NTT Group
Sustainability Report 2016

NTT Group

Contents and Editorial Policy

Editorial Policy

The NTT Group compiled Sustainability Report 2016 after reviewing the content of its past reports on CSR and sustainability following the revisions made to the NTT Group CSR Charter and NTT Group CSR Priority Activities (Materiality). Specifically, the composition of this report was changed to a format that closely corresponds with items in the NTT Group CSR Priority Activities to enhance disclosure of information on items with higher priority for stakeholders and the NTT Group.

For detailed information on our business strategies and operations, please refer to Annual Report 2016. For details on ongoing efforts related to sustainability and CSR and achievements at NTT Group companies, please refer to the Sustainability Report or CSR report published separately by each company.

Scope of Organization

● NTT and the NTT Group Companies (907 Companies)

In this report we endeavor to present the status of activities insofar as possible for the entire NTT Group, and where the activities are limited to certain parts of the Group, we have clearly defined the scope of the data provided.

- The figures given for the NTT Group in fiscal 2016 are tabulated from figures for NTT, NTT East, NTT West, NTT Communications, NTT DOCOMO, NTT DATA and their group companies (907 companies). The scope of specific reports is noted in relevant areas.
- Organization names are current as of March 31, 2016. However, some organization names are from fiscal 2017.
- The scope of tabulation for environmental performance data is limited to Japan unless otherwise stated.
- With regard to aggregation scopes for the human resource-related data in the Unite the Energies of Team NTT section, companies referred to as the "eight major Group companies" are NTT, NTT East, NTT West, NTT Communications, NTT DOCOMO, NTT DATA, NTT COMWARE and NTT Facilities. The companies in the scope for the "Status of Group companies" in the section are NTT East, NTT West and NTT Facilities, on a consolidated basis, including their major subsidiaries, and NTT Communications, NTT DOCOMO and NTT COMWARE on a non-consolidated basis. The "41 companies" are NTT, NTT East, NTT EAST-HOKKAIDO, NTT EAST-TOHOKU, NTT EAST-KANSHINETSU, NTT EAST-MINAMIKANTO, NTT EAST SERVICE, NTT-ME, NTT West, NTT NEOMEIT, NTT MARKETING ACT, NTT BUSINESS SOLUTIONS, NTT FIELDTECHNO, NTT BUSINESS ASSOCIE WEST, NTT Communications, NTT DATA, NTT DOCOMO, NTT URBAN DEVELOPMENT, NTT Urban Development, NTT Facilities, NTT FACILITIES CHUO, NTT FACILITIES HOKKAIDO, NTT FACILITIES TOHOKU, NTT FACILITIES TOKAI, NTT FACILITIES KANSAI, NTT FACILITIES CHUGOKU, NTT FACILITIES KYUSHU, NTT COMWARE, NTT FINANCE, NTT BUSINESS ASSOCIE, NTT BUSINESS ASSOCIE EAST, NTT Electronics, NTT Advanced Technology, NTT LOGISCO, NTT ADVERTISING, NTT Software, InfoCom Research, NTT LEARNING SYSTEMS, NTT-IT, NTT TRAVEL SERVICE, NTT Human Solutions, and NTT CLARUTY.

Reporting Period

April 1, 2015 to March 31, 2016 (fiscal 2016)

- Certain activities implemented after March 31, 2016 and outlook for the future are also included.

Decision Making Process for Published Content

To determine the content requirements for the publication, the CSR Committee, chaired by the representative director and senior executive vice president, discussed the basic annual policy for the Sustainability Report in April 2016, and then the senior vice presidents for Research and Development Planning and for General Affairs acted on their authority under the organizational rules to confirm and approve the content for the environmental and nonenvironmental sections, respectively.

Reference Guidelines

- Sustainability Reporting Guidelines Version 4, Global Reporting Initiative (G4)
- Environmental Reporting Guidelines Version FY2012, Japan Ministry of the Environment
- ISO 26000: Guidance on Social Responsibility

Related Information

• CSR website (Japanese and English)

To provide the latest information on NTT Group CSR activities, we update our CSR website regularly and in a timely fashion. The latest information can be viewed in the Topics section on the site's homepage.

    ⌨ http://www.ntt.co.jp/csr_e/index.html

• Annual Report (Japanese and English)

From fiscal 2015, the Annual Report includes information on the NTT Group's most important CSR initiatives in addition to the financial information that has been provided to date. Edited largely for shareholders and investors, it reports on and explains the NTT Group's opportunities for growth and response to risks.

• Securities Report (Japanese)

• Shareholders' Newsletter "NTTis" (Japanese and English)

• Corporate Governance Report (Japanese and English)

• Form 20-F (English)

• Form SD and the Conflict Minerals Report (English)

List of Policies and Guidelines

The following is a compilation of major charters and guidelines formulated by the NTT Group.

● Charters

NTT Group CSR Charter   ⌨ http://www.ntt.co.jp/csr_e/groupcsr/csr_policy.html

NTT Group Corporate Ethics Charter   ⌨ http://www.ntt.co.jp/csr_e/governance/compliance.html

NTT Group Global Environmental Charter   ⌨ http://www.ntt.co.jp/kankyo/e/management/charter.html

NTT Group Human Rights Charter   ⌨ http://www.ntt.co.jp/csr_e/governance/human.html

● Policies

NTT Group Information Security Policy   ⌨ http://www.ntt.co.jp/g-policy/ (Japanese only)

Policy on Protecting Personal Information of Customers   ⌨ http://www.ntt.co.jp/kojinjo/okyaku.html (Japanese only)

Policy on Protecting Personal Information of Shareholders   ⌨ http://www.ntt.co.jp/kojinjo/kabu.html (Japanese only)

Policy on Protecting Personal Information of Business Partners   ⌨ http://www.ntt.co.jp/kojinjo/okyaku-m.html (Japanese only)

Policy on Protecting Specific Personal Information of Shareholders   ⌨ http://www.ntt.co.jp/kojinjo/kabu-m.html (Japanese only)

Basic Policies on Human Rights   ⌨ http://www.ntt.co.jp/csr_e/governance/human.html

Procurement Policies   ⌨ http://www.ntt.co.jp/ontime/e/policy/index.html

● Guidelines

NTT Guidelines for CSR in Supply Chain   ⌨ http://www.ntt.co.jp/ontime/img/pdf/supply_chain2.pdf

NTT Guidelines for Green Procurement   ⌨ http://www.ntt.co.jp/ontime/e/img/pdf/green_e1.pdf

NTT Group Energy Efficiency Guidelines   ⌨ http://www.ntt.co.jp/kankyo/e/management/img/energy/guidelinever7_e.pdf

Technical Requirements   ⌨ http://www.ntt.co.jp/ontime/e/policy/tr/index.html

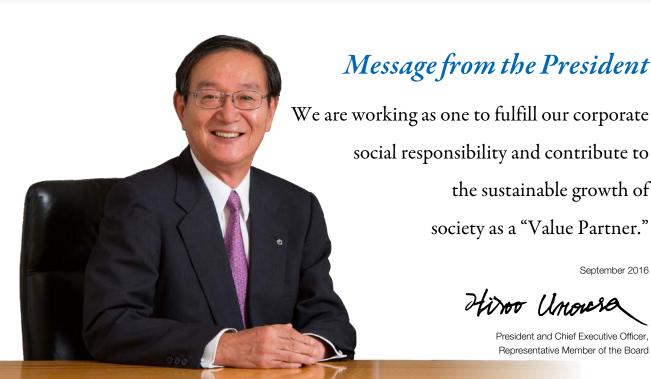Green R&D Guidelines

Green Design Guidelines for Buildings

Legend

"Nippon Telegraph and Telephone Corporation" is abbreviated as "NTT," "Nippon Telegraph and Telephone East Corporation" as "NTT East" and "Nippon Telegraph and Telephone West Corporation" as "NTT West."

- In principle, notations for status of incorporation have been omitted from the names of NTT Group companies.
- Breakdown figures in the numerical tables have been rounded and therefore may not necessarily add up to the total figures.
- The names of companies, products and services are the registered trademarks or trademarks of each company.

Inquiries

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Tel: 81-3-6838-5560   Fax: 0120-145579
Inquiry Form   ⌨ https://www.ntt.co.jp/csr_e/contact/index.html

Message from the President

We are working as one to fulfill our corporate social responsibility and contribute to the sustainable growth of society as a "Value Partner."

September 2016

Hiroo Unoura

President and Chief Executive Officer,
Representative Member of the Board

Revising the NTT Group CSR Charter

Around the world, there are increasingly active developments regarding the realization of a sustainable society, such as the UN General Assembly's adoption of sustainable development goals (SDGs) in September 2015. To date, the NTT Group has contributed to the resolution of social issues through the use of ICT, and I believe that this role will be ever more important for NTT in the future. Meanwhile, the NTT Group has been expanding and shifting the domains of its business activities toward global businesses and B2B2X, and to address these changes we revised part of the NTT Group CSR Charter in May 2016. We will continue to do our utmost to contribute to the creation of a prosperous and sustainable society with vibrant communication by upholding the NTT Group CSR Charter as our basic guidelines. As a "Value Partner" for customers, we will work to further expand B2B2X businesses and collaboration. In this way, we will strive to contribute to the resolution of social issues and to increase corporate value.

From "Competition" to "Collaboration"

In the past, telecommunications operators provided infrastructure and services in a single package. Currently, a diverse range of players are providing services that utilize telecommunications, including over-the-top (OTT) enterprises that provide SNS and other upper-layer services. The market is reaching the point at which telecommunications operators can no longer provide all services on their own. In response to these changes in the market environment, the NTT Group has targeted sustained growth by changing its business model from "competition" to "collaboration." On that basis, we are taking on the challenge of opening up new markets and creating new services.

In advancing collaboration, the Tokyo 2020 Olympic and Paralympic Games* will present business opportunities in a range of areas in the sports business field. Such opportunities will include the so-called smartification of stadiums, video services that provide new forms of entertainment, e-commerce offered in cooperation with local regions, and Big Data analysis and strategy formulation that leverage the Internet of Things (IoT). Overseas, these businesses have already started to expand markets, and we believe that the time is right to expand these businesses in Japan as well. We have already

* NTT, NTT East, NTT West, NTT Communications, and NTT DOCOMO are Gold Partners (telecommunications services) for the Tokyo 2020 Olympic and Paralympic Games.

begun the smartification of the NACK5 Stadium Omiya, the home stadium of the Omiya Ardija in the J1 League. In accordance with a basic agreement with the J.League concluded in July 2016, we will support the J.League's smartification initiatives at all stadiums in Japan.

