as a new network space to be used for existing corporate networks and Internet environments, where customers can make base, network and other changes themselves, on demand.

Looking ahead, as a global ICT partner NTT Communications will continue to offer customers advanced services that address their business needs, which continue to gather pace on a global scale, and to help swiftly realize seamless business growth and development in Japan and overseas.

### Global Cloud Vision

NTT Communications' Global Cloud Vision provides a blueprint for the Company's comprehensive menu of services targeting the corporate sector. We view the shift in customers' ICT environments to a cloud computing environment and data centers as an opportunity to provide optimal configurations of services to achieve globally consistent quality. We can contribute to customers' improvements in management by providing seamless ICT solutions that we, as a telecommunications carrier, are in a unique position to offer.

One driving force behind the decision to establish and announce this Vision in October 2011 was the need to create a new business amid falling voice communication and data network revenues. The Vision is also designed as a response to calls for ICT innovations that are capable of supporting business against the backdrop of dramatic shifts in customers' market environments. The Global Cloud Vision is therefore a solution to several of NTT Communications' pending issues as well as a roadmap for addressing customers' future needs. Based on this Vision, NTT Communications provides value by contributing to customers' improvements in management through seamless ICT solutions. Specifically, this involves the provision of lower-cost, faster, and on-demand ICT environments by (1) taking advantage of our unique position as a telecommunications provider to reinforce links between networks and the cloud, (2) accelerating virtualization through SDN/NFV and the like, and (3) promoting automation, such as through enhancements of API functionality.

[Click here for details regarding the Company's Global Cloud Vision.](#)



## Providing Data Centers that Promote Safety and Security

NTT Communications continues to establish a Perspective that is capable of advancing the Company's global cloud services under the newly launched Nexcenter™ NTT



Communications continues to establish a Perspective that is capable of advancing the Company's global cloud services under the newly launched Nexcenter™ brand. Under this brand, NTT Communications is building and operating a global network of data centers that offers a uniform and consistently high level of quality. This network enables the Company to provide high-quality, low-cost, flexible next-generation data center services. NTT Communications is engaging in the following multifaceted activities in order to provide highly reliable data center services on a stable basis.

### 1. High-quality facilities

Enable safe and timely facility maintenance during system operations by building data center facilities that boast high levels of disaster resistance in line with each region's level of disaster vulnerability and employing a facility setup of tier III-level<sup>\*1</sup> or higher. Also, provide seamless services that combine our high-speed, high-capacity Tier I<sup>\*2</sup> Internet backbone and robust global network services.

### 2. Greater cost efficiencies

We control costs efficiently by using data centers housed in dedicated buildings that we design, own, and operate ourselves. We also promote greater cost efficiency through advanced green ICT measures.

### 3. Total ICT solutions

Provide total management of customers' ICT infrastructure from networks to servers, through help desk services that can accommodate multiple languages and a 24-hour/365-day maintenance and operating schedule.

<sup>\*1</sup> A facility setup level to ensure redundancy with respect to such key functions as commercial power supply, air conditioning, and UPS as well as emergency electricity generation and distribution with no single point of failure based on data-center tier standards formulated by the U.S.-based industry association Uptime Institute

<sup>\*2</sup> High-quality Internet through an Internet Service Provider (ISP) group that maintains its own global-scale broadband IP backbone, eliminating the need to rely on an upstream provider

[Click here for details regarding the Company's data centers.](#)

## Participating in Businesses around the World

NTT Communications is participating in businesses around the world in a variety of ways as part of our effort to ensure the growth and development of a global ubiquitous society.

In Asia, where use of the Internet is still growing rapidly, we reached agreement with the governments of Vietnam in April 2011, Laos in February 2012, and Brunei in May 2012 to provide international Internet connectivity services via the overseas connection bases managed by those governments, and we subsequently began providing those services. In March 2012 we began providing Internet service in Indonesia via a Company-owned optical-fiber network that we established in an industrial estate in that country. We also opened two connection bases, in Jakarta, Indonesia, in October 2013, helping to contribute to the proliferation of international Internet services among emerging countries in Southeast Asia. NTT Communications is also active in areas other than Asia: In November 2011, we established connection bases in Hungary, Rumania and Bulgaria in Eastern Europe. In June 2012 we also opened a connection base in Italy, followed by one in Sweden in January 2013.

Through these and other initiatives, NTT Communications will continue to help improve Internet environments across wide-ranging regions. At the same time, we will endeavor to deliver higher-quality services that address the needs of local customers. In order to further enhance the company's services, we took up majority equity interests in an ICT service provider in Australia in May 2011 and a data center-related operator in India in January 2012. These measures are aimed at bolstering management ties with local companies. Receiving high marks for these initiatives, NTT Communications was named the Best Pan-Asian Wholesale Carrier at the Global Carrier Awards 2013, held in Amsterdam in November 2013.

Looking ahead, we will engage in a broad spectrum of balanced activities that contribute to the Internet market as well as business growth.

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

### Construction Begins on Asia Submarine-Cable Express, a High-Reliability Cable that will Link the Asia Region

Now more than ever, companies engaged in global business regard reliable communications infrastructure as the lifeblood of their business activities. In this context, they have come to expect the provision of seamless network services, both domestically and internationally, as a matter of course. Accordingly, NTT Communications is continually working to build environments that allow customers to access global networks with peace of mind, even after earthquakes or other disasters.

International communications traffic in Asia is increasing, with rising demand for highly reliable, minimal-latency submarine cables with broader bandwidth. Asia Submarine-cable Express (ASE), a new high-bandwidth optical submarine cable which became operational in August 2012, will connect Telekom Malaysia PLDT, headquartered in the Philippines, and StarHub, in Singapore, with the rest of the Asian region. NTT Communications designed a network to minimize latency from Japan to Taiwan and Singapore and to enable ASE to avoid cable failures near the Bashi Channel south of Taiwan, which is vulnerable to frequent earthquakes and typhoons, making ASE a more highly reliable, minimal-latency optical submarine cable.

At the end of 2011, thanks to collaboration among the main carriers in several countries and areas—Japan, South Korea, mainland China, Taiwan, Hong Kong, Vietnam, Thailand, Malaysia and Singapore—construction commenced on the Asia Pacific Gateway (APG), a

high-capacity submarine optical cable. Through its participation in the construction of APG in addition to ASE, NTT Communications will increase the cable volume it possesses in the Asian region, ensuring redundancy by providing several cable routes and providing its customers with highly reliable international networks and cloud services.

### The World's Largest Internet Infrastructure Supporting a Stable Network Environment

NTT Communications' Global IP backbones are connected to fixed and mobile telecom companies, ISPs, data center operators and content providers and carry the main Internet traffic linking Japan with the rest of the world. The capacity of lines held between Japan and the United States is an industry-leading 700Gbps<sup>\*1</sup> and 600Gbps for the Asia and Oceania regions.

Although the international communications cable between Japan and the United States was partially damaged during the Great East Japan Earthquake of March 11, 2011, the impact was minimized by a fully redundant cable structure and collaboration between multiple overseas carriers and cable companies based on established cooperative relationships.

This Global IP backbone uses a dual-stack (IPv4 and IPv6) configuration, and is becoming one of NTT Communications' core networks located at the heart of IPv6, the next-generation communications standard.

Strengthening its efforts in Asia and emerging countries as a global Tier 1<sup>\*2</sup> carrier, NTT Communications is working to provide its customers with a communications environment of even higher quality.

<sup>\*1</sup> 700Gbps, equivalent to approximately 41,666 channels of digital terrestrial television or 598 years' worth of content in a daily newspaper  
<sup>\*2</sup> Tier 1 is an IP group that is large enough that it doesn't need to purchase Internet routing information from other companies.

### Submarine Cable-Laying Technology

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.

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



Cablesip "Subaru"

### Achieving Managed Quality Operations (Highly Reliable Maintenance Services)

In order to provide our customers with appropriate services that invite their trust and satisfaction, NTT Communications endeavors to implement process innovations and service quality improvements. In the area of corporate data communication services, we provide a one-stop management service that centrally monitors the entire route from our network to the equipment installed at the customer site, that detects failures and notifies the customer, and that implements recovery measures. We are also making our one-stop maintenance service available 24 hours a day, 365 days a year, as well as expanding the maintenance targets for which network failure notification and recovery measures are dynamically carried out. Previously, the NTT Communications Customer Network Service Center in Japan and the Global Network Operations center for overseas locations were situated on different floors. Operations performed by these two service centers include establishing alternate trunk routes, duplicating or decentralizing telecommunications facilities, monitoring service status, and receiving error reports. However, in fiscal 2010 we combined our domestic and overseas operation floors. As a result, for customers who use a combination of domestic and global circuits, we are now able to provide a one-stop service where both centers work together, literally side by side, to resolve problems seamlessly regardless of national boundaries.

Furthermore, service managers are better placed to effortlessly respond in Japan and overseas to endeavors by customers to expand their systems overseas. Drawing on the lessons learned from the Great East Japan Earthquake, we are promoting BCPs across maintenance operation centers in Japan and overseas in an effort to ensure the reliability of increasingly stable communications. From a personnel perspective, with our hands-on seminars and certification systems, we are also continuing to develop professional human resources who, by implementing continuous-improvement and management proposals, enable us to provide our customers with the best possible maintenance services.

We are striving to provide high-quality maintenance services and powerful support for our customers' businesses through leading-edge operations that take advantage of automation and big data by offering the following four benefits: fast and easy operation for customers, complete one-stop operation, highly skilled technical support, and global operations that take advantage of ICT.

- ▶ Maintaining Stable and Reliable Telecommunications Services
- ▶ Ensuring Stable and Reliable Services as Critical Infrastructure
- ▶ Using ICT to Solve Social Issues
- ▶ Contributing to a Healthy ICT Society
- ▶ Our Relationship with Society
- ▶ Faithfully Serving Our Customers
- ▶ Our Relationship with Suppliers

## CSR Report 2014

# Ensuring Stable and Reliable Services as Critical Infrastructure

- ▶ [Maintaining Stable and Reliable Telecommunications Services](#)
- ▶ [Ensuring Stable and Reliable Services as Critical Infrastructure](#)
- ▶ [Using ICT to Solve Social Issues](#)
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NTT Communications has established disaster countermeasures and strives to ensure information security because we put the customer first. We are helping to bring about a networked society where customers enjoy greater safety and peace of mind.

## Building Networks that are Resilient to Disaster

### Keeping Networks Reliable Following Disasters

NTT Communications has adopted a set of Disaster Policy Fundamentals to address disasters. Based on these policies, we work to maintain critical communications and swiftly restore disrupted communication services. For some time, we have also conducted annual training exercises aimed at allowing a swift response to disasters.

Based on the scenario of an earthquake striking directly beneath the Tokyo Metropolitan Area, we conducted quick-response drills for our disaster response team in February 2011. These drills differed from training, and were conducted without prior notification to disaster response team members. The scenario envisioned major damage to the Tokyo Metropolitan Area, to the extent that it ceased to function as a capital city. The drill entailed a specific response flow encompassing the establishment of an Initial Response Headquarters in the Kansai region of western Japan. We assumed that the Tokyo disaster response team would be unable to travel by normal means and thus had to commute on foot from their places of work to the Disaster Response Headquarters. Steps would then be taken to take over the headquarters function from Kansai. In April 2013 we conducted a joint drill involving thirteen NTT Communications Group companies based on a hypothetical earthquake in the Nankai Trough.

We also conduct annual disaster response exercises for employees. In such cases, we use "Safety Confirmation," a service offered by NTT Communications. In fiscal 2010, we introduced "Safety Confirmation Exercises" involving not only full-time employees but all other employee categories as well.

By conducting regular training exercises in these ways, we are helping to raise awareness about disasters throughout the Company.

### Providing Services that Underpin Business Continuity

Offering a range of high-quality services for such crises as major earthquakes and pandemics, NTT Communications supports the continuity of its customers' businesses. To give a typical example, earthquake early-warning information is a service that delivers earthquake information, including seismic intensity and arrival time, before tremors are actually felt. Enabling initial damage prevention and ensuring safety, this is said to be an effective service in formulating a business continuity plan (BCP), since business restoration can be expected soon after an earthquake. A service that simultaneously reports safety confirmations both verifies and gathers information on the safety of employees during times of natural disaster, including outbreaks of new-strain influenza and earthquakes. Available on a routine basis via communications networks, this service is also effective in confirming the safety of school contact networks and elderly persons, as well as in simultaneously contacting employees who are visiting clients.

Expanding services to eleven bases in nine countries worldwide, Biz Hosting Enterprise Cloud is a global cloud service that leverages NTT Communications' outstanding technological capabilities as a telecom operator and consists of robust data centers that are also resilient to disasters. This service provides BCP solutions that ensure the timely backup of data at remote locations between Japan and overseas bases.

Biz Hosting Cloud provides an environment that enables the flexible change of resources even during periods of sudden and dramatic access at the time of a disaster. This service has a variety of applications including as a safety confirmation system Perspective.

[Click here for details regarding NTT Communications' services that support business continuity.](#)

### 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).

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

Since then, the Center has introduced and firmly established an IT Service Management System (ITSMS). The aim of the system, which is based on ITIL<sup>®</sup> \*1, is to enhance service quality, increase value for customers, and boost customer satisfaction levels while improving efficiency and productivity. As a result, in December 2009 the Center acquired ISO 20000 certification, an international standard for ITSMS. At the same time, we introduced ZABICOM, an ITIL-based open-source monitoring system allowing easy customization. Looking at customer systems, we are witnessing progress in the use of cloud technologies and the introduction of virtualization technologies. While working to keep pace with these changes, we will continue to deliver ongoing operational support services which offer high quality at a low cost as part of our drive to increase customer satisfaction.

\*1 ITIL<sup>®</sup>: Systematic guidelines regarding the operation and management of computer systems formulated by the UK government. The guidelines are compiled in several volumes of books. ITIL<sup>®</sup> (IT Infrastructure Library) is a registered trademark of the Office of the Government Commerce (OGC) of the UK government.



Sapporo Business Continuity Center

### Enhancing Monitoring and Operations for Enterprise Network Security

With the continued globalization of business activities, we are witnessing growing calls for a uniform global approach towards risk management by the corporate sector. Meanwhile, the dramatic rise in such security risks as cyber attacks, including unauthorized access, computer viruses, and the leakage of data in recent years, has reached a point where the massive losses incurred by companies are threatening their very existence.

Under these circumstances, in 2003 NTT Communications established the Security Operation Center (SOC) and began offering corporate security management services. To that end we brought a company that specialized in overseas security into the Group. In June 2013, in collaboration with NTT Secure Perspective Laboratories we launched WideAngle, a service which provides comprehensive research and monitoring of security risks as well as proving remedies, and we began offering the service globally. Leveraging a base of security consulting expertise that includes some 8,000 companies, in November 2013 we put together a package that offered this expertise in Japan as well. Also, in May 2014 we significantly increased our detection rate for security threats through the development of an additional operational backbone engine for our management security service.

The NTT Communications Group, drawing on extensive expertise in security operations and demonstrated strength in technological development, is working diligently to establish a safe and secure information system environment for as many companies as possible, both in Japan and overseas.



Global Risk Operation Center (SOC reorganization)

**WIDE ANGLE**  
INFORMATION SECURITY AND RISK MANAGEMENT

## Combating Viruses and Internet Crime

### Enhancing ISP Security Services

In our role as an Internet service provider (ISP), NTT Communications must create environments that allow customers safe and secure access to the Internet. OCN offers a variety of security services bundled into a discount package ("Anshin Select Pack"). In addition, steps have been taken to provide blocking services to restrict Internet access to inappropriate sites as well as sites where access is not required from personal computers. Moreover, NTT Plala, in addition to blocking malicious websites, provides a free filtering service that blocks communications originating from Winny, a file-sharing program which has become a major problem.

My Pocket Plus is a suite of support and data storage services available to customers regardless of whether they subscribe to OCN, and it has an optional security service that covers all devices including personal computers, smartphones and tablets. With OCN Premium Support, customers now have the option of adding credit card protection to their support services, where they are compensated for any liabilities caused by illicit use of their credit cards, thereby providing reassurance when shopping online or participating in Internet auctions. In fiscal 2012, we introduced My Password as a cloud-based service for safely managing usernames and passwords online. These are just a few examples of how NTT Communications is striving to broaden the depth of its service offerings.

### Display of the Symantec Safe Site

NTT Resonant, in a tie-up with Symantec Corporation, in January 2011 began displaying the Symantec Safe Site mark <sup>\*1</sup> on its goo web search results page. This mark allows users to confirm at a glance that the physical existence of the website operator has been confirmed, and that the website has passed a malware scan.

Websites that indicate that they are a Symantec Safe Site on the goo web search results screen are telling users at a glance that the site is safe, and not infected with malware such as Gumblar or other types of malicious software. VeriSign and NTT Resonant have enhanced the convenience of web search services by displaying the trustworthiness of a website in a way users can easily recognize.

<sup>\*1</sup> Symantec Safe Site: A mark displayed on a website certifying that Symantec has confirmed the physical existence of a website operator, and that the site has passed a malware scan.

### Promoting BYOD while Enhancing Security for Smartphones with Biz Mobile Connect

As smartphones and tablets replace laptop PCs for doing business while out of the office, it is increasingly commonplace for companies to allow their employees to use their own personal smartphones (bring your own device, or BYOD) to easily and securely access work-related information while out of the office on business.

However, companies are concerned about security when personal smartphones are used for business purposes, and require measures to prevent handset spoofing and data leaks in order to protect confidential corporate information in the event handsets are lost or stolen. Moreover, an increasing number of employees own multiple devices, a smartphone and a tablet for instance, that anyone can possibly use, making it more difficult to build a BYOD environment that ensures a high level of security.

In view of these business needs, NTT Communications offers the Biz Mobile Connect service, which allows employees to simply and securely connect to corporate information systems and cloud services while out of the office. The service basically makes it possible for a smartphone to have a web browser that does not leave behind data, such as in a content cache or browsing histories, and allows smartphones to display files controlled by business systems without having to first download them to the device. Beginning in May 2013, Biz Mobile Connect can now regulate the use of handsets with standard functionality, root-level access and handsets that do not have anti-virus software installed, contributing to the creation of BYOD environments that anyone can use without concern and at no additional cost.

Amid the proliferation of smartphones, NTT Communications will continue to augment security and convenience for smartphones used in business.

### DDoS Attack Countermeasure Initiatives

NTT Communications has offered the Anti-DDoS Service, which protects customers' servers and networks against DDoS attack<sup>\*1</sup>. We offer DDoS Protection Service, a global IP network service, and the OCN Anti-DDoS Service.

Because it is difficult to distinguish legitimate communications traffic from illegitimate traffic during a DDoS attack, it is extremely challenging for customers to take effective countermeasures, even after detection of an attack. The OCN Anti-DDoS Service protects customers' systems by installing an anti-DDoS device on our IP backbone, which will reduce illegitimate traffic to customers' servers, routers and our cloud.

<sup>\*1</sup> Distributed Denial of Service (DDoS) attack: This kind of attack renders a service unavailable by sending a massive number of communication requests to the target server or network from multiple computers connected to the Internet, causing the load level to exceed the communication bandwidth or the server's processing capacity.

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# Using ICT to Solve Social Issues

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NTT Communications provides new business models driven by information and communication technology (ICT) services and lifestyle proposals. In this manner, we are contributing to the resolution of issues faced by society.

## For a Safe and Secure Society

### Implementing Disaster Prevention and Public Media Fields Tests

"Tsumugi" project committee (Representative: NTT PC Communications Incorporated), an organization that strives to provide reconstruction support to areas affected by the Great East Japan Earthquake, commenced "disaster prevention citizen media field tests" in November 2011 with the cooperation of Ofunato City (Mayor Kimiaki Toda). Drawing on the experience and lessons learned from various disaster-stricken areas, these fields tests were conducted using temporary housing facilities located within Ofunato City with the aim of pursuing research into disaster prevention systems. We also received an order from the Ministry of Internal Affairs and Communications to embark on a project to upgrade information communications infrastructure. Through the Disaster Prevention and Media Promotion Committee NPO, and based on the experience we gained in disaster-stricken areas, we aim to promote the use of new disaster-prevention information systems by local governments throughout Japan.

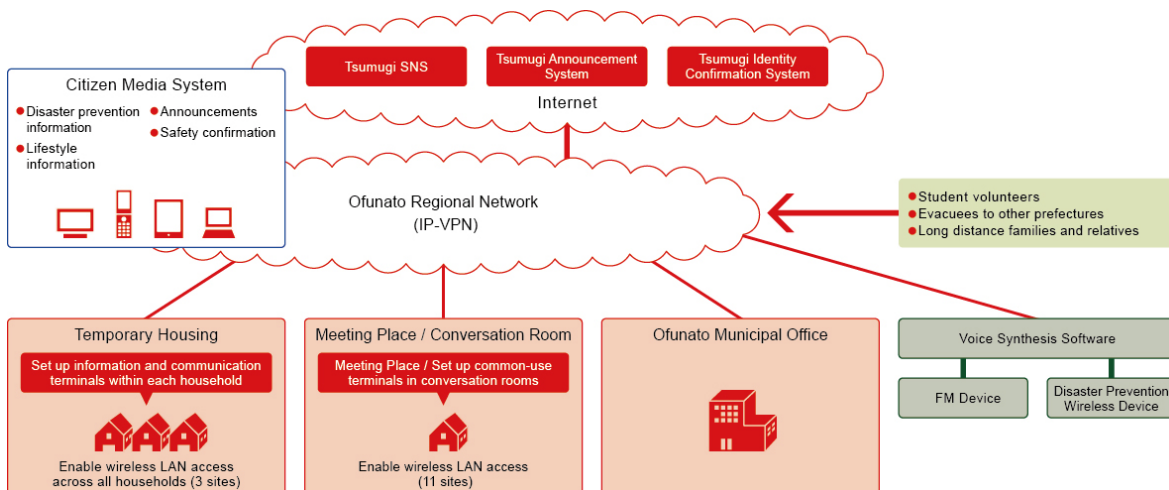
The Tsumugi project committee's activities to support the affected region include support for disaster prevention and demonstration tests of civilian media, the installation of security cameras in temporary housing facilities by using cameras in the security-camera cloud, and educational support activities for junior and senior high school students as part of a tie-up with Meiji University. NTT PC Communications has taken a unique approach to supporting the reconstruction of disaster-stricken areas.

#### First Event

Five employees visited disaster-stricken areas and offered guidance to senior students at Ofunato High School who hope to enter a science college.

#### Second Through Fifth Events

A total of twenty-four employees visited disaster-stricken areas eight times to offer PC classes for beginners (on Thursdays and Fridays). A total of 125 people took the classes.



## Providing a School System Perspective Using Cloud-Based Education Support Services to the Yokohama City Board of Education

The Yokohama City Board of Education operates Japan's largest school business-based system Perspective. NTT Communications began providing cloud services to this Perspective in fiscal 2011.

In recent years, the need for ICT outsourcing as well as cloud computing aimed at promoting business continuity has grown rapidly. This is largely attributable to such factors as the review of large-scale natural disaster countermeasures and energy consumption. Under its digitization of education vision, Japan's Ministry of Education has identified several key initiatives designed to improve the school education frontline.

The Yokohama City Board of Education has been working to improve the efficiency of school administration by building a new integrated system to manage various kinds of information including student and parent lists, attendance records, health checks, academic grades, and guidance reports.

This school administrative system is used by 491 elementary and junior high schools within Yokohama City, and manages information related to as many as 17,000 teachers and 270,000 students.

NTT Communications has provided cloud service Perspectives encompassing such activities as the delivery of digital textbooks as a part of the Future School Promotion and Learning Innovation projects initiated by Japan's Ministry of Internal Affairs and Communications and Ministry of Education, respectively.

Drawing on this expertise, the Company will provide cloud-based services that address the dual needs of safety and efficiency.

## Addressing the Problem of Insufficient IP Addresses

### Providing OCN IPv6 Services

Amid the growing need for IPv6 access services as a solution to the exhaustion of IPv4 addresses, OCN IPv6 was introduced as one of the world's first IPv6 access services for general users.

In fiscal 2012, we participated as a web service provider in World IPv6 Launch<sup>\*1</sup>, a world-scale event to promote the spread of IPv6. In addition to attending this event, on May 21, 2012, the Company began to provide OCN services over Flet's Hikari Next network that are compatible with IPv6 internet connections, with availability in all prefectures across Japan.

In addition, in July 2014 we began steadily enabling IPv6 Internet connectivity (IPv6 PPPoE) from Hikari telephone compatible routers provided by NTT East Japan and NTT West Japan.

NTT Communications will continue to accelerate the proliferation of IPv6.

<sup>\*1</sup> Beginning on June 6, 2012, all of the major global internet service providers, hardware makers and web service providers made their products and services perpetually compatible with IPv6, thereby hastening the proliferation of IPv6.

## Expanding Employment Opportunities in Regional Communities

### "CAVA" Home-Based Call Center Operations

NTT Com CHEO holds training courses and certification examinations on computer and Internet settings and operations. It contracts certified individuals with a high level of ICT skills as "CAVA operators," who work as home-based ISP call center staff.

Currently, NTT Com CHEO is working to expand nationwide training opportunities through the introduction of home-based training via the Internet. As of the end of fiscal 2012, there were approximately 1,900 CAVA operators. This system of home-based operators utilizes untapped human resources such as women who have had to stop employment due to child raising or caring for other family members, as well as retired senior citizens. In fiscal 2012, we institutionalized measures to help single parents become CAVA operators that were first initiated by NTT Com CHEO in fiscal 2009 with the aim of helping others achieve a better balance between work and childcare. We aim to expand employment opportunities by offsetting the cost of acquiring the necessary certifications and training to become CAVA operators.

Moreover, we are collaborating with local governments to provide employment support and to assist job seekers to gain ICT skills and certification while increasing opportunities to work from home. Through such activities, we aim to expand employment opportunities in local communities and contribute to community revitalization. Going forward, we will continue meeting the employment needs of a diverse range of people by providing opportunities for individuals to work without location or time constraints. As a part of this effort, we will expand operations beyond ISPs.

#### Features of CAVA

1. There are two types of CAVA operators. The first is a home-based telephone support service to provide support for problems such as Internet connection settings. The second is a visiting setup support operation in which the employee travels to a customer's home to provide support. The two types can also be combined.
2. We offer a wide range of employment opportunities to people wishing to work from home, and we are helping to expand employment opportunities not only for housewives who must care for children or other family members, but also for single parents and senior citizens.



Operator-senior citizen



Operator-housewife



Operator-Individual business owner

3. We carry out CAVA staff recruitment and training every month. By offering Internet-based CAVA training that can be undertaken (remotely) from home, we are making this training available throughout Japan.
4. CAVA operators working at home have a tendency to feel isolated. To address this, we use social networking as a medium that enables our CAVA operators to exchange information and get to know one another.
5. The network of CAVA staff distributed across the length and breadth of Japan will harness its strengths particularly in the context of BCPs. This entails various situations including the incidence of major disasters and pandemics.

**Perspectives of CAVA Staff**



Satoko Wada

I learned about CAVA when I was a full-time mother and housewife and decided to acquire ".com Master" certification because I felt it could lead to a job. The biggest benefits of CAVA are the fact that I can work from home and have complete control over when and how many hours I work. A woman's lifestyle changes according to her family situation and the location and hours she can work also change as a result. However CAVA enables us to continue working. Since I probably could not have worked full time while raising my children, I am really grateful for the CAVA system.



Akiko Ozawa

Having worked as an employee at airline company CA, and since my childcare duties had decreased, I decided to return to the working world. I wanted to work at something meaningful, and I had been interested for some time in work related to ICT, so I acquired the ".com Master" certification and became a CAVA operator, providing on-site setup support. One of CAVA's major attractions for me is that I can work according to my own schedule. I find this work rewarding because it is based on results. You get out of this job what you put into it, and it is not affected by age and gender.



Michio Nakamura

My children were still small when I became a single father, and I was faced with the challenge of balancing work and home life. CAVA allows me to adjust my work schedule as needed so that I can take part in my children's school activities and pursue my own interest in swimming. Seeing happy customers also makes me feel that this is a job worth doing. I wish more single parents knew that jobs like this existed.

**For a Healthier Lifestyle**

**Health Enhancement Assist Service Joint Field Trial**

In February 2011, NTT Communications, NTT Resonant Inc. and foo.log Inc. began a field trial of the jointly developed Health Enhancement Assist Service. The service helps with health management and enhancement underpinned by the concept of cloud computing-based storage and analysis of users' "life logs" (data on daily life) to provide services that will make their lives more enjoyable, convenient, and comfortable.

The trial was held for the world's first service that uses smartphones and computers to automatically estimate calorie consumption based on photos of meals, as well as estimating how many calories are burned while walking each day using the GPS location function and acceleration sensors in the user's smartphone. Various other functions provided by the service include comparisons with data from other users of the service, 5,000 recipes created under the supervision of professionals, and as many as 180 exercise videos. During the trial period, 60,000 people participated, and the application was downloaded more than 100,000 times.

We received encouraging feedback including comments about the services' usefulness for dieting and maintaining good health, and the positive effect that having to record everything eaten has on keeping down one's weight.

In August 2012, NTT Resonant began providing Health Assist as a part of its "goo karadalog" health management service, drawing on the results of field trials conducted in fiscal 2011. Data about automated estimation of calories consumed and calories burned by walking can be managed on "goo karadalog" as one of around 200 items, making it easier to record and manage data.



"goo karadalog" Health Assist Screen

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# Contributing to a Healthy ICT Society

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Addressing head-on the negative aspects of ICT, we will focus on nurturing the human resources essential to supporting a future ICT society while putting in place all appropriate measures.

## Addressing Social Issues

### Strengthening Web Search Service Provider Suicide Prevention Measures

Beginning in March 2012, using both OCN and NTT Resonant's "goo" service, NTT Communications has collaborated with companies providing Internet search services to strengthen suicide-prevention measures through such search services. Specifically, for users who searched keywords related to a desire to commit suicide such as "I want to die," links were posted urging the user to access pages listing information on help lines, including the National Center of Neurology and Psychiatry (NCNP)'s Center for Suicide Prevention, to provide useful information about suicide prevention.

Previously, search service providers had partially implemented similar efforts, but these had been managed separately, depending on each individual keyword setting. On this occasion, it was possible to plan enhanced measures by using shared keywords created by the NCNP's Center for Suicide Prevention.

Suicide prevention is a major societal issue. By enabling a chance to solve the problems of users in distress by ensuring that helpful information about suicide prevention can be readily accessed through Internet search services, it is hoped that many lives can be saved.

### The ACTIVE Project to Support Malware Countermeasures through Collaboration between Public and Private Sectors

NTT Communications and NTT Resonant are participating in the Advanced Cyber Threats response Initiative (ACTIVE), a collaborative public—private project to support private-sector malware countermeasures that was launched in November 2013 by Japan's Ministry of Internal Affairs and Communications. As a specific measure to prevent malware infection, the "OCN Toolbar" and "goo Stick" products of our companies will access a list of malicious websites that was created through this project and through other efforts, and they will launch popup windows in the browsers of customers who are about to enter those sites, cautioning them. This approach is designed to lessen our customers' risk of being infected by malware simply by browsing infected sites. Looking forward, the NTT Communications Group will continue working to achieve a safe and secure Internet environment.

## Sound Child Development

### Providing a Safe Internet Environment for Children

NTT Resonant offers "Kids-goo," a child-oriented website portal that is safe for children to use. Using a proprietary filter and the same huge search database as the "goo" search engine, Kids-goo shows only web pages thought to be safe for children. As a useful search service that helps children learn within a safe Internet environment, Kids-goo is widely used in elementary-school Internet classes.



Kids-goo

## Measures Aimed at Blocking Child Pornography Sites

Blocking child pornography on the Internet is an important issue that must be addressed in order to protect the rights of children and ensure the provision of a safe Internet environment. It is an issue that has been examined from a variety of perspectives. In July 2010, the ministerial anti-crime conference of the Japanese government released its policy on a national campaign against child pornography. The policy called for Japanese Internet service providers to implement measures to block access to child pornography websites, and for associated efforts on the part of government agencies to be implemented during fiscal 2010.

In March 2011, the NTT Communications Group joined other ISPs, search engine service providers, filtering service providers, and related businesses to form the Internet Content Safety Association (ICSA). In April 2011, members of the ICSA began compiling information on websites they will block access to in order to block access to child pornography images, and providing other member providers with child pornography website address lists. The NTT Communications Group's "goo," "plala," and "OCN" services have access restrictions based on child pornography website address lists provided by the ICSA.

Based on the child pornography website address lists provided by the ICSA, and as another initiative, steps were launched to block child pornographic images by each of the ISP providers in April 2011. In response, NTT Resonant is swiftly modifying the various search services that it operates. Furthermore, through our "OCN" service we launched a new effort in March 2014 to prevent the distribution of child pornography images through file-sharing software that could not be prevented via blocking measures. In the future we will continue in our efforts to provide a safe and secure Internet environment by helping to prevent child pornography from being transmitted or distributed.

The NTT Communications Group will continue to work closely with the ICSA as a part of its effort to prevent the distribution of child pornography.

## Nurturing ICT Human Resources

### ICT Supporter

Amid the growing digitization within schools and classrooms, the need for teachers to take greater initiative in the use of ICT and the need for increased support for ICT applications continue to mount. In an effort to address these needs and issues, NTT Com CHEO is nurturing ICT supporters and providing human resources to promote the use of ICT during lessons taught at school. Expertise in ICT is not the only skill required of ICT supporters. Of equal importance are communication skills when dealing with children and teachers. ICT supporters must be able to provide instructions and impart information in an accurate and easy-to-understand manner. Given the multitude of skills required to engage in school education, developing the right human resources over a short period can be difficult.

Accordingly, steps are being taken to foster and dispatch ICT supporters, who can have an immediate impact in schools and classrooms, through a proprietary school education program. This program was created by NTT Com CHEO staff with considerable communication and instruction skills as well as know-how developed through the ICT skills and customer support operations that underpin ".com Master" (Dot Com Master) Internet certification.

We are helping to cultivate ICT support personnel through training in communications skills, which commenced in July 2013. This training involves speaking in front of others as well as explaining and responding to questions—all of which are communications skills important to ICT support personnel. The training covers skills that are required in Section B of the ICT Support Personnel Proficiency Qualification Test (a test of communications and explanatory skills), and is subject to certification by an educational information coordinator certification committee.

In the future, the goal is to contribute to the development of children and students through support aimed at promoting ICT use in schools.



An ICT supporter participating actively in frontline education

### ".com Master" Internet Certification for ICT Personnel Development

The level of ICT literacy required of society is undergoing a fundamental change with the rapid growth in smartphone and tablet terminal use, diversification in Internet access methods, and developments in cloud-based computing. The ".com Master" (Dot Com Master) Internet certification program is an ICT skills certification program operated by NTT Communications since 2001. To date, a total of 400,000 people have taken examinations for certification. 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.

In October 2013, we reorganized the certification program into two levels, ".com Master ADVANCE" and ".com Master BASIC" to make it easier for a broad range of people to take the exam. At the same time we took steps to further incorporate material relating to the latest trends, with the aim of helping everyone master the safe and secure use of ICT.