In addition, I believe that the NTT Group can also make a significant contribution to the vitalization of local economies initiatives that are being aggressively advanced by the Japanese government. Our focus on these initiatives will create business models that will resolve social issues for the next generation. Municipalities face a range of problems, such as declining and aging populations, sluggish regional economies, and deteriorating infrastructure. Targeting the resolution of these social problems, NTT has concluded comprehensive partnership agreements with Fukuoka City and Sapporo City. We are considering ways to achieve the vitalization of local economies by utilizing the NTT Group's resources and knowledge in such areas as telecommunications and information systems and regional development. These initiatives will extend to such fields as tourism, disaster damage prevention, and transportation.

In this way, we will work with municipalities and partners in a range of industries to build new business models and create high-value-added services that will revitalize the Japanese economy. Our domestic business results are posting a favorable recovery, and our global business is also recording steady expansion. I believe that now is the time for the NTT Group to take decisive steps targeting sustained growth.

Realizing Sustained Growth through the Resolution of Social Issues

In regard to the vitalization of local economies initiatives discussed above, I will discuss in more detail the types of social issues that the NTT Group will strive to resolve and the businesses that the Group will develop. In particular, to achieve the vitalization of local economies, I believe that it will be necessary to advance the utilization of Japanese-style IoT, Big Data, and AI in a way that shares data throughout society. This undertaking will involve the use of Big Data from IoT initiatives to collect information from a variety of fields, such as transportation, medical services, the environment, agriculture, manufacturing, and education. This data will be used as a public resource to resolve a range of social issues. For example, by combining transportation and medical services data, it will be possible to shorten the time required to convey patients in emergency situations. Also, by combining environmental (energy) and manufacturing data, it might be possible to control electricity consumption during peak periods. In Europe and the United States, progress is being made with initiatives utilizing IoT and Big Data, known as Industry 4.0 and the Industrial Internet. Under these European and U.S. style initiatives, the Big Data is kept within companies or industries. However, in Japan, if Big Data is used by society as a whole, it will be possible to fully leverage the potential of Big Data and to link it to the development of regional-style businesses.

Governance that Supports Sustained Gains in Corporate Value

I believe that the effective functioning of corporate governance is indispensable for sustained gains in corporate value. Accordingly, NTT is working to bolster the effective functioning of corporate governance based on its fundamental policies of ensuring sound management, conducting appropriate decision-making and business activities, clarifying accountability, and maintaining thorough compliance. I will introduce initiatives that we have implemented to address several points.

From the perspective of securing sound management, in order to strengthen functions for appropriately supervising business execution, NTT has appointed two outside independent Members of the Board and established the Audit & Supervisory Board, of which outside independent Audit & Supervisory Board Members make up a majority. In addition, in 2005 NTT voluntarily established the Appointment and Compensation Committee, which consists of two outside independent Members of the Board and two internal Members of the Board, to further increase the objectivity and transparency

of decisions relating to appointment and compensation of corporate officers. Moreover, outside independent Members of the Board, Representative Members of the Board, and Audit & Supervisory Board Members meet to exchange opinions. At these meetings, discussions on a wide range of themes are held to enhance the functioning of corporate governance, such as the effectiveness of the Board of Directors and the state of Group management.

The Company believes that accountability is one of its important responsibilities. To date, NTT has implemented management with an emphasis on communication with the markets. I strive to meet with investors as often as possible, and we held NTT IR Day with the participation of Members of the Board as well as top executives from the operating companies. In these ways, executives are proactively exchanging opinions with investors and working to deepen investors' understanding. In addition, we strive to reflect the opinions of investors in our management.

Furthermore, a rigorous approach to compliance is also indispensable in achieving sustained gains in corporate value. The NTT Group recognizes that its most important mission is to conduct business in compliance with laws and regulations and in accordance with high ethical standards. Accordingly, I continually ask the presidents of Group companies to take a rigorous approach to compliance, and the presidents of Group companies work to promote compliance within their own organizations. The NTT Group Corporate Ethics Charter sets forth conduct guidelines for all corporate officers and employees. By implementing Groupwide initiatives to strengthen compliance, we are creating a work environment in which there is zero tolerance f or wrongdoing.

Look Forward to Sustained Increases in Corporate Value for the NTT Group

ICT continues to advance on a daily basis. The Internet has changed people's lifestyles, and cloud services have substantially increased companies' productivity. In the same way, IoT, Big Data, and AI technologies will likely foster further significant changes around the world. The NTT Group is aware of its role as an enterprise with responsibility for ICT, and we will work to create new businesses and services and to achieve sustained gains in corporate value through collaboration with a variety of partners around the world as the "Value Partner" that customers continue to select.

I would like to ask for your ongoing support of the NTT Group in the years ahead.

NTT Group in Brief

Basic Information

(As of March 31, 2016)

NTT Group

Total Assets:	¥21,035.9 billion
Consolidated Operating Revenue:	¥11,541.0 billion
Consolidated Operating Income:	¥1,348.1 billion
Number of Employees:	241,448
Consolidated Subsidiaries:	907

NTT — Nippon Telegraph and Telephone Corporation (Holding Company)

Total Assets:	¥7,052.1 billion
Operating Revenues:	¥521.7 billion
Operating Income:	¥384.0 billion
Number of Employees:	2,763
Main Businesses:	For the NTT Group as a whole, formulation of management strategies and promotion of basic research

	Regional Communications Business	Long Distance and International Communications Business	Mobile Communications Business	Data Communications Business	Other Businesses
	Regional telecommunications operations in Japan and related businesses	Long-distance telecommunications operations in Japan, international telecommunications operations, solutions business, related businesses, etc.	Mobile phone business in Japan and overseas, related businesses, etc.	Systems integration, network system services, etc., in Japan and overseas	Real estate, finance, construction/ electric power, system development, advanced technology development, etc.
	NTT EAST / NTT WEST	NTT Communications / dimension data	docomo	NTT DaTa	NTT FACILITIES / NTT COMWARE / NTT UD
Operating Revenues	¥3,407.9 billion	¥2,250.9 billion	¥4,527.1 billion	¥1,616.8 billion	¥1,294.5 billion
Operating Income	¥265.0 billion	¥96.7 billion	¥788.4 billion	¥112.7 billion	¥74.0 billion
Capital Investment	¥622.1 billion	¥227.6 billion	¥595.2 billion	¥134.0 billion	¥108.3 billion
R&D Expenses*	¥93.7 billion	¥16.0 billion	¥83.3 billion	¥12.4 billion	¥110.0 billion
Number of Employees	66,214	43,758	26,129	80,526	24,821
Consolidated Subsidiaries	52	383	125	258	89
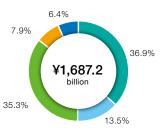
* Intersegment transactions: ¥106.5 billion

▶ **Composition of Operating Revenues**

Percentage of simple sum of all segments (including intersegment transactions)

¥11,541.0 billion

- 26.0%
- 17.2%
- 34.6%
- 12.3%
- 9.9%

▶ **Composition of Operating Income**

Percentage of simple sum of all segments (including intersegment transactions)

¥1,348.1 billion

- 19.8%
- 7.2%
- 59.0%
- 8.4%
- 5.6%

▶ **Composition of Capital Investment**

¥1,687.2 billion

- 36.9%
- 13.5%
- 35.3%
- 7.9%
- 6.4%

■ Regional Communications Business   ■ Long Distance and International Communications Business   ■ Mobile Communications Business
■ Data Communications Business   ■ Other Businesses

▶ Status of Employees

❶ NTT Group

Name of segment	Number of employees*					
	2013		2014		2015	
Regional Communications Business	75,838	(66,273)	71,222	(66,471)	66,214	(64,745)
Long Distance and International Communications Business	38,069	(8,305)	42,234	(9,669)	43,758	(10,185)
Mobile Communications Business	24,860	(11,256)	25,680	(11,450)	26,129	(11,511)
Data Communications Business	75,020	(3,652)	76,642	(3,631)	80,526	(3,188)
Other Businesses	25,969	(10,969)	25,815	(10,427)	24,821	(10,226)
Total	239,756	(100,455)	241,593	(101,648)	241,448	(99,855)

* The number of employees signifies the number of staff employed as of the final day of each consolidated fiscal year, which ends on March 31.
The number of temporary employees, shown in parenthesis, signifies the average number of temporary staff for each consolidated fiscal year and is excluded from the other figures.

❷ NTT

Number of employees*	Average age of employees	Average length of service (years)	Average annual salary (yen)
2,763(58)	41.0	16.7	8,887,342

* The number of temporary employees, shown in parenthesis, signifies the annual average number of temporary staff and is excluded from the other figures.

▶ List of Memberships

- Keidanren (Japan Business Federation, general incorporated association; vice chair)
- Telecommunications Carriers Association (incorporated association; director)
- Association of Radio Industries and Businesses (general incorporated association; director)
- Telecommunication Technology Committee (incorporated association; vice chairman)
- Tokyo Employers' Association (chairman)
- ITU Association of Japan (general incorporated association; council member)
- ICT Ecology Guideline Council

▶ Major M&A During the Past Year

● e-shelter (Germany)
June 2015
E-shelter, the largest data center operator in Germany, became a subsidiary.

● PT. Cyber CSF (Indonesia)
October 2015
PT. Cyber CSF, one of the largest data center operators in Indonesia, became a subsidiary.

● Carlisle & Gallagher Consulting Group, Inc. (U.S.A)
July 2015
Carlisle & Gallagher Consulting Group, Inc., a financial IT consulting company, became a subsidiary.

● Dell Services (U.S.A)
March 2016
The NTT DATA Group reached agreement with Dell Inc. on making Dell Systems Corporation a subsidiary and on the acquisition of IT-services-related operations.

Evaluations by Outside Parties

● **Dow Jones Sustainability Index (DJSI)**

The DJSI is an index jointly developed by Dow Jones of the U.S. and RobecoSAM of Switzerland to evaluate the sustainability of companies from the three aspects of economy, environment and society. NTT has been selected for three consecutive years, as of September 2016, to the DJSI Asia Pacific, which covers companies in the Asia-Pacific region.

● **MSCI Global Sustainability Indexes**

A globally renowned SRI (Socially Responsible Investment) index generated MSCI Inc. of the U.S. NTT has been continuously selected to these indexes since June 2015.

● **FTSE4Good Index Series**

The FTSE4Good Index is a globally recognized ESG index created by FTSE Russell (U.K.), a wholly owned subsidiary of the London Stock Exchange Group. NTT was selected to the index as of June 2016.

● **MS-SRI**

MS-SRI is a socially responsible investment stock index of 150 companies selected from about 4,000 listed Japanese companies by Morningstar based on their social quality. NTT has been selected for three consecutive years as of January 2016.

● **Environmental Communication Grand Awards**

NTT received an award for excellence (Chief Juror Award) in the environmental reporting category at the 19th Environmental Communication Awards, which are jointly sponsored by Japan's Ministry of the Environment and the Global Environmental Forum. NTT was recognized for its NTT Annual Report 2015 and NTT Group Sustainability Report 2015.

MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

MSCI 2016 Constituent MSCI Global Sustainability Indexes

THE INCLUSION OF NTT Corp IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HERIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF NTT Corp BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

FTSE4Good

NTT is a member of the FTSE4Good Index, an equity index series that is designed to facilitate investment in companies that meet globally recognized corporate responsibility standards.

MS-SRI

NTT Group CSR

NTT Group CSR Charter

NTT Group CSR

NTT Group CSR Charter

The NTT Group has been working to achieve sustained growth through the resolution of social issues by referring to the NTT Group CSR Charter as its basic principles. The charter consists of a statement of our commitment to corporate social responsibility, and the four CSR goals that outline specific priority aspects of our CSR activities.

In May 2016, we reviewed the NTT Group's CSR Priority Activities, which represent the material issues pursued by Group companies, in a united effort to promote CSR and revised the NTT Group CSR Charter.

NTT Group CSR Charter

Our Commitment

The NTT Group delivers the highest quality ICT solutions as a "Value Partner" for customers and contributes to the creation of a prosperous and sustainable society with vibrant communication.

Our CSR Goals

Enrich Social Communication

Our innovative ICT expertise enhances societal connectivity and convenience while providing a communications environment for addressing local and international challenges to sustainable community development.

Protect the Global Environment

We reduce environmental impact throughout our business, apply ICT to alleviate the environmental load of society, and actively engage in resolving worldwide environmental issues.

Ensure Reliable Communications

We address social and ethical concerns as an infrastructure enterprise that supports society while protecting livelihoods by securing online information in a robust communications environment that can withstand natural disasters and cyber-attacks.

Unite the Energies of Team NTT

Team NTT and its partners maintain the highest ethical standards and respect for human rights in business; value diversity and personal growth in the workplace; and contribute to building vibrant local communities.

NTT Group CSR Charter 　 http://www.ntt.co.jp/csr_e/groupcsr/csr_policy.html

NTT Group CSR

NTT Group CSR Charter

Interview with NTT CSR Committee Chairperson

CSR in the NTT Group

Jun Sawada

Representative Member of the Board and Senior Executive Vice President,
CSR Committee Chairperson

Q **The NTT Group CSR Charter was revised in May 2016.**
What is the background and purpose of the revision?

A The NTT Group CSR Charter established in 2006 had served as the basic guidelines for the NTT Group's efforts to achieve sustainable growth by addressing social issues.

We have recently observed heightened international interest in ESG (environmental, social and governance), as evidenced by the setting of the sustainable development goals (SDGs) and adoption of the Paris Agreement at COP21, while shareholders, investors and other stakeholders have called on companies to more closely align their management and CSR strategies. Against this background, the NTT Group has been seeking to significantly redirect its focus toward global businesses centered on ICT services and the B2B2X model. The previous NTT Group CSR Charter, however, was premised on telecommunications in Japan, and parts of it were expressed without the entire value chain in mind.

For this reason, we reviewed the NTT Group's global business activities, including the value chain, along with worldwide social trends to reset our CSR Priority Activities as a Group and revise the CSR Charter. We also established the CSR Quantitative Indicators, linked to our management agenda, in order to deepen our commitment to achieving them.

From now on, the revised NTT Group CSR Charter will serve as our basic guidelines as we engage in a united Group effort to become a Value Partner for all stakeholders and make an even greater contribution to achieving sustainable growth for society at large.

Q **What are the NTT Group's initiatives for promoting CSR?**

A In fiscal 2016, we established the NTT Group CSR Committee, comprising the chief CSR officers of each NTT Group company, to deliberate on the NTT Group's management agenda in conjunction with the principles of the CSR Charter.

We have also been convening NTT Group CSR Conferences since fiscal 2014. NTT Group companies contribute to addressing social issues through their ICT services and business activities. By sharing these experiences as exemplary CSR initiatives, we have been raising employee awareness that our daily business operations are inseparable from our CSR. In fiscal 2016, the conference was joined by Dimension Data, based in South Africa, as well as Netmagic Solutions and NTT Data Global Delivery Services, which are based in India. There is a real sense that our CSR initiatives are progressing as a united Group effort across the globe.

Q **As senior executive vice president, you are frequently engaging in dialog with institutional investors. What do you think about the recent trend toward evaluating companies based on ESG?**

A Considering social issues and the NTT Group's business activities, I believe that we are required to adopt a perspective even more focused on mid- to long-term results and that we are being evaluated on the basis of how the NTT Group will harness its capital to consistently deliver value. We must uphold the newly revised NTT Group CSR Charter to more clearly express to our stakeholders the NTT Group's approach and initiatives in a timely manner. To this end, we changed the title of our CSR report, which we have been publishing since 2006, to the "Sustainability Report" and arranged its content to strongly emphasize for shareholders, investors and other stakeholders the disclosure of information related to NTT Group sustainability. We are making our best effort to provide timely information through our website, among other means, and are actively engaging in dialog with our stakeholders.

As a result, ESG assessment institutions have been favorably impressed, leading to the company being selected to the Asia-Pacific component of the Dow Jones Sustainability Index for three consecutive years as well as being selected for the FTSE4Good Index.

Q **Finally, can you share your commitment to future initiatives as the chairperson of the CSR Committee?**

A Myriad issues face Japan and the world at large as we advance toward 2020 and beyond, and I feel that the NTT Group is viewed with great expectations as a global enterprise pursuing ICT businesses that can offer solutions. As a Value Partner, the NTT Group will seek to strengthen collaborations with stakeholders in order to further contribute to addressing social issues.

NTT Group CSR

NTT Group Materiality

NTT Group Materiality

In revising our CSR Charter and reviewing the CSR Priority Activities, we took the following steps based on the principles and processes of the GRI G4 Sustainability Reporting Guidelines.

3 STEPS *for Materiality*

STEP *3*
Confirm Validity

The validity of the CSR Priority Activities was confirmed by the Group CSR Committee and CSR Committees.

STEP *2*
Assign Priorities

We assigned priorities to the CSR Issues identified in Step 1 based on the two axes of "relevance to stakeholders" and "relevance to the NTT Group" to identify the 18 NTT Group CSR Priority Activities representing the materiality that drives our CSR efforts.

STEP *1*
Identify CSR Issues
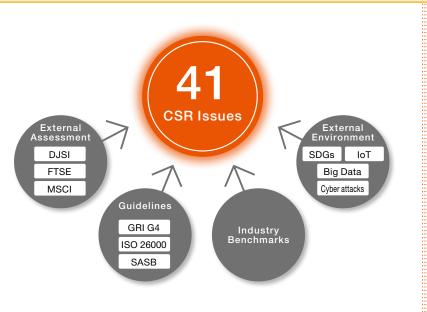
We identified 41 CSR Issues based on due consideration of GRI and other guidelines, external assessment of ESG aspects and new social requirements such as the SDGs.

Materiality

STEP *1*   Identify CSR Issues

We identified 41 CSR Issues based on extensive consideration of various guidelines, including the GRI G4 and ISO 26000 (social responsibility) guidelines, external ESG assessments, such as the Dow Jones Sustainability Index (DJSI), as well as new issues related to sustainability, such as the SDGs.

41 CSR Issues

External Assessment
- DJSI
- FTSE
- MSCI

Guidelines
- GRI G4
- ISO 26000
- SASB

Industry Benchmarks

External Environment
- SDGs
- IoT
- Big Data
- Cyber attacks

NTT Group CSR

| NTTグループのCSR | NTT？ NTT Group Materiality | マネジメント | ステークホルダー・エンゲージメント |

STEP 2 Assign Priorities
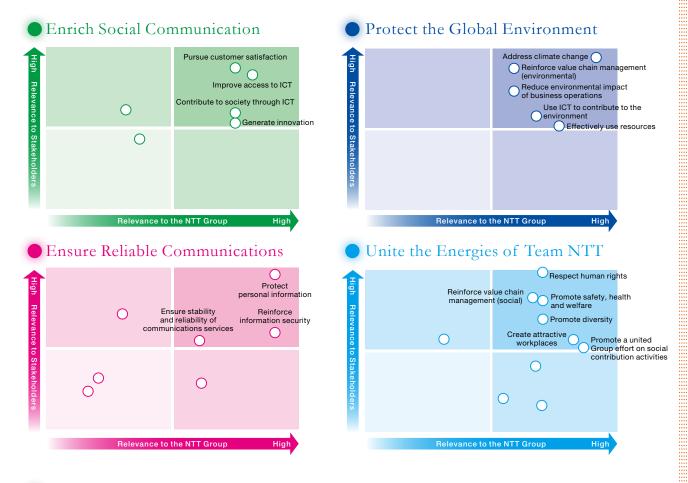
The 41 CSR Issues identified in Step 1 were categorized under the four CSR Goals of the NTT Group CSR Charter and their underlying foundations. The four CSR Goals were evaluated along the two axes of "relevance to stakeholders" and "relevance to the NTT Group," and the results were mapped on the matrix to identify the NTT Group CSR Priority Activities.

In assessing priorities, we sought to reflect the expectations of a broad range of stakeholders by also taking into account the results of the NTT Group employee satisfaction survey and feedback from customers.

Activities categorized as the underlying foundations of the four CSR Goals have been positioned as activities requiring steadfast effort.