NTT Com CHEO operates "CAVA" (.com Advisor and Valuable Agent), an IT support business run by personnel with a .com Master certification. The system serves as a bridge between participants' newly acquired skills and practical application in work.

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# Our Relationship with Society

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Based on our Social Action Principles, we operate in harmony with society and make a variety of contributions to international and local communities as a good corporate citizen.

## Basic Approach to Social Contribution

### NTT Communications' Social Contribution Activities

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

#### Social Action Principles

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

## Serving Local and International Communities

### Contributing to Society through Websites

Through its websites, the NTT Communications Group engages in a wide range of social contribution activities.

OCN, operated by NTT Communications, has established the "OCN Charity for Guide Dogs" website. This website strives to raise awareness of the importance of seeing-eye dogs. It enables viewers to download content, and provides a point of contact to receive donations. In addition to this initiative, we donate, on an ongoing basis, a portion of the profits of OCN Green Version to various NPOs and NGOs that are working to find solutions to environmental problems. Currently, we are working with the "goo Green Label" portal run by NTT Resonant. A cumulative total of fifteen contributions made since its start in 2007 amounts to ¥52.8 million. In 2013, we provided support via the "Midori no Bokin" fund, operated by the National Land Afforestation Promotion Organization, to support urban greening and creation of new forests along the ocean shore in areas affected by the Great East Japan Earthquake.



### Group Social Contribution Activities through CSR Programs

The NTT Communications Group runs CSR programs that welcome participation from employees and their families. Some of the major activities include the Earthquake Reconstruction Volunteer Project and the Chiyoda-ku Cleanup Project. In addition to increasing environmental conservation awareness, these experiences provide opportunities for exchanges with regional areas and contributions to society.

### Ecocap Movement and NTT Green Team

The NTT Communications Group has been a supporter of the NPO Ecocap Movement since February 2007. Among a number of initiatives, the Ecocap Movement aims to deliver vaccines to children around the world through donations derived from the collection and sale of used bottle caps.

Used bottle caps are separated and collected as a resource. When sold to recycling contractors, every 800 caps is equivalent to ¥20, enabling the vaccination of one child in a developing country. Moreover, this movement helps reduce CO<sub>2</sub> emissions (800 caps is the equivalent of 6,300g of CO<sub>2</sub> at the time of incineration as waste). In addition to contributing to society, this initiative also helps protect the environment.

In fiscal 2012 and 2013, we also collected used bottle caps at rugby matches, in cooperation with NTT Communications' rugby team, the Shining Arcs.

As a result, in fiscal 2013 1,443kg of caps (721,539 caps) were collected, allowing the delivery of vaccinations to 902,721 children.

### Contributing to Local Communities and Preservation of the Natural Environment

With help from volunteer companies in Minato-ku and the Minato Welfare Agency for Challenged People, NTT PC Communications held a charity book drive and donated all of the proceeds to welfare facilities for the disabled.

Three times a year, NTT PC Communications also participates together with NTT ComTechnology and NTT ComMarketing in activities to preserve the environment around villages, such as during the rice-planting season and harvest festival, by cooperating with the NPO Shiroy Kankyojuku in Chiba Prefecture. In addition, in the Kansai region NTT PC Communications is now collaborating with the NPO Satoyama Club to help with rice harvesting and other activities to preserve the natural environment. The company also carries out thinning and forest-creation activities in the Iwatakeishiyama conservation area in the city of Ome.

### NTT America's Social Contribution Activities

Working within the CSR of NTT Communications Group, NTT America pursues social contribution activities through the Corporate Social Responsibility Program.

#### Continuing Work with Dimension Data to Create a Garden to Encourage Local Communication

As part of a regional beautification campaign we engage in with Dimension Data, an NTT Group company, each year we offer support to the "City Year New York" NGO to create play areas for students in public schools.

In May 2013 we supported the activities of "Harlem Grown," an NPO selected by City Year New York, through a joint community service day. The aim of these activities was to create and maintain new community gardens that would benefit local communities in the Harlem area of New York City.



#### Providing Free Cards to Access an Online Museum for Children

NTT America participated in International Telecoms Week in Chicago in May 2013, providing gift cards to encourage children to learn about art and science online through a unique interactive online service called Fraboom Online Children's Museum.

These cards provide parents and children with one year of access to Fraboom. The hope is that coming into contact with the Fraboom world will inspire children, encourage their creativity, and spark a passion for the arts and sciences.



#### Helping Tornado Victims in Moore, Oklahoma

We made contributions to the American Red Cross to support reconstruction in Moore, Oklahoma, following devastation caused by a severe tornado. We have also contributed and provided charitable donations in the wake of other natural disasters, such as major hurricanes.

#### Cooperating with Local Fund-Raising Efforts

In June 2013 we held a service day in cooperation with an annual fund-raising event in San Jose, California, called USO Salutes Our Heroes 5K Walk/Run. The funds raised through these activities were donated directly to the three USO centers in the San Francisco Bay area.

**Participating in TABLE FOR TWO**

Since March 2010, we have established the TABLE FOR TWO program at cafeterias in all our locations. The idea behind this program is to assist children in developing countries by sharing with them food in a manner that transcends time and location. We carry out these activities in cooperation with an NPO called TABLE FOR TWO.



**Encouraging Employees to Donate Received Gifts**

We ask employees to pass along unwanted giveaway items they receive, which we then donate to an NPO to help people in developing countries.



Calendars

**Cleanup Activities**

NTT Communications takes part in cleanup activities in various locations. We have participated in a cleanup campaign in Tokyo's Chiyoda-ku since 2008.

**“JOLLY’S magazine,” a Site about Training Seeing-Eye Dogs**

In addition to introducing a broad range of information pertaining to seeing-eye dogs to the public, this website promotes Internet-based fundraising in support of the animal training programs of the Japan Guide Dog Association. This organization trains animals with the aim of helping sightless people take a more active role in society. The site enables visitors to select a donation amount ranging from ¥100 to ¥1,000, with settlements handled electronically through the OCN Pay ON\* system. To encourage participation, people who make donations receive original OCN content free of charge. We thank everyone for their support and cooperation.

\* OCN Pay ON: Without having to fill out specific application forms, OCN members can use their ID and password to take advantage of this service to pay for digital content, make donations and conduct other payments. Settlement is handled along with OCN usage charges.



Website

### Social Contributions by NTT Communications' Rugby Team

NTT Communications' rugby team, the Shining Arcs, offers rugby classes with the goal of helping children live healthier lives and interact more closely with their communities through sports.

The team also contributes to the local community in other ways, such as through neighborhood cleanups.

The team plans to continue to use rugby as a way to help as many people as possible to realize their dreams and learn the importance of perseverance and taking on challenges.

[See the Shining Arcs' website for further details.](#)



Rugby class

## Activities related to the Great East Japan Earthquake

### Core Business Initiatives Addressing the Great East Japan Earthquake

Since immediately after the Great East Japan Earthquake, collaboration between Group companies has enabled NTT Communications to provide support through its core businesses in a variety of forms to help realize the earliest possible reconstruction of the affected areas. To ensure that ours does not end up as a temporary response to the disaster on the way to post-earthquake reconstruction, we will continue activities for everyone in the disaster-stricken areas.

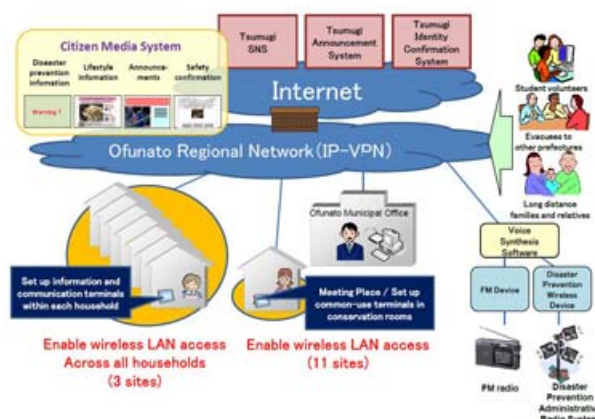
#### Examples of Reconstruction Support Activities: Project Tsumugi Centered on NTT PC Communications (NTTPC)

##### 1. Providing an Identity Confirmation System

Following the large number of cases of missing persons whose safety could not be confirmed in the aftermath of the disaster, NTTPC hastily constructed and released an identity confirmation system. Started in Iwate Prefecture on May 30, 2011, the missing persons system was extended to cover Miyagi and Fukushima Prefectures in July. Having been accessed by more than 40,000 people on the first day of its release alone, the system was used by many people in the disaster-affected areas. The system was decommissioned in March 2012, having fulfilled its purpose.

##### 2. Supporting Disaster-Affected Areas through Field Trials of Disaster Prevention and Citizens' Media

We launched Project Tsumugi with the help of several companies and universities with the aim of creating new disaster prevention and public media systems. We implemented field trials for disaster prevention and citizens' media systems at Ofunato City in Iwate Prefecture. We also cooperated with the Disaster Prevention and Media Promotion Committee NPO as part of an information-communications infrastructure project ordered by Japan's Ministry of Internal Affairs and Communications. Based on the experience we gained in disaster-stricken areas, we aim to promote the use of new disaster-prevention information systems by local governments throughout Japan.



### 3. Conducting Computer Classes

As a way of supporting disaster-affected areas through our core business competencies, NTT PC Communications offered a total of eight PC classes for beginners at Ofunato City in Iwate Prefecture, the base of operations for Project Tsumugi.

In this way, NTT PC Communications has taken a unique approach to supporting the reconstruction of disaster-stricken areas after paying due consideration to the specific needs of the region while collaborating with local NPOs.

All our employees who participated as teachers traveled to disaster-affected areas, such as Ofunato City and Rikuzentakata City, and were able to take home a deeper appreciation of the need to support disaster-affected areas as well as the difficulties of reconstruction. A total of eight classes for 125 people were taught by 24 employees.

The classes used an original curriculum to teach people how to use office productivity applications. More than 80% of the students were aged 50 years or older. The students were quite enthusiastic and optimistic about learning how to use PCs. Interest in ICT was high among middle-aged people and senior citizens from disaster-affected regions.



PC class

### Serving Produce from Areas Affected by the Great East Japan Earthquake in Our Employee Cafeterias

As part of our efforts to support the affected region, in April 2011 we began serving non-restricted produce grown in Fukushima, Ibaraki and Tochigi Prefectures in our employee cafeterias, giving this produce priority over that grown in other locations.



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## CSR Report 2014

# Faithfully Serving Our Customers

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We endeavor to increase customer satisfaction through rapid and sincere responses to customer feedback, as we work to create a system that guarantees high-quality service.

## Initiatives to Further Satisfy Our Customers

### Conducting VOC (Voice of the Customer) Surveys

The NTT Communications Group aims to become the service provider of choice for customers around the world. Accordingly, we are making every effort to understand customers' needs, and we work on a daily basis to improve our services to meet their demands. These initiatives help us develop innovative services to satisfy our customers, which in turn brings us the satisfaction of helping them. One such Group initiative is an annual VOC (Voice of the Customer) survey on customer satisfaction. The feedback we receive shows us the results of our steady, ongoing efforts. Customer feedback topics vary broadly, ranging from corporate customers' comments on the use of ICT backbones in their global strategies to input by consumers about their personal communications habits. The majority of feedback from corporate customers is in the form of requests relating to quality and reliability. Requests such as these—involving network quality, cloud reliability, security initiatives and the like—are essential to our business. There has also been an increasing demand for applications that help companies change the way their employees work. Some of the comments we receive pose challenges to us, such as asking us to ensure seamless domestic and overseas operations or enable integrated management with other companies' services. Responding to such requests is one of our everyday tasks. The content of requests and feedback from individual consumers also varies, but regardless of the nature of the feedback we make every effort to address the gist of their needs. We have created a host of initiatives that aim to make our services more convenient to use. On our website, we describe initiatives addressing this type of customer feedback. Looking forward, we will continue to pay close attention to feedback from our customers as we strive to make permanent improvements that will increase customer satisfaction.

[Click here for more information about the customer satisfaction survey and the initiatives we have taken to improve. \(Japanese Only\)](#)

### Service Improvements Based on OCN Customer Feedback

As one of our service improvement initiatives for our OCN service, which is aimed at individual consumers, we have set up a dedicated OCN Customer Feedback website. We receive numerous comments and requests from customers concerning OCN services. On our website, we provide case studies of improvements based on this feedback. Feedback sometimes takes the form of either praise or complaints, and this type of interaction is very important to our everyday efforts to enhance service quality. We will continue to reflect OCN Customer Feedback with improvements in our services, incorporating enhancements leading to more convenient Internet access for our customers. [Please click here for further details about NTT Communications initiatives to satisfy our customers.](#)

### Evaluations of NTT Plala Educette

Educette, the NTT Plala Internet access service we provide for schools, has been approved by the All Japan Parent Teacher Association as a recommended product. This certification adds to our brand value and inspires confidence in our services' reliability and security among customers. We will continue protecting children from harmful websites while acknowledging the social context and the needs of customers, as we endeavor to improve our services to provide an even safer Internet environment for children.

### Simultaneous Acquisition of ISO 14001 and OHSAS 18001 Certification

NTT Plala simultaneously acquired ISO 14001 and OHSAS 18001 certification, the international standards for environmental as well as occupational health and safety management systems, respectively, at all of its places of business in December 2011. Certification under both standards was a first for the ISP industry (according to research by NTT Plala).

As a company responsible for handling the personal information of its customers, NTT Plala had previously acquired ISO 27001 certification, the international standard for information security management, and it has continued to take steps to improve its information security management systems. Over the past few years, in order to fulfill its responsibilities even further, NTT Plala has stepped up efforts to engage in environmentally friendly business practices and to ensure the safety and physical and mental health of its employees, with the ultimate aim of offering safe and secure services as a company that is beneficial to both people and the environment. Against this backdrop, full-fledged efforts were launched in 2010 to build management systems based on ISO 14001 and OHSAS 18001, which culminated in recent certification.

## 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.

### Universal Design Initiatives

NTT Communications is pursuing ongoing initiatives to optimize its official websites.

From fiscal 2007 through fiscal 2009, the Company overhauled its guidelines for domestic and global websites to comply with the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG2.0).

In fiscal 2010, we completed the revision of our website development and operation guidelines to bring them in line with "JIS X 8341-3:2010," which had been revised to ensure consistency with the WCAG2.0 international standards.

In fiscal 2011, we established guidelines concerning the usage and introduction of social media.

In fiscal 2013, we announced a web accessibility policy aimed at maintaining a standard equivalent to the AA rating provided under the Japanese industrial standard on web accessibility, ensuring ease of use for everyone, including seniors and people with disabilities. This policy corresponds to Section 3: Web Content of JIS X 8341-3 "Guidelines for Design Friendly to Seniors and People with Disabilities —Telecommunications Equipment, Software and Services." We will comply with this policy, promoting universal design initiatives that ensure convenient usage for a variety of customers.

## Responsibility for Delivering High-Quality Services

### Providing Service Level Agreements (SLAs)

In Service Level Agreements (SLAs), a quality standard is set for the services we provide. Then, in case the standard is not satisfied, a discounted fee will be applied.

We applied Service Level Agreements (SLAs) to the cloud VPN service "Arcstar Universal One" covering network operating rate, circuit operating rate, fault repair time, network latency, fault notification time, guaranteed bandwidth, and network launch latency. We deliver top-quality services to customers based on clearly identified criteria for each of these seven items.

With an aim to further improve customer satisfaction, we will continuously examine and revise (if necessary) parameters and criteria within our SLAs.

## Quality Improvement Forum with Overseas Partner Carriers

NTT Communications holds an annual Arcstar Carrier Forum (ACF) aimed at further improving the quality of its global network services at a time when more and more demands are made of customers to ensure business continuity.

The ACF is an international conference we have sponsored since 2000 that invites partner carriers from around the world to Japan for the purpose of improving quality in the operation and delivery of international network services. Until now, the focus has been on expanding discussions of initiatives aimed at improving the quality of essential infrastructure, such as ways to deal with service failures and construction issues, infrastructure design and construction processes to prevent issues from arising, and operational support systems that enable rapid issue analyses and resolutions.

In fiscal 2013, ACF was held in Tokyo (in March 2014). Discussions centered on methods of improving customer satisfaction and increasing quality through the design, construction, operation and maintenance of Arcstar Global Network Service, the international network service offered by NTT Communications.

This year the theme of the forum was “enhancing customer experience,”\* which can be achieved through comprehensive improvements in service quality noticeable to our customers. In addition to sharing information about current improvements, we extended the discussion to include future improvement activities. As a result we agreed to prioritize initiatives to [1] augment availability, [2] reduce the failure rate, [3] reduce the rate of long-term service outages, [4] improve our determination of causes of failure, [5] raise our rate of compliance with customer delivery-period requests, and [6] shorten line delivery lead times.

Through initiatives such as the ACF, we aim to improve the quality of international data communication services in other countries as well, while also building extensive operational know-how. Looking forward, we will take various measures, including expansion of activities into additional countries, to continue to enhance the overall quality of our global network.

\*Rather than the physical and monetary value of our products and services, this expression refers to the emotional and sensory feelings of satisfaction and stimulation gained through the user's experience.



Arcstar Carrier Forum

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# Our Relationship with Suppliers

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In accordance with its basic policy on procurement, NTT Communications builds strong ties, based on trust, with suppliers and other business partners, to ensure that transactions are carried out in a spirit of fairness and good faith.

## Basic Policy on Procurement

NTT Communications must procure high-quality services and products in an economical and timely manner in order to maximize competitiveness as a corporation, respond flexibly to customer demands, and make continual improvements in our own services. NTT Communications therefore engages in fair and competitive procurement activities within the global market based on the three basic procurement policies outlined below, conducting its procurement activities from the perspective of the broad global marketplace and in an effort to make Group management more competitive.

1. We provide a broad range of suppliers in Japan and overseas with opportunities for fair competition, and we strive to foster a sense of mutual understanding and trust-based relationships.
2. We procure competitive products and services to meet our business needs on an economically rational basis, making comprehensive assessments covering quality, price, delivery period and supply stability.
3. In addition to complying with laws, regulations and social norms, we conduct our procurement activities with consideration for the environment and for human rights, in an effort to help contribute to society.

## Promoting CSR Procurement

We have formulated supply-chain CSR promotion guidelines that encourage procurement policies that respect human rights and protect the environment, ensure the quality and safety of products and services, and recognize the overall needs of society.

<b>Human Rights, Labor</b>	<ul style="list-style-type: none"> <li>• Prohibition of forced labor and child labor</li> <li>• Respect for the right to organize and conduct collective bargaining</li> </ul>	<b>Fair Trade</b>	<ul style="list-style-type: none"> <li>• Prevention of corruption and bribery</li> <li>• Respect for intellectual property rights</li> </ul>
<b>Health and Safety</b>	<ul style="list-style-type: none"> <li>• Factory safety measures</li> <li>• Measures targeting occupational injury and illnesses</li> </ul>	<b>Quality and Safety</b>	<ul style="list-style-type: none"> <li>• Ensuring product safety</li> <li>• Creation of a quality management system</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>• Management of hazardous chemicals</li> <li>• Effective use of resources and energy</li> </ul>	<b>Information Security</b>	<ul style="list-style-type: none"> <li>• Prohibition of leaks of personal information</li> <li>• Information system protection measures</li> </ul>

[Click here for details on the supply-chain CSR promotion guidelines.](#)

Based on the above guidelines, which were formulated in December 2013, we have asked our principal suppliers for their cooperation in completing questionnaires on the status of their initiatives with the aim of promoting CSR activities.

## Procurement Department Initiatives

NTT Communications 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 product suppliers, and they are required to observe our Guidelines for Green Procurement. In fiscal 2013 we also worked to develop a shared understanding of trends related to the promotion of green procurement with Group companies through two sessions of the Global Environmental Protection Promotion Subcommittee. In the future we also plan to further raise awareness of the importance of promoting green procurement among Group companies. At the same time, we intend to expand green procurement as a group through these and other initiatives.

## Avoiding Conflict Minerals

In accordance with the NTT Group's Approach to Conflict Minerals, established by NTT, the NTT Communications Group works with its suppliers on initiatives to prevent the use of conflict minerals.

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## CSR Report 2014

## Protecting the Environment

In line with our Basic CSR Policy, the NTT Communications Group is taking steps to reduce environmental impact in all our business activities. We are committed to providing information and telecommunications service solutions that reduce environmental impact, thereby helping to achieve a sustainable society that harmoniously coexists with the global environment.



#### ▶ Basic Philosophy and Environmental Management

- NTT Communications Group Global Environmental Charter
- Green ICT Vision 2020
- Fiscal 2013 Results and Fiscal 2014 Targets
- Fiscal 2013 Material Flow
- Commencement of Scope 3 Calculations
- Promotion Framework and Fiscal 2013 Initiatives
- Acquiring ISO 14001 Certification
- Environmental Audits and Environmental Surveys
- Environmental Accounting in Fiscal 2013
- Promoting Green Procurement
- Environmental Education Initiatives
- Objective/Level-Based Training
- Environment Day Established
- Complying with Environmental Legislation and Regulation

#### ▶ Promoting a Recycling-Oriented Society

- Fiscal 2013 Results
- Reuse and Recycling of Dismantled Telecommunications Equipment
- Recycling of Construction Waste
- Recycling of Office Waste
- Effectively Using the Waste from Cafeterias and Dining Facilities
- Reducing Usage of Paper for Business Purposes
- Reducing the Amount of Paper Consumption through Tablet Terminals

#### ▶ Creating a Low-Carbon Society

- Fiscal 2013 Results and Fiscal 2014 Outlook
- Fiscal 2013 Results and Plans for Fiscal 2014
- Principal Initiatives in Fiscal 2013
- Fiscal 2013 Results and Plans for Fiscal 2014
- Principal Initiatives in Fiscal 2013
- Electronic Billing Initiative
- Reducing Fuel Use by Company Vehicles
- Preventing Air Pollution and Promoting Energy Conservation through Electric Propulsion Ships
- Green ICT Initiatives
- Reducing CO<sub>2</sub> by Providing Services Such as Biz Hosting Enterprise Cloud
- Participating in Smart Industrial Estate Demonstrations Targeting Southeast Asia
- Providing Energy Management Services for Multiple Stores
- Environmental Solutions Label System
- Acquiring the eco-ICT Mark
- Participation in Field Tests for Optimizing Electricity Supply and Demand

#### ▶ Biodiversity Conservation

- Biodiversity Conservation Action Guidelines
- Recycling Water
- Maintaining Vegetation
- Consideration for the Impact of Cable-Laying
- Consideration for the Impact of Cable-Laying Ships
- Caring for Nature Reserves
- Providing Space from the Standpoint of Preservation
- Operations based on Guidelines
- Initiatives for Conserving Water at Head Office Building
- "Mimawari Rakutaro" — Wildlife Observation and Alarm Device
- Special Feature on Biodiversity on the "eco-goo" Portal
- goo Green Label
- Green OCN

**▶ Preventing Environmental Pollution**

- Air Pollution Countermeasures
- Ozone-Depleting Substance Countermeasures
- Asbestos Countermeasures
- Storage and Management of PCBs
- Strengthening Storage and Management in the Anticipation of Emergency Situations

**▶ Reporting to Public and Other Authorities**

- The Law Concerning the Rational Use of Energy
- Tokyo Metropolis
- Kanagawa Prefecture
- Yokohama City
- Saitama Prefecture
- Nagano Prefecture
- Gunma Prefecture
- Nagoya City
- Shizuoka Prefecture
- Kyoto City
- Osaka Prefecture
- Hyogo Prefecture
- Okayama Prefecture
- Hiroshima City
- Kagawa Prefecture
- Miyazaki Prefecture
- Kagoshima City

## CSR Report 2014

## Basic Philosophy and Environmental Management

- ▣ Basic Philosophy and Environmental Management
- ▣ Creating a Low-Carbon Society
- ▣ Promoting a Recycling-Oriented Society
- ▣ Biodiversity Conservation
- ▣ Preventing Environmental Pollution
- ▣ Reporting to Public and Other Authorities

To help establish an environmentally friendly society and ensure that the Earth remains in a healthy state for future generations through our core businesses, we will make efforts to strengthen the framework of the NTT Communications Group for environmental management. To this end, we will aggressively pursue protection of the global environment in all processes pertaining to our business activities, ranging from procurement to operation and waste disposal.

## Basic Philosophy and Vision

## NTT Communications Group Global Environmental Charter

The NTT Group has established the NTT Group Global Environmental Charter to promote groupwide 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. In fiscal 2010, based on the NTT Communications Medium- and Long-Term Environmental Vision, we added a guideline on actions for the preservation of biodiversity to the Basic policy.

[Click here for details regarding the NTT Communications Group Global Environment Charter.](#)

## Green ICT Vision 2020

In fiscal 2010, the NTT Communications Group formulated Green ICT Vision 2020, which sets forth new policies for environmental protection activities and targets for fiscal 2020. We are promoting our three "eco" initiatives of Green of ICT, Green by ICT, and Green with Team NTT, in order to help enrich and streamline social activities, and to support the harmonious coexistence of all living things on our beautiful planet.

The promotion of these initiatives enables us to address the need to achieve a low-carbon society, promote a recycling-based society, and preserve biodiversity, as well as to help create a society that is friendly to the global environment, humans, and other living things.

## Green of ICT

Reducing the increasing environmental impact of ICT equipment and facilities through the use of technology and process innovations.

## Green by ICT

Reducing society's environmental impact through the use of ICT to improve transportation efficiency for people and goods, and by moving away from resource-intensive operations to, for example, a paperless workplace.

## Green with Team NTT

Initiatives to reduce environmental impact in employees' homes and local communities.

## Targets and Main Initiatives

Environmental themes	Indexes	Fiscal 2020 targets	Main initiatives
Realization of a Low-carbon Society	CO <sub>2</sub> emissions <sup>*1</sup>	318,000 t-CO <sub>2</sub> or less (Reduce by 15% or more from the fiscal 2008 level)	<ul style="list-style-type: none"> <li>· Promoting the introduction of high-efficiency equipment</li> <li>· Refurbishing and upgrading to high-efficiency air-conditioning systems</li> <li>· Enhancing lighting using reflectors, LEDs and other devices</li> <li>· Introducing high-voltage DC power supply systems</li> <li>· Expanding the use of natural energy sources</li> </ul>
Promotion of a Recycling-based Society	Final disposal rate <sup>*2</sup>	2% or less	<ul style="list-style-type: none"> <li>· Clarifying and thoroughly implementing recycling guidelines</li> <li>· Promoting thermal recycling</li> <li>· Entrusting construction work to contractors with a high final disposal rate and stepping up rigorous pre-construction supervision</li> <li>· Continuing to achieve zero emissions<sup>*3</sup> for all removed telecommunications equipment</li> </ul>
	Paper consumed per employee	8,500 sheets per employee (reduced by 30% from the fiscal 2008 level)	<ul style="list-style-type: none"> <li>· Strengthen measures at the level of individual organizations based on data showing the results of multi-function printer usage</li> <li>· Introduce ICT equipment and other devices that realize a paperless working style</li> <li>· Promoting the use of electronic formats for internal documents</li> </ul>



Environmental themes	Indexes	Fiscal 2020 targets	Main initiatives
Preservation of Biodiversity	--	--	<ul style="list-style-type: none"> <li>· Promoting construction work based on environmental assessment and consideration for biodiversity</li> <li>· Revising our biodiversity preservation guide</li> <li>· Promoting environmental protection programs undertaken by employees and their family members.</li> </ul>

\*1 CO<sub>2</sub> emissions coefficient:

fiscal 2020: 0.33kg-CO<sub>2</sub> per kWh %<Target value for the Federation of Electric Power Companies of Japan> Fiscal 2008: 0.44kg-CO<sub>2</sub> per kWh <actual value>

\*2 Final disposal rate

is calculated as the volume of waste transported to the final processing site divided by the total volume of waste generated.

\*3 Zero emissions:

The NTT Communications Group considers a final disposal rate of 1% or less to satisfy zero emissions conditions.

[Click the following for details regarding "Green ICT Vision 2020."](#)

### Fiscal 2013 Results and Fiscal 2014 Targets

Guided by Green ICT Vision 2020, we are working to realize a low-carbon society, promote a recycling-based society, and preserve biodiversity and will make every effort to reduce the environmental impact associated with our business activities.

In fiscal 2013, we took steps to reduce our environmental impact and protect biodiversity both in Japan and overseas. In specific terms, we expanded environmental management at overseas bases, extended initiatives aimed at reducing greenhouse gases across our global operations, initiated new measures in an effort to preserve biodiversity, drew up a plan for disposing of waste PCBs, actively promoted measures to improve the final disposal rate and actively promoted measures including tablet terminal meetings with a view to curtailing paper consumption. Through these endeavors, we achieved considerable results across the Group.

In fiscal 2014, we will maintain our focus on reducing environmental impact both in Japan and overseas. In advancing a variety of global measures, we will continue to channel our energies toward reducing electric power consumption, recycling waste, cutting back the volume of paper use, and promoting initiatives aimed at preserving biodiversity.

### Environmental Impact Reduction Initiatives, Targets and Achievements in Fiscal 2013

	Fiscal 2013 Target	Fiscal 2013 Achievements	Assess-ment	Fiscal 2014 Initiatives	Fiscal 2020 Targets
CO <sub>2</sub> emissions	Telecom equipment	258,000 t-CO <sub>2</sub> <sup>*1</sup> <ul style="list-style-type: none"> <li>· Power source equipment measures: reduction of 190 tons</li> <li>· Air-conditioning equipment measures: reduction of 4,032 tons</li> <li>· Telecommunications equipment measures: reduction of 2,805 tons</li> <li>· New technology introduction measures: reduction of 4,836 tons</li> </ul> Target: 257,000 t-CO <sub>2</sub> or less <sup>*1</sup> Good progress Target: 263,000 t-CO <sub>2</sub> or less <sup>*1</sup>		Target: 257,000 t-CO <sub>2</sub> or less <sup>*1</sup> <ul style="list-style-type: none"> <li>· Outdoor units for air conditioners and filter cleaning: reduction of 3,245 tons</li> <li>· Turning off idle equipment: reduction of 413 tons</li> <li>· Upgrading older air conditioners: reduction of 16 tons</li> <li>· Raising temperatures slightly in machine room cooling systems: reduction of 929 tons</li> <li>· Upgrading facilities (higher capacity and conversion to DC): reduction of 91 tons</li> <li>· Reducing use of older facilities as a result of service elimination: reduction of 817 tons</li> <li>· Installing solar power systems: reduction of 82 tons</li> <li>· Introducing new technologies: reduction of 9,699 tons</li> </ul>	318,000 t-CO <sub>2</sub> or less <sup>*1</sup> (reduction of more than 15% from the fiscal 2008 level)
	Offices	15,000 t-CO <sub>2</sub> <sup>*1</sup> <ul style="list-style-type: none"> <li>· Installing reflector lights and adopting automatic light level adjustment systems</li> <li>· Lowering blinds before leaving the office, and ensuring that lights are turned off when not in use</li> <li>· Continued promotion of dressing warmer in winter and cooler in summer</li> </ul> Target: 15,000 t-CO <sub>2</sub> or less <sup>*1</sup>		Target: 16,000 t-CO <sub>2</sub> or less <sup>*1</sup> <ul style="list-style-type: none"> <li>· Using energy-efficient PC settings, unplugging PC power cables when leaving the office, turning off PCs when not in use</li> <li>· Selective operation of elevators and air-conditioning systems</li> <li>· Continued promotion of dressing warmer in winter and cooler in summer</li> </ul>	
Waste	Recycling rate for dismantled telecom equipment	99.4% <ul style="list-style-type: none"> <li>· Improving the recycling rate for glass and ceramic scrap (glass scrap, FTC,<sup>*2</sup> and ball insulators)</li> </ul> Target: At least 99%		Target: At least 99% <ul style="list-style-type: none"> <li>· Internally using dismantled telecom equipment</li> <li>· Promoting the internal use of unneeded articles of inventory and other items</li> <li>· Promoting further recycling, including at Group companies</li> </ul> Goal for all waste: Final waste disposal	Goal for all waste: Final disposal rate <sup>*3</sup> of 2% or lower

	Fiscal 2013 Target	Fiscal 2013 Achievements	Assessment	Fiscal 2014 Initiatives	Fiscal 2020 Targets
				rate <sup>3</sup> of 31% or lower	
<b>Recycling rate for construction waste</b>	Target: Specified materials: At least 99% Other: At least 70%	Specified materials + metals: 99.8% Other: 72.6% · Promoting measures to reduce final disposal volume · Completely eliminating waste that must be transported directly to final disposal plants · Promoting subcontracting to processing companies with higher recycling rates		Target <sup>4</sup> : Specified materials + metals: At least 99% Other: At least 75% · Promoting measures to reduce final disposal volume · Utilizing intermediate processing plants that offer high recycling rates	
<b>Recycling rate for office waste</b>	Target: At least 76.0%	81% (for a total emission volume of 3,110 tons) · Recycling plastic waste · Promoting thermal recycling · Highlighting best practices from each organization		Good progress Target: At least 84% · Promoting thermal recycling · Promoting the thoroughgoing sorting of waste · Evaluating the status of communications buildings and data centers; Promoting subcontracting to processing companies with higher recycling rates	
<b>Paper usage (office paper, A4 size equivalent)</b>	Target: 9,200 sheets per person	6,841 sheets per person · Visualizing paper usage status (double-sided printing rate, consolidated printing rate) · Highlighting best practices from each organization · Promoting the use of a video conferencing system		Target: 8,500 sheets per person · Strengthen measures at the level of individual organizations based on data on multi-function printer usage · Introduce ICT equipment and other devices that realize a paperless working style	8,500 sheets per person (30% reduction per person from the fiscal 2008 level)

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

(Scope: 14 domestic companies of the NTT Communications Group)

\*1 The CO<sub>2</sub> emission coefficient is 0.33 kg-CO<sub>2</sub> per kWh.

\*2 Fire-tight covers (FTC) are used to protect communication cables from fire.

\*3 Final disposal rate is calculated as the volume of waste transported to the final processing site divided by the total volume of waste generated.