Enrich Social Communication

High — Relevance to Stakeholders

- Pursue customer satisfaction
- Improve access to ICT
- Contribute to society through ICT
- Generate innovation

Relevance to the NTT Group — High

Protect the Global Environment

High — Relevance to Stakeholders

- Address climate change
- Reinforce value chain management (environmental)
- Reduce environmental impact of business operations
- Use ICT to contribute to the environment
- Effectively use resources

Relevance to the NTT Group — High

Ensure Reliable Communications

High — Relevance to Stakeholders

- Protect personal information
- Ensure stability and reliability of communications services
- Reinforce information security

Relevance to the NTT Group — High

Unite the Energies of Team NTT

High — Relevance to Stakeholders

- Respect human rights
- Reinforce value chain management (social)
- Promote safety, health and welfare
- Promote diversity
- Create attractive workplaces
- Promote a united Group effort on social contribution activities

Relevance to the NTT Group — High

Underlying Foundation of the Four Communication Activities

- Reinforce corporate governance
- Ensure diversity of directors
- Appropriateness and transparency of directors' compensation
- Establish sustainability governance
- Efforts to encourage long-term ownership of shares

- Risk Management
- Formulate and comply with compliance guidelines
- Brand management
- Manage intellectual property
- Determine materiality and manage PDCA cycle

- Enhance reliability and disclosure of ESG data
- Control negative incidents and disclose information
- Engage with stakeholders
- Participate in various initiatives

STEP 3 Confirm Validity — Validation and Determination of New CSR Priority Activities

The identified CSR Priority Activities were examined by the Group CSR Committee attended by the CSR Committee Chairpersons of eight major NTT Group companies and the CSR Committee chaired by the representative director and senior executive vice president and comprised of heads of each department and office. The committees confirmed the validity of the CSR Priority Activities based on how well they reflected the expectations of stakeholders and whether they covered all the issues that are of importance to the NTT Group. Consequently, the following 18 items were determined as new CSR Priority Activities.

Enrich Social Communication

CSR Priority Activities
- Contribute to society through ICT
- Improve access to ICT
- Pursue customer satisfaction
- Generate innovation

Protect the Global Environment

CSR Priority Activities
- Use ICT to contribute to the environment
- Reinforce value chain management (environmental)
- Address climate change
- Reduce environmental impact of business operations
- Effectively use resources

Ensure Reliable Communications

CSR Priority Activities
- Protect personal information
- Reinforce information security
- Ensure stability and reliability of communications services

Unite the Energies of Team NTT

CSR Priority Activities
- Promote diversity
- Respect human rights
- Reinforce value chain management (social)
- Promote safety, health and welfare
- Create attractive workplaces
- Promote a united Group effort on social contribution activities

NTT Group CSR

NTTグループのCSR | NTTグ NTT Group Materiality | マネジメント | ステークホルダー・エンゲージメント

● Goals and Achievements of the New CSR Priority Activities

To coincide with the latest review of our CSR Charter and CSR Priority Activities, we revised our CSR Quantitative Indicators and relevant numerical targets that serve as indicators for managing the NTT Group's PDCA cycle for CSR activities.
Guided by the new CSR Quantitative Indicators, we will continue to engage in PDCA management of our CSR.

Enrich Social Communication

New CSR Priority Activities	Medium-term Targets	CSR Quantitative Indicators (KPIs)	Relevant Pages
Contribute to society through ICT	Accelerate the B2B2X Business Model by taking opportunities to use "2020" and "Regional Vitalization"	Acceleration of the B2B2X Business Model	P. 008
Improve access to ICT	Enhance the system to provide diverse ICT services centered around the "Global Cloud Service" for the entire world Provide ICT services available for a broad range of customers, including the elderly and persons with disabilities	Sales of global services: 22.0 billion dollars (by FY2018)	P. 034
		Global footprint: Expand	
		Percentage of the access network converted to fiber optics: NTT East: 95%, NTT West: 93%	
		Percentage of the population covered by LTE: Expand	
		Number of UD-capable products and services provided: Expand	
Pursue customer satisfaction	Provide high value-added products and services and fine-tuned support	Customer satisfaction survey: Better than in the previous fiscal year	P. 038
		Number of improvements made based on suggestions from customers: More than in the previous fiscal year	
		Response rate and number of response hours at our call centers: Better than in the previous fiscal year	
		Improve facility utilization efficiency: Reduce cost by at least 200 billion yen (by FY2018)	
		Establish highly efficient business operations: Reduce cost by at least 800 billion yen (by FY2018)	
Generate innovation	In order to maintain our research and development as an important growth driver of the NTT Group for the future, promote advanced R&D that will lead the world's information communications technologies	Number of patent applications	P. 043
		Number of academic papers published outside the company	
		Person-days of participation in international standardization meetings	

Protect the Global Environment

New CSR Priority Activities	Medium-term Targets	CSR Quantitative Indicators (KPIs)	Relevant Pages
Use ICT to contribute to the environment Reinforce value chain management Address climate change	While reducing CO_2 emissions of the Company, contribute to the reduction of CO_2 emissions of all society, including value chains, through the utilization of ICT	**Amount of contribution to the reduction of CO_2 emissions of all society: At least 10 times of the Company's emissions (by FY2030)**	Data compiled from FY2017
Reduce the environmental impact of business operations	Improve electrical efficiency to reduce the environmental impact of business operations	**Electrical efficiency of the communications services: At least 10 times higher than in FY2013 (by FY2030)**	
Effectively use resources	Control the final disposal ratio of waste and work toward the effective use of resources	**Final disposal ratio of waste: Zero emissions (under 1%) (by FY2030)**	

Ensure Reliable Communication

New CSR Priority Activities	Medium-term Targets	CSR Quantitative Indicators (KPIs)	Relevant Pages
Protect personal information	Prevent leaks of personal information	**Number of incidents of personal information leaks: 0**	P. 087
Reinforce information security	Train security experts	**Number of security experts: 10,000 (by FY2020)**	P. 091
Ensure stability and reliability of communications services	Provide stable communications services free of major communications problems	**Stable service provision rate: 99.99%** **Number of major accidents: 0**	P. 096

Unite the Energies of Team NTT

New CSR Priority Activity	Medium-term Targets	CSR Quantitative Indicators (KPIs)	Relevant Pages
Promote diversity	Aggressively promote the active participation of women	**Ratio of female managers: 6.0% (by FY2020)**	P. 104
Respect human rights	Conduct business activities with respect for human rights at all business locations by introducing the United Nations Guiding Principles on Business and Human Rights (Ruggie Framework) and other international principles	**Number of confirmed human rights violations: 0** **Percentage of participation in training concerning human rights: More than in the previous fiscal year**	P. 110
Reinforce value chain management	Appropriate management of environmental and social risks, including value chains	**Number of confirmed high-risk suppliers: 0**	P. 114
Promote safety, health and welfare	Enhance safety measures and the safety mindset of employees in order to prevent accidents causing injury or death and industrial accidents	**Number of accidents causing injury or death during construction work: 0** **Number of industrial accidents: 0**	P. 117
Create attractive workplaces	Provide workplaces where employees can work with good spirits	**Employee satisfaction: Better than in the previous fiscal year**	P. 121
Promote a united Group effort on social contribution activities	Employees actively participate in volunteer activities	**Percentage of employees participating in volunteer activities: 80% (by FY2020)**	P. 129

NTT Group CSR

Targets and results for CSR Priority Activities up to fiscal 2016

In fiscal 2010, the Group companies formulated CSR action plans for each of the eight CSR Priority Activities to link these with the companies' respective businesses and raise CSR activities across the Group to a higher level. In fiscal 2012, we started setting common Group-wide quantitative indicators and completed the establishment of quantitative indicators for all eight CSR Priority Activities in fiscal 2013. In addition, we have been promoting CSR activities across the Group.

In fiscal 2017, we will begin taking action with the new quantitative CSR indicators. However, the goals we have pursued up to fiscal 2016 remain important, and we will continue to engage in activities toward achieving them.

Enrich Social Communication

CSR Priority Activities	Quantitative Indicators	Results		
		FY2014	FY2015	FY2016
Helping to build a sustainable society through providing value to customers	Number of new products and services qualifying as contributing to sustainable society: Understanding of the actual number of products and services	271	248	159

Protect the Global Environment

CSR Priority Activities	Quantitative Indicators	Results		
		FY2014	FY2015	FY2016
Creating a low carbon society	CO_2 emissions: 3.42 million tons[1]	4.852 million tons	5.07 million tons	4.87 million tons
Implementing closed loop recycling	Final disposal rate for all waste materials: 2%[1]	1.15%	0.88%	0.82%
	Total paper consumption: 58,000 tons[1]	60,000 tons	50,000 tons	45,000 tons
Conserving biodiversity	Common qualitative initiatives for ecosystem preservation and forest improvement activities	—	—	—

Ensure Reliable Communication

CSR Priority Activities	Quantitative Indicators	Results		
		FY2014	FY2015	FY2016
Ensuring information Security	Number of employees receiving information security training[2]	300,000	342,000	—
	Number of security personnel: 10,000[3]	—	—	Approx. 20,000
Ensuring stable and reliable services as critical infrastructure	Service stability: 99.99%	99.90%	99.99%	100%
	Number of major accidents: 0	4	1	0

Unite the Energies of Team NTT

CSR Priority Activities	Quantitative Indicators	Results		
		FY2014	FY2015	FY2016
Promoting respect for diversity and equal opportunity	Ratio of women in managerial positions: 6%[1]	3.30%	3.60%	4.0%
Implementing citizenship activities	Number of local community cleanup participants: 120,000	123,000	126,000	129,000
	Number of PET bottle caps collected (Ecocap Movement): 30 million	29.00 million	29.95 million	14.58 million

[1] Target up to fiscal 2021   [2] Target up to fiscal 2015   [3] Target from fiscal 2016

NTT Group CSR

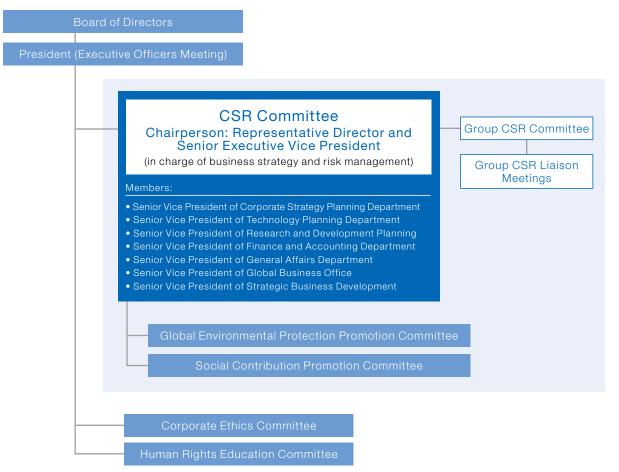NTTグループのCSR　　NTTグループの重要課題　　CSR　CSR Management　　ダー・エンゲージメント
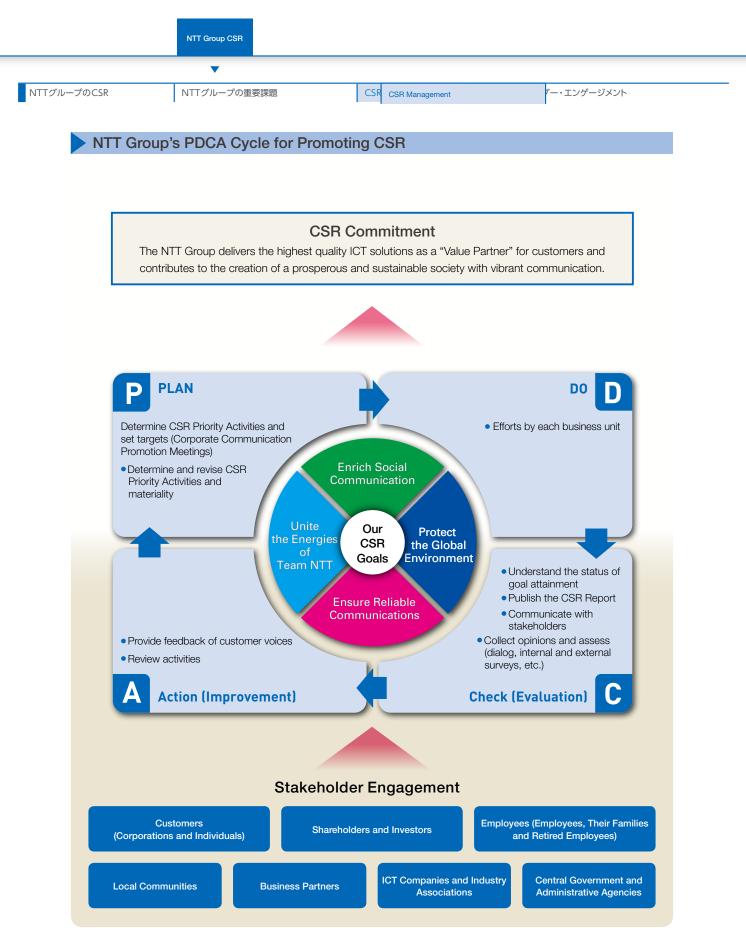
CSR Management

CSR Management System

In June 2005, NTT established the CSR Committee to ensure the sustained and appropriate implementation of CSR management, including economic, environmental and social themes. The committee is chaired by the representative director and senior executive vice president and meets at least once a year to formulate the Group's basic CSR strategy, common initiatives and measures, as well as to determine the content of information disclosure, such as the Basic CSR Strategy Report. In addition, two internal committees were established: the Global Environmental Protection Promotion Committee and Social Contribution Promotion Committee. In this way, the NTT Group is advancing CSR in a systematic, ongoing manner.

In fiscal 2016, we sought to advance our Group CSR management by establishing the Group CSR Committee, chaired by the chairperson of NTT's CSR Committee (representative director and senior executive vice president) and comprising chief CSR officers (senior executive vice presidents and the executive vice president) of the eight major NTT companies. In addition, CSR promotion officers at each company hold Group CSR Liaison Meetings on a regular basis to share common challenges and successful examples from each Group company and to monitor progress on the implementation of our CSR Priority Activities with respect to PDCA cycles and further promote a sense of unity across the Group.

▶ NTT Group CSR Organization

Board of Directors

President (Executive Officers Meeting)

CSR Committee
Chairperson: Representative Director and Senior Executive Vice President
(in charge of business strategy and risk management)

Members:
- Senior Vice President of Corporate Strategy Planning Department
- Senior Vice President of Technology Planning Department
- Senior Vice President of Research and Development Planning
- Senior Vice President of Finance and Accounting Department
- Senior Vice President of General Affairs Department
- Senior Vice President of Global Business Office
- Senior Vice President of Strategic Business Development

Group CSR Committee

Group CSR Liaison Meetings

Global Environmental Protection Promotion Committee

Social Contribution Promotion Committee

Corporate Ethics Committee

Human Rights Education Committee

NTT Group CSR

| NTTグループのCSR | NTTグループの重要課題 | CSR CSR Management | ダー・エンゲージメント |

▶ NTT Group's PDCA Cycle for Promoting CSR

CSR Commitment

The NTT Group delivers the highest quality ICT solutions as a "Value Partner" for customers and contributes to the creation of a prosperous and sustainable society with vibrant communication.

P PLAN

Determine CSR Priority Activities and set targets (Corporate Communication Promotion Meetings)

- Determine and revise CSR Priority Activities and materiality

DO D

- Efforts by each business unit

Enrich Social Communication

Unite the Energies of Team NTT

Our CSR Goals

Protect the Global Environment

Ensure Reliable Communications

- Understand the status of goal attainment
- Publish the CSR Report
- Communicate with stakeholders
- Collect opinions and assess (dialog, internal and external surveys, etc.)

- Provide feedback of customer voices
- Review activities

A Action (Improvement)

Check (Evaluation) C

Stakeholder Engagement

| Customers (Corporations and Individuals) | Shareholders and Investors | Employees (Employees, Their Families and Retired Employees) |

| Local Communities | Business Partners | ICT Companies and Industry Associations | Central Government and Administrative Agencies |

▶ NTT Group CSR Conferences

We have been convening the NTT Group CSR Conference since fiscal 2014 to raise employee awareness of CSR and encouraging them to think about the future of CSR and social contribution by sharing superior CSR initiatives across the Group. The third conference was held in February 2016 at two separate sites.

The Presentation of Superior CSR Initiatives was held as usual at the main site, where 9 initiatives selected out of 60 entries were shared by Group companies in Japan and abroad. Subsequently, during the Presentations on the Social Contribution Ideas, which have been continued since fiscal 2015, 4 out of the 315 ideas submitted by employees from throughout the Group gave their presentations and were recognized with awards. Furthermore, special lectures were provided by Netmagic Solutions and NTT DATA Global Delivery Services, two overseas Group companies based in India. We thereby shared superior CSR initiatives across the Group, both inside and outside Japan. We also invited Nestlé Japan Ltd. to present a talk on "Creating Shared Value" as an opportunity for learning from the insights of a company leading the way in CSR.

Scene at the conference site

Workshops related to diversity were organized at the second site under the themes of "LGBT and sexual minorities" and "persons with disabilities" in an effort to deepen understanding of these communities (for more information, please see page 105). We welcomed many visitors to the site, which included a number of exhibition areas and included displays of human rights slogans and posters submitted by each Group company, an introduction to the sales of fair trade products in collaboration with NPOs and special-purpose subsidiaries associated with the Group, and an opportunity to experience blind soccer.

Overseas Group Companies of the video message

The conference was attended by 282 participants, including presenters of winning initiatives and ideas, CSR and environmental staff from Group companies, and employees interested in CSR. In the survey conducted after the conference, 99% of the respondents indicated that their understanding of CSR had "increased significantly" or "increased to a certain degree." Some participants commented that they had experienced a real sense that collaboration among Group companies could lead to new businesses and contributions to society, making the conference a highly significant event that raised employee CSR awareness.

We will continue to hold the conference over the coming years and work to improve measures aimed at participation by Group employees toward further enhancing CSR awareness.

Display of human rights slogan

Sales of fair trade products

NTT Group CSR

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▶ Presentation of Superior CSR Initiatives

Third NTT Group CSR Award	
A new text entry application for smartphones: "Move & Flick"	docomo
Runners-up in the Third NTT Group CSR Award	
Environmental protection associated with business activities (Hikari TV: "Bukatsu (Club Activities) DO!" and distribution of 4K contents)	NTT Plala Inc.
Popularization and reinforcement of disabled sports using donations through the telegram service	TelWel East Japan Corporation
Superior Initiatives	
Enhancing the accuracy of weather forecasts: data distribution business for the Himawari 8 weather satellite	NTT Communications
A demonstration experiment for an elderly support service using communication robots	NTT DATA
Eco-friendly initiatives at the Shinagawa Season Terrace	NTT UD
Reduction of waste loss through data management based on crop predictions	JSOL CORPORATION
Standardization project for cloud information systems used for disaster prevention	NTT Communications
"Connected Conservation"	dimension data

NTT Group CSR

| NTTグループのCSR | NTTグループの重要課題 | CSRマネジメント | ステークホルダ | Stakeholder Engagement |

Stakeholder Engagement

▶ The Fundamental Principle
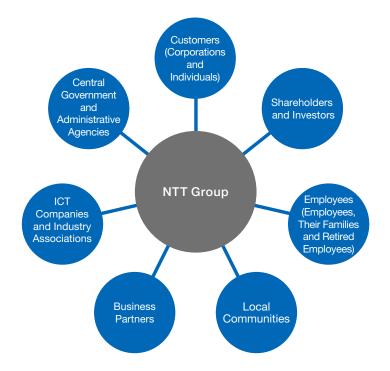
The NTT Group is guided by the NTT Group CSR Charter as it pursues its Group-wide goal of creating a safe, secure, and prosperous society that serves people, communities, and the global environment. Throughout this effort, we engage various stakeholders who are impacted by, or who impact, our business activities.

◾ Purpose of Stakeholder Engagement

The NTT Group is obliged to serve its stakeholders by managing its business activities and making decisions in an appropriate manner. This minimizes the negative impact and maximizes the positive impact. In doing so, we believe that engaging our stakeholders is important in order to understand their expectations toward the NTT Group and our responsibilities, and reflect these in our business activities. Through this engagement, the NTT Group aims to become a "Value Partner" that customers continue to select.

◾ Identifying Stakeholders

Our stakeholders are organizations or individuals who have an interest, in one way or another, in the business activities or decision making of the NTT Group. Major stakeholders of the NTT Group include customers (individuals and corporations), shareholders and investors, employees (employees, their families and retired employees), local communities, business partners, ICT companies and industry associations, central government and administrative agencies.

Engaging Stakeholders

Stakeholder engagement is the responsibility of various organizations and employees who are involved in the NTT Group's business activities around the world, beyond any specific organizations and their employees. Dialog is carried out by organizations and employees relevant to each stakeholder throughout their business activities, and so there are daily efforts being made to communicate. The NTT Group engages in a dialog with its stakeholders using a variety of methods according to the nature of the relationship.