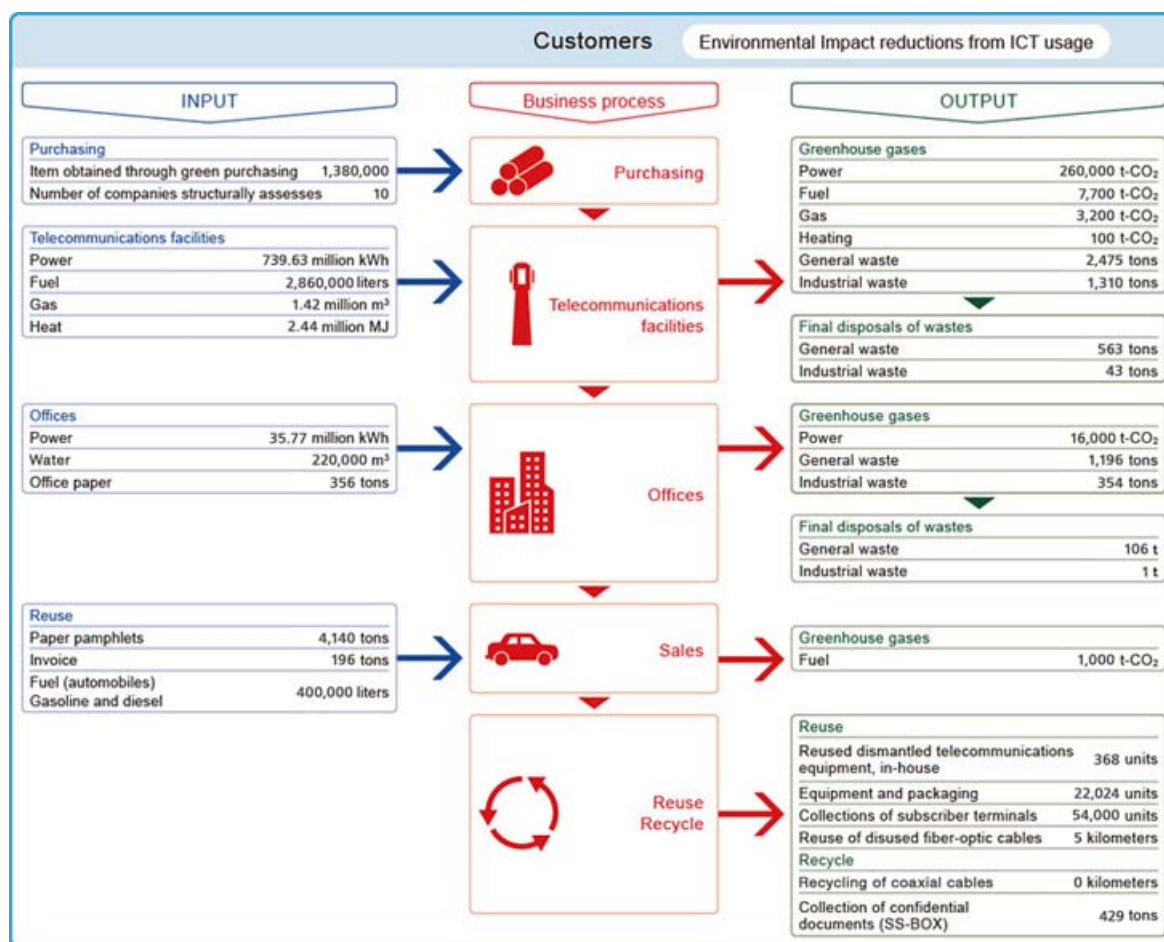
\*4 Materials were reclassified in fiscal 2011.

**Fiscal 2013: Environmental Load Reduction Management Indices at Overseas Bases**

- Switch off unnecessary lighting, air-conditioning, and PCs
- Promote the sorting and recycling of waste according to the circumstances of each building
- Implement double-sided and double-page office paper printing

Environmental Impact of Business Activities

Fiscal 2013 Material Flow



[Click here to view an enlarged diagram summarizing input and output of the NTT Communications Group for fiscal 2013.](#)

Commencement of Scope 3 Calculations

In recent years, in addition to the greenhouse gases they emit directly and indirectly, calls have increased for companies to manage emissions throughout the entire supply chain (Scope 3). In response to this call, in fiscal 2012 NTT Communications began calculating greenhouse gas emissions in accordance with Scope 3, the new international standard. In performing these calculations, we have referred to unit emission databases and other materials produced through studies by the Ministry of the Environment and other government ministries and agencies. Of the 15 target categories, our calculations include nine that are relevant. Going forward, we will work to increase the precision of our data-gathering, expand the scope of calculation and mount initiatives to reduce emissions.

Category	Greenhouse Gas Emissions (t-CO <sub>2</sub> )
Category 1, "purchased goods and services"	413,619
Category 2, "capital goods"	485,577
Category 3, "fuel and energy activities not included in Scope 1 and 2"	50,355
Category 4, "upstream transportation and distribution"	4,003
Category 5, "waste generated through business activities"	552
Category 6, "business travel"	13,644
Category 7, "employee commutation"	11,563
Category 8, "upstream lease assets"	-
Category 9, "downstream transportation and distribution"	-
Category 10, "processing of products sold"	-

Category	Greenhouse Gas Emissions (t-CO <sub>2</sub> )
Category 11, "use of products sold"	673,188
Category 12, "disposal of products sold"	-
Category 13, "downstream leased asset"	-
Category 14, "franchise"	237,448
Category 15, "investment"	-

## Environmental Management Structure

### Promotion Framework and Fiscal 2013 Initiatives

In order to continuously promote environmental protection initiatives, we formed a working group for each issue, involving the entire NTT Group in tackling environmental issues.

As a general rule, we hold Environmental Protection Subcommittee meetings twice a year to formulate an overall plan encompassing a wide range of issues, including reduction of greenhouse gas emissions, Reducing Waste, and promotion of environmental solutions. Through these meetings, we also share information on the results of actions taken and promote horizontal expansion of various initiatives.

Beginning in fiscal 2009, we streamlined the bases for environmental management at key global locations, and expanded the scope of environmental protection initiatives at telecommunications and data center buildings, as well as office buildings.

In addition, beginning in fiscal 2012 we assigned an officer responsible for environmental management at each operating base as part of our efforts to establish a global structure and system. We also hold global environmental management meetings as a forum for each country to share details of their endeavors to reduce environmental impact. Through efforts such as these, we are working to expand measures aimed at decreasing the negative impact we have on our environment. Following organizational revisions, our environmental management structure in Japan comprises 14 companies, through which we promote environmental protection activities.

### Environmental Protection Framework



[Click here to view an enlarged diagram of the Company's environmental protection framework.](#)

### Acquiring ISO 14001 Certification

Six companies within the NTT Communications Group had acquired ISO 14001 certification as of March 31, 2014. 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 remedial measures 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	Related Company Websites
NTT Communications Corp.	Procurement Dept.	October 1999	<a href="#">Please click here for details on NTT Communications Corp. environmental protection activities</a>
	Solution Services Dept. (Engineering Division I, Engineering Division II, Planning Division)	March 2004	
NTT World Engineering Marine Corp.		July 2001	<a href="#">Please click here for Environmental Activities</a>
NTTPC Communications, Inc.		November 2003	-
NTT BizLink, Inc.		March 2007	<a href="#">Please click here for details on NTT BizLink, Inc. environmental protection activities</a>
NTT Com Solution & Engineering, Inc.		April 2007	-
NTT Plala Inc.		December 2011	-

As of March 31, 2014

**Environmental Audits and Environmental Surveys**

Guided by its Global Environmental Charter, the NTT Communications Group has established the Global Environmental Protection Subcommittee under the CSR Committee. At the same time, twelve working groups (WGs) drive the Group's wide-ranging environmental protection activities. Both Subcommittee and WGs issue PDCA and other reports outlining details of their various activities twice yearly. In addition to sharing information and calling for further development of effective initiatives, we are implementing environmental management on a Groupwide basis.

**Environmental Accounting**

**Environmental Accounting in Fiscal 2013**

The NTT Communications Group 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.

The environmental conservation cost in fiscal 2013 came to approximately ¥2.88 billion, consisting of around ¥1.57 billion in investments and about ¥1.31 billion in expenses.

On the other hand, the economic benefit derived from environmental conservation in fiscal 2013 included approximately ¥0.13 billion in revenue from optical cable sales and around ¥0.56 billion gained from the implementation of measures to reduce electricity use, including electricity saving and conservation efforts. The Mypage<sup>\*1</sup> website helped reduce mailing costs and paper usage, generating cost savings of approximately ¥0.48 billion, and equipment re-use had the effect of reducing the cost of new purchases by around ¥0.57 billion.

Overall, the economic benefit came to approximately ¥1.74 billion. This figure represents a year-on-year decrease of around ¥0.5 billion, due in part to expanding the scope of this accounting to include Group companies.

<sup>\*1</sup> 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	
			FY2012	FY2013	FY2012	FY2013
<b>(1) Business area cost</b>			2,218	1,553	441	340
Breakdown	1. Pollution prevention costs	· Oil tank facility for engine generator · Management of items using PCBs	320	21	23	30
	2. Global environmental conservation costs	· Measures to reduce CO2 emissions resulting from electricity use	1,865	1,523	92	89
	3. Resource circulation costs	· Waste disposal and reuse expenses	32	9	326	221
<b>(2) Upstream / Downstream costs</b>		· Measures to recover, recycle and reuse telecoms equipment	59	19	988	795
<b>(3) Administration costs</b>		· Environmental conservation management activities	-	0	80	74
<b>(4) R&amp;D costs</b>		· Allocated portion of NTT Group environmental R&D costs	-	-	40	1
<b>(5) Social activity costs</b>		· Costs of supporting volunteer participation	-	-	14	7
<b>(6) Environmental remediation costs</b>		-	-	-	-	97
<b>Total</b>			2,276	1,572	1,563	1,313

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

		FY2012	FY2013
Revenue	Revenues from sales (cables, metal scrap, etc.)	74	125
Cost reductions	Reductions in expenses derived from measures such as reduced electricity usage	826	560
	Reductions in cost of purchases due to reuse of dismantled telecommunications equipment	766	571
	Decrease in postal and paper costs from utilization of Mypage <sup>1</sup>	567	481
	Other	6	7
<b>Total</b>		2,239	1,744

(Target period: April 1 - March 31)

(Scope: NTT Communications Group)

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.

## Promoting Green Procurement

## Promoting Green Procurement

NTT Communications issued the second version of its Guidelines for Green Procurement in December 2013, incorporating awareness of environmental conservation into criteria for supplier assessment, as we aim to reduce environmental impact along the entire supply chain. Beginning in fiscal 2010, we have continued to promote Groupwide procurement initiatives by developing a shared understanding of trends related to the promotion of green procurement with various Group companies. Moreover, procurement from companies successfully passing NTT Communications' green procurement assessment is being expanded to the entire Group. Meanwhile, turning to the Group's overseas company in Singapore, steps were taken to procure Green Label certified products. The Green Label certification program was introduced by the government of Singapore in 1992.

## Status of Green Procurement and Green Purchasing

	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013
Green procurement of goods excluding office supplies (1,000 units)	1,370	1,230	1,380	1,410
Green procurement of office supplies (1,000 units)	470	350	260	240

## [Specific Case Study] Green Procurement of Office Paper

NTT Communications has continued to take into consideration and maintain a focus on environmental concerns in the procurement and use of office paper. In specific terms, the ratio of recycled waste paper to the total amount of paper consumed is 54.8%. 100% of the remaining 46.2% is environmentally conscious virgin pulp.

## Environmental Education

### Environmental Education Initiatives

We offer environmental education to all employees, aiming to raise their awareness of environmental matters. We are also proactive in environmental awareness activities as part of our CSR efforts, extending the scope of participation to include not just employees, but also their families and business partners.

In fiscal 2013, we undertook a range of environmental awareness and education activities, including a cleanup of the areas surrounding our offices and promotion of the ecocap movement. In addition, NTTPC Communications encouraged its employees to participate in rice planting and harvesting as well as tree planting and thinning activities in a bid to raise the level of understanding regarding the importance of protecting the natural environment.

[Click here for details regarding participation-oriented CSR activities.](#)

### Objective/Level-Based Training

We provide level-based classroom instruction and participatory seminars on a regular basis to executives, CSR promotion leaders (leaders who promote environmental conservation initiatives in each workplace), general employees, and newly hired employees. In addition, we engage in activities that entail the thoroughgoing sorting, management, and proper disposal of waste in accordance with all relevant statutory and regulatory requirements. In fiscal 2012, we held explanatory meetings regarding the proper disposal of industrial waste for employees at all major buildings including those of Group companies. At the same time, we took steps to deepen the understanding of employees regarding industrial waste disposal.

As a result of our environmental education, employees have put forward proposals aimed at improving the Group's ability to protect the environment. Employees are also taking the initiative by making proposals and implementing measures aimed at curtailing the use of electric power and paper. Looking to the future, the NTT Communications Group is committed to listening to the suggestions of each of our employees, and to expanding our environmental protection initiatives in our business activities and office operations.

### Environment Day Established

The NTT Communications Group has designated the fifth day of every month as Environment Day with the aim of increasing internal environmental awareness. Complementing Environment Day, the Group coordinates closely with participation-oriented CSR activities, including the simultaneous cleanup of areas around office buildings. Through these and other means, the NTT Communications Group will strive to increase the awareness of employees with regard to environmental preservation activities.

Meanwhile, at the Group's overseas company in the U.S., employees are encouraged to conserve the use of electric power and to actively engage in recycling in a bid to raise awareness regarding environmental preservation activities.

## Complying with Environmental Legislation

### Complying with Environmental Legislation and Regulations

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 that look to curtail pollution, emissions standards and the PRTR Law<sup>\*1</sup>, 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 litigation or legal violations pertaining to environment-related accidents, infringements, fines or complaints during fiscal 2013. We plan to continue our companywide efforts to prevent environmental pollution and comply with related laws and regulations.

<sup>\*1</sup> PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

- ▶ [Basic Philosophy and Environmental Management](#)
- ▶ [Creating a Low-Carbon Society](#)
- ▶ [Promoting a Recycling-Oriented Society](#)
- ▶ [Biodiversity Conservation](#)
- ▶ [Preventing Environmental Pollution](#)
- ▶ [Reporting to Public and Other Authorities](#)

## CSR Report 2014

# Creating a Low-Carbon Society

- ▶ [Basic Philosophy and Environmental Management](#)
- ▶ [Creating a Low-Carbon Society](#)
- ▶ [Promoting a Recycling-Oriented Society](#)
- ▶ [Biodiversity Conservation](#)
- ▶ [Preventing Environmental Pollution](#)
- ▶ [Reporting to Public and Other Authorities](#)

Although the advancement and spread of ICT have added convenience to lifestyles and business practices, the increase in power consumption by ICT-related equipment is placing enormous pressure on the environment. The NTT Communications Group's employees are responding eagerly to energy efficiency improvements and other initiatives, as they progress as a team toward voluntary company targets set for telecommunications equipment, which account for around 90% of total CO<sub>2</sub> emissions from business activities, through to energy savings by offices.

In fiscal 2013, each and every employee within the NTT Communications Group worked diligently to implement a variety of measures aimed at conserving energy at its nationwide office, telecommunications, and data center buildings in the aftermath of the earthquake disaster. This helped significantly reduce the amount of electricity consumed as well as CO<sub>2</sub> emissions. Looking forward, we will continue working to utilize new R&D technologies to curtail our own CO<sub>2</sub> emissions, as well as those in the world at large.

## Reducing Greenhouse Gases

### Fiscal 2013 Results and Fiscal 2014 Outlook

When calculating the volume of greenhouse gas emissions that we generate, we include buildings owned by other companies including those buildings where we rent space as well as data centers (DCs) that provide colocation services, in addition to buildings owned by the NTT Communications Group.

In fiscal 2013, CO<sub>2</sub> emissions by the NTT Communications Group totaled 273,000 t-CO<sub>2</sub>. This was 1,000 t-CO<sub>2</sub> higher than the Group's established target and an increase of approximately 0.4% compared with the previous fiscal year. Furthermore, in fiscal 2013 CO<sub>2</sub> emissions per unit of sales were up around 1.6% compared with their fiscal 2012 level.

We concentrated on energy-saving measures in our offices and worked to curtail energy used in communications and in cooling data-center buildings. However, CO<sub>2</sub> emissions increased due to robust data-center sales, concentrated in the Tokyo metropolitan area.

In fiscal 2014, CO<sub>2</sub> emissions are trending upward owing to solid ongoing data-center sales. Nevertheless, the NTT Communications Group will continue to make a concerted effort to save energy. By deploying R&D technologies and introducing energy-saving rules and other new measures, we aim to meet the target we have set for CO<sub>2</sub> emissions of 279,000 t-CO<sub>2</sub> or less. Our target for CO<sub>2</sub> emissions as a unit of output is ¥4.53 million/t-CO<sub>2</sub>.

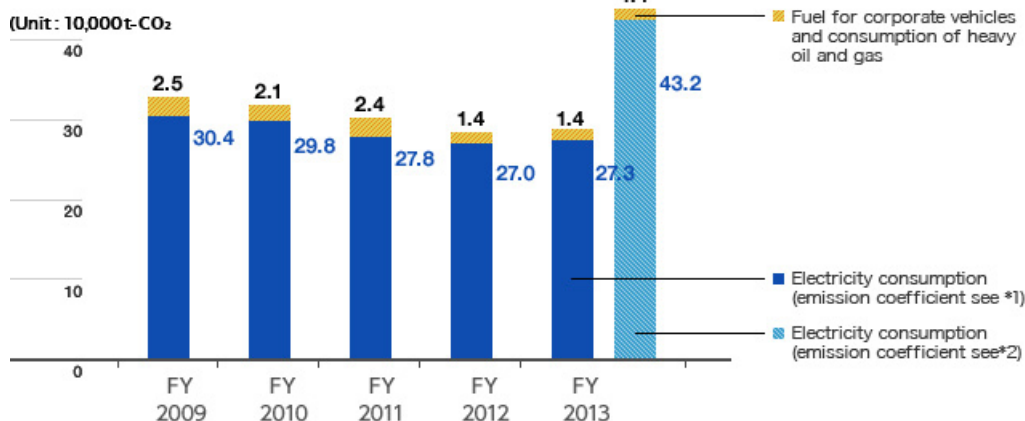
At our overseas facilities, meanwhile, CO<sub>2</sub> emissions rose, to approximately 131,000 t-CO<sub>2</sub> (approximately 129,000 t-CO<sub>2</sub> for data centers and 200 t-CO<sub>2</sub> for offices), reflecting higher demand for cloud services and data centers.

We are working to reduce electricity use at overseas data centers by operating highly energy-efficient buildings and facilities, such as data-center buildings that have acquired LEED certification. We are also rolling out solutions to reduce air-conditioning energy consumption, and we have achieved good results in Japan.

We are using 0.33 kg-CO<sub>2</sub>/kWh as our CO<sub>2</sub> emission coefficient.



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



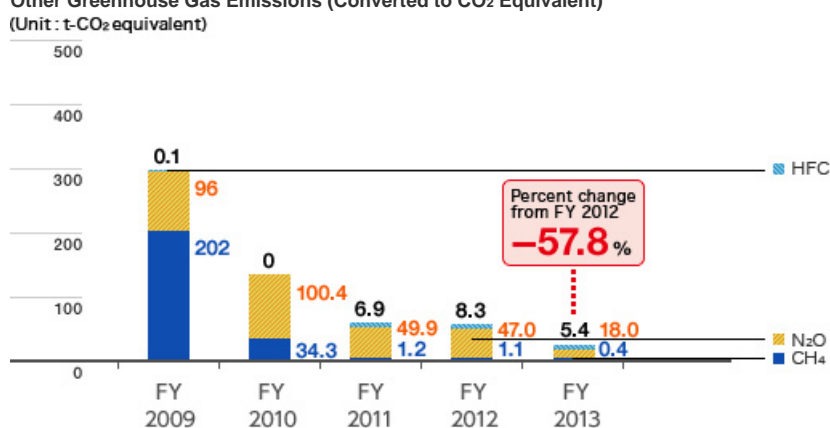
(The scope of tabulation was 14 NTT Communications Group companies in fiscal 2010 and 13 Group companies for fiscal 2009.)

\*1 The CO<sub>2</sub> emission coefficients used in the dark blue bars are 0.378 kg-CO<sub>2</sub> per kWh until 2010, and 0.33 kg-CO<sub>2</sub> per kWh from fiscal 2011 onward.

\*2 The CO<sub>2</sub> emission coefficients used in the light blue bar are from electric power companies.

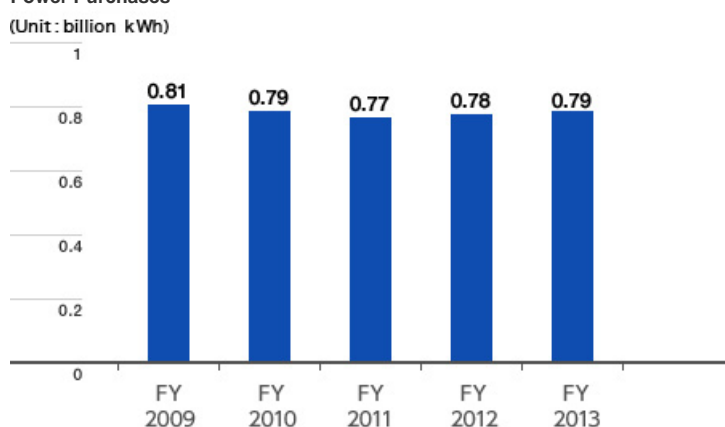
\*3 Calculated using net emissions that exclude other telecommunications operators in accordance with revisions to the Energy Saving Act.

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

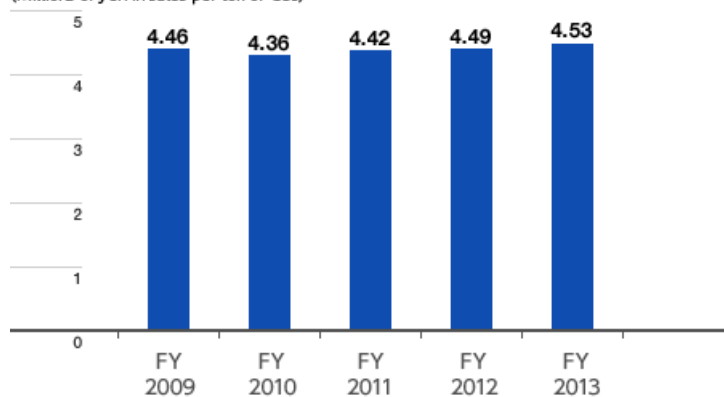


(The scope of tabulation was 14 NTT Communications Group companies in fiscal 2010 and 13 Group companies for fiscal 2009.)

### Power Purchases



(The scope of tabulation was 14 NTT Communications Group companies in fiscal 2010 and 13 Group companies for fiscal 2009.)

**CO<sub>2</sub> Emissions per Unit of Sales**(Millions of yen in sales per ton of CO<sub>2</sub>)**Initiatives related to Telecommunications Facilities****Fiscal 2013 Results and Plans for Fiscal 2014**

In fiscal 2013, CO<sub>2</sub> emissions increased approximately 1% from their fiscal 2012 levels, to 258,000 t-CO<sub>2</sub> (1,000 t-CO<sub>2</sub> higher than our target), due to factors such as the start of sales at our Tokyo No. 6 Data Center and the augmentation of cloud-server equipment. We expect CO<sub>2</sub> emissions to trend upward in fiscal 2014 due to robust data-center sales. However, we have set our emissions target at 263,000 t-CO<sub>2</sub>, which we aim to achieve through the introduction of R&D technologies and energy-saving rules, as well as through the use of new machine-room cooling measures such as air curtains.

**Principal Initiatives in Fiscal 2013****Acquisition of LEED, the international standard environmental certification, for data centers in various countries**

Customers throughout the world are becoming more and more aware of the need to reduce their impact on the environment. As they explore initiatives to achieve this objective, they are increasingly looking at strong environmental performance as well as reliability as a crucial factor in the choices data centers make a major source of energy consumption. One selection criterion is LEED<sup>\*1</sup>, a global standard for green building certification. In its efforts to reduce the environmental impact of its data centers throughout the world, NTT Communications is promoting the acquisition of LEED certification. We are targeting "green ICT," which is linked to customer satisfaction as well as cost reduction. By pursuing a range of initiatives and introducing systems at data centers in various countries, we are working to reduce the amount of energy and resources used by data centers, thus reducing their environmental impact.

**Air Conditioning**

We are working to visibly display the temperatures inside all server rooms. We are also introducing measures to reduce the amount of energy used in cooling, promoting measures such as SmartDASH<sup>\*2</sup>, which automatically controls temperatures; Aisle Capping<sup>\*3</sup>, which improves cooling efficiency by dispersing waste heat from air conditioning and ICT equipment; and outdoor air cooling, which uses cold air from outdoors to efficiently cool ICT equipment.

**Lighting**

We are reducing the amount of energy used for lighting by employing LEDs and motion sensors.

**Other measures**

We are encouraging the use of solar power, wind power and other forms of natural energy. We are introducing high-voltage direct current to decrease AC/DC conversion loss and supply power to ICT equipment more efficiently, and we are using rotary uninterruptible power supplies (UPSs) with low power loss.

\*1 An acronym for Leadership in Energy and Environmental Design, LEED is a certification system for entire buildings promoted by the US Green Building Council that evaluates energy savings and environmental impact.

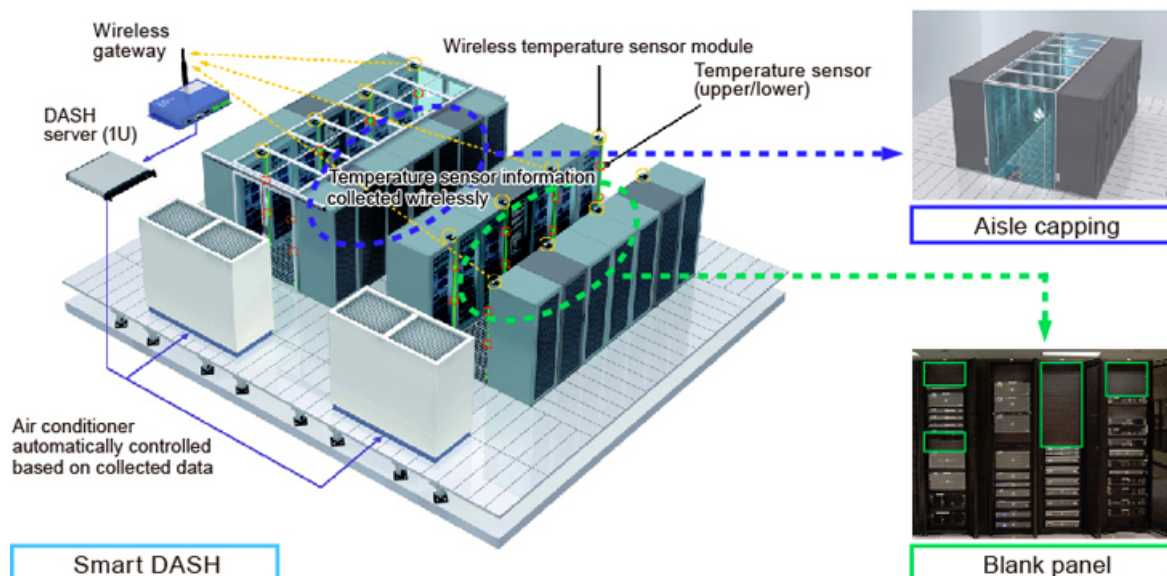
\*2 SmartDASH is a registered trademark of Vigilant Corporation of the United States.

\*3 Aisle Capping is a registered trademark of NTT Facilities, Inc.

**Initiatives to Increase SmartDASH Deployment and Achieve a 20% Reduction**

SmartDASH is a system that visualizes temperature zones in server rooms, detects areas that are too cold, and automatically readjusts temperatures.

Aisle Capping is a technique that physically separates the intake (low temperature) and exhaust (high temperature) air from IT equipment by strategically placing vinyl sidewalls and ceilings around IT equipment in the aisles between rows of server racks. Blank Panel is a technique for enhancing cooling effectiveness within racks by blocking the front of unused spaces in server racks. The combination of these two techniques has reduced electricity consumption by about 20% for air conditioning. NTT Communications is rolling out these solutions to other data centers in Japan and overseas to further reduce power consumption.

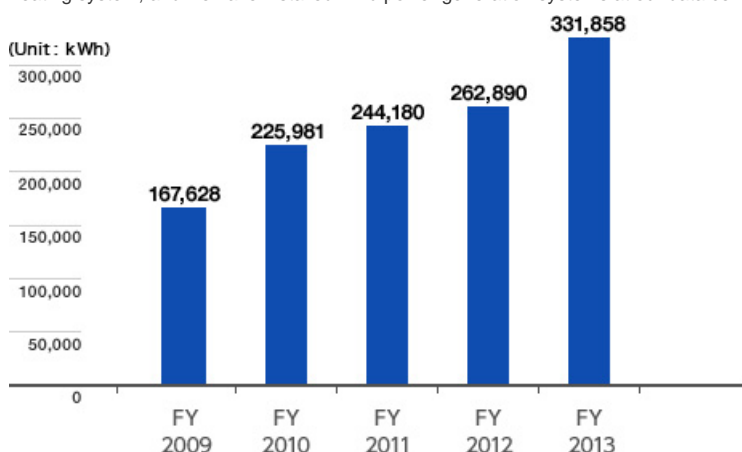


### Introducing HVDC Systems

To minimize the energy loss that occurs when converting alternating current (AC) electricity from the grid to direct current (DC), high-voltage direct current (HVDC) systems have been developed over the past few years as a promising technology that surmounts these challenges, by realizing higher voltages while converting alternating current to direct current. Since January 2012, NTT Communications has been implementing field tests to accelerate the deployment of HVDC systems. These field tests entailed the build-out of an HVDC system and the establishment of methods needed to design, install, maintain and operate the system. We performed a cost-benefit analysis and an overall assessment of the system, including its efficiency, reliability and power consumption. We installed an HVDC system at one of our telecommunications equipment buildings in Tokyo in January 2014. We expect this highly efficient system, the largest of its kind in the world (4MW class), to lead to lower power consumption and a major reduction in installation costs. NTT Communications will, in principle, deploy HVDC systems when constructing and operating new power supply systems in the future.

### Introducing Solar Power Generation Systems

NTT Communications began using solar power generation systems to generate power in May 2009, installing these systems on the walls and roofs of communications and data-center buildings in Tokyo. This electricity is used for purposes such as lighting in common areas of the buildings. In fiscal 2013 we generated approximately 330,000 kWh of electricity. We are also promoting the use of renewable energy overseas. We have installed solar power generation systems at data centers in Singapore and Malaysia. At our Hong Kong data center we use a solar heating system, and we have installed wind power generation systems at our data center in India and our office building in Thailand.



[Click here for details regarding solar power generation.](#)



Solar panels installed at Tokyo No. 5 Data Center



Solar panels installed on the rooftop of the Data Center building in Malaysia

### Installing LED Lights at Data Centers

The NTT Communications Group installed LED lights in some of its data centers in addition to its office buildings. LED lights offer the benefits of reduced electricity usage and lower maintenance costs due to their longer service life. They also help reduce the electricity required for air conditioning because they operate at a cooler temperature. We plan to actively promote installation of LED lights in our data centers and office buildings in order to help alleviate global warming.



LED lights at a data center

### Promoting the Greening of Rooftops and Walls

We are using rooftop and wall gardens<sup>\*1</sup> at our data centers and other facilities to reduce the heat island effect<sup>\*2</sup> 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 clean the air by absorbing CO<sub>2</sub> and discharging oxygen, as well as improving living environments and beautifying views. NTT Communications has expanded this rooftop and wall garden initiative outside Japan to data centers in Singapore and Malaysia. Through these means, the Company is reducing electricity consumption at its buildings.

\*1 Rooftop gardens: Cultivating such gardens is one way of improving living environments. Evapotranspiration from plants lowers ambient temperatures and blocks heat, helping to cut a building's energy consumption.

\*2 Heat island effect: This is a phenomenon where summer temperatures in urban areas rise several degrees above surrounding areas because of heat from asphalt surfaces, buildings, air conditioners, and car exhausts. The term stems from the way that cities appear as islands of heat in thermal images compared with surrounding rural areas.



Rooftop garden on an office building in the Kansai area



Rooftop gardening of the Singapore data center



Rooftop gardening of the Malaysia data center

### Measures to Save Energy at Data Centers

#### Energy Efficiency at the Hong Kong Financial Data Center

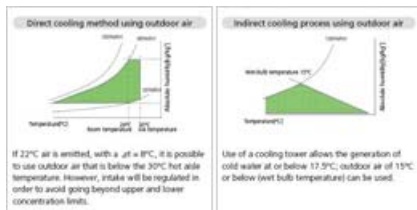
The Hong Kong Financial Data Center uses state-of-the-art environmental technologies and provides high-efficiency operations. In fiscal 2013, the building received the Gold Certification under the Leadership in Energy & Environmental Design (LEAD) standards of the U.S. Green Building Council. Data centers are particularly prone to shifts in environmental performance, influenced by the cooling efficiency of their equipment and devices. In response, we have adopted inverter control fans in air-conditioning units and cold-aisle containment to separate cold air from air-conditioning units. We have also adopted double-floor, double-ceiling air-conditioning chambers to ensure sufficient space to control fan power. The operations-center power source is a fuel cell-based uninterruptible power supply (UPS), which employs environmentally friendly renewable energy, helping our customers achieve their green initiative targets.

#### Energy Efficiency at Our Data Centers in the United Kingdom

In Europe, we acquired Gyron Internet Ltd. in the United Kingdom in June 2012 and began offering services with a core focus on the cloud-based services business. We have been implementing measures to conserve energy at Gyron's data centers by installing advanced environmental technologies.

One of these environmental technologies is indirect outdoor air cooling, which takes advantage of crisp outdoor air during the winter. The system takes cold outdoor air and channels it inside through the air-conditioning system to offset the heat generated by servers and networking equipment. The facility boasts both world-class energy conservation performance and high reliability. Another environmental measure is the utilization of a method that supplies cool air from walls using air flow optimization control technology. Compared with the traditional way of supplying cool air from the floor, there are fewer variances in temperatures for more efficient cooling.

NTT Communications will continue to advance energy conservation at its constantly expanding data centers by increasing the use of natural energy resources and installing highly efficient energy systems.



Indirect outdoor air cooling



Air-conditioning system that blows cool air from walls

**Energy Efficiency at the Tokyo No. 6 Data Center**

Service commenced at the Tokyo No. 6 Data Center (Minato-ku, Tokyo) on April 23, 2013. Employing highly efficient electrical and air-conditioning equipment, this facility offers one of the highest levels of green performance in Japan.

The data center features highly energy-efficient water-cooled air-conditioning systems and a space-saving rotary uninterruptable power supply (UPS) that has little energy loss and forgoes the use of batteries, which contain harmful substances. The facility takes advantage of natural energy resources, with air-conditioning systems that use cool outdoor air and that collect water in rooftop cisterns for later use as cooling water. Thanks to airflow management in server rooms that separates cold air from the hot air expelled by equipment, the Tokyo No. 6 Data Center has achieved a power usage effectiveness (PUE) score of 1.2, the highest level for a data center in Japan.