In addition, we believe that engaging appropriately with relevant stakeholders can mitigate risks and increase business opportunities. The results of the dialogs are not only subject to reporting and supervision within each Group company and organization. Depending on their significance, they are also reported to various committees, including the CSR Committee and Corporate Ethics Committee, as well as the Board of Directors and other organizations, so that they are appropriately reflected in our decision making.

Prioritizing Stakeholders

We take particular care when engaging with stakeholders who are impacted by or who impact the NTT Group by a significant measure in terms of our business activity and the services and products we provide, as well as the social and environmental aspects of our activities.

Through engagement, we will strive to deepen our bond with stakeholders and continue to actively respond to expectations and issues, received as feedback, that are related to society and the NTT Group.

Major Stakeholders

The NTT Group consists of Nippon Telegraph and Telephone Corporation and its subsidiaries and affiliates, including 907 consolidated subsidiaries as of March 31, 2016. Its business lines include regional communications, long-distance and international communications, data communications and mobile communications. The NTT Group is committed to promoting CSR in a united Group effort.

Customers (Corporations and Individuals)

All customers, both corporate and individual, who use services provided by the NTT Group

NTT's Approach	Methods of Engagement (examples)	Why We Engage
As we strive to be chosen as a "Value Partner," each individual employee will strive for an even higher awareness of CSR to provide safe, secure services that are high in quality and convenient from the customer's standpoint.	● Customer information service ● Customer satisfaction surveys ● Website, social media ● Annual reports	The NTT Group endeavors to enhance customer satisfaction and become a "Value Partner" for our customers by understanding their needs and standpoints in order to provide higher quality services and products.

Shareholders and Investors

Individual and institutional investors including the shareholders and creditors of the NTT Group

NTT's Approach	Methods of Engagement (examples)	Why We Engage
We will return profits to shareholders while maintaining a sound financial standing and enhancing our corporate value. We will also endeavor to disclose information related to the Group in a timely, appropriate and fair manner.	● General Meeting of Shareholders, earnings reports ● Explanatory presentation for individual investors ● Explanatory presentation for institutional investors ● Annual reports	We endeavor to disclose information in a timely, appropriate and fair manner to return solid profits to shareholders while maintaining a sound financial standing and enhancing our corporate value.

Employees (Employees, Their Families and Retired Employees)

Employees who work at the NTT Group and retired employees who support the NTT Group's CSR ideals

NTT's Approach	Methods of Engagement (examples)	Why We Engage
We will pursue various employee initiatives to create safe and healthy workplaces in which everyone can realize their full potential and be rewarded in their work and daily lives. We will also value communication with retired employees.	● Employee satisfaction surveys ● Regular interviews ● Dialog between labor and management ● Corporate ethics helplines ● CSR Conference	We create safe and healthy workplaces for our employees and support their daily lives so that each individual employee can realize their full potential and carry out their work with a strong awareness of CSR.

Local Communities

People in local communities who are connected to us through the core businesses of NTT Group companies

NTT's Approach	Methods of Engagement (examples)	Why We Engage
We will advance alongside local communities by implementing social contributions and disaster countermeasures through our ICT business.	● Support and collaboration through social contribution activities ● Negotiations with local residents on construction work, system development and other activities ● Support through donations and sponsorships	We seek to contribute to the further development of a flourishing and vibrant community and to understand and identify the issues faced by local communities in order to implement social contributions and disaster countermeasures through our ICT business.

Business Partners

Business partners who offer their cooperation in various ways as the NTT Group provides its services

NTT's Approach	Methods of Engagement (examples)	Why We Engage
We will seek to work together to create and implement services that address a variety of social issues.	● Inquiry forms ● Disclosure of procurement policies and guidelines ● Questionnaires of suppliers ● Briefing for suppliers	By procuring products with due consideration to the environment and human rights, and by forging partnerships based on fairness, we will fulfill our social responsibilities as a company and achieve sustainable growth alongside our business partners.

ICT Companies and Industry Associations

Other ICT companies and people in industry associations who are striving to develop Japan's information and telecommunications

NTT's Approach	Methods of Engagement (examples)	Why We Engage
We will engage in discussions on the direction and initiatives for the information and telecommunications industry, not only in Japan but from a global perspective, and seek to address diverse social issues together.	● Participation in industry associations and related initiatives ● Participation in conferences	We will engage in discussions on the direction and initiatives for the information and telecommunications industry. By doing this, we will invigorate the entire industry and contribute to society by promoting development and progress in information and telecommunications.

Central Government and Administrative Agencies

Central and local governments that make policy decisions on information and telecommunications, employment and the economy, the environment, and other issues

NTT's Approach	Methods of Engagement (examples)	Why We Engage
We will fulfill our responsibility as an information and telecommunications company by adhering to the policies of the central government, administrative agencies and local governments.	● Response to laws and regulations ● Policy proposals ● Participation in joint projects between the government and private sector	We will respond to and comply with central and local government policies. Therefore, we will carry out business activities in an appropriate manner and contribute to resolving social issues faced by the Japanese people and local governments.

NTT Group CSR

▶ Results of Engagement in Fiscal 2016

The NTT Group has a mechanism for receiving inquiries and requests from various stakeholders including investors, shareholders and employees.
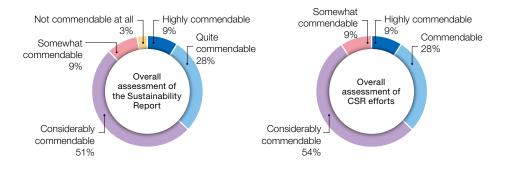
◾ Engagement with Shareholders and Investors

In response to requests from investors, we hold briefings for institutional investors called "NTT IR DAY." Over the past few years, we have also been holding briefings for individual investors to cultivate a better understanding of the NTT Group and increasing the number of individual shareholders. We held 20 of these briefings in fiscal 2016, as well as an online briefing on our company. The 31st annual General Shareholders Meeting was held in June, 2016 with 6,402 shareholders in attendance. We disclose major questions and resolutions from the General Shareholders Meeting by publishing them in the shareholders' newsletter NTTis.

Furthermore, we actively communicated with ESG rating institutions in fiscal 2016 and sought to enhance the NTT Group's CSR efforts and disclosure of ESG data. In March 2016, we invited RobecoSAM, a Swiss ESG rating institution, to our head office for a discussion on the CSR efforts of each NTT Group company and on enhancing the transparency of information disclosure through publications such as the Sustainability Report. The NTT Group will continue to maintain regular communication with ESG rating institutions and investors promoting ESG investment.

◾ Opinions and Reflections from Readers of the Sustainability Report

NTT welcomes opinions and reflections on the Sustainability Report and the CSR efforts of the NTT Group from various stakeholders through an inquiry form on our website and reader surveys. In fiscal 2016, we conducted a reader survey between October and December 2015 and received 353 responses. The results of the survey are shown below. For our CSR management, we utilize the opinions we receive from stakeholders by incorporating them to improve the Sustainability Report and to determine our Priority CSR Activities for the following fiscal year.

▶ Results of the Fiscal 2016 Survey

Not commendable at all 3%
Somewhat commendable 9%
Highly commendable 9%
Quite commendable 28%
Considerably commendable 51%

Overall assessment of the Sustainability Report

Somewhat commendable 9%
Highly commendable 9%
Commendable 28%
Considerably commendable 54%

Overall assessment of CSR efforts

Enrich Social Communication

We will leverage ICT to help address social issues and create a more prosperous and convenient society.

Global footprint

196 countries and regions

Percentage of the population covered by LTE

99%

Number of improvements made based on suggestions from customers

558

Number of patent applications

2,250

Contribute to Society through ICT

Why this is a CSR Priority Activity for the NTT Group

The development of ICT technologies is advancing centered around the globalization of corporate activities and their shift toward cloud computing, and this trend is breaking down the borders between various fields and industries. In the midst of these changes, it will be important to engage in collaboration with various customers across industry lines in order to create new innovation that builds on state-of-the-art ICT platforms and technologies. The NTT Group believes that it can contribute to the resolution of social issues, and subsequently the creation of a sustainable society, by accelerating the birth of such collaboration-bred synergies through the promotion of ICT usage.

Quantitative Indicator

Accelerate the B2B2X model

Management Approach

In May 2015, the NTT Group announced its medium-term management strategy "Towards the Next Stage 2.0" to promote collaboration with various regions and across diverse industries so as to accelerate migration to a B2B2X model by taking advantage of the momentum toward 2020 and the government's "Vitalization of Local Economies" initiatives. We envisage "X" to signify various entities, including companies and local governments, and we are striving to create sustainable business models by leveraging the NTT Group's broad range of business domains.

▶ ICT × Commercial Businesses and Tourism

The NTT Group signed a comprehensive collaboration agreement with Fukuoka City in April 2015 and with Sapporo City in September of the same year, and we are working with these cities to resolve local social issues through the application of ICT among our other efforts.

To enable each region to enjoy the full economic benefits of the rapid rise in tourists from foreign countries, we are offering our support in digital marketing by establishing Wi-Fi environments, developing a multilingual response and digitizing information such as coupons. We will contribute to vitalizing local economies by visualizing latent values by showing the different behavioral patterns demonstrated by different nationalities based on behavioral analysis and by highlighting "hot spots" that are more popular with foreign tourists than with Japanese tourists.
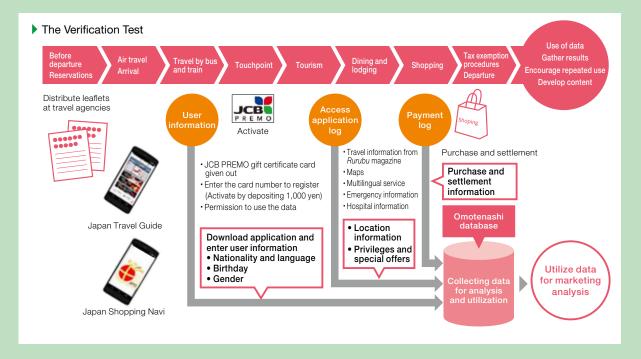
CASE 1

Verification Tests Linking Location Information from Smartphone Apps with Payment Information to Stimulate Spending by Foreign Tourists

NTT

The Japanese government has designated tourism as a major pillar of its growth strategy. As a result, the number of visitors to Japan has been rising recently, leading to expectations of expanded consumption by foreigners. Ensuring that travelers enjoy a comfortable stay requires a means for identifying visitor needs with diverse attributes and for providing optimized information. To that end, we conducted a verification test for analyzing the location and payment information of foreign travelers in Japan and applying the results to marketing. The experiment took place in February 2016 in Tokyo's Shinjuku area and in Sapporo, Hokkaido.