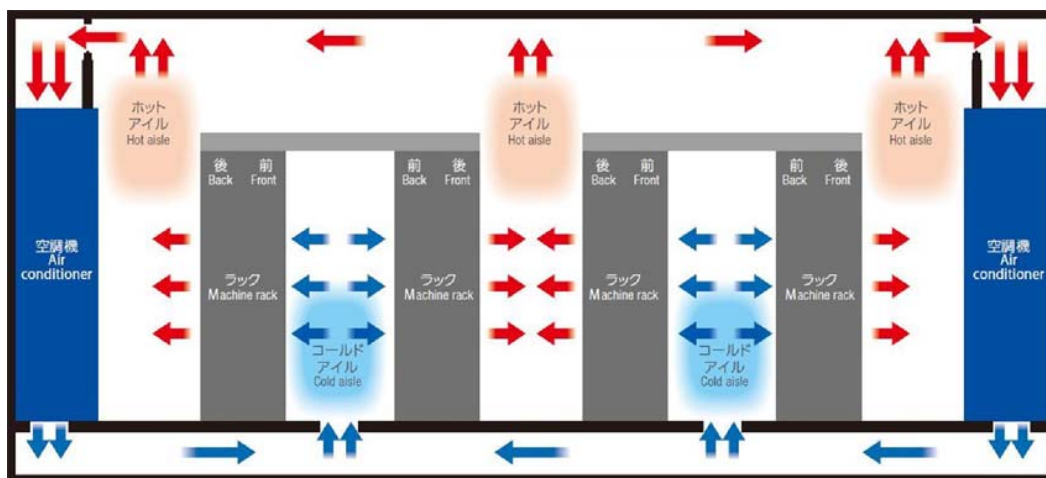
NTT Communications offers services via data centers at more than 150 locations around the world under its global data-center brand, Nexcenter™. We will make every effort to further improve the level of services, enhance quality and improve green performance.



Rotary UPS



Outdoor air-conditioning equipment: modular chillers on the roof



Airflow management

**Office Initiatives**

**Fiscal 2013 Results and Plans for Fiscal 2014**

In fiscal 2013, we continued to follow energy-saving measures that have been in place since the Great East Japan Earthquake. Accordingly, CO<sub>2</sub> emissions amounted to 15,000 t-CO<sub>2</sub> (approximately on target), the same level as in fiscal 2012. Although we will relax these measures slightly in fiscal 2014, we are targeting emissions of 16,000 t-CO<sub>2</sub> or less. We intend to meet this objective by revising energy-saving rules and by increasing the deployment of thin-client PCs.

Principal Initiatives in Fiscal 2013

Office Database Visualization Site

To evaluate and implement environmental protection measures related to offices and allow each business operation to undertake autonomous office-related environmental initiatives, we have been operating the Office Database Visualization Website, which tallies and visualizes environmental impact data related to electricity, paper, and waste for each organizational unit, on our Company's intranet since August 2009.

Posted information shows the amount of electricity consumed by each organizational unit (total amount as well as by floor space), paper use (total usage, double-sided printing rate, consolidated printing rate), and office waste recycling rate (on a per-building basis).

We publicize this information throughout the Company on a monthly basis in order to provide guidance to employees who hope to obtain "eco certification."

Employees responsible for promoting office-related environmental measures in each organization analyze the data posted on this website to reference business characteristics. Through the repetition of autonomous PDCA cycles, they use this site to chart improvements toward designated targets.



Office database visualization website

Summer and Winter Energy-Saving Measures

In fiscal 2013, the electric power situation in Japan was less constrained than during fiscal 2011. Even so, in addition to summer and winter energy-saving measures, NTT Communications strove to reduce energy consumption in Japan throughout the year via ongoing measures. These approaches included use of energy-saving settings on PCs, operation of fewer lighting fixtures and elevators, and adjustment of air-conditioner settings.

During the summer months, the Group targeted a reduction in electricity consumption of 30% from the fiscal 2010 level. Over the period in question, the Group accordingly undertook a variety of measures. For example, every effort was made to maintain higher air-conditioner settings (at 28°C in summer), cut back the number of lights employed, encourage the use of stairs when going up four floors or down five, and encourage employees to wear summer clothing and switch off office automation equipment when leaving the office. Thanks largely to these endeavors, the Group achieved a reduction in electricity consumption measured in kWh of approximately 30.1% at its three principal Hibiya, Shiodome, and Tamachi buildings.

As with summertime energy-saving measures, we introduced measures to save energy in winter, including setting air-conditioning temperatures at 20°C in winter.

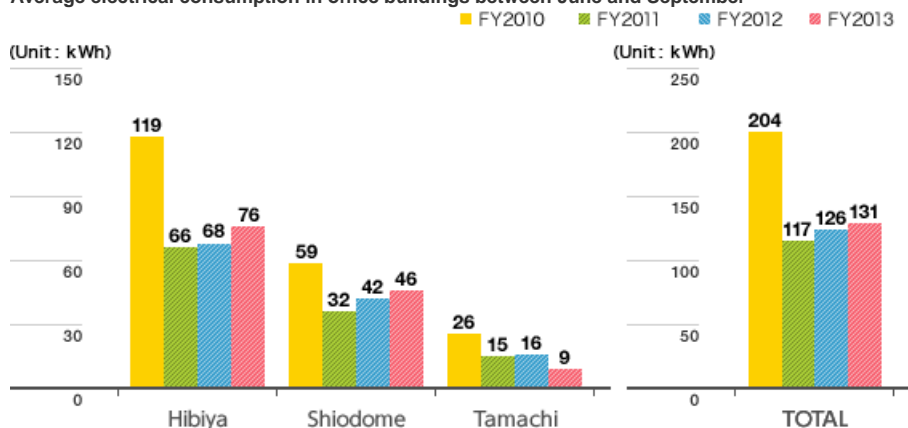
At our overseas facilities, we took an aggressive stance on measures to save energy, establishing a standard of switching off unnecessary lighting, air conditioning and personal computers.

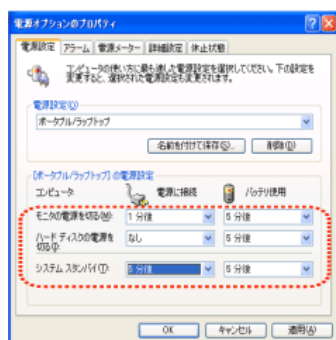
Main initiatives involved switching off lighting, air conditioning and PCs when not in use and at the end of the work day; using power-saving setting on PCs; and making a thorough effort to adjust office thermostats. In this way we are promoting the same level of energy-saving awareness as at our offices in Japan.

As additional initiatives, in our Hong Kong and Singapore facilities we put up posters reminding employees to turn off lights and air conditioning, and began using a sign-out chart for employees to check when leaving. In the United States and Vietnam we introduced energy-saving equipment and removed unnecessary power sources. One measure at NetMagic was to install LED lighting.

In China and Taiwan, we set the objective of reducing energy use by 5% year on year, taking a proactive and progressive approach to saving energy. As in the previous year, we met this target.

Average electrical consumption in office buildings between June and September





Automatically changing the settings of PCs to electricity-saving mode



Elevator display promoting the 4up 5down campaign

### Actively Promoting Work-Style Reform

In response to the measures to save power in the summer, the NTT Communications Group actively made changes to work patterns with a view to reducing the power consumed by air conditioning, which is said to account for around 50% of an office building's power consumption. These changes included the implementation of daylight saving time, which brought forward the start of business during a certain period, the taking of a unified company summer vacation, and Biz Desktop Pro, through which working from home to coincide with air-conditioning stoppages was introduced. These moves realized power-saving measures that showed consideration for minimizing air-conditioning use, such as operations shutting down from 5 p.m. onward on weekdays, holidays and during the Bon holiday period (August 11-19) as well as partial limitations on individual air-conditioning.

### Promoting Use of the Company's Internal Cloud

In addition to internal systems for conducting operations in the same manner with other companies, NTT Communications possesses a number of internal systems to provide customers with OCN and VPN services. Since fiscal 2009, we have been migrating and integrating internal ICT infrastructure into a private cloud using server virtualization with a view to reducing the costs of these internal systems, lessening environmental impact by reducing power consumption, and forming a more robust business continuity plan (BCP). As of the end of fiscal 2013, we had migrated 216 internal systems to the internal ICT infrastructure, a move that reduced the number of servers that accommodate the migrated system by around 55%. Looking ahead, we plan to migrate and integrate our internal ICT infrastructure in Japan with that overseas, while working on efforts to reduce environmental impact on a global basis.

### Reducing Employee Transfers and Energy Use through Remote Access and Thin-Client Services

The Mobile Connect Service provided by NTT Communications enables simple and secure connection with in-company systems from a PC or smartphone when the user is away and also allows users to remotely check their company PC e-mail messages and schedules. Combining this with the Biz Desktop Pro thin client service has ensured security even when away from the office and enabled the reproduction of a company PC environment.

Providing this environment by supplying around 10,000 units primarily to employees in charge of sales who are often away on business is not only effectively realizing diverse work styles, for example by providing an environment that enables duties to be carried out without having to return to an office. With this service, NTT Communications is aiming to put into practice environmentally friendly work styles in which peoples' movements are reduced.

Following the Great East Japan Earthquake, we expanded the use of this service to approximately 8,000 employees in Tokyo and Tohoku Electric Power's service areas between July and September 2011. This initiative helped to reduce corporate energy consumption.

## Transportation Initiatives

### Electronic Billing Initiative

The revised Energy Conservation Law implemented in April 2006 requires that parties providing and seeking transportation services endeavor to save energy. We annually audit transportation volumes for 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.

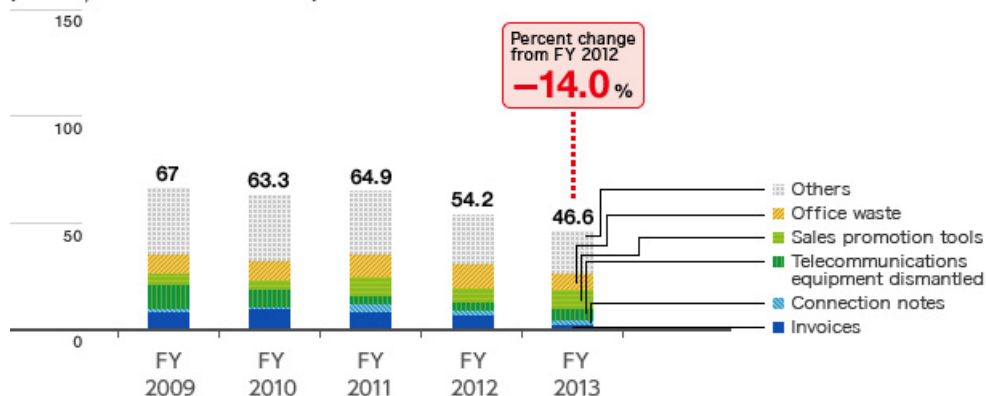
We have cut the use of transportation by promoting the convenience of our online billing information service. In addition, to further reduce transportation, we have made the Internet our standard means of invoicing since October 2008 instead of mailing billing statements (mainly for individual users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

Thanks to our continued promotion of Internet-based billing using emails, the volume of paper used for invoices in fiscal 2013 fell to 166 tons in fiscal 2013, a year-on-year reduction of approximately 7%. We also implemented various measures to improve our transportation efficiency.

Our total transportation decreased 14% compared with the previous fiscal year to 466,000 ton-kilometers as a result of transportation efficiency gains, greater use of information technology, and a reassessment of various tools.

**Goods Transportation Volume under the Revised Energy Conservation Law**

(Unit: 10,000 metric ton-kilometers)

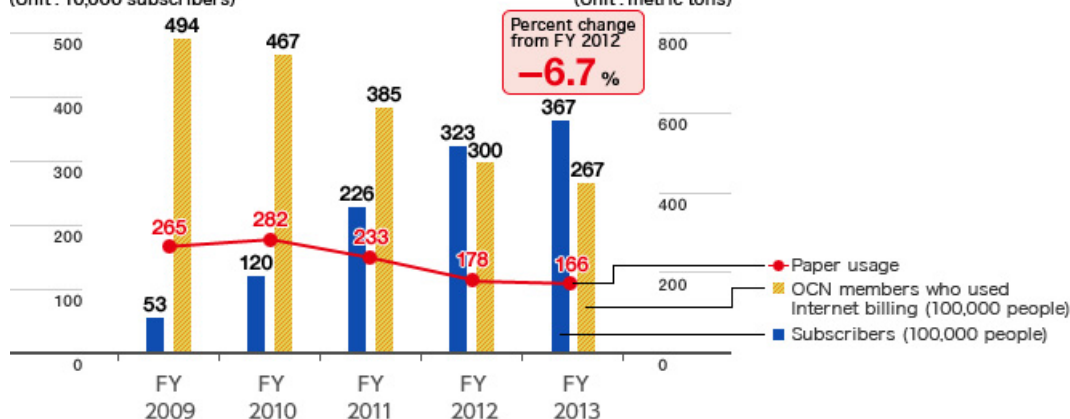


(Scope: NTT Communications (non-consolidated))

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

(Unit: 10,000 subscribers)

(Unit: metric tons)



(Scope: NTT Communications (non-consolidated))

**Reducing Fuel Use by Company Vehicles**

Companies can contribute to the realization of a low-carbon society and help solve pollution problems by working concertedly to lower the environmental impact of business-use vehicles. As part of our efforts at environmental conservation, we have devised measures to introduce environmentally friendly vehicles. Based on this policy, we are accelerating their deployment across the entire group.

NTT Communications Group		Low Emission Vehicle Introduction Policy
<b>1 Objective</b>	• Introduce low emission vehicles for internal use as a part of efforts to reduce environmental impact	
<b>2 Scope</b>	• All vehicles owned and operated by NTT Communications and its Group companies. However, this shall not apply for special-purpose vehicles (power supply and broadcasting vehicles) when low emissions vehicles are not available.	
<b>3 Introduction Standards</b>	• In principle, the introduction of vehicles shall be limited to low emissions vehicles. (fuel efficient, low emission certified vehicles <Vehicles that meet 2010 fuel efficiency standards>) • Commercial vehicle that offer the lowest possible emissions shall be selected when the introduction of low emission vehicles is problematic	
<b>4 Targets</b>	• All (100%) of the Group's fleet to comprise low emission vehicles* by 2015 * Low emission vehicle: 0% or more of the 2010 fuel efficiency standard	
<b>5 Future Initiatives</b>	• Hold eco-drive training sessions • Promote "drive doctor" installation Recommend introduction to ensure optimal vehicle operating management, driving safety, the prevention of accidents and contributions to environmental protection	

In fiscal 2013, use of gasoline and diesel by company vehicles was 414,000 liters and 8,000 liters, respectively. Compared with fiscal 2012, gasoline use was up by about 23,000 liters due to a 7% increase in the number of company vehicles used for business, following an organizational review.

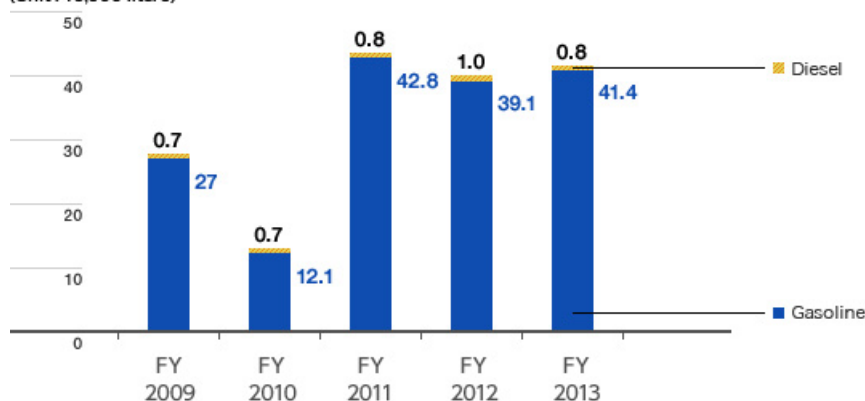
We have continued to expand our fleet of eco-cars (low-emission vehicles) following an organizational review. As a result, the ratio of



eco-cars in the entire fleet increased by one percentage point to 98% from the previous fiscal year. Aiming to increase this ratio to 100% in fiscal 2015, we will optimally allocate vehicles and continue to upgrade to eco-cars.

### Fuel Consumption by Company Vehicles

(Unit : 10,000 liters)



(The scope of tabulation was 14 NTT Communications Group companies in fiscal 2010 and 13 Group companies for fiscal 2009.)

### Preventing Air Pollution and Promoting Energy Conservation through Electric Propulsion Ships

The undersea cable-laying ship Subaru is one of the few ships in Japan with an electric propulsion system (i.e. electricity from a generator drives the propulsion motor). The system helps prevent air pollution by reducing NOx and SOx contained in engine exhaust. In operating the ship, we realize energy savings of about 10% per year by efficiently controlling the number of generator-driven engines operating, for example, running three engines when heading to a construction site and running two engines when returning.

In addition, rust and seashells on the hull are eliminated by sandblasting to reduce resistance in the water, and very smooth paint conforming to the International Convention on the Control of Harmful Anti-Fouling Systems on Ships (AFS Treaty) is used to paint the hull after sandblasting, to conserve energy.

We are also conserving energy by introducing LED lighting for ships and reducing their environmental impact by replacing their air-conditioning systems.



Cable-laying Ship Subaru (9,557 tons)

### Implementing the Ship Energy Efficiency Management Plan (SEEMP)

The adoption of SEEMP became a mandatory requirement in July 2011 under the MARPOL international treaty for prevention of marine pollution caused by ships.

As a result, it is now a compulsory requirement for ship operators to adopt the most effective operating methods (which includes reduction of speed, selection of the most appropriate route taking into consideration ocean currents and weather conditions, and proper maintenance) in order to curtail the amount of CO<sub>2</sub> emissions, and to promote improvements in energy efficiency based on a PDCA cycle. NTT Communications formulated a plan by January 2013 and implemented it in all ship operations.

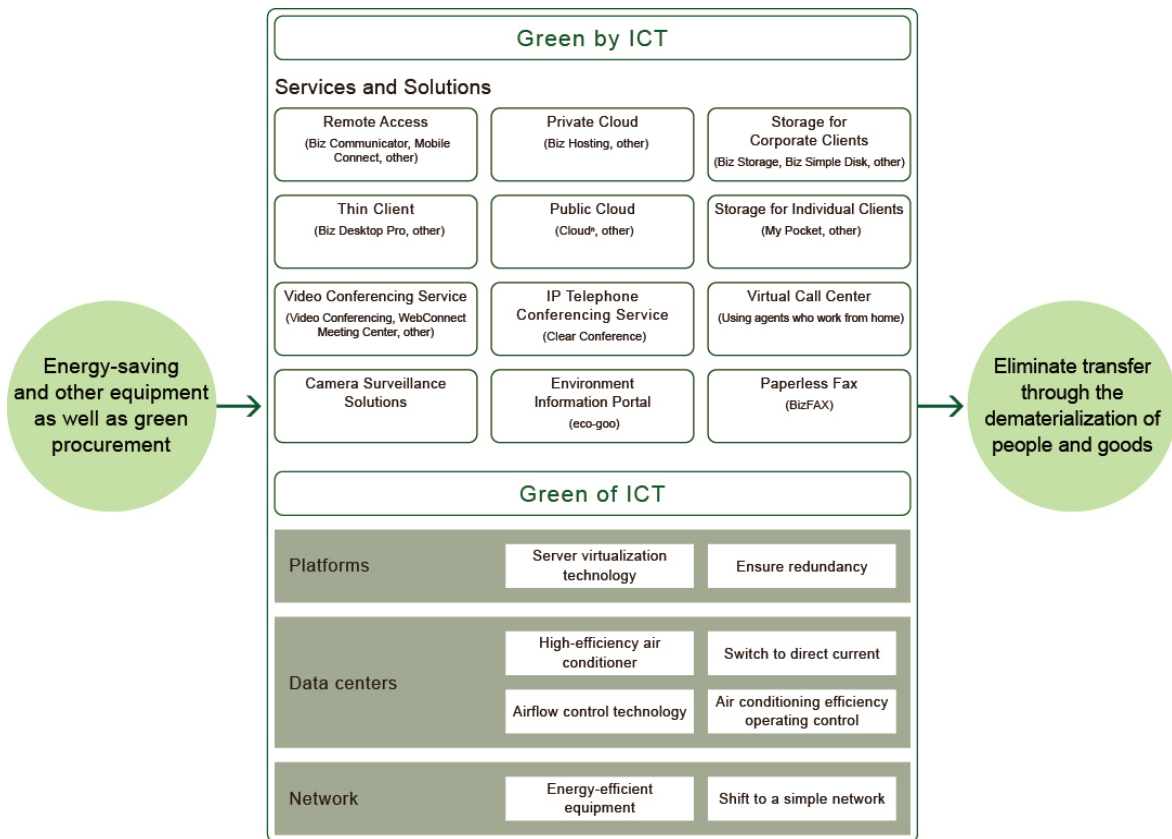
## Reducing Environmental Impact through Our Services

### 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.

Reducing the environmental impact of ICT itself is referred to as "Green of ICT," which specifically refers to initiatives for reducing negative environmental impact by reducing the power consumption of ICT systems and recycling resources. In contrast, utilizing ICT to reduce environmental impact and increasing positive impact on the environment is referred to as "Green by ICT," and includes measures such as improving the efficiency of transportation of people and goods.

NTT Communications applies both Green of ICT and Green by ICT approaches to its pursuit of "Green ICT."

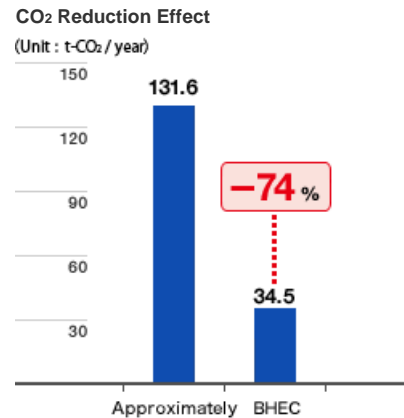


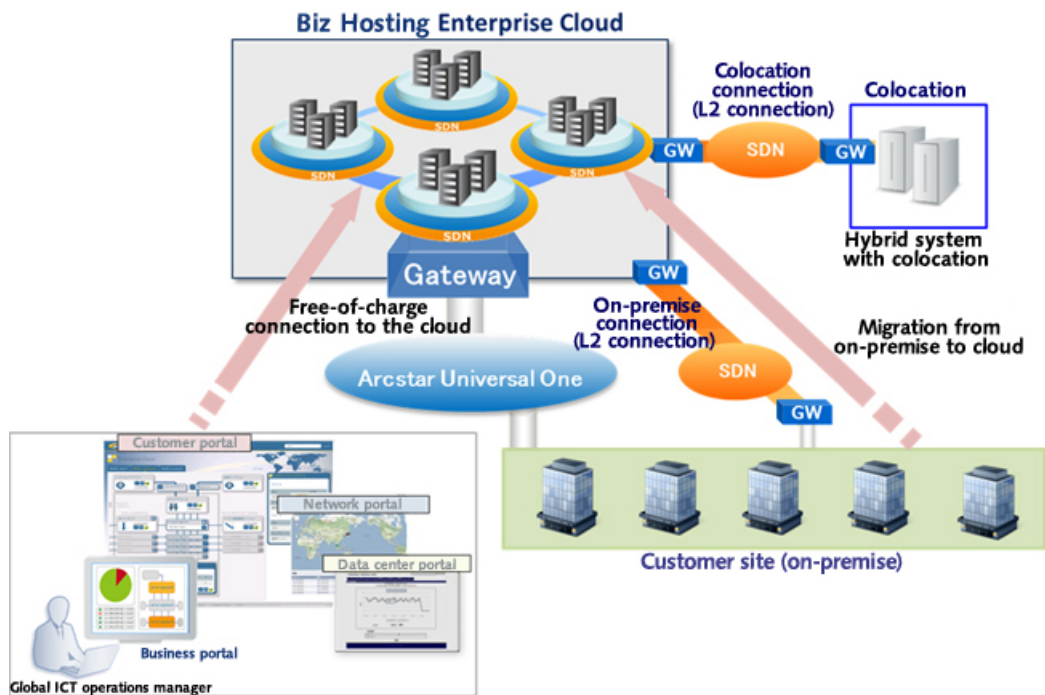
[Click here to view an enlarged diagram summarizing Green of ICT and Green by ICT.](#)

[Click here for details regarding Green of ICT and Green by ICT.](#)

### Reducing CO<sub>2</sub> by Providing Services Such as Biz Hosting Enterprise Cloud

On a global basis, NTT Communications provides ICT solutions, including networks, cloud services, applications and security. In addition to contributing to society, these solutions help reduce environmental impact by curtailing CO<sub>2</sub> emissions. Biz Hosting Enterprise Cloud (BHEC), which links data centers, networks and servers, is one example of a cloud service for companies that we are uniquely positioned to offer as a telecommunications operator. The service features a host of options, such as the ability to allocate resources flexibly in accordance with customer needs. As the core service can be used for backbone operations, customers can utilize BHEC as a virtual server in place of servers and storage that they previously had to install and operate themselves. This service reduces the number of servers that companies need to operate, achieving a decrease equivalent to 97 t-CO<sub>2</sub> per year (approximately 74%)\* for small- and medium-sized companies. As the service's system environment can be configured to use consistent specifications in Japan and overseas, it reduces configuration and operational costs substantially compared to what a client would experience if installing their own independent systems.





NTT Communications also offers a variety of other services that contribute to reducing environmental impact.

**Arcstar Universal One Mobile**

This service allows employees to access a company’s networks to draft emails and electronic documents should the need arise, even if they are temporarily away from the office or have left for the day. The energy saved by reducing the need for transportation adds up to 16 t-CO<sub>2</sub> per year (approximately 24%)\*.

**Arcstar IP Voice**

This service enables customers who had previously separated their voice and data communications to use their internal networks for both types of communication. This approach reduces the need to update data terminals, curtailing emissions of 16 t-CO<sub>2</sub> per year (approximately 30%)\*.

We will continue to provide solutions that contribute to society and reduce environmental impact through the use of ICT.

\* Computed by the NTT Energy and Environment System Laboratories using the Methodology for the Assessment of the Environmental Impact of Information and Communication Technology Goods, Networks and Services (L.1410) of the Telecommunication Standardization Sector of the International Telecommunications Union (ITU-T).

**Participating in Smart Industrial Estate Demonstrations Targeting Southeast Asia**

Working in collaboration with such companies as Sumitomo Corporation, Mitsubishi Electric Corporation and Fuji Electric Co., Ltd., NTT Communications participated in feasibility studies in a smart community technology demonstration project at an industrial estate on the Indonesian island of Java, a contract business of Japan’s New Energy and Industrial Technology Development Organization (NEDO).

As the country shows significant economic growth, the supply and demand of electricity in Indonesia remains tight. The project was implemented as a preliminary study of a technology demonstration project centered on power stabilization systems that will enable the supply of high-quality electricity at industrial parks, where the need is thought to be likely to increase as development and expansion progress.

NTT Communications was engaged in building considerations for the information and communication technology (ICT) systems Perspective necessary to provide a stable supply of high-quality power. The ICT systems Perspective supports power optimization by stabilizing the power supply - by means of power distribution automation and uninterruptible power supply (UPS) systems - and by cooperation between demand-side management and a factory energy management system (FEMS).



Suryacipta Industrial Estate, the testing ground for feasibility studies

## Providing Energy Management Services for Multiple Stores

Some statistics\* show that air conditioning accounts for about half of the energy consumption at retail stores and restaurants, making it a target for energy conservation. NTT Communications has developed an energy management service that enables reductions in electricity consumption by automatically controlling the air-conditioning systems of business owners that operate a large number of stores. It began offering this service in February 2013.

The energy management service automatically controls electricity consumption through remote manipulation during peak demand periods in the summer and winter. The service entails installing energy management systems (BEMS) at customer stores, which allows business owners to see electricity usage at each of their stores and gives the headquarters a visualization of usage at all stores in the system.

Costs are kept down through the use of existing internet connections and cloud-based apps, and it is easy to start up the service with new customers. NTT Communications will continue to address issues in the field of the environment and energy by promoting this service.

\* Fiscal 2011 statistics from the Agency of Natural Resources and Energy

## Environmental Solutions Label System

The NTT Group is exploring the idea of an Environmental Solutions 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. The entire NTT Group provides these environmentally friendly services in order to help reduce the environmental impact caused by society.

In utilizing this certification system, we at NTT Communications Group have registered five solutions through fiscal 2013. Details of these are described on the NTT BizLink website together with quantitative CO<sub>2</sub> reduction effects.

[Click here for details on an Environmental Solutions Label System.](#)

[Click here for details on NTT BizLink's ICT solutions services. New window will open.](#)



Environmental Solutions Label

## Acquiring the eco-ICT Mark

After performing a self-assessment of our CO<sub>2</sub> reduction measures, we submitted an application in accordance with the ICT Ecology Guidelines created by the ICT Ecology Guideline Council<sup>\*1</sup> and acquired the eco-ICT Mark. In February 2010, the council created and published guidelines for appropriate CO<sub>2</sub> reduction measures to be implemented by telecommunications carriers, clearly defining the standards for procuring systems and data center services from the viewpoint of reducing power consumption.

These guidelines have been subsequently revised with a fifth version publicly announced in February 2014. Through participation in these efforts, NTT Communications is striving to reduce the amount of its CO<sub>2</sub> emissions. Looking ahead, we will involve Group companies in these efforts.

\*1 ICT Ecology Guideline Council: The council was established on June 26, 2009, by the following five industry organizations: the Telecommunications Carriers Association, the Telecom Services Association, the Japan Internet Providers Association, the Communications and Information Network Association of Japan, and the ASP-SaaS Industry Consortium (a designated nonprofit organization).

[Click here for details on the eco-ICT Mark provided by the Telecommunications Carriers Association. \(Japanese Only\)](#)

[Click here for details on the self-assessment checklist.](#)



eco-ICT Mark

## Participation in Field Tests for Optimizing Electricity Supply and Demand

Since the Great East Japan Earthquake, a movement called demand response has spread in reaction to the deterioration in supply and demand conditions for electrical power. Under demand response, electric power companies contact companies, households and other customers via email and other means when electricity shortages seem likely, and the customers that are contacted voluntarily reduce their electricity use. However, this framework involves people, in other words a "manual" mechanism. To overcome this and streamline control, research is being conducted on automated demand response (ADR) systems, where signals sent from electric power companies can automatically control equipment on the customer side to reduce electricity consumption.

The NTT Group has been proactively engaged in the creation of smart communities that can more effectively use electricity across entire communities. ADR research is a part of this initiative. On July 4, 2013, NTT acquired certification for OpenADR 2.0a Profile, an international standard for using signals to control equipment, and was the first company in Japan to acquire this certification. Since the summer of 2013, NTT Communications has been participating in field tests for the Japanese version of ADR being implemented by Waseda University. In the field tests, an OpenADR-compliant smart community Perspective developed by NTT is deployed via cloud-based services provided by NTT Communications as an environment for testing and evaluating system interconnectivity. The university's field tests are slated to be even more sophisticated in fiscal 2014, and we are participating in order to enhance related platform functionality and make other improvements.

The NTT Group will assist activities that promote ADR in Japan as a way of contributing to the realization of smart communities of the future.

- [Basic Philosophy and Environmental Management](#)
- [Creating a Low-Carbon Society](#)
- [Promoting a Recycling-Oriented Society](#)
- [Biodiversity Conservation](#)
- [Preventing Environmental Pollution](#)
- [Reporting to Public and Other Authorities](#)

CSR Report 2014

# Promoting a Recycling-Oriented Society

- [▶ Basic Philosophy and Environmental Management](#)
- [▶ Creating a Low-Carbon Society](#)
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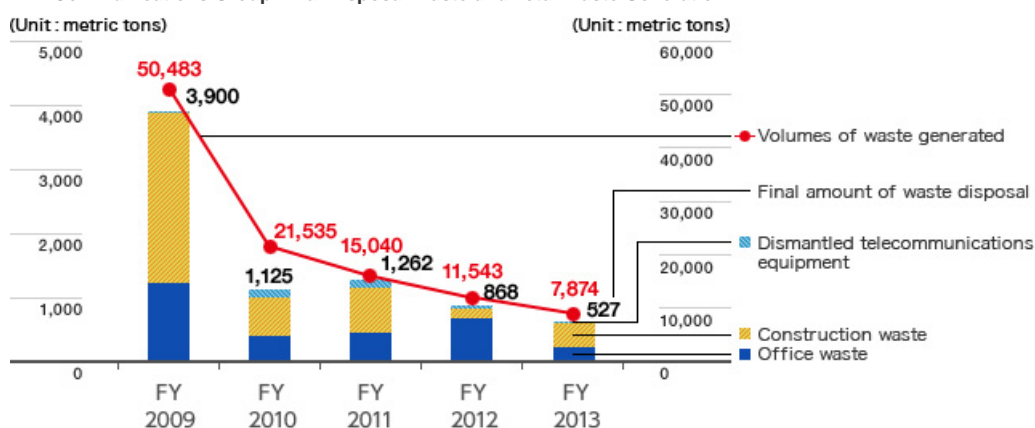
The NTT Communications Group is making a concerted effort to minimize environmental impact by Reducing Waste generated by business and office activities and making improvements in reuse and recycling rates.

## Waste Reduction, Reuse and Recycling Initiatives

### Fiscal 2013 Results

The NTT Communications Group is working to reduce the volume of dismantled telecommunications equipment, construction waste and office waste and is promoting reuse and recycling. In fiscal 2013, final disposal of waste from dismantled telecommunications equipment amounted to 11.4tons, construction waste 331.0 tons, and office waste 184.6 tons. In overall terms, the total volume of final disposal waste decreased 332.4 tons compared with the previous fiscal year to 535.5 tons, while the total volume of waste generated decreased 3,669.4 tons to 7,873.8 tons.

### NTT Communications Group Final Disposal Waste and Total Waste Generation



(The scope of tabulations for office waste and construction waste was fourteen NTT Communications Group companies for fiscal 2010, thirteen Group companies for fiscal 2009, and eleven Group companies for fiscal 2008.)

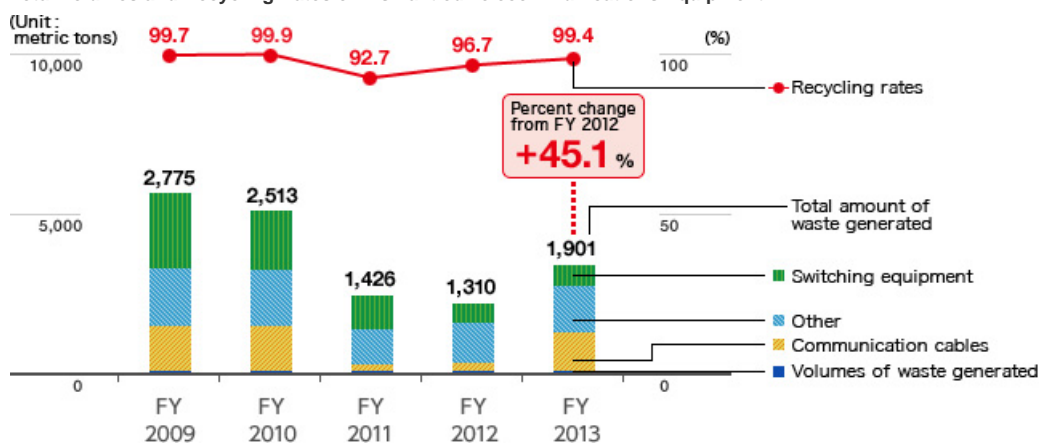
(The scope of tabulations for dismantled telecommunications equipment was fourteen NTT Communications Group companies in fiscal 2010 to fiscal 2011, and NTT Communications on a non-consolidated basis for fiscal 2008 to fiscal 2009.)

### Reuse and Recycling of Dismantled Telecommunications Equipment

We upgrade telecommunications equipment and cables to provide more reliable, higher-quality services. Wherever possible, we try to reuse telecommunications equipment that is no longer needed in-house and within the NTT Group, and to properly dispose of the remainder in compliance with laws and regulations relating to industrial waste and industrial waste requiring special handling. In fiscal 2013, the volume of dismantled telecommunications equipment across the NTT Communications Group totaled 1,901.1 tons. The recycling rate for the Group as a whole was 99.4%, up 2.7 percentage points compared with the previous year. This improvement was largely attributable to a variety of measures that encompassed NTT Communications Group companies as well as industrial waste disposal companies.

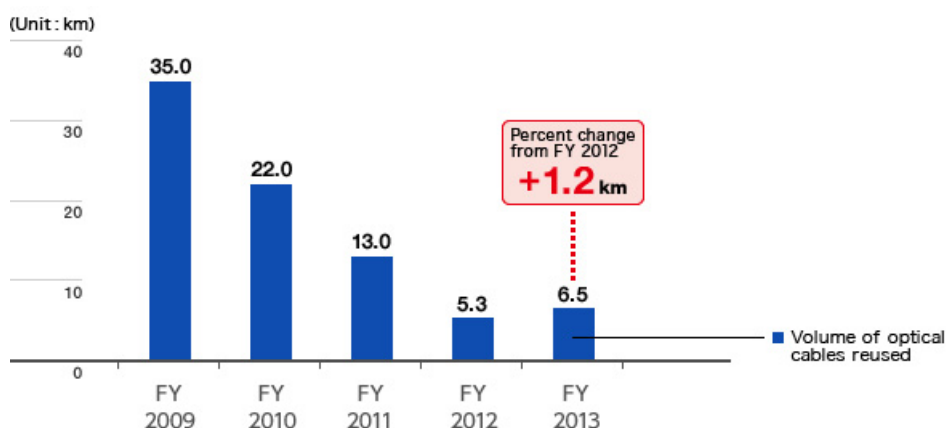
We will continue to further efforts in reuse and recycling, and aim to increase the recycling rate for the entire corporate group.

### Total Volumes and Recycling Rates of Dismantled Telecommunications Equipment



(Scope of compilation: fourteen NTT Communications Group companies for fiscal 2011, NTT Communications on a non-consolidated basis for fiscal 2008 to fiscal 2010.)

### Volume of reused fiber-optic cable

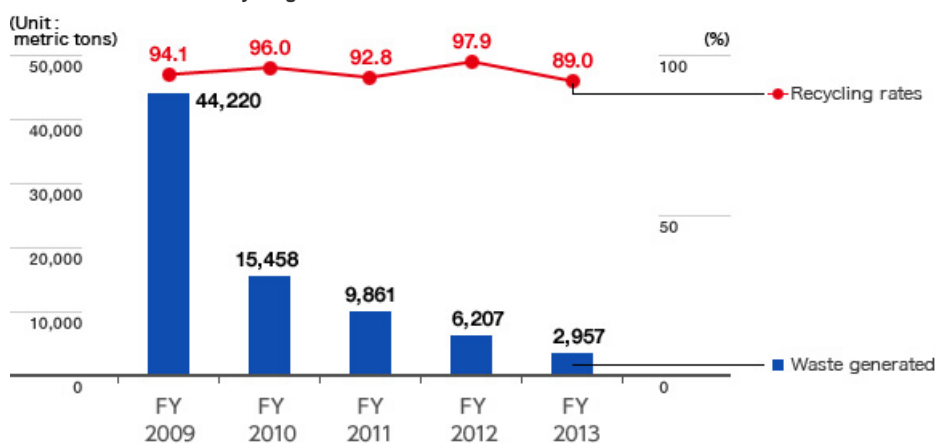


(Scope of compilation: fourteen NTT Communications Group companies from fiscal 2010, thirteen NTT Communications Group companies for fiscal 2009, and eleven NTT Communications Group companies for fiscal 2008.)

## 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. In fiscal 2013, the volume of construction waste generated decreased 3,250 tons compared with the fiscal 2012 level to 2,956.8 tons. The recycling rate for designated materials such as concrete was 99.8%. The recycling rate for non-designated materials, on the other hand, was 72.6%. In addition, the overall recycling rate came to 89.0%. 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 Generation and Recycling Rates of Construction Waste



(The scope of tabulations was fourteen NTT Communications Group companies for fiscal 2010, thirteen Group companies for fiscal 2009, and eleven Group companies for fiscal 2008.)

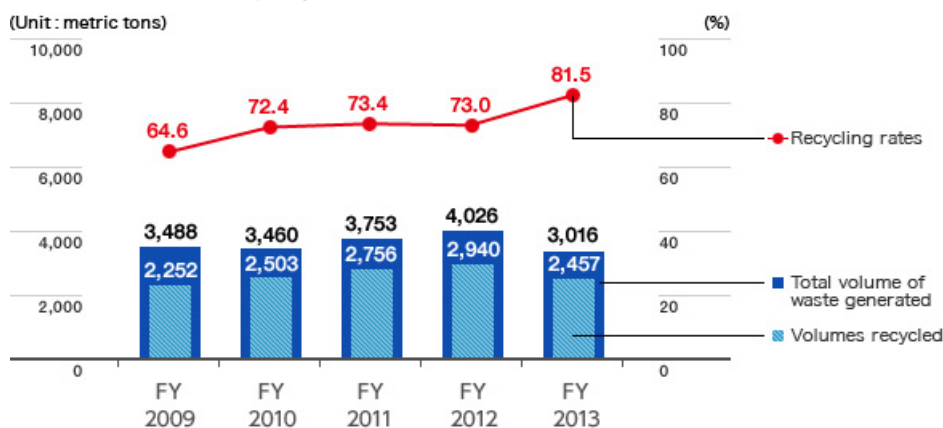
### Recycling of Office Waste

The NTT Communications Group ensures proper disposal, control, and complete sorting of waste in compliance with laws and regulations. In fiscal 2013, the total volume of office waste generated decreased by 1,010.2 tons from fiscal 2012 to 3,105.9 tons. In fiscal 2013, we implemented a variety of measures focusing mainly on efforts to improve recycling rates at telecommunications buildings and data centers. Among a host of initiatives, we will assessed and reviewed disposal flows at principal buildings and centers while ensuring the thoroughgoing sorting of waste. As a result, the recycling rate improved 8.5 percentage points to 81.5%. Moreover, in-house departments are making every effort to use and apply discarded assets as well as PCs. In fiscal 2013, for example, positive steps were taken to reuse 12,967 PCs. Moving forward, we will continue to actively promote reuse and application.

We began the thermal recycling of plastics in 2009 and of burnable trash in 2010. We will promote thermal recycling and also explore ways of determining the volume of thermally recycled waste. We will continue to work harder and collaborate with our subcontractors to improve the quality of our recycling system, achieving environmental protection at the same time as we ensure the security of recycled confidential documents.

As in Japan, at Group companies overseas we sorted trash and sought means of reusing disused items. We recycled printer toner in Hong Kong and Singapore, and in Hong Kong we encouraged the use of personal cups.

### Total Office Waste and Recycling Rates



(The scope of tabulations was fourteen NTT Communications Group companies for fiscal 2010, thirteen Group companies for fiscal 2009, and eleven Group companies for fiscal 2008.)

### Effectively Using the Waste from Cafeterias and Dining Facilities

In addition to giving due consideration to the effective utilization of materials in offices, dealing with waste from cafeterias is taking on added importance. NTT Communications has introduced a raw garbage disposal machine to deal with the waste generated by its employee cafeteria. A system to recycle the waste into organic compost is in operation, with NTT East-Gunma acting as subcontractor. In fiscal 2013, we processed 23.6 tons of kitchen waste. As a result, this was recycled and generated 2.36 tons of compost, which was put to use by farmers in the Kanto region and others.

This initiative is not merely an effective utilization of resources, as it is also important to note the CO<sub>2</sub> reduction effect from disposing of less waste by incineration. In continuing to promote this initiative we are strengthening environmental considerations in our day-to-day operations and at the same time improving employee awareness.



Organic compost for commercial sale



Harvested vegetables

## Initiatives for Reducing Paper Usage

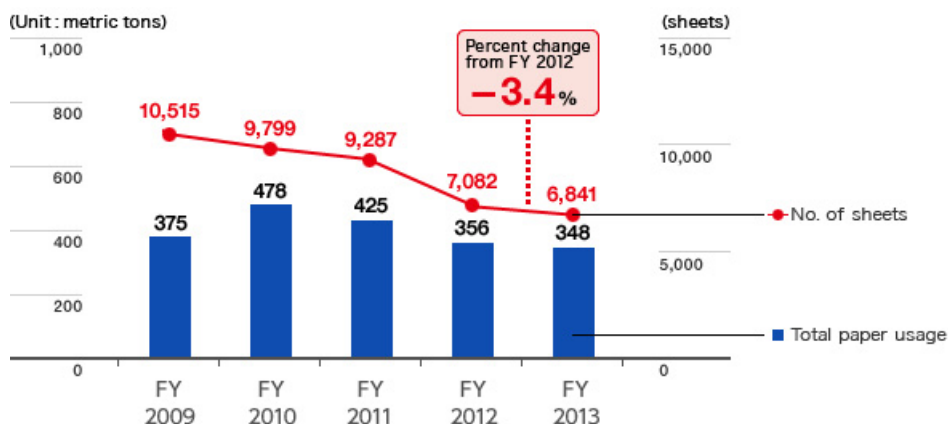
### Reducing Usage of Paper for Business Purposes

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 established a paper usage index per full-time employee in order to reduce office paper usage.

In fiscal 2012, we continued to reduce paper usage through the use of IC card multi-function printers and printing log data. Specifically, data on the number of sheets used, the double-sided printing rate and the consolidated printing rate are automatically collected and analyzed by individual and section, with the results disclosed to all employees on a monthly basis. This helps to further raise awareness. In addition, we have been able to confirm individual monthly usage as well as usage conditions through the daily use of multi-function printers by employees since fiscal 2011. We also continue to encourage digitization of paper documents and paperless meetings that make use of projectors and tablets. In fiscal 2013, paper consumed per full-time employee (converted to A4-size office paper) was 6,841 sheets.

Turning to our operations outside Japan, Group companies also use double-sided printing. In China, Singapore, Vietnam, Europe and the United States, we are conducting paperless meetings, instead using projectors and tablets. In Taiwan, we are working diligently to reduce the amount of paper consumed as a part of efforts to achieve the established reduction target of 5%.

#### Total and Per-Employee Office Paper Usage (Sheets)



(The scope of tabulations for total office paper usage was fourteen NTT Communications Group companies for fiscal 2010, thirteen Group companies for fiscal 2009.)

(The scope of tabulations for office paper usage per full-time employee was fourteen NTT Communications Group companies for fiscal 2011, and NTT Communications (non-consolidated) for previous fiscal years.)



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### Reducing the Amount of Paper Consumption through Tablet Terminals

Since fiscal 2011, we have been creating databases of service-related information and proposals, and deploying and promoting the use of tablet computers.

From a sales perspective, benefits are that the use of tablet computers enables easily understood, compelling proposals, including the showing to customers of videos showcasing and explaining our services. Having the benefit of not only enabling the creation of effective proposals, but also of dispensing with the need for proposal printouts and pamphlets outlining our services, it can be expected that tablet computers will have the added effect of reducing our use of paper.

In addition to this kind of business efficiency improvement, we are working to take advantage of ICT so that we can further reduce our environmental impact.

Companies in the NTT Communications Group are encouraging paperless meetings that make use of tablets, in an effort to further reduce paper use. Looking ahead, we will continue to focus our attention on this area while making more efficient use of the latest ICT equipment.

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- [▶ Basic Philosophy and Environmental Management](#)
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## CSR Report 2014

## Biodiversity Conservation

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Together with the prevention of global warming, the preservation of ecosystems, where living things co-exist in an intricate balance, has recently developed into a major environmental challenge with regard to the creation of a sustainable society. As a member of the NTT Group, NTT Communications has established a set of action guidelines with regard to biodiversity conservation in order to promote activities that take into consideration concerns in this area. While making every 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., where a special biodiversity website was set up early on.

### Putting in Place Policies

#### Biodiversity Conservation Action Guidelines

As members of the NTT Group, we are formulating Biodiversity Conservation Action Guidelines and implementing approaches through business and social contribution activities to promote initiatives that take biodiversity conservation into account. Specifically, for some time we have promoted three environmental contributions through ICT - Green of ICT, Green by ICT and Green with Team NTT - and are developing approaches that contribute to biodiversity in each.

There is a growing awareness of global-scale biodiversity conservation issues. In addition to inspection efforts, identifying issues and promoting improvement efforts, we will disclose the status and achievements of those activities across the Group as a whole by such means as our CSR reports.



Forest environmental conservation activities conducted by NTTPC Communications (Ome, Tokyo)

#### NTT Communications Group Action Guidelines with Regard to Preservation of Biodiversity

##### 1. Basic Policy: In compliance with the NTT Group biodiversity "approach concept," established by the NTT Group

- Development Centered on Business Activities  
The Group recognizes that all activity is inextricably linked to the planet and to biodiversity, understands that the scope and impact at home and overseas are related depending on the nature of a business, and promotes initiatives that are recognized as having a preservation effect.
- Development Centered on Contribution to Society  
In partnership with its stakeholders the Group widely promotes initiatives toward the preservation of biodiversity, regardless of their relevance to its business.

##### 2. Action Guidelines

- Implement actions that take into account the preservation of biodiversity in business activities (Green of ICT)
- Contribute to preservation of social biodiversity in business activities (Green by ICT)
- Deepen understanding of biodiversity, promote nature conservation activities together with employees, their families and the planet (Green with Team NTT)

**NTT Communications Group Initiatives Related to Preservation of Biodiversity**

Initiative Items	Outlines of Initiatives
<p><b>We implement actions that take into account the preservation of biodiversity in business activities (Green of ICT)</b></p>	<p>At the time of construction of a wireless relay station, conducting a habitat survey of the area's plants, birds and insects, and implementing a construction plan that does not destroy ecosystems. Removal of wireless relay stations should be carried out in the same way.</p>
	<p>Providing wireless relay station space in an effort to facilitate the observation of wild bird protection</p>
	<p>Decreasing electric power consumption by making air conditioning more efficient and improving lighting in communications and office buildings as well as through PC energy-saving measures</p>
	<p>Reducing the impact on ecosystems of product procurement by procuring bestselling devices and green purchasing</p>
	<p>With the prevention of marine pollution as a basic policy, laying submarine cables that protect coral reefs and cleaning the ocean floor before and after laying cable</p>
	<p>Rainwater, recycled water used at data centers in Singapore, Hong Kong and Malaysia for air-cooled chillers and for watering plants. Reducing the amount of electricity used for lighting by efficiently applying natural daylight at data centers and office buildings in Vietnam</p>
<p><b>We contribute to preservation of social biodiversity in business activities (Green by ICT)</b></p>	<p>Including biodiversity special features and disseminating information on the environment from home and overseas in "eco-goo."</p>
	<p>Undertaking wildlife damage countermeasures that efficiently employ IT</p>
	<p>Remote monitoring by camera of rice growth status</p>
<p><b>We deepen understanding of biodiversity and promote nature conservation activities together with employees, their families and the planet (Green with ICT)</b></p>	<p>Elimination of disposable chopsticks in cafeteria</p>
	<p>River water purification by (dropping) effective microorganism (EM) mud balls into rivers</p>
	<p>Chichibu terraced rice field regeneration program</p>
	<p>Encouragement of personal cup use at vending machines</p>
	<p>Participation by NTT Taiwan in flora and environmental protection activities organized by the Taiwan Environmental Information Association</p>
	<p>Forest environment conservation and tree planting through Tokyo Greenship Action</p>

**Considerations during Data Center Construction**

**Recycling Water**

As a global ICT company, we promote biodiversity considerations at our data centers. Our newest data centers incorporate cutting-edge innovations with regard to the effective use of water resources, an area in which there has been growing global interest in recent years. The multifaceted approach adopted for the Singapore Serangoon Data Center that commenced operations in 2012 included the following innovations.

**Use of rainwater**

- Rainwater is used for watering on-site plants. From a health and safety aspect, care is taken to set up rainwater collection in such a way that oil does not become mixed in with the rainwater.

**Use of reclaimed and recycled water**

- Desalinated seawater and recycled water that has been used once before are used for purposes such as air cooling.
- The automatic sprinklers for the rooftop gardens on the building and car park roofs usually operate with recycled water only.
- The green wall equipment on the ground floor usually operates with recycled water only.
- Greening facilities such as outdoor ponds make extensive use of rainwater.
- Approximately 30,000 tons of water are reused.



A water storage tank that has been made to blend in with its surrounding environment by the use of greenery.



Surrounding water tanks with shade mesh protects them from direct sunlight.

### Maintaining Vegetation

From the perspective of building facilities in harmony with the environment, plant life considerations are taking on added importance in facility design. For the Serangoon Data Center attempts were made to take advantage of local vegetation through the efforts set out below.



Data center plantings give consideration to indigenous species

#### Consideration in planting indigenous species

- In green areas, making a point to incorporate a variety of trees that are found locally.
- Taking advantage of plants that symbolize the Indonesia-Malaysia region, such as by using *Johannesteijsmannia* palm species in the underbrush. In association with trees, these act as a device that helps evoke the local forest.

#### Transplantation of roadside trees

- In Singapore, all roadside trees are registered with and managed by the National Environment Agency (NEA).
- When the need arises to cut down trees during the course of facility construction, roadside trees are transplanted within the data center in cooperation with the NEA, and plans made for their effective use.

#### Participating in efforts to promote urban greening

At the Tokyo No. 6 Data Center, a large-scale urban facility that opened in April 2013, we took advantage of funding from the Tokyo Metropolitan Park Association's Urban Green Fund, working closely with the community to promote greening activities. The green spaces within the site have been planted into two zones: spring/summer and autumn/winter, so that visitors can enjoy seeing flowers at the site throughout the year.

We have sought to achieve harmony between the data center and the surrounding community. For example, we have set up a wind-simulation environment and planted evergreen trees in the southwest corner, which is affected by wind.



Spring/summer zone



Autumn/winter zone

## Laying of Submarine Cables

### Consideration for the Impact of Cable-Laying

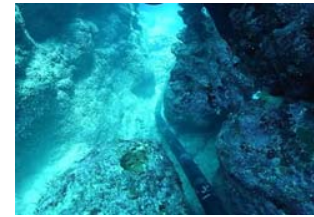
In constructing its undersea network infrastructure, NTT Communications' fundamental policy is to prevent marine pollution. We are signatories to treaties on the prevention of marine pollution, and in addition to complying with environmental legislation we undertake initiatives that place importance on coexistence with marine organisms and the fishery industry. Group company NTT World Engineering Marine Inc. (NTT-WE Marine), which handles the laying, burying and maintenance of underwater cable, promotes a strong awareness toward the preservation of the marine ecology.

**Designing an Ecologically Considerate Cable-Laying Route**

To protect the marine environment, we conduct assessments prior to laying underwater cable. We work with related government authorities and municipalities, carefully designing cable routes and drawing up construction plans. We seek to avoid coral reefs and other inhabited areas in our effort to avoid affecting the marine environment.



We lay cables on the sand, away from coral reefs



Cables are laid in natural ocean floor trenches

**Collecting trash from the bottom of the ocean during construction**

Before laying or burying submarine cables, we clean the planned ocean seabed route. We collect nets, rope, wire and other items that have been disposed of on the bottom of the ocean, bringing it to the surface and disposing of it properly as industrial waste to preserve the marine environment.



Trash collected from the bottom of the ocean

**Consideration for the Impact of Cable-Laying Ships**

Marine organisms that infest the chain lockers of submarine cable-laying vessels have the potential to threaten native ecosystems in other parts of the ocean as vessels navigate from one area to another. As a result, the cable-laying vessel Subaru undertakes thoroughgoing measures to clean its anchor chain locker as part of its efforts to protect ecosystems.

**Adoption of coating method to suppress adhesion of marine organisms and use of eco-friendly paints**

When marine organisms attach themselves to a ship's hull, this not only leads to higher fuel consumption and therefore increased CO<sub>2</sub> emissions but also has an effect on ecosystems by carrying the organisms to other ocean areas. To prevent this, during maintenance of a ship's paintwork extensive use is made of sandblast painting, the blowing of air under high pressure and the polishing of surfaces before painting.

Although widespread use is made of ship paints that in the past contained tin, much more has become known about tin's effects on ecosystems in recent years. In response, we are thorough in our use of tin-free paints in compliance with the AFS Convention (the International Convention on the Control of Harmful Anti-fouling Systems on Ships) that came into effect in 2008.



Prior to hull painting



After hull sandblast painting



After hull painting

**Preserving Marine Ecosystems through the Management of Ballast Water**

When not carrying cargo, vessels often take on ballast water for stability when leaving a port. This seawater, which is stored in a ship's hold, is then discharged when taking on cargo at another port. This practice can introduce unfamiliar aquatic organisms and microorganisms, which are transported to multiple countries, potentially having a negative effect on marine ecosystems. When brought into new seas, alien species can propagate rapidly, harming local species and devastating their ecosystems, which can also have a deleterious effect on local economies. Japan's fisheries, for example, have been affected by such alien species as red-tide plankton and Chinese mitten crabs. In addition to polluting seacoasts, this phenomenon can have serious direct impacts on humans; the process is attributed to the transmission of cholera bacteria in South America in 1991.

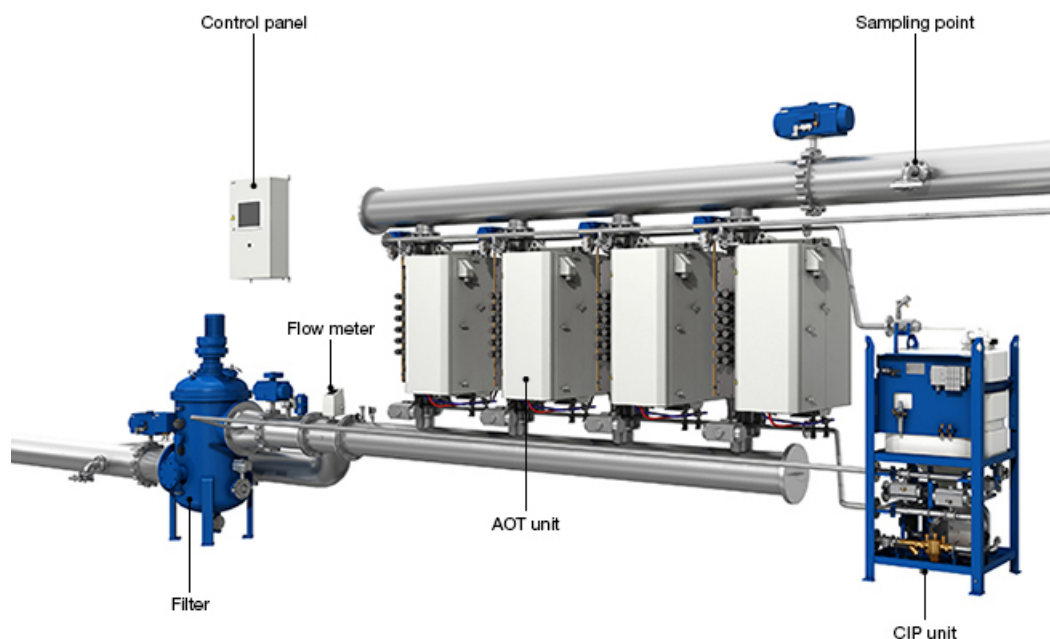
For these reasons, in 2004 the International Maritime Organization (IMO) adopted a treaty\* on the management of ballast water, introducing limitations on ships that ply international waters.

In January 2014, NTT World Engineering Marine Inc. (NTT-WE Marine), which owns the Subaru, an undersea cable-laying ship, introduced ballast water processing equipment that clears IMO standards. With this mechanism, the radicals\* generated when a titanium dioxide catalyzer is exposed to ultraviolet light are used to kill microorganisms. As no chemical substances are used, this approach minimizes any environmental impact. By sterilizing ballast water when it is taken on and discharged, the company is eliminating its impact on the ecosystem.

Going forward, NTT-WE Marine will continue with proactive initiatives to protect marine ecosystems.

\* Treaty: International treaty on restrictions and the management of ballast water and sediment

\* Radical: An unpaired ion that can eradicate microorganisms by destroying their cellular membranes. Also used in the walls of high-rise buildings and automobiles. The effective life of a radical is short, at only a few milliseconds, so no harmful residue remains.



Product name: Alfa Laval [PureBallast2.0 \(Japanese Only\)](#)

**Filter:** During injection, water is passed through a 40 $\mu$ m filter. In addition to preventing microorganisms from being taken on, filtering reduces the amount of residue in ballast water.

**AOT unit:** This unit generates radicals internally, exterminating and rendering effective microorganisms and other organic matter. **CIP unit:** By circulating harmless and 100% biodegradable cleaning liquid, this unit prevents seawater scale from forming on the inside of the AOT unit.

**Sampling point:** Location where seawater is drawn out and its qualities checked.

## Considerations during Wireless Station Construction and Dismantling

### Caring for Nature Reserves

As of March 31, 2014, 15 of our 113 wireless stations for telecommunications and broadcasting networks were in national parks or quasi-national parks. The NTT Communications Group carefully considers biodiversity requirements in building micro-roads recognizing that we need to patrol and maintain these facilities, while adhering strictly to the law and our own environmental assessment methods. In undertaking assessments, we establish specific areas of concern and align construction processes accordingly. We adopt a multifaceted approach toward avoiding and minimizing any impact on the ecosystem. In addition, we strive to restore the environment to its original state prior to construction when dismantling wireless stations. We consult with local residents and use local soil in our restoration activities rather than bringing in soil from other regions.

As an example of this dismantling work, when removing the Shiokubi wireless relay station (Hakodate, Hokkaido), located within the Esan Prefectural Natural Park on what was also pastureland, in fiscal 2012 we removed all equipment in line with instructions from the city of Hakodate. We planted grass on the site and the eroded section of the slope\*, returning over the course of the next year to check its state of growth.

In fiscal 2013, under instruction from the regional forest office we dismantled the Nagata wireless relay station (Kirishima, Kagoshima Prefecture), located in Kirishima-Yaku National Park, and removed all equipment from the slope. The site will be repurposed as an evacuation area for local villagers in the event of an earthquake or other disaster.

\* Slope: Area where a section of the mountain has been cut away or where earth has been formed into an embankment



Wireless station

**Providing Space from the Standpoint of Preservation**

**Providing an Observatory for Migratory Birds on Amami-Oshima**

Beginning in September 2012, each year NTT Communications has hosted a migratory bird tour at its wireless station in the city of Amami, in Kagoshima Prefecture. Conducted by a local NPO, the Amami Ornithologists' Club, this tour focuses on a type of hawk known as the Chinese sparrowhawk. Entry to wireless stations, which house important communications infrastructure, is usually prohibited. However, in response to a request explaining that the station was an ideal observation point, we have permitted access to the facility for groups accompanied by employees.



Migration of the Chinese sparrowhawk (September 2013)

A small species of hawk, the Chinese sparrowhawk breeds on the Korean Peninsula and the Chinese mainland. In autumn, it can be observed near Kyushu as it migrates to its winter quarters in Southeast Asia. The Amami Ornithologists' Club has held tours at the station three times, with each tour observing flocks of more than 2,000 birds.

Hawks, which sit near the top of the food chain, are considered an index organism indicating the health of the overall ecosystem. Therefore, changes in the number of migrating birds can provide important information about the ecosystem. In various ways, we hope to continue cooperating with activities that can help preserve the ecosystem.

**Operations based on Guidelines**

We produce wireless station construction plans after surveying the distributions of plant, bird, and insect life and other habitat distribution factors to prevent damage to the biotope. If we identify animals or 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.

When surveying, planning, designing, and working on station sites and roads, we will continue to adhere to our guidelines at each step of our operations to safeguard nesting areas, animal paths, and vegetation.

**TOPICS**

**Providing Locations to Observe Migratory Birds at Amami-Oshima**

In September 2012, the Amami Ornithologists' Club, a local non-profit organization, held a meeting within NTT Communications' wireless relay station located in Amami City, Kagoshima Prefecture, to observe the migratory patterns of the Chinese sparrowhawk (*accipiter soloensis*), a species of hawk. As an important communication infrastructure, access to the wireless relay station is prohibited. However, recognizing its ideal location, the Company approved the request for its use as a point of observation subject to the oversight of employees.

The small Chinese sparrowhawk is widely found in the Korean Peninsula and mainland China. Towards winter, this species migrates to Southeast Asia, passing through the Kyushu area in the autumn. The Amami Ornithologists' Club held three meetings to observe this migratory pattern and on one occasion observed a flock of over 2,000.

Positioned at the pinnacle of the food chain, the hawk is recognized as a key element in the ecosystem as a whole. As a result, any change in migration numbers is an important indicator in evaluating the status of the ecosystem. Looking ahead, we will continue to support a variety of activities that are designed to preserve the ecosystem.

**Water Conservation Initiatives**

**Initiatives for Conserving Water at Head Office Building**

NTT Communications is working to reduce the amount of water used in its offices. As one aspect of these activities, in May 2013 we began installing water-saving valves on the toilet units at our head office building (the NTT Hibiya Building), thereby cutting their water use by around 45%. These water-saving valves employ water meters, use motion sensors to detect human presence and confirm that water is circulated accordingly, reducing the amount of waste water required for rinsing. The valves also employ usage data to verify water savings and degree of environmental contribution.

We have installed these water-saving valves in 98 toilet units within the NTT Hibiya Building. Our calculations estimate that the amount of water saved equates to around 4.7 million yen per year.



Water-saving automatic washing unit

## Contributing to Ecosystem Conservation using ICT

### “Mimawari Rakutaro” — Wildlife Observation and Alarm Device

The damage to agriculture caused by wild boars and deer is becoming an issue of increasing concern across Japan's farming and mountain communities. Against this backdrop, along with a variety of associated issues including changes in the ecosystem and mountain forests as well as the aging of the farming population, the setting of traps is being used as one countermeasure to minimize the damage caused by wildlife.

NTT PC Communications Inc., an NTT Communications Group company, has developed “Mimawari Rakutaro” as one part of its “field cloud service.” This is a wildlife observation and alarm device which utilizes an outdoor sensor that transmits data. In this manner, the company is contributing to countermeasures aimed at minimizing the damage caused by wildlife. This device employs the communication services of NTT Docomo to automatically transmit a message to a designated mobile phone or PC when a trap door closes.

To date, the ability to capture wildlife relied entirely on labor-intensive patrols and surveillance. The use of “Mimawari Rakutaro” significantly reduces the burden of patrols and helps to realize a prompt response, which in turn facilitates the use of captured wildlife as meat. “Mimawari Rakutaro” also comes equipped with a camera. The transmission of images further ensures an immediate response when humans enter a trap by mistake. Since its commercial release in July 2011, “Mimawari Rakutaro” has been adopted by 24 local governments, accelerating the adoption of ICT initiatives.

Moreover, NTT PC Communications is working to promote a culture that recognizes wildlife as part of a staple diet. The company is also helping to manage the Japan Gibier Association and advance a variety of activities in a bid to secure the growth and development of a regional society.

Moving forward, we will contribute to the preservation of an abundant natural environment by engaging in a wide range of activities.



Mimawari Rakutaro

## Awareness Activities through the Provision of Information

### Special Feature on Biodiversity on the "eco-goo" Portal

NTT Resonant Inc. 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.

Coinciding with the International Year of Biodiversity in 2010, steps were taken to join the Japan Business Initiative for Biodiversity (JBIB) in April 2009. In addition to its collaboration with the NTT Group as a matter of course, every effort is being made to coordinate with a broad spectrum of companies. During the current fiscal year in particular, we are promoting efforts to protect and sustain biodiversity. We are working with the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J) to establish an area for related reading materials, the “Biodiversity Bookcase.” We are also working to bring biodiversity into the mainstream by backing the Biodiversity Action Award, which serves as a commendation for a host of initiatives.

Furthermore, we created a special feature highlighting the trash problem that plagues Mount Fuji, using Twitter and smartphone apps to developing an opt-in campaign for raising user awareness and transforming behavior.

[Click here for details regarding the special feature on biodiversity. \(Japanese only\)](#) 

[Click here for details regarding the special feature on Mt. Fuji. \(Japanese only\)](#) 



Special feature on biodiversity on the "eco-goo" portal



### goo Green Label

The goo Green Label portal donates a portion of the profits generated through use of the site to organizations engaged in environmental protection and social activities. All users can participate in this initiative simply by changing over to "goo Green Label," the top design version of the "goo" web portal, and using the search engine in the same way as they did before.

Currently, 60 NTT Group companies and 30 other companies have signed up for the "Corporate Partner Program," which enlists corporations that will promote "goo Green Label" usage internally.

Since its inception in August 2007, donations totaling 52,800,000 yen have been made to 86 organizations, the majority of which are NPOs engaged in global environmental protection activities.

In fiscal 2013, we contributed a total of 4,300,000 yen to the National Land Afforestation Organization, a public utility association, which undertakes tree-planting activities as part of revival efforts following the Great East Japan Earthquake.

Working in cooperation with the artist/music management group Office Augusta and the artists they work with, under the theme of "music and ecology" we conducted "goo Green Label" activities and employed a plan linking Web and real events to promote awareness of environmental preservation.

[Click here for details on "goo Green Label" \(Japanese only\)](#)



"goo Green Label" site

### Green OCN

Based on the concept of "Environmentally Friendly Web Services" provided via OCN, NTT Communications started its "Green OCN Search Engine" in June 2010 as a service contributing to environmental protection activities. In the same manner as "goo Green Label," the plan called for a "Green OCN Search Engine" to donate a portion of the revenues earned from sponsor ads shown on OCN search result screens to environmental protection groups tackling environmental problems.

Currently, operations are being undertaken in conjunction with goo Green Label managed by NTT Resonant. Since its inception in 2007, the cumulative total of donations made on 15 occasions is 52,800,000 yen.