Armed with its strength in cloud-based application development, the NTT Group joined JTB Corporation, JCB Co., Ltd. and the Japan Shopping Tourism Association in the demonstration and offered the use of its smartphone app, Japan Travel Guide, and technical assistance for data analysis during the experiment.

We distributed various information on shopping, stores offering complimentary services and tourist spots, in different languages and for different locations, to users of designated smartphone applications (Japan Travel Guide or Japan Shopping Navi). Users were also given a JCB PREMO card, a card-type gift certificate. We integrated information on attributes such as nationality, age and gender entered by the user with log and location information from the application as well as payment information from the JCB PREMO card, and we analyzed the data to verify the effectiveness of using the information for marketing.

▶ The Verification Test

| Before departure Reservations | Air travel Arrival | Travel by bus and train | Touchpoint | Tourism | Dining and lodging | Shopping | Tax exemption procedures Departure | Use of data Gather results Encourage repeated use Develop content |

Distribute leaflets at travel agencies

User information

JCB PREMO
Activate

Access application log

Payment log

Shoping

Purchase and settlement

Japan Travel Guide

· JCB PREMO gift certificate card given out
· Enter the card number to register (Activate by depositing 1,000 yen)
· Permission to use the data

· Travel information from *Rurubu* magazine
· Maps
· Multilingual service
· Emergency information
· Hospital information

Purchase and settlement information

Omotenashi database

Download application and enter user information
• Nationality and language
• Birthday
• Gender

• **Location information**
• **Privileges and special offers**

Collecting data for analysis and utilization

Utilize data for marketing analysis

Japan Shopping Navi

We plan to expand the scope of the demonstration to Fukuoka and other areas in Kyushu. We will seek to increase the number of stores offering complimentary services, develop advanced applications, increase the frequency of analysis and enhance the content of information provided to customers as a solution for attracting customers to local regions with the objective of contributing to vitalizing local economies.

▶ ICT × Agriculture

Faced with a diminishing workforce, the advancing age of farmers and growing foreign competition, further improvements in productivity and the creation of high added value have become pressing issues for Japanese farmers. The NTT Group will contribute to realizing a more effective and efficient model of agricultural management by providing various solutions through the use of ICT.
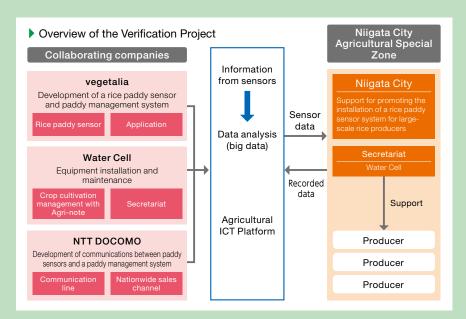
CASE 1　Verification Tests for an Innovative Rice Farming Management System Using Rice Paddy Sensors

docomo

Japan's farming sector is facing serious issues, such as a lack of successors in addition to the declining number and overall aging of farmers. In an effort to resolve these issues, NTT DOCOMO signed an agreement with Niigata City, vegetalia, Inc. and Water Cell, Inc. to collaborate on a verification project to test an innovative farming management system.

Under the project, verification tests were carried out from May 2015 to March 2016 with the goal of boosting productivity and adding higher value to rice farming. We sought to provide an agricultural ICT solution that would enable efficient farm management in an area that had traditionally depended on the experience and intuition of individual farmers. The experimental system was installed by rice producers seeking to reform large-scale farming in Niigata City, a designated National Strategic Special Zone for innovative agriculture. The project specifically involves installing rice paddy sensors that facilitate water level management, which requires significant labor in rice farming, linked with a cloud-based paddy management system. NTT DOCOMO provided technologies related to its core telecommunications business to establish communications between the paddy sensors and a cloud-based rice paddy management system in collaboration with vegetalia and Water Cell. As a result, we not only raised the efficiency of daily farmland management but also enabled farmers to use their smartphones and other devices to monitor useful information for saving energy, cutting costs, increasing harvests and improving quality.

We will verify the extent to which the higher efficiency achieved in farmers' tasks and water management will lead to improving productivity and increasing harvests. By seeking to spread this know-how throughout Japan, we hope to contribute to the application of ICT to Japanese agriculture.

▶ Overview of the Verification Project

Sensor in a rice paddy

Agri-note, a cloud-based agricultural production management tool

▶ ICT × Urban Development

Together with local governments and other stakeholders, the NTT Group will contribute to the "Vitalization of Local Economies" as one of Japan's most pressing issues, by applying ICT to support the development of efficient urban infrastructures that provide safety, security and comfort.

CASE 1　Nippon Telegraph and Telephone Corporation and Hitachi, Ltd. in a business alliance to vitalize local economies

◎ NTT

Japan is in a critical situation with its population remaining concentrated in Tokyo while continuing to decline due to the stagnant birthrate and a rapidly aging populace. The government has been promoting the vitalization of local economies to put a brake on the falling population and recovering vitality that will lead to growth in outlying regions. In an effort to contribute to vitalizing local economies, a high-priority issue for Japan, NTT agreed to form a business alliance with Hitachi, Ltd. in October 2015. Under the agreement, we will seek to contribute to the sustainable development of local communities by combining the ICT technologies cultivated by NTT over the years in its telecommunications business with Hitachi's strengths in social infrastructure to resolve social issues including enhancing services to local residents, boosting local industries and reducing administrative costs.

　　We will begin by supporting the development and construction of a safe, secure, comfortable and efficient urban infrastructure by utilizing ICT. We will also work with local governments to support and advance their use of big data related to urban infrastructure and the installation of systems that incorporate an ICT foundation to sustain this infrastructure.

▶ Contents of the Business Alliance

Supporting efficient and vibrant urban development

We will support the movement of people and goods within the city to create vibrant urban communities where people can enjoy safety, security and comfort in their daily lives and where goods are efficiently distributed. To that end, we will harness our respective strengths and offer proposals to local governments for constructing mechanisms for distributing information and systems for utilizing big data. Also, we plan to propose ways to create a city environment that is attractive to tourists.

Supporting sustainable urban development

Sustainable urban development with low environmental impact is essential for the ongoing development of local communities. We will propose solutions to local governments and corporations that meet broad needs reflecting local characteristics, such as promoting consumption of locally produced goods, and raise the energy efficiency of urban infrastructure.

Supporting safe, secure and comfortable urban development

Safe, secure and comfortable urban infrastructure is essential for creating a city where people, goods and information actively circulate as well as efficient and sustainable urban communities. We will build on our respective strengths to offer proposals for urban infrastructure that incorporates ICT foundations, including IoT.

▶ ICT × Sports

The NTT Group is seizing the momentum toward 2020 as an opportunity to promote "Smart Sports," which aims to invigorate athletes, audiences and local communities through sports. We are working to add a "smart" dimension to sports not only in Japan but also in other countries. By delivering real-time data on athletes and their actions during events such as the Open Championship in the U.K., Tour de France and the Indy 500 in the U.S., we seek to contribute to raising recognition and vitalizing sports.

CASE 1   Making of the World's First Digital Tour de France

dimension data

Dimension Data is the official technology partner of Amaury Sport Organization (ASO), which sponsors the Tour de France road bicycle race.

In past broadcasts of the race, fans had difficulty keeping track of what was happening on the road, apart from the information being broadcast. Consequently, during the 2015 race, Dimension Data addressed the issue by offering its big data analysis and digital delivery platform. For 21 days, and for the first time in professional road bicycle racing, the Tour de France provided information on the speeds and locations of 198 riders from 22 teams and the distances between them.

In specific terms, this was made possible using a live tracker mounted under the saddle of each rider's bicycle, and the transmitted data was processed and analyzed at high speeds by Dimension Data's cloud technology. And this provided accurate, real-time information for race fans, commentators, broadcasters, and the media.

During the Tour de France 2016, upgraded tracking devices delivered information on factors that can significantly impact the race, such as the topography of the course and wind speed. We will continue to provide technologies that take full advantage of cutting-edge ICT to offer an innovative viewing experience for sports fans.

Improve Access to ICT

CSR Priority
Activities

Why this is a CSR Priority Activity for the NTT Group

We have been providing a number of ICT services that offer greater convenience. However, ICT companies are expected to provide suitable communications services for visitors to Japan who face a language barrier, residents of remote mountainous areas and islands, and persons with special needs.

As a Value Partner consistently selected by customers, the NTT Group will pursue its medium-term management strategy "Towards the Next Stage 2.0" to help create an ICT environment that everyone can access.

Quantitative Indicator   Results in FY2016

● Sales of global services
15.6 billion dollars

● Global footprint
196 countries and regions

● Percentage of the access network converted to fiber optics
NTT East: **95**%   NTT West: **93**%

● Percentage of the population covered by LTE
99%

● Number of universal design-capable products and services provided
12

Management approach

As of March 31, 2016, the transition to optical access in Japan's fixed access networks has been completed in 95% and 93% of the service areas of NTT East and NTT West, respectively. As for mobile access networks, NTT DOCOMO achieved a population coverage of 99% for its LTE service at the end of fiscal 2015. Currently, we are seeking to enhance the Wi-Fi environment in urban areas and tourist destinations as an ICT service that will also benefit foreign tourists. This is part of an effort to address the growing number of visitors to Japan, which is expected to rise further as we approach 2020.

We are working to enable customers to choose IT access services according to their needs by collaborating with other companies in order to offer a wide range of payment plans and a varied lineup of services through the wholesale fiber access service (Hikari Collaboration Model) provided by NTT East and NTT West, and the MVNO service provided by NTT DOCOMO.

NTT East and NTT West are legally obligated to serve the entire nation and consequently provide services that include subscriber phones (basic fees) or fiber-optic IP phones* equivalent to subscriber phones, Type 1 public phones (public pay phones installed in accordance with the standards of the Ministry of Internal Affairs and Communication), and emergency numbers (110, 118 and 119) throughout Japan, including high-cost regions.

As for our global strategy, NTT DATA, Dimension Data and NTT Communications take the lead in enhancing and promoting our services for operating data centers and global networks based on our three core strengths: (1) Full-stack capabilities for providing a broad range of cloud-related services from ICT infrastructure to applications, (2) Full-lifecycle capabilities for meeting the needs of enterprise clients migrating to the cloud with a one-stop solution encompassing consultation, system construction and maintenance, and (3) Expanding the footprint for providing services worldwide.