[Click here for details on "OCN Green Version" \(Japanese only\)](#)



"Green OCN" site

- ▶ Basic Philosophy and Environmental Management
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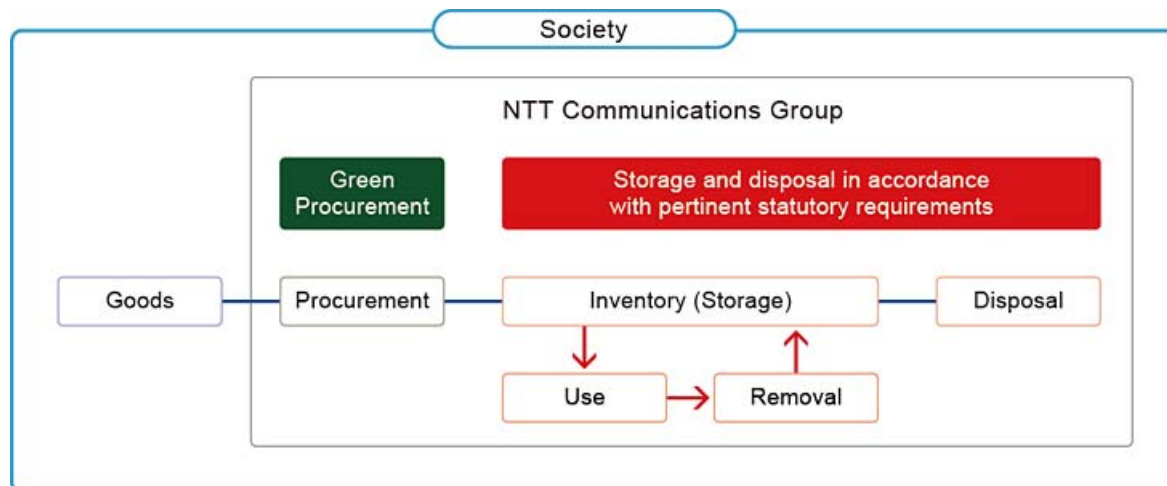
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# Preventing Environmental Pollution

- ▶ Basic Philosophy and Environmental Management
- ▶ Creating a Low-Carbon Society
- ▶ Promoting a Recycling-Oriented Society
- ▶ Biodiversity Conservation
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- ▶ Reporting to Public and Other Authorities

The NTT Communications Group is taking various steps to avoid a broad range of environmental risks stemming from business activities, such as environmental pollution and hazardous substance leaks. Measures include the formulation of guidelines covering the introduction of low-emission vehicles, improvements to facilities and methods of operation, bolstering of management, and education and training.

With regard to chemical substance management systems, in which society has shown a growing interest, the Company has implemented proper management in maintenance departments over the course of its history - based, for example, on the Waste Disposal and Public Cleansing Act, the Law Concerning Special Measures Against PCB Waste and the Electricity Business Act - including assigning vice presidents as managers. While conducting storage inspections on a regular basis, we are thoroughly overhauling the system to implement rapid checks in the event of an earthquake or disaster. During training sessions on environmental laws, we always keep abreast of the content of law revisions, share information among all Environmental Working Groups and plan optimization of our operations in a timely manner.



NTT Communications Chemical Substance Management

## Handling of Environmentally Hazardous Substances

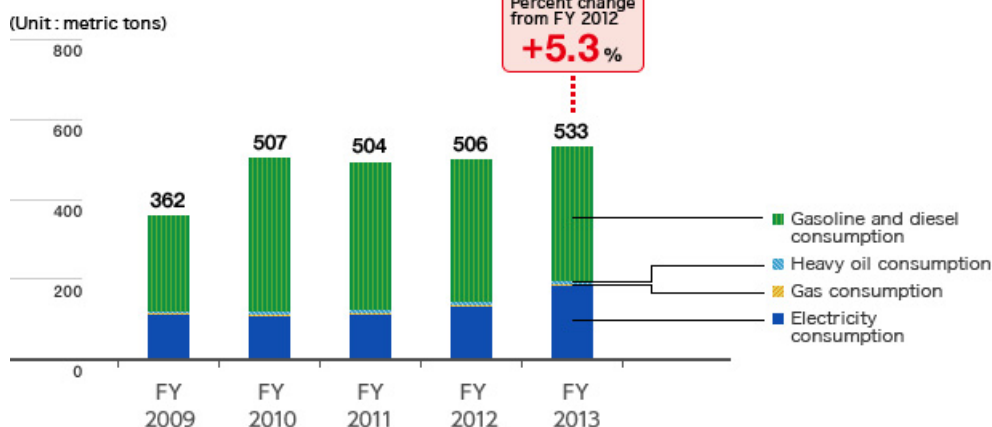
### Air Pollution Countermeasures

Our business activities emit NOx and SOx, which cause air pollution. Approximately 70% of the NOx emissions are attributable to the use of gasoline and diesel in our operational vehicles, with the remaining 30% are emitted during the generation of electric power in communications buildings and other facilities.

Most SOx (around 93%) is emitted during generation of the electricity we use. In fiscal 2013, we increased our NOx emissions due to higher levels of electric power consumed compared with the fiscal 2012 level by 27 tons to 533 tons, while increasing SOx emissions, again due to higher electric power consumption, compared with the fiscal 2012 level by 10 tons to 117 tons.

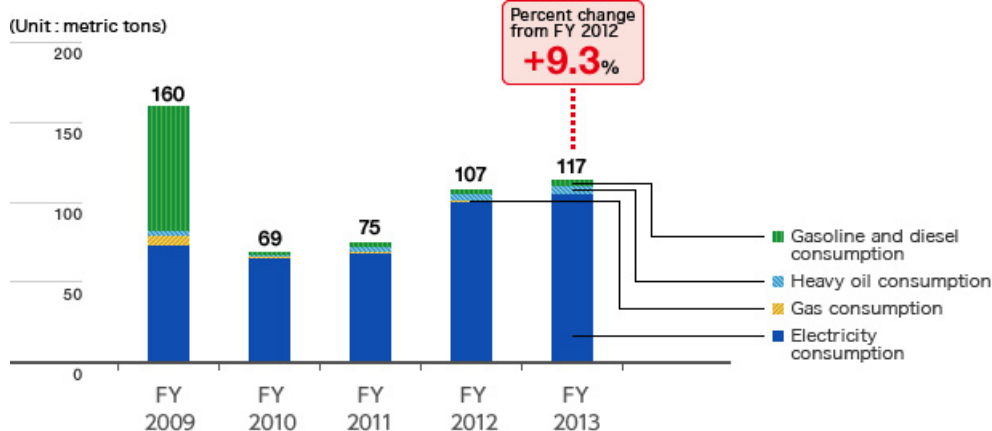
We will continue to take action to mitigate global warming and prevent air pollution, for example, by promoting environmentally conscious driving techniques and reduction of electricity usage.

### NOx Emissions



(The scope of compilation: fourteen NTT Communications Group companies from fiscal 2010, thirteen Group companies in fiscal 2009, eleven Group companies in fiscal 2008.)

### SOx Emissions

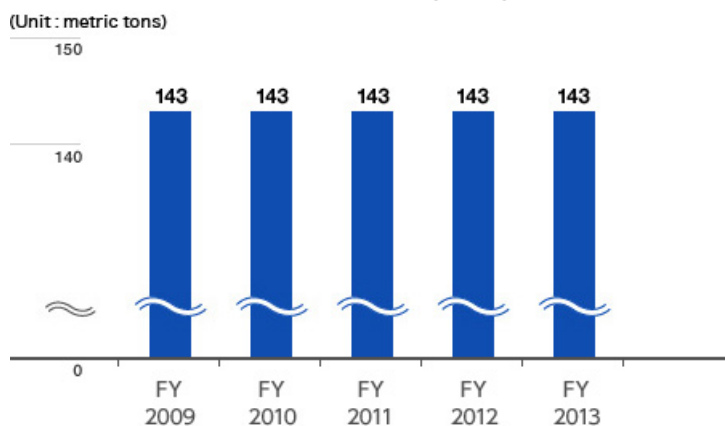


(The scope of compilation: fourteen NTT Communications Group companies from fiscal 2010, thirteen Group companies in fiscal 2009, eleven Group companies in fiscal 2008.)

### Ozone-Depleting Substance Countermeasures

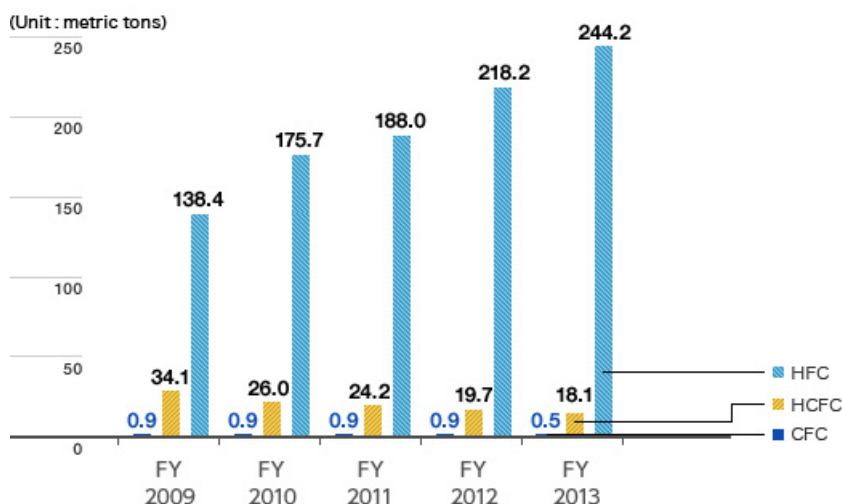
We dispose of ozone-depleting substances in an appropriate manner. The volume of specified halons used in our fire extinguishing equipment in fiscal 2013 was approximately 143 tons, roughly the same as in the previous fiscal year. Meanwhile, the volume of specified halons (the amount of fluorocarbons (CFCs)) used in our air-conditioning equipment in fiscal 2013 was up 2 tons from the preceding fiscal year.

#### Volume of Specified Halons Used in Fire-Extinguishing Equipment



(The scope of compilation: fourteen NTT Communications Group companies from fiscal 2010, thirteen Group companies in fiscal 2009, eleven Group companies in fiscal 2008.)

### Volume of Specified CFCs Used in Air-Conditioning Systems

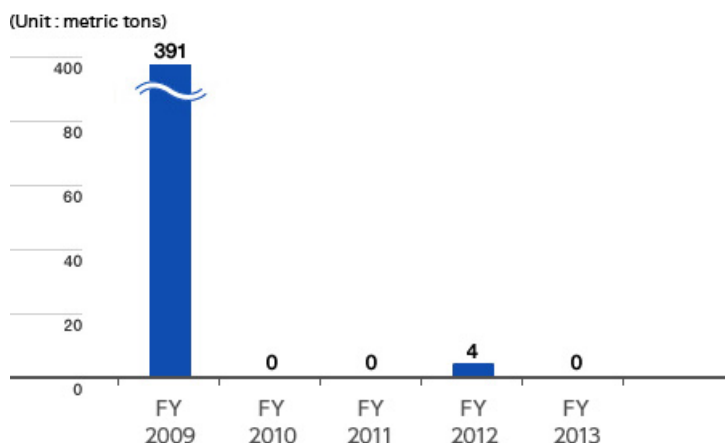


(The scope of compilation: fourteen NTT Communications Group companies from fiscal 2010, thirteen Group companies in fiscal 2009, eleven Group companies in fiscal 2008.)

### 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 2013, asbestos emissions totaled 5.3 tons owing mainly to the demolition of buildings. 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 compilation: fourteen NTT Communications Group companies from fiscal 2010, thirteen Group companies in fiscal 2009, eleven Group companies in fiscal 2008.)

### Storage and Management of PCBs

NTT Communications appropriately manages devices that contain polychlorinated biphenyl (PCBs). Such devices were used in the past as insulators for electrical facilities. As a policy for PCB storage, we have established 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 3,618 systems containing PCBs in fiscal 2013. The reason for the decrease is that in-depth surveys into contained substances in preparation for detoxification treatment in fiscal 2014 showed that numerous managed products contained non-PCB substances.

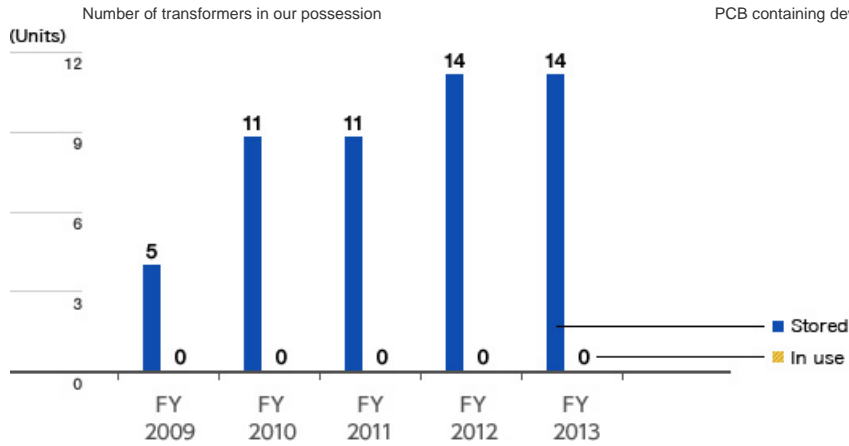
In the second half of fiscal 2014, we plan to begin with detoxification processing with systems in possession in Kyushu and Hokkaido, accounting for one-third of the total.



Number of Transformers in Our Possession

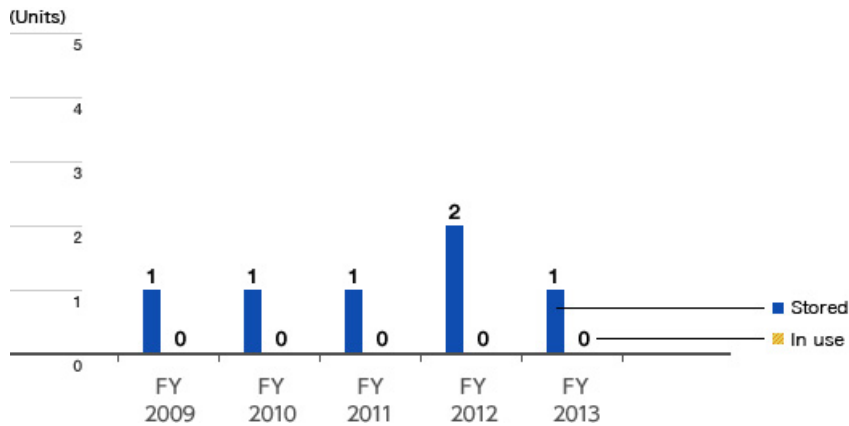


PCB containing devices in storage



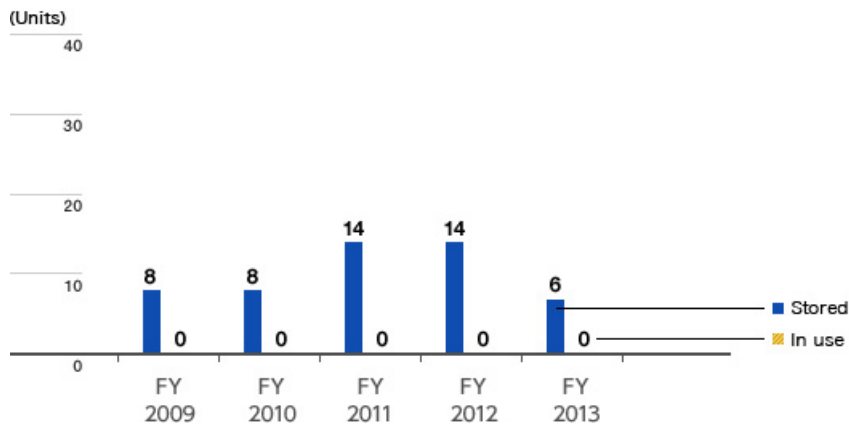
(Scope: NTT Communications (non-consolidated))

Number of High-Voltage Capacitors in Our Possession



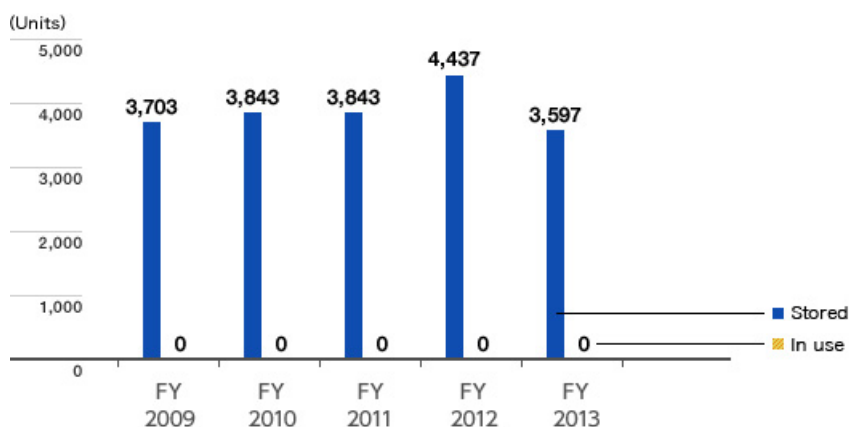
(Scope: NTT Communications (non-consolidated))

Number of Low-Voltage Capacitors in Our Possession



(Scope: NTT Communications (non-consolidated))

**Number of Ballasts in Our Possession**



(Scope: NTT Communications (non-consolidated))

\* Includes capacitors for lighting use from fiscal 2012

**Strengthening Storage and Management in the Anticipation of Emergency Situations**

Against a backdrop of natural disasters that are occurring frequently on a global scale, in recent years society has shown a growing interest in the management systems needed for environmental pollutants in times of emergency. Owning and operating IT infrastructure throughout the world, we have been thorough in establishing storage and management systems with "events" in mind for some time. In the management of pollutants and PCBs in particular, we have implemented measures that recognize such factors as earthquakes, fires, flood controls, lightning protection, puncture resistance, ventilation and security. By carrying out periodic inspections, we are constantly confirming that such substances are properly managed. With regard to such events as major earthquakes and disasters, we have built a rapid verification system designed not only to prevent damage when a disaster first strikes but also from the perspective of preventing secondary disasters. We exercise great care in conducting uninterrupted operations in safety and security.

**Cases of Major Leakage**

There were no instances involving major leakages.

**Transport, Import or Export of Toxic Waste**

In line with our policy of making an early effort to conduct detoxification processing on PCBs, from the second half of fiscal 2014 we will conduct detoxification processing on PCBs stored in Kyushu and Hokkaido. We will process the remainder, held in Tokyo and Osaka, as soon as processing center preparation is complete.

We have no plans to transport, import or export any toxic waste.

- [▶ Basic Philosophy and Environmental Management](#)
- [▶ Creating a Low-Carbon Society](#)
- [▶ Promoting a Recycling-Oriented Society](#)
- [▶ Biodiversity Conservation](#)
- [▶ Preventing Environmental Pollution](#)
- [▶ Reporting to Public and Other Authorities](#)

## CSR Report 2014

## Reporting to Public and Other Authorities

- [▶ Basic Philosophy and Environmental Management](#)
- [▶ Creating a Low-Carbon Society](#)
- [▶ Promoting a Recycling-Oriented Society](#)
- [▶ Biodiversity Conservation](#)
- [▶ Preventing Environmental Pollution](#)
- [▶ Reporting to Public and Other Authorities](#)

## Fiscal 2013 Global Warming Countermeasure Plan/Report

## | The Law Concerning the Rational Use of Energy

- [▶ NTT Communications Regular Reports !\[\]\(5774573cf757c446bb08af21f46b2969\_img.jpg\) \[PDF: 450KB\]](#)
- [▶ NTT Communications Medium- to Long-term Reports !\[\]\(a502cb21d600ba28a5cdf414d68eef89\_img.jpg\) \[PDF: 101KB\]](#)
- [▶ NTT Communications Field Survey Reports !\[\]\(b90ad4352d6e82333440a21dde15d657\_img.jpg\) \[PDF:30KB\]](#)

## | Tokyo Metropolis

- [▶ NTT Communications Site 0924 !\[\]\(e7a5b2ecc7ab80b32b565dd7dfa9a5a9\_img.jpg\) \[PDF:271KB\]](#)
- [▶ NTT Communications Site 0925 !\[\]\(51a3b3d739efe92b5a87bb7fdd8bc4bf\_img.jpg\) \[PDF:267KB\]](#)
- [▶ NTT Communications Site 0926 !\[\]\(ebb8dcf4bf19cae7a44506695af49594\_img.jpg\) \[PDF:244KB\]](#)
- [▶ NTT Communications Site 0927 !\[\]\(07dc25d18d466be82f39170ef767d9cd\_img.jpg\) \[PDF:241KB\]](#)
- [▶ NTT Communications Site 0928 !\[\]\(96664e733fc01177c2aa9b1fca87093c\_img.jpg\) \[PDF:242KB\]](#)
- [▶ NTT Communications Site 1327 !\[\]\(d36218996868ebf3f9a154f16e8f90c9\_img.jpg\) \[PDF:235KB\]](#)
- [▶ NTT Communications Site 0564 !\[\]\(ff962ee77705b2bd42eba8e509d05e2a\_img.jpg\) \[PDF:267KB\]](#)
- [▶ NTT Communications Site 1190 !\[\]\(34f6c5f8c474a3110d0b8de52a1097d0\_img.jpg\) \[PDF:239KB\]](#)
- [▶ NTT Communications Site 1909 !\[\]\(35b21e08b342659af497e3c6c7a4690c\_img.jpg\) \[PDF:246KB\]](#)

## | Kanagawa Prefecture

- [▶ NTT Communications Kanagawa Building !\[\]\(dce81645e0100714e86d66fe4d06ecba\_img.jpg\) \[PDF: 120KB\]](#)

## | Yokohama City

- [▶ NTT Communications Yokohama Building !\[\]\(1f101ad452ef9a3f01bb1e89af34fc34\_img.jpg\) \[PDF: 280KB\]](#)

## | Saitama Prefecture

- [▶ NTT Communications Saitama Building !\[\]\(91353dea0600335a09362f69ea4eac2b\_img.jpg\) \[PDF: 270KB\]](#)

## | Nagano Prefecture

- [▶ NTT Communications Nagano Building !\[\]\(307ad7be8dd8053938b04a332782a8a1\_img.jpg\) \[PDF:304KB\]](#)

## | Gunma Prefecture

- [▶ NTT Communications Gunma !\[\]\(7b04e30f4fc74f1dfd5f7d748eb38d36\_img.jpg\) \[PDF: 62KB\]](#)

## | Nagoya City

- [▶ NTT Communications Nagoya A Building !\[\]\(c7dc060c3452bb436913132f744278b8\_img.jpg\) \[PDF: 418KB\]](#)

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**Shizuoka Prefecture**

[▶ NTT Communications Shizuoka A Building](#)  [PDF: 103KB]

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**Kyoto City**

[▶ NTT Communications Kyoto](#)  [PDF: 368KB]

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**Osaka Prefecture**

[▶ NTT Communications Osaka Building](#)  [PDF: 133KB]

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**Hyogo Prefecture**

[▶ NTT Communications Hyogo Building](#)  [PDF: 355KB]

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**Okayama Prefecture**

[▶ NTT Communications Okayama Building](#)  [PDF: 100KB]

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**Hiroshima City**

[▶ NTT Communications Hiroshima Building](#)  [PDF: 156KB]

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**Kagawa Prefecture**

[▶ NTT Communications Kagawa Building](#)  [PDF:144KB]

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**Miyazaki Prefecture**

[▶ NTT Communications Miyazaki Building](#)  [PDF: 61KB]

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**Kagoshima City**

[▶ NTT Communications Kagoshima Building](#)  [PDF: 144KB]

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- [▶ Basic Philosophy and Environmental Management](#)
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## CSR Report 2014

# Respecting Our Employees

The NTT Communications Group respects employee diversity and provides workplaces that champion self-fulfillment based on our Basic CSR Policy. We maintain high ethical standards in meeting our social responsibilities as a telecommunications professional that offers services around the world.



## ▶ Human-Resource Development and Evaluation

- Human-Resource Development Policy
- Training Systems
- Program for the Overseas Secondment of Young Employees
- Developing Professional Human Resources
- Internal Job Posting System
- Personnel Evaluation

## ▶ Maintaining and Improving Employee Health

- Work-Life Committee
- Supporting a Balance between Work and Childcare or Nursing Care
- Promoting Work-style Reform
- Cafeteria Plan
- Supporting Volunteer Activities
- Mental Healthcare
- Preventing Accidents while Working or Commuting

## ▶ A Workplace for Everyone

- Diversity Office Initiatives
- Ensuring that Diversity is Well Accepted and Entrenched throughout the Group
- Providing Career Development Support for Diverse Human Resources
- Employing People with Disabilities
- Retaining Employees Who Reach Retirement Age
- Promoting and Cultivating Global Human Resources
- Incorporating Employee Feedback
- Dream Idea Contest

CSR Report 2014

# Human-Resource Development and Evaluation

- ▶ Human-Resource Development and Evaluation
- ▶ A Workplace for Everyone
- ▶ Maintaining and Improving Employee Health

We are developing a personnel system in which each individual can exhibit his or her personality and capabilities to the fullest, and we support the development of capabilities that enable employees to achieve self-fulfillment.

## Human-Resource Development and Personnel Evaluation

### Human-Resource Development Policy

NTT Communications aims to be a company where employees can demonstrate on-site capabilities while playing an active role in business operations, and we are pursuing various measures to this end.

We aim for continuous improvement through a human-resource development cycle. The cycle begins by defining ideal employees and desired skills. We then assess individual skills, and identify gaps between an individual's current skill level and that of an ideal employee. Finally, we consider how to effectively assign job duties and develop a training plan to close the skill gap.

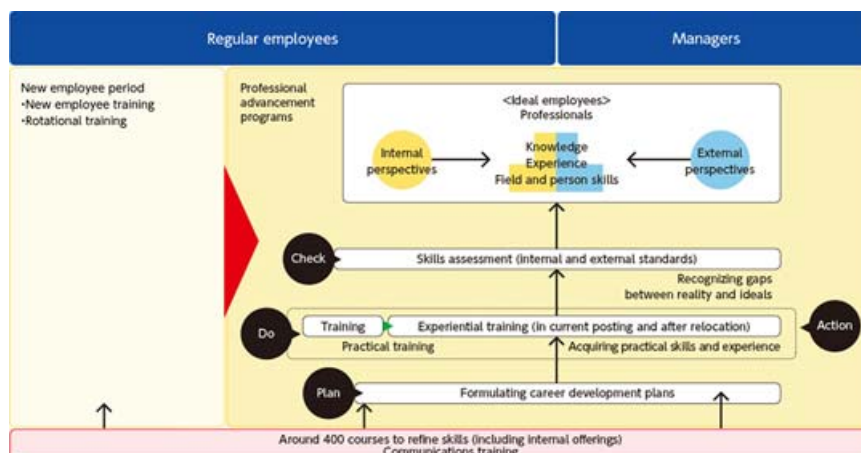
The implementation rate for our Professional Human Resource Development Program, a main pillar of our Group's human-resource development policy, reached virtually 100% in fiscal 2010 and has become established as a system in the Group, including our overseas operations. We believe that we have gained a significant level of results in raising employee skills and elevating them to higher ranks. In the future we will continue to promote human-resource development efforts based on the HRM policy, aiming to bolster corporate competitiveness through accelerated globalization. While continuing with our thinking that practical on-site experience is most effective, we will work on human-resource development that in particular helps strengthen specialist expertise, as we endeavor to realize our Vision 2015.

### Training Systems

We are improving employee skills and encouraging 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 they are assigned to certain areas of work, employees move to the professional human-resource development program, where they discuss their career development plans (CDPs) with supervisors and choose training courses accordingly. All employees are directed toward professional human-resource development and are encouraged to grow through real on-site experience based on employee CDPs. We strive to develop more practical and appropriate training content, while creating systematic training menus, partly based on employee survey results.

Looking ahead, we will continue advancing to a more practical training lineup that will lead to professional human-resource development.

Overview of Training Programs



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

### Program for the Overseas Secondment of Young Employees

In a bid to cultivate global experience in human resources, in fiscal 2011 NTT Communications launched a program aimed at seconding young employees overseas. Under this program, young employees are sent overseas for one year to undergo on-the-job training, amassing global communications skills through first-hand experience. In fiscal 2013, we sent around 80 employees overseas through this program.

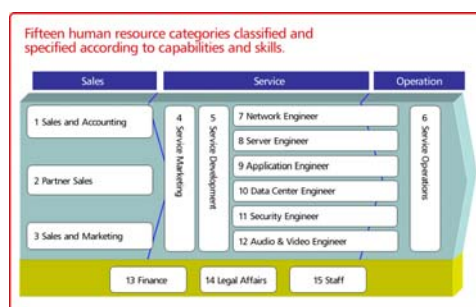
We have also expanded opportunities to enhance specialized skills, based on the career development plan (CDP) for training professional human resources. All employees undergo skills checks each year. In addition to encouraging people to acquire public certifications, we offer an extensive range of training menus for employees to choose from, and their choices form the basis for a training Perspective. As of April 2014 we have offered 786 skills enhancement courses, seven specialty training courses to obtain technical qualifications, 160 skills enhancement support courses (such as distance learning) and 94 personal development support courses.

### Developing Professional Human Resources

In general terms, operating environments are experiencing significant change due to such wide-ranging factors as the growing diversity, sophistication, and complexity of customer needs as well as the increased pace of transition to new business and consumption models and globalization. At the same time, we are witnessing a hollowing out of skills and a fragmentation of organizations.

We have classified our professional human resources into fifteen specialized categories. For each, we have identified necessary skill levels from both internal and external perspectives, including applied expertise, experience, skills, ability to communicate with employees on-site, and specialization. In this manner, we support the development of professional skills for each employee in every area of specialization.

We revise these specialist categories and skills standards as necessary, taking into account changes in the market and evolving operational strategies.



Fifteen human resource categories classified and specified according to capabilities and skills.

[Click here for an enlarged view of our fifteen Human Resource Categories.](#)

#### Definition of Professional Human Resources (Conceptual Image)

##### 1. Human resources who possess frontline skills

Frontline professionals with practical technological and other skills who draw on a wealth of personal pride and experience in supporting customers

##### 2. Human resources who can produce results through teamwork

Professionals in their own right who can take a proactive role in decision-making and action within a team environment and can maximize added-value through team play

##### 3. Human resources who can excel in all environments

Human resources who can excel not only within the NTT Communications Group, but also in all environments

### Internal Job Posting System

We use an internal job posting system that provides motivated employees with challenging opportunities to maximize their potential in a wide range of fields.

This is being used extensively by employees of all ages, with job postings conducted within the NTT Communications Group and the NTT Group.

#### Job postings focused on the following areas were conducted in fiscal 2013.

- Human resources aimed at bolstering cloud-related services
- Human resources aimed at bolstering global business
- Human resources aimed at bolstering upper layer-type services
- Human resources who are capable of bolstering Group companies toward maximization of total Group power

In fiscal 2013, approximately seventy employees were assigned to departments of their choice within the NTT Communications Group and the NTT Group.

Looking ahead, we will continue to actively use the internal job posting system to help employees advance their careers and to revitalize the organization. At the same time, we plan to promote job postings in domains that exhibit growing strength with the aim of attaining our business vision.

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## Personnel Evaluation

NTT Communications aims to foster among its employees a growing sense of challenge from the time they join the Company until they retire (at age 65), as well as motivating them to perform to the best of their abilities. To this end, we are revising our personnel and remuneration systems to put greater emphasis on results and performance. Reviews continue to place importance on fairness and transparency, and we do 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.

Under this system, we recognize the importance of employees who act with an increased sense of speed, and are prepared to boldly address change, without the fear of failure, while positioning the needs of customers as their first priority. At the same time, we are cognizant of the need to accurately grasp and evaluate the results of efforts to overcome certain challenges and reach specific results. In this context, we encourage employees to reflect on their voluntarily set goals and provide the opportunity to participate in semiannual performance review meetings with their supervisors to ensure agreement on the results of their job performance evaluation.

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- ▶ [Human-Resource Development and Evaluation](#)
- ▶ [A Workplace for Everyone](#)
- ▶ [Maintaining and Improving Employee Health](#)

## CSR Report 2014

## A Workplace for Everyone

- ▶ Human-Resource Development and Evaluation
- ▶ Maintaining and Improving Employee Health
- ▶ A Workplace for Everyone

NTT Communications is creating workplaces with diverse human resources where employees can truly harness their skills by drawing on their individual attributes, values, and ideas.

## Promoting Diversity

### Diversity Office Initiatives

In April 2008, NTT Communications established the Diversity Office in order to promote a business management strategy that utilizes the diversity of human resources, and implemented activities that centered on supporting the successful development of women in the workplace, promoting the hiring of people with disabilities and securing diversity.

In fiscal 2013, particular attention was placed on promoting women in the workplace. The Company continued with efforts to boost the ratio of female employees in management positions, which is showing a steady annual increase and currently stands at 3.8% (as of April 1, 2014). Aiming to increase the number of women who excel on the frontline, we have channeled our energies toward developing the careers of female employees and worked diligently to raise awareness of opportunities. While helping to create a network among female employees in management positions, we have taken steps to actively promote mentoring programs and to implement various role model initiatives. Carrying on from fiscal 2011, we continued to advance “work-style reform.” In specific terms, we put in place a smart device environment to realize work-styles that help increase the efficiency and autonomy of work as well as productivity regardless of time and place. Making full use of this environment, we initiated efforts aimed at engaging in work styles that place a premium on efficiency while promoting paperless meetings. In order to enhance productivity, we hope to introduce ways of better balancing the work and home lives of employees. Accordingly, we will continue to implement this project in an effort to foster a corporate culture that places the utmost emphasis on employee health and the opportunity to further improve skills and capabilities.

### Ensuring that Diversity is Well Accepted and Entrenched throughout the Group

NTT Communications is convinced that an understanding of the significance and importance of diversity by each and every employee is vital in realizing a workplace in which personnel maintain a mutual respect for one another. Based on this awareness, the Diversity Office took the lead in implementing the following measures throughout fiscal 2013.

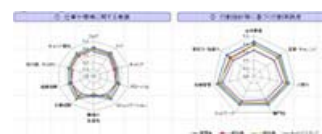
#### 1. Distributing Information through the Intranet

NTT Communications set up and has continued to operate a designated Diversity Office site with the specific aim of educating employees, beginning in August 2008. In fiscal 2013, particular weight was placed on providing details of roundtable talks and panel discussions among employees on such themes as “globalization” and “work-style reform.” Furthermore, steps were taken to provide information of the measures implemented by the Diversity Office as well as columns on enhancing productivity and increasing operating efficiency.



#### 2. Implementing Awareness Surveys Encompassing All Employees

In fiscal 2013, NTT Communications again initiated an awareness survey targeting all employees. The survey, which had an implementation rate of around 87%, sought employee feedback on such key issues as the Company’s “organizational environment,” “conditions throughout the workplace,” “level of satisfaction,” and “career enhancement.” The results of this survey will be used to create workplace environments that help motivate employees.



#### 3. Holding Town Hall Meetings with Managers

NTT Communications decided to modify the format of its management training program and systems to commence town hall meetings on an individual workplace basis beginning in fiscal 2012. Encompassing all responsible managers, these town hall meetings were used as a forum to discuss how best to improve workplace productivity as well as such wide-ranging issues as the Company’s human resources system and evaluation methods. Moving forward, we will continue to create opportunities for managers to speak directly with senior executives in order to improve the workplace environment and raise employee productivity.

#### 4. Promoting "Family Day"

In similar fashion to fiscal 2012, two family days were also implemented for employees and their families in fiscal 2013. A total of some 200 employees and family members participated in the events. Among a host of initiatives, quiz-style competitions using iPads, discussions with senior executives, television conferences with overseas subsidiaries, and tours of "Toudou," NTT Communications' communication cable designated pipeline tunnel, were held. Successful steps were taken to provide family members with a deeper understanding of the Company's business by allowing participants to experience NTT Communications' latest ICT technologies as well as tour communications facilities.



#### Providing Career Development Support for Diverse Human Resources

NTT Communications provides career development support at various stages as part of our effort to increase opportunities for diverse human resources to engage in work in a lively and vibrant manner. In fiscal 2013, energies were channeled toward helping our female employees develop their careers.

NTT Communications undertook the following two key initiatives in an effort to help develop the careers of its female employees.

1. To launch mentoring activities as a means to resolve career development concerns and issues and to help plot a medium- to long-term career path at an early stage in each employee's career.
2. To establish an open café that allows female employees to speak directly to female managers as part of our efforts to build a career pool and better visualize the future.

Employees participating in these initiatives commented that they felt encouraged to pursue their careers. Each measure was an important point of reference when looking to the future, taking into consideration the varied and diverse types of female managers and their multi-faceted sense of values. Buoyed by these comments, we will continue to reenergize our female employees, focusing on women in management positions going forward.

Again carrying forward initiatives undertaken in the previous fiscal year, in fiscal 2012 we continued to implement various measures to help employees caring for young children. In addition to notifying employees currently on childcare leave of the Company's wide-ranging systems through such media as the Company's NTT-LiFE+ online child and nursing care support site, we asked employees who had used these systems to share their experiences. At the same time, we initiated workplace return preparation seminars for employees taking childcare leave and career design seminars for employees caring for young children. Collectively, around 170 employees participated in these initiatives.



Open Cafe

#### Employing People with Disabilities

As a "Global ICT Partner," the NTT Communications Group works to foster a global, cloud-oriented society as well as convenient, secure lifestyles, as we proactively pursue business-model innovation. Based on the concept of normalization, the Company strives to employ all our personnel in roles that make the most of their skills, and are in line with their most desired and most suitable fields and working environments. As of June 1, 2013, we employed 120 people with disabilities in a broad range of fields, including sales and engineering. We are working toward the 2% statutory rate of employment of people with disabilities through recruitment drives, by utilizing employment agencies for mid-career hires, and through regular support initiatives.

#### Retaining Employees Who Reach Retirement Age

We introduced a continued employment system that allows employees reaching the mandatory retirement age of 60 to continue working, if they wish, until they reach 65.

##### Number of Rehired Employees

Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013
60	91	55	38

(Scope: NTT Communications (non-consolidated))

## Promoting and Cultivating Global Human Resources

### Global Human Resource Management (GHRM) Initiatives

Diversity management is attracting attention as a way of utilizing various concepts of values from a diverse workforce. We will have all Group companies work on HRM as a unit with "Global One Team" as our key message to promote global activity by human resources. In the long-term temporary assignment program that started in fiscal 2009, twenty locally hired overseas employees have been seconded to the head office and are promoting global business in Japan. In fiscal 2004, we introduced a system for bringing mid-career employees of overseas subsidiaries to work at headquarters for six months. This program succeeded in transmitting some of the skills and expertise they learned at overseas to the headquarters subsidiaries, and the resulting communication culminated in the "Global One Team" Promotion.

In fiscal 2013, NTT Communications expanded its reciprocal human-resource exchanges with overseas subsidiaries. At the same time, we continued our initiatives of the previous fiscal year in global communications training, pre-assignment training and joint management training for NTT Communications and overseas subsidiaries. An overseas assignment program for young employees was also started in July 2011. This is a program for developing employees who can succeed globally as soon as possible by dispatching new employees who have less than five years of experience in the Company to on-site locations overseas.

In the future we will continue to aim for further expansion of GHRM initiatives through the development and assignment of managers at overseas subsidiaries, who will lead global business for the entire Group, as well as through the promotion of global human resource exchanges.

### Number of Total Employees and New Employees by Gender

	Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013
<b>Number of employees</b>	8,350	8,150	8,000	6,850	6,850
<b>Male</b>	7,410	7,200	7,000	5,900	5,900
<b>Female</b>	940	950	1,000	950	950
<b>New employees</b>	196	215	226	212	223
<b>Male</b>	144	157	160	148	167
<b>Female</b>	52	58	66	64	56

(Scope: NTT Communications (non-consolidated), excluding seconded employees)

### Recruiting Global Human Resources

Taking into consideration the rapid and dynamic changes in its operating environment, the NTT Communications Group established Vision 2015, a medium-term policy that emphasizes the need to further increase the pace of business development. From the perspective of its human resources, the Group is strengthening its personnel Perspective in an effort to achieve this vision. This entails actively recruiting a wide variety of employees who are capable of bolstering competitiveness while taking the lead in the Group's globalization endeavors. In particular, we are aggressively hiring personnel who adopt a hands-on approach toward our worldwide expansion activities, focusing especially on students from a broad range of countries.



Recruiting activities in Korea

Given the strong global nature of our recruiting activities, we are stepping up efforts at overseas subsidiaries. Considerable weight is being placed on uncovering and hiring the highest caliber personnel in human resource markets outside Japan, focusing on Asia, which continues to enjoy growth. In this manner, we are successfully welcoming outstanding personnel, including engineers, to the Group. In addition to hiring overseas students and Japanese nationals who have graduated from universities outside Japan, we are currently conducting job fairs throughout the world as well as recruiting on the campuses of overseas universities. In fiscal 2013, we undertook local recruiting activities in seven countries, including South Korea, China, the United States, and India.

## Creating More Satisfying Workplaces

### Incorporating Employee Feedback

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

As part of that commitment, we launched the KAIZEN (Continuous Improvement) initiative in July 2006. We also instituted a Direct Line program to deal with constructive proposals from employees beyond organizational and supervisory boundaries. In May 2011 we made it easier to submit proposals through a change in the submission format that now requires only the identification of a problem within a business process, without necessarily requiring an improvement plan. We also changed the name to KAIZEN Support Line.

The proposals and the status of related solutions can be viewed on the KAIZEN Portal on the company intranet. In fiscal 2008, we instituted the KAIZEN awards system to encourage more proposals, and to recognize both those who submit outstanding proposals and those who implement them. We have seen a number of increases in process efficiency as a result of this initiative.

We received around 862 proposals through June 9, 2014. We will continue to ensure an environment that increases opportunities for employees to voice their concerns, and in which a wide variety of ideas are reflected in business process improvements in a timely manner.

As a way to support and improve employee motivation, we also conduct surveys to gain an understanding of the actual conditions

surrounding the degree of implementation of the daily habits of employees, as well as their attitudes towards work and the workplace. We use these survey results to establish a range of measures to help support and improve employee motivation.

### Dream Idea Contest

As an initiative aimed at expanding the horizons and opening up the future of the NTT Communications Group, we are calling for the submission of new ideas in a wide range of areas, and implementing measures that will contribute to the development of services. This initiative is dubbed "the Dream Idea Contest," which encapsulates our desire to see a more vibrant NTT Communications Group.

This contest allows anyone working within the NTT Communications Group to submit an idea. During the four calls implemented to date, we have received more than 1,200 submissions. Applications are posted on a designated SNS site to allow for easy access and browsing while promoting the exchange of opinions. A system was put in place that allows even those uninitiated in the use of SNS sites to amend and brush up their ideas as they please.

Ideas that are picked as new services are recognized through an award from the president, which is helping to further motivate applicants to submit ideas.

As we work to become a company that is filled with dreams, we will continue to implement measures that help create a vibrant and comfortable workplace.



Dream Idea Contest

## Labor—Management Relations

NTT Communications maintains a policy of labor-management equality. Based on this, we prioritize dialog that emphasizes labor-management relations characterized by independence and responsibility. In addition to employment and working conditions, we seek to foster mutual understanding of issues related to operations management.

- ▶ Human-Resource Development and Evaluation
- ▶ A Workplace for Everyone
- ▶ Maintaining and Improving Employee Health



## CSR Report 2014

# Maintaining and Improving Employee Health

- ▶ Human-Resource Development and Evaluation
- ▶ A Workplace for Everyone
- ▶ Maintaining and Improving Employee Health

We strive to provide an environment in which employees can work in a healthy, safe, and secure manner.

## Work-Life Balance

### Work-Life Committee

The Work-Life Committee was established to create more satisfying workplaces and help employees improve the balance between their professional and private lives. The committee comprises management and employee representatives, who make a continual effort to implement a range of measures aimed at achieving the goals of decreasing annual total work time, realizing work-styles that help increase the efficiency and productivity of work, and ensuring that duties are carried out appropriately and thoroughly.

In fiscal 2013, the committee oversaw steps to further upgrade and expand edification activities in order to ensure a greater focus on efforts aimed at increasing operating efficiency. In addition to the regular distribution of electronic newsletters to all employees, prominent figures from outside the Company were invited to conduct lectures and seminars. Among a host of educational initiatives, the committee also distributed handbooks to all employees and initiated e-Learning training, all in an effort to ensure the proper conduct of duties. At the same time, the committee established a working group to discuss specific measures to improve productivity, and it also reviewed and expanded various other measures along these lines.

### Supporting a Balance between Work and Childcare or Nursing Care

#### Initiatives to Support Childcare

NTT Communication promotes Measures to Support Next-Generation Childcare, which emphasize the importance of the healthy upbringing of the children who will lead the next generation. We have formulated a General Business Action Plan to help provide an environment with a greater variety of working conditions, both to encourage a balance between employees' work and childcare and also to address the needs of employees who are not raising children. We are working on an ongoing basis to reach the targets outlined in this plan.

Based on the Act on Advancement of Measures to Support Raising Next-Generation Children\*, we formulated a First Action Plan (April 1, 2005 through March 31, 2008) and a Second Action Plan (April 1, 2008 through March 31, 2011). These plans received strongly positive evaluations, and we were designated by the Tokyo Bureau of the Ministry of Health, Labour and Welfare as a certified business operator for fiscal years 2008 and 2011.

Our current formulation, the Third Action Plan (April 1, 2011 through March 31, 2015), is designed to create a workplace atmosphere based on an understanding of diverse working styles to meet employees' needs, where each employee can work enthusiastically.

\*Act on Advancement of Measures to Support Raising Next-Generation Children: This act promotes measures to support raising the next generation of children by creating an environment conducive to the healthy birth and upbringing of the children who will lead the next generation. Rather than relying on plans by national or regional public-sector organizations, this act calls upon companies with 101 or more employees to formulate and promptly submit General Business Action Plans. Companies with 100 employees or fewer are encouraged to make efforts on this front as well.



Overview of NTT Communications' Third Action Plan

#### Period of the Action Plan

Four years, from April 1, 2011, to March 31, 2015

#### Objective

To foster an understanding of the value of work-life balance among employees, regardless of gender or age, and to cultivate an acceptance of workplace diversity among individual employees.

#### Details of Initiatives

Cultivating an Understanding between Employees and the Workplace of Systems to Balance Work and Childcare

- In management training, foster an understanding of the use of such systems.
- Provide details of these systems and how to use them on the in-house website and in handbooks distributed to all employees.
- Post case studies of these systems in use on the internal website to promote greater understanding.

#### Support for Employees Prior and Subsequent to Taking Leave

- Provide follow-up support for employees who are continuing their careers after taking childcare leave, helping to alleviate uncertainties by conducting support seminars both before and after their return to work.
- Provide sites, targeted to employees on leave, that introduce role models of people who balance work and childcare, and provide regular updates of the internal newsletter, to help alleviate employees' sense of isolation while on leave.

**Training and Seminars for Young Employees Who May Later Have Children**

- Hold dialog sessions and introduce role models to formulate long-term career plans that incorporate different life stages. Establish Approaches to the Work-Life Balance for Male Employees.
- To raise awareness, conduct seminars about diverse working styles, work-life balance and other topics.
- On the internal website, show role models of men taking childcare leave.

In fiscal 2013, we introduced the Career Continuation Program. Under this program, the Company enters into an agreement with our nursing facility on behalf of employees on childcare leave who wish to return to work but are unable to do so because no openings exist at the municipal healthcare facility in their residential area—people who in the past had no option but to extend the period of their childcare leave period until an opening appeared at their local nursery facility. Two people took advantage of this program in fiscal 2013. For employees on childcare leave, we promoted awareness of sites such as “NTT-LiFE+,” which provides support for employees raising children or providing nursing care. We also conducted prenatal consultations, seminars for employees taking childcare leave and, for employees returning from childcare leave, seminars to support returnees to work. We also conducted training for people working shorter hours during a period of childcare. Altogether, 170 people attended these seminars.

In February 2014, we joined two other companies, Hitachi Solutions, Ltd., and All Nippon Airways Co., Ltd. (ANA), in a three-way seminar for employees on childcare leave with people in other fields. The seminar, held for employees scheduled to return to work in April 2014, was aimed at encouraging preparation for employees returning to work.



Career continuation program (Day care center support)



Seminar for employees on childcare leave with people in other fields



Training for people working shorter hours

**[Reference] People Taking Leave (2013)**

	Women	Men	Total
Childcare leave	148	5	153
Nursing care leave	0	5	5

**Promoting Work-style Reform**

Among a host of endeavors, the Company is promoting a system that allows employees to work from home along with other measures designed to increase productivity. These endeavors are designed to provide employees with the opportunity to make the most of their abilities and to help create a workplace environment in which employees can perform their duties with greater vitality. In addition, we took steps to improve the work-from-home system by extending the scope of eligibility to help employees with their childcare and nursing care commitments. Currently, the number of system users totals around 280. Through these and other measures, NTT Communications has successfully promoted more flexible work styles across a wide and diverse range of employees.

Over and above the work-from-home system, we are accelerating the implementation of work-style-related measures that are unique to an ICT company. We have focused on creating an environment that would allow employees to work from remote locations when, for example, visiting clients outside the office or on a business trip. The use of thin client terminals was therefore introduced to allow staff to more effectively use their spare time. Furthermore, particular emphasis was placed on reducing the number of documents and increasing the efficiency of meetings. To this end, we continued to undertake educational activities using Meeting 1/8th posters while adopting paperless meeting tools to simplify the manner in which meetings are conducted.

Great awareness by each and every employee is essential to enhancing operating efficiency through the use of ICT. In the interest of promoting work-style reforms, since fiscal 2012 we have invited prominent figures from outside the company to conduct lectures. Approximately 300 people attended these lectures in fiscal 2013.



Slim Meeting Program up to one-eighth

**Cafeteria Plan**

To cater to their varying lifestyles and needs, we offer various benefits to all our employees equally throughout their time in our organization. We have introduced a “Cafeteria Plan” system, which allows employees to choose from a wealth of benefit options (a total of 45 options in fiscal 2013) that suit individual employee lifestyles.

In order to provide employees with life design support, we also set up a life design consultation office. In fiscal 2013, 285 employees used this office. Moreover, we offer life design training to 30-year-old employees while holding second-life seminars for employees aged 59. In fiscal 2013, 174 employees participated in life design training while 115 employees attended second-life seminars.

We will continue enhancing our programs and menus to make them more employee-friendly.

## 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. We therefore administer a volunteer leave system that has been in place since the early days of the Company, and we encourage employees to utilize it for volunteer activities. In fiscal 2013, a total of 51 employees made use of this system to participate in social contribution activities across a wide range of areas.

### Number of Employees Using Our Volunteer Leave System

Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013
65	84	199	114	51

(Scope: NTT Communications (non-consolidated))

## Occupational Safety and Health Management

### Mental Healthcare

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

We have extended to the general manager class the scope of "mental health keepers," whose role is to attend to employee mental health on the job. (In fiscal 2013, 574 employees were certified as mental health keepers, bringing the total number to 2,348.)

In addition, we offer various other services on a continual basis including counseling for high-risk employees based on reports issued by Japan's Ministry of Health, Labour and Welfare (a total of 296 participants in fiscal 2013). In putting in place a comprehensive support structure, we also provide employee consultation desks both inside and outside the organization, a counseling environment for employees on overseas assignment, and "stress-check corners."

Going forward, we will continue to implement various measures that include Group companies in Japan to ensure healthy and comfortable work environments. We will also strengthen measures aimed at providing on the job support. We are also undertaking initiatives to reinforce our line care.

### Preventing Accidents while Working or Commuting

Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013
1 (working 0 / commuting 1)	16 (working 4 / commuting 12)	12 (working 5 / commuting 7)	11 (working 3 / commuting 8)

(Scope: NTT Communications (non-consolidated))

- ▶ [Human-Resource Development and Evaluation](#)
- ▶ [A Workplace for Everyone](#)
- ▶ Maintaining and Improving Employee Health

## CSR Report 2014

# About CSR Report 2014

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Details of the Group's approach toward compiling and issuing this report as well as supplementary information and data.

### ▣ [CSR Report Editorial Policy](#)

Information about our policy and approach toward creating the digest editions and detailed editions, our methodology for choosing key information to report, and a profile of the report.

### ▣ [Third-Party Opinion](#)

An opinion from Mariko Kawaguchi, Daiwa Institute of Research, Ltd.

### ▣ [GRI Guidelines Comparison Table](#)

An index and a table allowing readers to compare the guidelines we followed with those of the Global Reporting Initiative's Sustainability Reporting Guidelines (Version 3.0).

### ▣ [ISO26000 Comparison Table](#)

An index and a table allowing readers to compare the guidelines we followed with the core themes and issues in Guidance on Social Responsibility developed by the International Standardization Organization.

### ▣ [Environmental Reporting Guidelines Comparison Table](#)

An index and a table comparing the guidelines we followed with those from the Japanese Ministry of the Environment's Environmental Reporting Guidelines (Fiscal Year 2007 Version).

### ▣ [Questionnaire](#)

Please feel free to fill out a questionnaire on this website. We appreciate your feedback and thoughts about our report.

### ▣ [2013 Questionnaire Results](#)

The results of the CSR Report 2013 questionnaire that we received from our readers last year.

### ▣ [Contact Us](#)

If you have any questions or suggestions about the report, please feel free to send them directly to us via our website.

### ▣ [PDF Download / Back Issues](#)

PDF of the digest editions and PDF of the detailed editions are published.  
Back issues from fiscal 2005 onward are also available for download.

## CSR Report 2014

## CSR Report Editorial Policy

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## About the CSR Report

## | Editorial Policy

As a Global ICT 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 the provision of telecommunications services. We have issued this report to clearly convey our CSR approach and activities to our stakeholders.

We are also dedicated to improving accuracy and thus use "we" when reporting on the entire NTT Communications Group, and use company names when reporting on NTT Communications or Group companies.

### Selection of Material Issues and Other Items for Disclosure

We used the two-stage selection process described to the right to provide a well-balanced presentation of material issues and other items, in terms of their importance to the Group, as well as requests from society and the need for disclosure from all stakeholders. In the process, we referred to the materiality requirements of Version 3 of the Global Reporting Initiative's Sustainability Reporting Guidelines and other publications.

We present information with a high degree of materiality in the booklet and all other information in the online version of the report, according to the results of the selection process. In this manner, the printed and online versions of the report are differentiated to make the most of the features of these media.

In response to the issuance of the ISO 26000 standard, we have sought to improve how we explain our contribution to society as a global corporate group and the penetration of CSR within our organization in the 2014 version of the report. Another priority was to actively disclose information about our response to the Great East Japan Earthquake.

- Two-Stage Selection Process

**Stage 1: Determine issues and other items that should be considered for disclosure from the following:**

- Traditional disclosure items reflecting GRI's Sustainability Reporting Guidelines
- Issues disclosed by peer companies, and various companies in peripheral business sectors
- Issues attracting growing interest following the issuance of ISO 26000

**Stage 2: Select disclosure items from the following six perspectives**

- Issues relating to ongoing CSR impacts, risks, and opportunities identified through surveys by expert individuals and organizations specializing in 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

## Report Profile

- Reference Guidelines

GRI (Global Reporting Initiative)

Versions 3.0 and 4.0 of the GRI's Sustainability Reporting Guidelines

Japan's Ministry of the Environment's Environmental Reporting Guidelines (Fiscal Year 2012, from the website)

Japan's Ministry of the Environment's Environmental Accounting Guidelines 2005

ISO 26000: 2010, Guidance for social responsibility

\* Report compliance with the GRI's Sustainability Reporting Guideline and Environmental Reporting Guidelines is disclosed in the online version.

- Third-Party Opinion

Each year, we have an independent expert provide an opinion to help us improve our CSR activities.

- Report Scope

This report covers organizations important to reporting on CSR activities, namely NTT Communications and Group companies, based on the Group's Basic CSR Policy. However, any reporting outside this scope is indicated separately.

- Period Covered

Fiscal 2013: April 1, 2013 to March 31, 2014

(some content may fall outside this timeframe)

- Issue Dates

This report: October 2014

(Previous edition: October 2013; Next report: Scheduled for October 2015)

## About the Reporting Medium

This website provides a comprehensive presentation of the content of the NTT Communications Group CSR Report 2014. This report comprises two parts: an abridged version; and detailed version. We aim to provide information effectively by taking into consideration those readers envisioned for each medium. As can be expected of a company that provides ICT services, an electronic format of NTT Communications' CSR Report has been provided from 2012.

The abridged version presents the NTT Communications Group's more important CSR activities in a clear, straightforward manner to the general public.

The detailed version presents numerous specific examples of the NTT Communications Group's CSR activities, through a comprehensive look at concrete CSR activities and detailed data.

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## Third-Party Opinion

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## Third-Party Opinion

Mariko Kawaguchi, Daiwa Institute of Research Ltd.

Ms. Kawaguchi joined Daiwa Securities Co. Ltd. in 1986 after completing a master's degree in public finance and environmental economics at Hitotsubashi University's graduate school. She transferred to Daiwa Institute of Research Ltd. in 1994, and after conducting corporate credit research, served in 2010-2011 as General Manager for CSR in Daiwa Securities Group Inc.'s Corporate Communication Department. She returned to Daiwa Institute of Research in July 2011, and became a senior analyst in April 2012, focusing on environmental management, CSR and socially responsible investing.

Current positions include Chief Executive and Secretary General, Social Investment Forum Japan; Trustee of the Sustainability Forum Japan; member of the EcoAction 21 Auditor Certification Committee; Member of Ministry of the Environment's Environmental Businesswomen group; and member of the Tokyo Metropolitan Government's Environmental Committee. She is co-author of Introduction to Socially Responsible Investing and CSR: Raising Corporate Value (both in Japanese, published by Nikkei) and other works.



This year marks the first time in five years, since 2009, that I have commented on this report. In reviewing the report, I was struck by the degree to which the CSR structure has taken root as part of internal activities, and the extent of concrete activities. Based on its business vision and guided by the slogan "Global ICT Partner," NTT Communications has arranged its CSR activities according to four priority areas. I believe the Company has clearly expressed its CSR strategy in a manner that recognizes the importance of ensuring that the priority areas are in alignment with its management strategies.

Of these, in the two areas of environmental measures and respect for human resources, approaches center on specific initiatives. I consider these efforts highly noteworthy in the sense that they stem from NTT Communications' business strategy as a global ICT company and respond to societal demands.

First, with regard to environmental measures, the fact that NTT Communications is acquiring LEED—a global standard for green building certification—at its data centers in various countries is highly meaningful, as the electricity that data centers consume constitutes one of the largest environmental impacts for the ICT business. In addition to efforts conserve energy, the Company is making use of natural energy and working toward the greening of buildings and sites, the preservation of water resources and the use of eco-materials in building construction. As well as at data centers, these initiatives help to reduce regional environmental impact.

Whereas other ICT companies can also adopt measures of this nature, NTT Communications is unique in its efforts to protect marine resources by virtue of the marine equipment it uses throughout the world for its undersea cables. The protection of marine resources tends to lag that of on-land resources, as marine resources are less visible and less well known. That being said, oceans cover some 70% of the earth's surface. In these oceans, ecologically destructive fishing practices, pollution from hazardous chemical substances and plastic waste, and changes in ocean currents as ocean temperatures rise due to global warming are causing significant damage to marine ecosystems, including marine products and other resources, as well as coral reefs. Recent reports in the mass media have shown clearly that eels and Bluefin tuna are in danger of extinction, but these are not the only problems at stake. In Japan, which is surrounded by oceans and is one of the world's most prominent consumers of fish, very few marine transport or other companies are working assiduously to protect marine resources. Against this backdrop, NTT Communications' initiatives are important.

With regard to human resource utilization strategies, I believe that the activities outlined in the report's special feature—human resource exchanges on a global scale, particularly among younger employees—are important from the perspective of ensuring management resources. Personnel who have the flexibility to accept the diversity of global markets are one key to business growth. At the same time, however, simply gathering together employees with diverse backgrounds does not allow a company to exercise its strengths. The employee diversity that businesses require means people having different skills, perspectives, ages, genders, ideas and lifestyles, but these need to be bound together with a core platform so that they can work together under a shared corporate philosophy and vision. I applaud initiatives that build on interaction among employees in different countries while they are young. These encourage the sharing of philosophies and work to deepen their understanding of diversity, boosting internal motivation and contributing to the cultivation of human resources. In Japan, efforts are underway to better utilize women, but unfortunately Japan is a global laggard in this regard. I would

suggest that NTT Communications leverage its global network to take overseas best practices as a basis for its efforts in Japan.

In the category of contributing to society, ensuring the stability and reliability of telecommunications infrastructure is a foremost theme, as this is also a fundamental business requirement. But while they do make a contribution to society, I am concerned that ICT companies can also have a negative societal impact. Whereas the analog part of communications—people's bodies—has changed little over tens of thousands of years, the technologies that drive communications are moving forward on an annual basis. Ubiquitous networks allow people to conduct meetings with counterparts on the other side of the globe, access stores of library documents in an instant and listen to birdsong in real time. These might be considered the social contributions that ICT provides. Without recourse to a dictionary, a person can determine a word's meaning in just a few seconds by accessing a tablet. Rather than writing a letter by hand, affixing a stamp, putting a letter in the post and waiting several days for a response, now we can receive necessary information by email essentially on the same day. Simply sitting in our rooms, we can purchase products from the other side of the world and have them delivered to us in only a few days.

But doesn't this level of convenience also have certain pitfalls? As people become accustomed to such convenience, their skills atrophy. Recently, there has been an upsurge in travel to places without Internet access and events that people leave their mobile phones behind to take part in are said to be popular. Unthinkable a decade ago, nowadays some babies are reared with smartphones as toys. As people are raised and live surrounded by digital devices, the simple things in life disappear and the analog physical reality becomes irretrievable. What sort of impact might this situation have on people who are troubled by analog sensibilities? Realizing the huge benefits that ICT provides, surely conducting research to determine the negative aspects would also be an important social contribution. Taking up such a task would be difficult for a single company, but I would like to see NTT Communications take on a leadership role, given its importance as an ICT company that represents Japan.

Also, in the governance section readers typically expect a highly transparent decision-making process. In this report, the governance section mainly explains the information security structure. I would like to see disclosure from the former perspective, as well.

Finally, I would like to note that although the full report that is available on the Internet provides extensive information and detailed data, reading through all of this is a major task. In the digest version, I would suggest including key numerical targets and results along with the discussion.

ICT is an engine of the global economy and a driver of social globalization. Providing telecommunications infrastructure that is safe and reliable will be essential to the sustained development of human society. With this report, the reader can infer that taking a head-on look at the negative environmental aspects is an important element of CSR, and that this perspective is incorporated into the business strategy. In the same way, I believe that looking squarely at the negative social aspects I have pointed out and integrating them into the Company's strategies will foster the joint sustainable growth of society and NTT Communications.

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CSR Report 2014

# GRI Guidelines Comparison Table

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G3 Disclosure	Indicator	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.	-Top Message
1.2	Description of key impacts, risks, and opportunities.	-Top Message -Approach to CSR -CSR Priority Areas
<b>2 Organizational Profile</b>		
2.1	Name of the organization.	-Corporate Information
2.2	Primary brands, products, and/or services.	-Corporate Information -Business and Society
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	-Business and Society
2.4	Location of organization's headquarters.	-Corporate Information
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.	-Business and Society
2.6	Nature of ownership and legal form.	-Corporate Information
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	-Corporate Information -Business and Society
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.	-Corporate Information
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.	-External Evaluations
<b>3 Report Parameters</b>		
<b>Report Profile</b>		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	-CSR Report Editorial Policy
3.2	Date of most recent previous report (if any).	-CSR Report Editorial Policy
3.3	Reporting cycle (annual, biennial, etc.)	-CSR Report Editorial Policy
3.4	Contact point for questions regarding the report or its contents.	-Contact Us
<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.	-CSR Report Editorial Policy
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	-CSR Report Editorial Policy
3.7	State any specific limitations on the scope or boundary of the report.	-CSR Report Editorial Policy
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.	Not applicable
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.	-CSR Report Editorial Policy
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).	Not applicable

G3 Disclosure	Indicator	Reported Information
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Not applicable
<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).	-
<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.	-Corporate Governance
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).	-Corporate Governance
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.	-Corporate Governance
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	-Corporate Governance
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).	-Corporate Governance
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	-Corporate Governance
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.	-Corporate Governance
4.8	Making Contributions in a Manner that is Unique to the NTT Communications Group.	-Approach to CSR
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.	-Corporate Governance
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	-Corporate Governance
<b>Commitments to External Initiatives</b>		
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	-Risk Management
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	-Special Feature on Biodiversity on the "eco-goo" Portal -Acquiring of the eco-ICT Mark
4.13	<p>"Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization:</p> <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>	-Corporate Information
<b>Stakeholder Engagement</b>		
4.14	List of stakeholder groups engaged by the organization.	-Approach to CSR
4.15	Basis for identification and selection of stakeholders with whom to engage.	-Approach to CSR
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	-Faithfully Serving Our Customers -Our Relationship with Society -Our Relationship with Suppliers -A Workplace for Everyone
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.	-Faithfully Serving Our Customers -Our Relationship with Society -Our Relationship with Suppliers -A Workplace for Everyone
<b>5 Management Approach and Performance Indicators</b>		
<b>Economic</b>		
	Disclosure on Management Approach	-
<b>aspect: Economic Performance</b>		

G3 Disclosure		Indicator	Reported Information
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.	-Financial Information -Corporate Information
EC2	CORE	Financial implications and other risks and opportunities for the organization's activities due to climate change.	-
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.	-Our Relationship with Suppliers
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.	-Using ICT to Solve Social Issues -Contributing to a Healthy ICT Society -Our Relationship with Society
EC9	ADD	Understanding and describing significant indirect economic impacts, including the extent of impacts.	-
<b>Environmental</b>			
		Disclosure on Management Approach	-Basic Philosophy and Environmental Management
<b>aspect: Materials</b>			
EN1	CORE	Materials used by weight or volume.	-Environmental Impact of Business Activities
EN2	CORE	Percentage of materials used that are recycled input materials.	-Environmental Impact of Business Activities
<b>aspect: Energy</b>			
EN3	CORE	Direct energy consumption by primary energy source.	-Environmental Impact of Business Activities -Creating a Low-Carbon Society
EN4	CORE	Indirect energy consumption by primary source.	-Environmental Impact of Business Activities -Creating a Low-Carbon Society
EN5	ADD	Energy saved due to conservation and efficiency improvements.	-Creating a Low-Carbon Society
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.	-Creating a Low-Carbon Society
EN7	ADD	Initiatives to reduce indirect energy consumption and reductions achieved.	-Creating a Low-Carbon Society
<b>aspect: Water</b>			
EN8	CORE	Total water withdrawal by source.	-Environmental Impact of Business Activities
EN9	ADD	Water sources significantly affected by withdrawal of water.	-
EN10	ADD	Percentage and total volume of water recycled and reused.	-

G3 Disclosure		Indicator	Reported Information
<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.	-Biodiversity Conservation
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.	-Biodiversity Conservation
EN13	ADD	Habitats protected or restored.	-
EN14	ADD	Strategies, current actions, and future plans for managing impacts on biodiversity.	-Basic Philosophy and Environmental Management -Biodiversity Conservation
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.	-Environmental Impact of Business Activities -Creating a Low-Carbon Society
EN17	CORE	Other relevant indirect greenhouse gas emissions by weight.	-Environmental Impact of Business Activities -Creating a Low-Carbon Society
EN18	ADD	Initiatives to reduce greenhouse gas emissions and reductions achieved.	-Creating a Low-Carbon Society
EN19	CORE	Emissions of ozone-depleting substances by weight.	-Preventing Environmental Pollution
EN20	CORE	NOx, SOx, and other significant air emissions by type and weight.	-Preventing Environmental Pollution
EN21	CORE	Total water discharge by quality and destination.	-
EN22	CORE	Total weight of waste by type and disposal method.	-Promoting a Recycling-Oriented Society
EN23	CORE	Total number and volume of significant spills.	-Preventing Environmental Pollution
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.	-Preventing Environmental Pollution
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.	-Biodiversity Conservation
<b>aspect: Products and Services</b>			
EN26	CORE	Initiatives to mitigate environmental impacts of products and services, and extent of impact.	-Creating a Low-Carbon Society
EN27	CORE	Percentage of products sold and their packaging materials that are reclaimed by category.	-
<b>aspect: Compliance</b>			
EN28	CORE	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	Not applicable
<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.	-Creating a Low-Carbon Society
<b>aspect: Overall</b>			
EN30	ADD	Total environmental protection expenditures and investments by type.	-Environmental Accounting
<b>Labor Practices and Decent Work</b>			
		Disclosure on Management Approach	-Human-Resources Development and Evaluation -A Workplace for Everyone -Maintaining and Improving Employee Health -Respecting Human Rights
<b>aspect: Employment</b>			
LA1	CORE	Total workforce by employment type, employment contract, and region.	-A Workplace for Everyone
LA2	CORE	Total number and rate of employee turnover by age group, gender, and region.	-
LA3	ADD	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	-Maintaining and Improving Employee Health
<b>aspect: Labor/Management Relations</b>			
LA4	CORE	Percentage of employees covered by collective bargaining agreements.	-
LA5	CORE	Percentage of employees covered by collective bargaining agreements.	-

G3 Disclosure		Indicator	Reported Information
<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.	-Maintaining and Improving Employee Health
LA8	CORE	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	-Maintaining and Improving Employee Health
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.	-
LA11	ADD	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	-Human-Resource Development and Evaluation
LA12	ADD	Percentage of employees receiving regular performance and career development reviews.	-Human-Resource Development and Evaluation
<b>aspect: Diversity and Equal Opportunity</b>			
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 Workplace for Everyone
LA14	CORE	Ratio of basic salary of men to women by employee category.	-
<b>Human Rights</b>			
		Disclosure on Management Approach	-Our Relationship with Suppliers -Respecting Human Rights
<b>aspect: Investment and Procurement Practices</b>			
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.	-Respecting Human Rights
<b>aspect: Non-Discrimination</b>			
HR4	CORE	Total number of incidents of discrimination and actions taken.	Not applicable
<b>aspect: Freedom of Association and Collective Bargaining</b>			
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.	-
<b>aspect: Child Labor</b>			
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
<b>aspect: Forced and Compulsory Labor</b>			
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
<b>aspect: Security Practices</b>			
HR8	ADD	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	-
<b>aspect: Indigenous Rights</b>			
HR9	ADD	Total number of incidents of violations involving rights of indigenous people and actions taken.	Not applicable

G3 Disclosure		Indicator	Reported Information
<b>Society</b>			
		Disclosure on Management Approach	-Compliance -Our Relationship with Society
<b>aspect: Community</b>			
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.	-
<b>aspect: Corruption</b>			
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.	-
SO4	CORE	Actions taken in response to incidents of corruption.	Not applicable
<b>aspect: Public Policy</b>			
SO5	CORE	Public policy positions and participation in public policy development and lobbying.	-Contributing to a Healthy ICT Society
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>			
		Product Responsibility	-Information Security
<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.	-Faithfully Serving Our Customers -Ensuring Stable and Reliable Services as Critical Infrastructure
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.	Not applicable
<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.	-Initiatives to Further Satisfy Our Customers
<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.	-Responsible Public Relations and Advertising
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.	Not applicable
<b>aspect: Customer Privacy</b>			
PR8	ADD	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Not applicable
<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 2014**

G3 Disclosure	Indicator	Reported Information
<b>Internal Operations</b>		
<b>Investment</b>		
IO 1.	Capital investment in telecommunication network infrastructure broken down by country/region.	-
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.	-
IO 4.	Compliance with ICNIRP (International Commission on Non-Ionizing Radiation Protection) standards on exposure to radiofrequency (RF) emissions from handsets.	-
IO 5.	Compliance with ICNIRP (International Commission on Non-Ionizing 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.	-Biodiversity Conservation
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.	-Faithfully Serving Our Customers -Ensuring Stable and Reliable Services as Critical Infrastructure -Using ICT to Solve Social Issues
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.	-Maintaining Stable and Reliable Telecommunications Services -Ensuring Stable and Reliable Services as Critical Infrastructure
PA 4.	Quantify the level of availability of telecommunications products and services in areas where the organization operates. Examples include: customer numbers/market share, addressable market, percentage of population covered, percentage of land covered.	-
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 dialog/bit of data transfer in various remote, poor or low population density areas.	-
PA 6.	Programs to provide and maintain telecommunication products and services in emergency situations and for disaster relief.	-Ensuring Stable and Reliable Services as Critical Infrastructure -Activities related to the Great East Japan Earthquake
<b>Access to Content</b>		
PA 7.	Policies and practices to manage human rights issues relating to access and use of telecommunications products and services. For example: -Participation in industry initiatives or individual initiatives related to Freedom of Expression. -Legislation in different markets on registration, censorship, limiting access. -Interaction with governments on security issues for surveillance purposes. -Interaction with national and local authorities and own initiatives to restrict criminal or potentially unethical content. -Protecting vulnerable groups such as children. Explain how such policies and practices are adapted and applied in different countries.	-Using ICT to Solve Social Issues -Contributing to a Healthy ICT Society
<b>Customer Relations</b>		
PA 8.	Policies and practices to publicly communicate on EMF related issues. Include information provides at points of sales material.	-

G3 Disclosure	Indicator	Reported Information
PA 9.	Total amount invested in programs and activities in electromagnetic field research. Include description of programs currently contributed to and funded by the reporting organization.	-
PA 10.	Initiatives to ensure clarity of charges and tariffs.	-Faithfully Serving Our Customers
PA 11.	Initiatives to inform customers about product features and applications that will promote responsible, efficient, cost effective, and environmentally preferable use.	-Faithfully Serving Our Customers
<b>Technology Applications</b>		
<b>Resource Efficiency</b>		
TA 1.	Provide examples of the resource efficiency of telecommunication products and services delivered.	-Reducing Environmental Impact through Our Services
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).	-Reducing Environmental Impact through Our Services
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.	-Reducing Environmental Impact through Our Services
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.	-Using ICT to Solve Social Issues -Faithfully Serving Our Customers -Reducing Environmental Impact through Our Services
TA 5.	Description of practices relating to intellectual property rights and open source technologies.	-

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CSR Report 2014

# ISO26000 Comparison Table

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Core Subjects	Issues	Reported Information
Organizational governance		-CSR Management
Human rights	<ol style="list-style-type: none"> <li>1. Due diligence</li> <li>2. Human rights risk situations</li> <li>3. Avoidance of complicity</li> <li>4. Resolving grievances</li> <li>5. Discrimination and vulnerable groups</li> <li>6. Civil and political rights</li> <li>7. Economic, social and cultural rights</li> <li>8. Fundamental principles and rights at work</li> </ol>	<ul style="list-style-type: none"> <li>-Respecting Human Rights</li> <li>-A Workplace for Everyone</li> </ul>
Labor practices	<ol style="list-style-type: none"> <li>1. Employment and employment relationships</li> <li>2. Conditions of work and social protection</li> <li>3. Social dialogue</li> <li>4. Health and safety at work</li> <li>5. Human development and training in the workplace</li> </ol>	<ul style="list-style-type: none"> <li>-Human-Resources Development and Evaluation</li> <li>-A Workplace for Everyone</li> <li>-Maintaining and Improving Employee Health</li> </ul>
The environment	<ol style="list-style-type: none"> <li>1. Prevention of pollution</li> <li>2. Sustainable resource use</li> <li>3. Climate change mitigation and adaptation</li> <li>4. Protection of the environment, biodiversity and restoration of natural habitats</li> </ol>	<ul style="list-style-type: none"> <li>-Basic Philosophy and Environmental Management</li> <li>-Creating a Low-Carbon Society</li> <li>-Promoting a Recycling-Oriented Society</li> <li>-Biodiversity Conservation</li> <li>-Preventing Environmental Pollution</li> </ul>
Fair operating practices	<ol style="list-style-type: none"> <li>1. Anti-corruption</li> <li>2. Responsible political involvement</li> <li>3. Fair competition</li> <li>4. Promoting social responsibility in the value chain</li> <li>5. Respect for property rights</li> </ol>	<ul style="list-style-type: none"> <li>-Compliance</li> <li>-Our Relationship with Suppliers</li> </ul>
Consumer issues	<ol style="list-style-type: none"> <li>1. Fair marketing, factual and unbiased information and fair contractual practices</li> <li>2. Protecting consumers' health and safety</li> <li>3. Sustainable consumption</li> <li>4. Consumer service, support, and complaint and dispute resolution</li> <li>5. Consumer data protection and privacy</li> <li>6. Access to essential services</li> <li>7. Education and awareness</li> </ol>	<ul style="list-style-type: none"> <li>-Maintaining Stable and Reliable Telecommunications Services</li> <li>-Ensuring Stable and Reliable Services as Critical Infrastructure</li> <li>-Faithfully Serving Our Customers</li> <li>-Information Security</li> </ul>
Community involvement and development	<ol style="list-style-type: none"> <li>1. Community involvement</li> <li>2. Education and culture</li> <li>3. Employment creation and skills development</li> <li>4. Technology development and access</li> <li>5. Wealth and income creation</li> <li>6. Health</li> <li>7. Social investment</li> </ol>	<ul style="list-style-type: none"> <li>-Using ICT to Solve Social Issues</li> <li>-Contributing to a Healthy ICT Society</li> <li>-Our Relationship with Society</li> </ul>

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# Environmental Reporting Guidelines Comparison Table

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Basic Information: BI		Reported Information
<b>BI-1: CEO's statement</b>		
	a. Environmental management policy	·Top Message ·Basic Philosophy and Vision
	b. The recognition of the status of the environment, the need for environmental initiatives within an organization, and the future prospect of the construction of a sustainable society.	·Top Message ·Basic Philosophy and Vision
	c. The environmental policy and strategies of an organization corresponding to the industry, operational scale, character and overseas development; status of environmental impacts (significant environmental aspects) and a summary of environmental initiatives which reduce the negative environmental impacts, including targets and results.	·Top Message ·Basic Philosophy and Vision
	d. A commitment to society concerning the implementation of such environmental activities, the achieving of targets by any promised time limit and the disclosure of results to the public.	·Basic Philosophy and Vision
	e. The signature of the CEO	·Top Message
<b>BI-2: Fundamental requirements of reporting</b>		
BI-2-1: Organizations, periods and areas covered by the reporting	a. Organizations covered by the reporting (Note: If environmental reporting has been published in the past, and changes were made in the organizations when compared to the latest reporting, such changes and their background need to be included.)	·CSR Report Editorial Policy
	b. Reporting time period, the date issued, and schedule for the next issue (Note: If environmental reporting has been published in the past, the issue date of the latest version needs to be included.)	·CSR Report Editorial Policy
	c. Reporting areas (environmental, social and economic fields)	·CSR Report Editorial Policy
	d. Standards or guidelines that are used in conformity to, or as a reference (including ones specific to the industry)	·CSR Report Editorial Policy
	e. The division in charge of the publication and means of contact	·Contact Us
	f. URL of the organization's website	·CSR Report Editorial Policy
BI-2-2: Boundary of the reporting organization and coverage of environmental impacts	a. Percentage of the impacts caused by the reporting organization compared to the total business environmental impacts (the entire group for consolidated accounts). (i.e., Status according to the coverage of the environmental impacts)	·CSR Report Editorial Policy
<b>BI-3: Summary of the organization's business (including management indices)</b>		
	a. Nature of the organization's business (kind of industry and type of operation)	·Corporate Information ·Business and Society
	b. Major products and services (field of business)	·Corporate Information ·Business and Society
	c. Amount of sales or production (consolidated or unconsolidated in the case of an entire group, or just the reporting organization)	·Corporate Information
	d. Number of employees (consolidated or unconsolidated in the case of an entire group, or just the reporting organization)	·Corporate Information
	e. Other information relating to management (e.g., total assets, total sales profits, operating profits, ordinary profits, net income and loss, and total value added)	·Financial Information
	f. Details of significant changes in organizational structure, composition of shareholders, or products/services that have occurred in the reporting period (if significant changes to the environmental impacts have occurred due to events such as, mergers, company break-up, sale of a subsidiary or operating division, new business opportunities, or construction of new plants)	Not applicable

Basic Information: BI		Reported Information		
<b>BI-4: Outline of environmental reporting</b>				
BI-4-1: List of major indicators	a.	Summary of the organization's business, such as corporate name, sales figures, and total assets over the past five years or so (refer to BI-3)	·Corporate Information	
	b.	Status of compliance with environmental regulations (refer to MP-2)	·Basic Philosophy and Environmental Management	
	c.	Changes in major environmental performance over the past five years or so	·Environmental Impact of Business Activities	
		·Total amount of energy input (refer to OP-1)	·Creating a Low-Carbon Society	
		·Total amount of material input (refer to OP-2)	·Promoting a Recycling-Oriented Society	
		·Amount of water input (refer to OP-3)	·Environmental Impact of Business Activities	
		·Total amount of products or sales (refer to OP-5)	-	
		·Amount of greenhouse gas emissions (refer to OP-6)	·Creating a Low-Carbon Society	
		·Amount of release and transfer of chemical substances (refer to OP-8)	·Preventing Environmental Pollution	
		·Total amount of waste generation and final disposal (refer to OP-9)	·Promoting a Recycling-Oriented Society	
		·Total amount of water discharge (refer to OP-10)	·Environmental Impact of Business Activities	
·Eco-efficiency indicator (refer to EEI)	·Green ICT Vision 2020			
BI-4-2: Summary of objectives, plans and results regarding environmental initiatives	a.	Summary of targets, plans, results, and improvement measures regarding initiatives for environmental conservation	·Fiscal 2013 Results and Fiscal 2014 Targets	
<b>BI-5: Material balance of organizational activities (inputs, internal recycling, and outputs)</b>				
	a.	An overall picture of the environmental impacts caused by the organization's activities	·Environmental Impact of Business Activities	
<b>Management Performance Indicators: MPI</b>				
MP-1: Status of environmental management	MP-1-1: Environmental policy in organizational activities	a.	Environmental policy in organizational activities	·Basic Philosophy and Environmental Management
	MP-1-2: Status of environmental management systems	a.	Status of environmental management systems	·Basic Philosophy and Environmental Management
MP-2: Status of compliance with environmental regulations	a.	Status of compliance with environmental regulations	·Basic Philosophy and Environmental Management	
MP-3: Environmental accounting information	a.	Costs of environmental conservation initiatives	·Environmental Accounting	
	b.	Environmental effects relating to environmental conservation initiatives	·Environmental Accounting	
	c.	Economical effects associated with environmental conservation initiatives	·Environmental Accounting	
MP-4: Status of environmentally conscious investment or financing	a.	Environmentally conscious policy, targets, plans, status of initiatives, and results related to investment and financing	-	
MP-5: Status of supply chain management for environmental conservation	a.	Environmentally conscious policy, targets, plans, status of initiatives, and results related to the supply chain management	·Our Relationship with Suppliers ·Promoting Green Procurement	
MP-6: Status of green purchasing or procurement	a.	Fundamental policy, targets, plans, status of initiatives and results of green purchasing or procurement	·Our Relationship with Suppliers ·Promoting Green Procurement	
MP-7: Status of research and development of new environmental technologies and DfE	a.	Policy, targets, plans, status of initiatives and results of research and development related to environmental technologies, engineering methods, and DfE	·Creating a Low-Carbon Society	
MP-8: Status of environmentally friendly transportation	a.	Policy, targets and plans for environmentally friendly transportation	·Creating a Low-Carbon Society	
	b.	Total volume of transportation and reduction measures: current status and results	·Creating a Low-Carbon Society	
	c.	Energy-induced CO <sub>2</sub> emissions attributable to transportation, and reduction measures, the current status and results	·Creating a Low-Carbon Society	
MP-9: Status of biodiversity conservation and sustainable use of biological resources	a.	Policies, targets, plans, status of initiatives, and results related to conservation of biodiversity	·Biodiversity Conservation	
MP-10: Status of environmental communication	a.	Policy, targets, plans, status of initiatives, and results related to environmental communication	·Biodiversity Conservation	

Basic Information: BI		Reported Information	
MP-11: Status of social contribution related to environment	a. Policy, targets, plans, status of initiatives, and results of social contribution related to the environment	·Biodiversity Conservation	
MP-12: Status of products and services that contribute to the reduction of negative environmental impacts	a. Policies, targets, plans, and the status of initiatives and results related to products and services that contribute to the reduction of negative environmental impacts	·Creating a Low-Carbon Society	
	b. Status of re-merchandising (converting used items into marketable products) as stipulated by the Containers and Packaging Law, the Home Appliances Recycling Law, and the Automobile Recycling Law	-	
<b>Operational Performance Indicators: OPI</b>			
OP-1: Total amount of energy input and reduction measures	a. Policy, targets, plans, status of initiatives, and results of reduction measures related to total energy input	·Creating a Low-Carbon Society	
	b. Total amount of energy input (unit: joule)	-	
	c. Breakdown of total amount of energy input (the amount used by type) (unit: joule)	·Purchased electricity (excluding purchased new energy)	·Environmental Impact of Business Activities ·Creating a Low-Carbon Society
		·Fossil fuel (e.g., oil, natural gas, LPG or coal)	·Environmental Impact of Business Activities
		·New energy (renewable energy, recyclable energy, new forms of using conventional energy)	·Creating a Low-Carbon Society
		·Others (e.g., purchased heat)	·Environmental Impact of Business Activities
OP-2: Total amount of material input and reduction measures	a. Measures to reduce total material input (or the purchased amount of main raw materials, etc. including containers and packaging materials) and policy, targets, plans, initiatives, results, etc. related to the effective use of renewable and recyclable resources	·Promoting a Recycling-Oriented Society	
	b. Total material input (or the purchased amount of main raw materials including containers and packaging materials) (unit: ton)	·Environmental Impact of Business Activities	
	c. Breakdown of total material input (unit: ton)	·Environmental Impact of Business Activities	
OP-3: Amount of water input and reduction measures	a. Policy, targets, plans, initiatives, results, etc. related to measures to reduce the amount of input water resources	-	
	b. Amount of input water resources (unit: cubic meters)	·Environmental Impact of Business Activities	
	c. Breakdown of input water resources (unit: cubic meters)	·Clean water	-
		·Industrial water	
		·Groundwater	
		·Seawater	
		·River water	
·Rainwater, etc.			
OP-4: Amount of materials recycled within an organization's operational area	a. Policy, targets, plans, initiatives, results, etc. related to the recycling-based use of materials (including water resources) in the facilities of an organization	·Promoting a Recycling-Oriented Society	
	b. Amount of materials recycled in the facilities of an organization (unit: ton)	·Environmental Impact of Business Activities	
	c. Type and amount of each material recycled in the facilities of an organization (unit: ton)	·Environmental Impact of Business Activities	
	d. Amount of water recycled in the facilities of an organization (unit: cubic meters) and measures to increase it	-	
	e. Breakdown of the amount of water recycled (unit: cubic meters) ·Amount of recycled water (in principle, cooling water is not included) ·Use of recycled wastewater	-	
OP-5: Total amount of manufactured products or sales	a. Total amount of manufactured products or that of sold commodities	-	
OP-6: Amount of greenhouse gas emissions and reduction measures	a. Policy, targets, plans, initiatives, results, etc. related to measures to reduce greenhouse gas emissions, etc.	·Fiscal 2013 Results and Fiscal 2014 Targets	
	b. Total amount (converted to tons of CO <sub>2</sub> ) of greenhouse gas emissions (six substances subject to the Kyoto Protocol) (The breakdown of the amount both in Japan and overseas is needed.)	·Creating a Low-Carbon Society	

Basic Information: BI		Reported Information
	c. Breakdown by type of the amount (converted to tons of CO <sub>2</sub> ) of greenhouse gas emissions (six substances subject to the Kyoto Protocol)	·Creating a Low-Carbon Society
OP-7: Air pollution, its environmental impacts on the living environment, and reduction measures	a. Policy, targets, plans, initiatives, results, etc. related to measures to reduce the amount of released sulfur oxides (SO <sub>x</sub> ), nitrogen oxides (NO <sub>x</sub> ), and volatile organic compounds (VOC)	·Preventing Environmental Pollution
	b. Each released amount (in tons) of sulfur oxides (SO <sub>x</sub> ), nitrogen oxides (NO <sub>x</sub> ), and volatile organic compounds (VOC) according to the Air Pollution Control Law	·Preventing Environmental Pollution
	c. Status of noise, etc. generated (in decibels) according to the Noise Regulation Law and reduction measures	-
	d. Status of vibrations, etc. generated (in decibels) according to the Vibration Regulation Law and reduction measures	-
	e. Status of offensive odors, etc. generated (specified offensive odor substance concentration or odor index) according to the Offensive Odor Control Law and reduction measures	-
OP-8: Amount of release and transfer of chemical substances and reduction measures	a. Chemical substance management policy and status of chemical substances being managed	·Preventing Environmental Pollution
	b. Policy, targets, plans, initiatives, results, etc. related to the released and transferred amount of chemical substances and reduction measures	·Preventing Environmental Pollution
	c. Initiatives, results, etc. concerning replacement of current chemical substances with safer ones	·Preventing Environmental Pollution
	d. Released and transferred amount of chemical substances subject to the PRTR system based on the Law Concerning Reporting etc., of Release of Specific Chemical Substances to the Environment and Promotion of the Improvement of Their Management (unit: ton)	·Transport, Import or Export of Toxic Waste
	e. Concentration of specified substances when released into the atmosphere (benzene, trichloroethylene, and tetrachloroethylene) among hazardous air pollutants controlled by the Air Pollution Control Law	-
	f. Status of soil and groundwater pollution	·Cases of Major Leakage
	g. Status of pollution by dioxins controlled by the Law concerning Special Measures against Dioxins	-
	h. Concentration of hazardous substances, controlled by the Water Pollution Control Law, contained in wastewater and specified underground infiltrated water	-
OP-9: Total amount of waste generation and final disposal and reduction measures	a. Policy, targets, plans, initiatives, results, etc. related to measures to prevent further wastes from being generated and to reduce, and recycle them	·Promoting a Recycling-Oriented Society
	b. Total amount of discharged wastes (unit: ton)	·Promoting a Recycling-Oriented Society
	c. Amount of final disposal wastes (unit: ton)	·Promoting a Recycling-Oriented Society
OP-10: Total amount of water discharge and reduction measures	a. Policy, targets, plans, initiatives, results, etc. related to measures to reduce the total amount of discharged wastewater	-
	b. Total amount of discharged wastewater (unit: cubic meters)	-
	c. Concentration (average and maximum values) of hazardous substances in wastewater (which are classified into health items, living environment items, and dioxins), the release of which is controlled by the Water Pollution Control Law and the Law Concerning Special Measures Against Dioxins; and the pollutant discharge load of the substances subject to the total volume control of the Water Pollution Control Law, etc., and reduction measures	-
	d. Breakdown of the amount of wastewater by discharge destination (unit: cubic meters)	-
	·Rivers	
	·Lakes and marshes	
	·Sea areas	
	·Sewage, etc.	

Basic Information: BI		Reported Information	
<b>Eco-Efficiency Indicators: EEI</b>			
	a. The relationship of economic value created by economic activities, such as value added, with environmental impacts caused by the same activities	·Green ICT Vision 2020	
<b>Social Performance Indicators: SPI</b>			
Status of social initiatives	1	Information and indicators concerning industrial safety and hygiene	·Maintaining and Improving Employee Health
	2	Information and indicators concerning employment	·Human-Resource Development and Evaluation ·A Workplace for Everyone
	3	Information and indicators concerning human rights	·Respecting Human Rights
	4	Information and indicators concerning contributions to local communities	·Our Relationship with Society
	5	Information and indicators concerning corporate governance, corporate ethics, compliance, and fair trade	·Corporate Governance ·Compliance
	6	Information and indicators concerning personal information protection	·Information Security
	7	Information and indicators concerning a wide range of consumer protection and product safety	·Ensuring Stable and Reliable Services as Critical Infrastructure ·Faithfully Serving Our Customers
	8	Economic information and indicators concerning organization's social aspects	-
	9	Information and indicators concerning other social aspects	·Maintaining Stable and Reliable Telecommunications Services ·Using ICT to Solve Social Issues ·Contributing to a Healthy ICT Society ·Our Relationship with Suppliers

- [▶ CSR Report Editorial Policy](#)
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## CSR Report 2014

# Questionnaire

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- 

**Questionnaire on the NTT Communications Group's Corporate Social Responsibility Report 2014**

Thank you for reading the NTT Communications Group's Corporate Social Responsibility Report 2014.

We hope to hear your opinions and comments on this report and will use your feedback to upgrade our future CSR report and activities.

[Click on for Questionnaire](#)

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CSR Report 2014

# 2013 Questionnaire Results

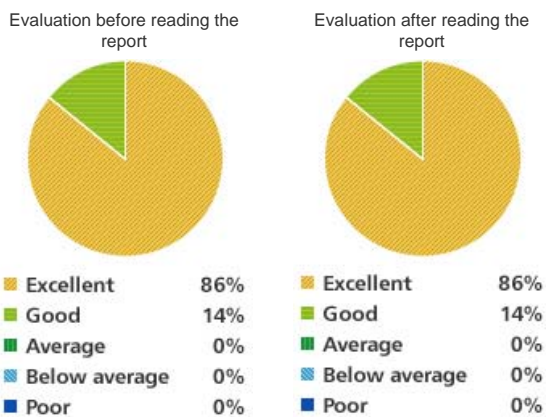
- [CSR Report Editorial Policy](#)
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- [Questionnaire](#)
- [2013 Questionnaire Results](#)
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We received a large number of opinions relating to CSR Report 2013. Here are the results of last year's questionnaire.

### How would you rate this report?



### Please give your "before reading" and "after reading" evaluations of our CSR activities.



### Which sections of the report interested you most

1	Cultivating and Evaluating Human Resources
	Creating a Workplace That Employs Diverse People
3	Basic Philosophy and Environmental Management
	Preventing Global Warming
	Preventing Environmental Pollution



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## Contact Form

If you'd like to find out more about NTT Communications' services please complete the form below. Please note that there are some cases where we will be unable to reply to inquiries.

**Note: Sending this Contact Form will not complete the contract**

For details regarding the usage of the provided information, please see our [privacy policy](#). Submitting the form implies your agreement to the policy.

Department which you would like to address	<input checked="" type="radio"/> CSR Report 2014
Purpose of inquiry	<input checked="" type="radio"/> Questionnaire
Country of Residence <b>[required]</b>	----- select your country -----
E-mail Address <b>[required]</b>	Ex) xxxxxxx@xxx.com (for confirmation)

Questionnaire on NTT Communications Group Corporate Social Responsibility Report 2014.

Thank you for reading NTT Communications Group Corporate Social Responsibility Report 2014.

We hope to hear your opinions and comments on this report and will use these to upgrade our future CSR report and activities.

### Q1.How would you rate this report?

(1)Overall	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Average <input type="radio"/> Below average <input type="radio"/> Poor
(2)Understandability	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Average <input type="radio"/> Below average <input type="radio"/> Poor
(3)Content (essential)	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Average <input type="radio"/> Below average <input type="radio"/> Poor
(4)Design (layout, font size, graphics, and cover) (essential)	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Average <input type="radio"/> Below average <input type="radio"/> Poor

### Q2.Please give your "before reading" and "after reading" evaluations of our CSR activities.

Evaluation before reading the report	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Average <input type="radio"/> Below average
--------------------------------------	---

	<input type="radio"/> Poor
Evaluation after reading the report	<input type="radio"/> Excellent
	<input type="radio"/> Good
	<input type="radio"/> Average
	<input type="radio"/> Below average
	<input type="radio"/> Poor

**Q3.What sections of the report did you like? Choose all that apply.**

CSR Report 2014	<input type="radio"/> Top Message
	<input type="radio"/> CSR Management Perspective
	<input type="radio"/> CSR Management Platform
	<input type="radio"/> CSR Priority Areas
	<input type="radio"/> Special Future; Becoming a True Global ICT Partner of Choice Around the World
	<input type="radio"/> Contributing to Society
	<input type="radio"/> Protecting the Environment
	<input type="radio"/> Respecting Our Employees
	<input type="radio"/> About CSR Report 2014
	<input type="radio"/> Overview of the NTT Communications Group

**Q4.Please tell us about yourself.**

Age	<input type="radio"/> 10-19
	<input type="radio"/> 20-29
	<input type="radio"/> 30-39
	<input type="radio"/> 40-49
	<input type="radio"/> 50-59
	<input type="radio"/> 60-69
	<input type="radio"/> 70-
Gender	<input type="radio"/> Male
	<input type="radio"/> Female
Categories	<input type="radio"/> Customer
	<input type="radio"/> Shareholder or investor
	<input type="radio"/> Business partner
	<input type="radio"/> National or local government institution
	<input type="radio"/> Research or educational institution
	<input type="radio"/> Press
	<input type="radio"/> Nonprofit or nongovernment organization
	<input type="radio"/> Student
	<input type="radio"/> Work in CSR or environmental affairs at another company
	<input type="radio"/> NTT Communications Group employee and family member
<input type="radio"/> NTT Group employee and family member	
<input type="radio"/> Other	
(Limited 20 characters)	

**Q5.Feel free to write comments or suggestions about this report and our CSR activities.**

**confirm**

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### Back Issues

You can read or download back issues of CSR Reports and Environmental Protection Activities Report from the following links. From fiscal 2008 both a booklet version and an online (and more detailed) version of the CSR Report have been available.

#### CSR Report 2013

- [▶ Digest Edition](#)  [3,648KB]
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CSR Report 2014

## Overview of the NTT Communications Group

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Features the Corporate Profile and Business Outline of the NTT Communications Group.

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▣ [Corporate Information](#)

Corporate Profile of the NTT Communications Group's.

▣ [Business and Society](#)

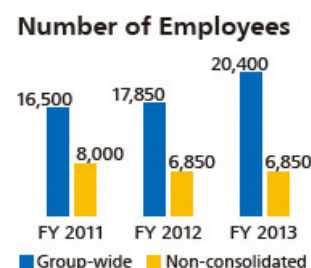
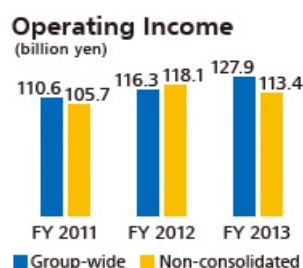
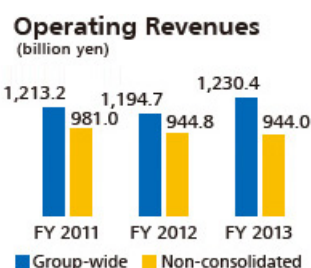
The NTT Communications Group is endeavoring to expand its global business while placing the utmost importance on society's concerns and needs.

CSR Report 2014

# Corporate Information

[Corporate Information](#)
[Business and Society](#)

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
Number of employees	6,850 (as of March 31, 2014)
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)



## Global Awards and Recognition

- Designated a "Leader" in Report by International Data Corporation Evaluating Cloud and DC Services in the Asia-Pacific Region
- Rated "Leader" in Report by Gartner, Inc. in the US Evaluating Global Telecommunications Carriers
- Evaluated as "World Class" in Global Customer Satisfaction Survey for International Data Communications Services by Ocean82, Ltd. in the UK, Receiving Gold Awards in 15 Areas of Measurement



"World Class" logo

[Corporate Information](#)
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# Business and Society

Corporate Information Business and Society

## Bridging the World with Our CSR Vision

Viewing as an opportunity the customer trend to migrate toward IT environments that employ cloud computing and data centers, NTT Communications is harnessing its unique position as a cloud and telecommunication service provider to offer bundled corporate services. This approach allows us to combine a host of services with globally consistent quality, helping to optimize customers' ICT environments and contributing to management transformation.

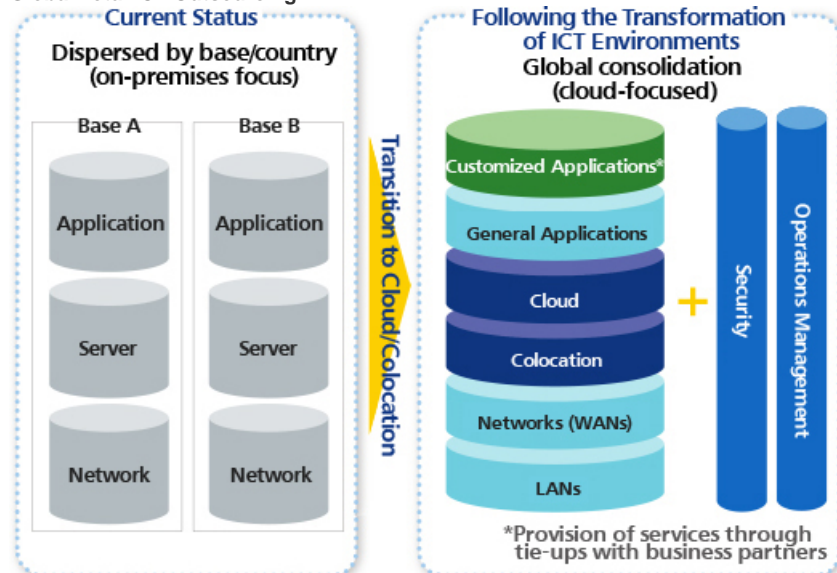
### Business Vision

# Global ICT Partner

Innovative. Reliable. Seamless.

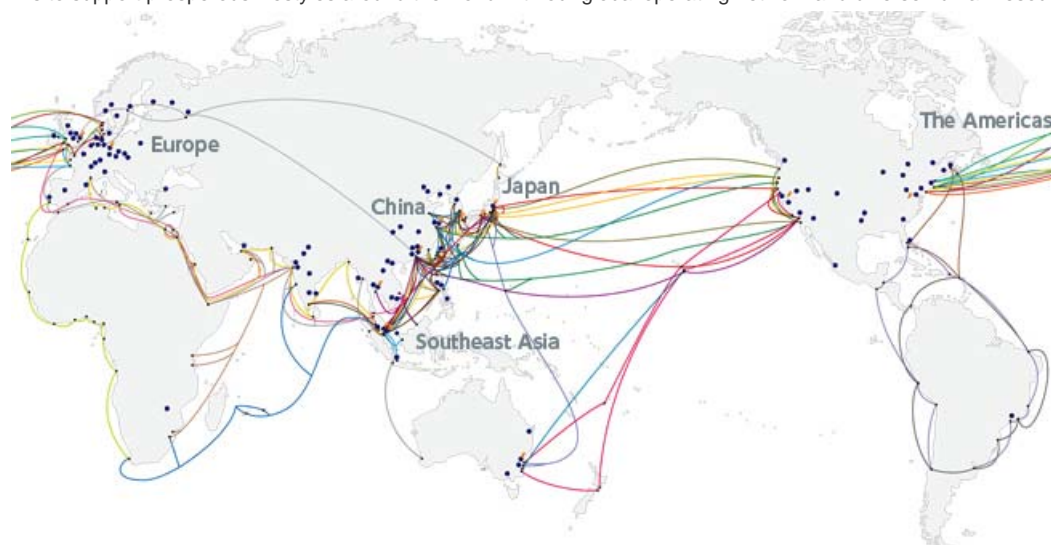
The NTT Communications Group's Growth Strategy: Vision 2015 highlights its commitment to innovative, reliable and seamless ICT services.

### Global Total ICT Outsourcing



## Business Overview

Our aim is to support prosperous lifestyles around the world with our global operating network and diverse human resources.



(NTT Communications Group Global Coverage image)

### Global IP Network

With our high-quality global IP network we are one of the world's leading Global Tier I Providers.

### Data Center Service

130 bases worldwide  
Total server room area of 251,000 m<sup>2</sup>  
(As of June 2014, including facilities in the planning stages)



### Operations Service

We provide operation services 24 hours a day, 365 days of the year at network operation centers in three global regions.



### ICT Environment Services from Construction to Operation

We provide construction and operation services for ICT environments in 102 cities in 39 countries and regions outside Japan.  
(As of March 31, 2014)



## Major Group Companies

### Overseas

#### The Americas

<North America>  
NTT America, Inc.  
<South America>  
NTT do Brasil Telecomunicações Ltda.  
<Other Group Companies>  
Verio inc.

#### Asia/Oceania

<East Asia>  
NTT Communications China Co., Ltd.  
NTT Com Asia Ltd.  
NTT Korea Co.,Ltd.  
NTT Taiwan Ltd.  
<Southeast and South Asia>  
NTT Communications India Private Ltd.  
PT. NTT Indonesia  
NTT MSC Sdn. Bhd.  
NTT Singapore Pte. Ltd.  
NTT Communications(Thailand) Co., Ltd.  
NTT Communications(Vietnam) Ltd.  
<Oceania>  
NTT Australia Pty. Ltd.  
<Other Group Company>  
Shanghai NTT Telecommunications Engineering Co., Ltd.  
HKNet Company Ltd.

### Japan

NTT Worldwide Telecommunications Corporation  
NTT Com Solution & Engineering Corporation  
NTT Co, CHEO Corporation  
NTT Com Technology Corporation  
NTT Com Marketing Corporation  
NTT SmartTrade Inc.  
NTTCom Online Marketing Solutions Corporation  
NTT PC Communications, Inc.  
NTT BizLink, Inc.  
NTT Plala Inc.  
NTT Resonant Inc.  
NTT World Engineering Marine Corporation  
X-LISTING Co., Ltd.



Netmagic Solutions Private Ltd.  
DTSI Group  
Emerio GlobeSoft Pte. Ltd.  
Global Data Service Joint Stock Company(GDS)  
Frontline Systems Australia Pty Ltd.

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#### Europe/Middle East /Africa

<Europe>  
NTT Europe Ltd.  
NTT Communications Russia LLC  
<Other Group Company>  
Gyron Internet Ltd.  
NTT Com Security AG

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#### Global Services

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