The NTT Group provides its services in 196 countries and regions around the world, and sales of its global services totaled US$15.8 billion in fiscal 2016.

* Fiber-optic IP phones equivalent to subscriber phones were added in 2011 and apply to services provided for basic monthly fees comparable to subscriber phones.

▼

▶ Toward an ICT Service Accessible to All

◾ Initiatives for Universal Design

The NTT Group actively encourages the broader adoption of universal design, which ensures that products and services are easy for all customers to use, regardless of age, gender or physical abilities, and endeavors to provide these products and services. In fiscal 2016, the NTT Group began offering 12 new universal design products and services*.

* Products and services that can be used by senior citizens, children, persons with special needs, and foreign visitors facing language barriers (includes trials and expanded functions)

CASE 1   Move & Flick Text Input Software for Smartphones that is Easy to Use for Visually Impaired People

docomo

NTT DOCOMO began offering Move & Flick® on August 2015 as a new smartphone application that enables users to enter text without looking closely at the display.

Entering text on smartphones has required an accurate understanding of the relative position of the keys for Japanese characters, the alphabet and numbers displayed before touching the screen to select a character. This has made it difficult for visually impaired people to input text.

The Move & Flick application displays a large text input area in the center of the lower half of the smartphone screen, enabling the user to start inputting text from anywhere inside the area and making operation convenient for visually impaired users.
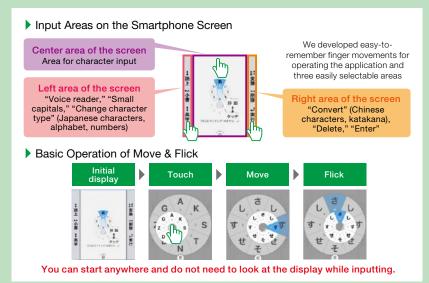
The application was developed by NTT Service Evolution Laboratories in response to feedback from visually impaired people, including employees of NTT CLARUTY, a company that promotes the hiring of persons with special needs, and offered as a service by NTT DOCOMO.

Following the launch of the application, we have sought to publicize the service to as broad an audience as possible by actively exhibiting at related tradeshows and events, and by including the application in the DOCOMO Hearty Lectures intended to introduce useful smartphone functions to people with special needs and offer instructions on using them. We have already received many requests for the service from visually impaired customers.

We have created a mockup of the application to explain how Move & Flick works by having users actually touch the screen.

In our hope to get as many customers as possible to use the service, we have published a text-based manual and an audio manual so that visually impaired users can learn about the application themselves. We also published a video manual for those who support visually impaired people.

We will continue to collaborate with people with special needs to develop and provide services that introduce greater convenience and comfort into the lives of our customers.

▶ Input Areas on the Smartphone Screen

We developed easy-to-remember finger movements for operating the application and three easily selectable areas

Center area of the screen
Area for character input

Left area of the screen
"Voice reader," "Small capitals," "Change character type" (Japanese characters, alphabet, numbers)

Right area of the screen
"Convert" (Chinese characters, katakana), "Delete," "Enter"

▶ Basic Operation of Move & Flick

Initial display	Touch	Move	Flick

You can start anywhere and do not need to look at the display while inputting.

▼

◾ Establishment of the NTT Group Web Accessibility Policy

The NTT Group is working to ensure and improve the accessibility of its websites for a wide spectrum of customers, including senior citizens and persons with disabilities.

The Group established the NTT Group Web Accessibility Policy in March 2014. The policy for official websites of the Group companies with head office functions in Japan is set according to JIS X 8341-3:2010[1]. There are three levels of conformance corresponding to degree of accessibility: Level A, Level AA and Level AAA. The NTT Group intends to comply[2] with Level AA.

All the pages for which the Group declared its intention to comply with Level AA requirements of JIS X 8341-3:2010 by March 2016 were actually in compliance at the end of March 2015, ahead of the schedule.

The status of compliance as of March 31, 2016 is shown below (includes the numbers of redesigned pages).

Group company	Status of compliance with JIS Conformance Level AA
NTT	65 pages compliant
NTT East	20 pages compliant
NTT West	33 pages compliant
NTT Communications	16 pages compliant
NTT DOCOMO	134 pages compliant
NTT DATA	11 pages compliant
NTT COMWARE	9 pages compliant
NTT Urban Development	6 pages compliant

We will continue to improve the accessibility of the official websites of Group companies in accordance with the NTT Group Web Accessibility Policy.

*1 JIS X 8341-3:2010: "Guidelines for older persons and persons with disabilities—information and communications equipment, software and services—Part 3: Web content" of Japanese Industrial Standards

*2 Refers to compliance with the description defined in the "Compliance Performance Announcement Guidelines for JIS X 8341-3:2010. First Edition, August 20, 2010" of the Web Accessibility Infrastructure Committee, Info-communication Access Council. This means that we have established and disclosed an accessibility policy and confirmed that the pages fulfilled all the requirements through the tests implemented and based on JIS X 8341-3:2010.

About the Web accessibility efforts of the NTT Group ▭ http://www.ntt.co.jp/apolicy/ (Japanese only)

▼

◪ User-Friendly Service Lineup

We offer a broad range of discount services for various users, including students and their families, senior citizens and persons with special needs, to facilitate access to ICT services.

Special discounts on dedicated lines for educational facilities (NTT East and NTT West)
Since January 2001, NTT East and NTT West have offered special fees for schools on FLET'S services suitable for using the Internet at a fixed sum in an effort to promote educational use of the Internet.

NTT East　⌨ https://flets.com/schoolplan/ (Japanese only)
NTT West　⌨ https://flets-w.com/cpn/school/ (Japanese only)

Discounts on mobile phone fees for students and their families (NTT DOCOMO)
We support students and their families through Docomo no Gakuwari discounts, offering discounts on basic fees and extra data transmission capacity for students, and discounts on basic fees for their families. These discounts facilitate access to ICT services for households burdened by tuition payments.

Discounts on optical fiber broadband service (FLET'S) (NTT East and NTT West)
We offer a two-tiered fixed fee plan (FLET'S HIKARI LIGHT) so that customers can use fiber optic broadband services at a reasonable price, as well as the Ninen-wari (two-year discount) (NTT East) and Hikari Motto Motto Wari (20% discount) (NTT West) services for long-term users.

NTT East FLET'S HIKARI LIGHT　⌨ https://flets.com/light/ (Japanese only)
NTT West FLET'S HIKARI LIGHT　⌨ https://flets-w.com/light/ (Japanese only)
NTT East Ninen-wari　⌨ https://flets.com/english/ninenwari/
NTT West Hikari Motto Motto Wari　⌨ https://flets-w.com/cpn/motto2/ (Japanese only)

Discounts on mobile phone use for persons with special needs (NTT DOCOMO)
NTT DOCOMO offers "Hearty discount" plans including a 1,700-yen discount on basic plans such as the Kake-hodai (unlimited calling) plan, 60% discounts on FOMA payment plans and monthly fees on various services, no charge on part of the subscription procedure, same level of fees for video phone calls as for voice calls, and no charge for dialing and obtaining information via the 104 directory assistance.

⌨ https://www.nttdocomo.co.jp/english/charge/discount/

Service through wholesale fiber access collaboration with other companies (NTT East, NTT West and NTT DOCOMO)
We seek to better serve individual customer needs by offering a wide range of payment plans and services in collaboration with other companies through the wholesale fiber access service (Hikari Collaboration Model) provided by NTT East and NTT West, and the MVNO service provided by NTT DOCOMO.

　　For example, the docomo Hikari plan provided by NTT DOCOMO uses wholesale fiber access services provided by NTT East and NTT West. Subscribing to DOCOMO's mobile phone service in combination with docomo Hikari will provide users with discounts compared to subscribing individually to these services.

Pursue Customer Satisfaction

CSR Priority Activities

Why this is a CSR Priority Activity for the NTT Group
The NTT Group serves various customers through the broad range of products and services provided by its Group companies, from consumer products and services to other services intended for corporate customers. We believe that the ability of our Group companies to maintain high customer satisfaction will not only lead to retaining customers but also to gaining new ones.

With this awareness, each Group company strives to satisfy its customers by providing products and services with high added value and by responding with care to their support needs.

Quantitative Indicator | Results in FY2016

● Customer satisfaction survey

No.1

● Number of improvements made based on suggestions from customers

558

● Response rate and number of response hours at our call centers

73.3%, **13.2** minutes

● Improve facility utilization efficiency

about ¥**100** billion

● Establish highly efficient business operations

about ¥**414** billion

Management Approach

Each NTT Group company has constructed a system for reflecting the "voice" of customers and various other stakeholders, including their opinions and requests, in making operational upgrades and improving and developing products and services. Furthermore, each Group company promotes unique initiatives for raising customer satisfaction.
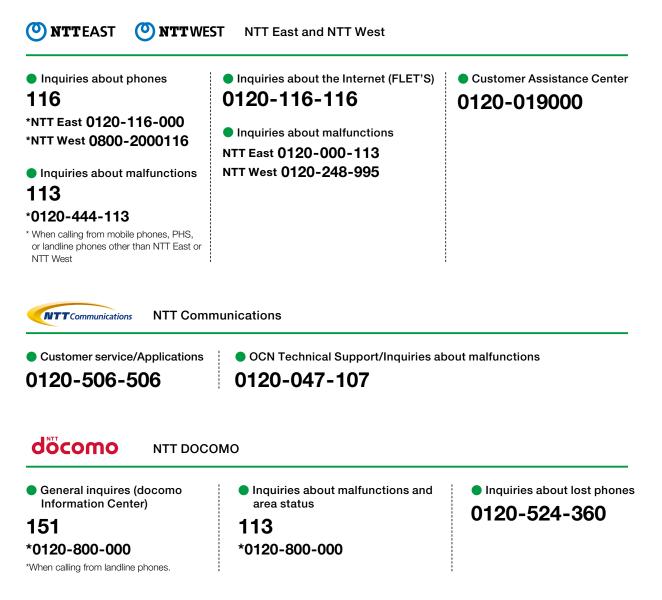
NTT itself is not directly involved in providing products and services to customers and does not provide overall management of customer relations for the Group.

▶ Customer Contact Points

Each Group company has set up a call center that responds to customer inquiries on products and services, requests for repairs and complaints. Major call centers of the NTT Group receive approximately 180,000 calls each day and endeavor to respond promptly to customers.

Each call center has set its own targets aimed at improving response rates and enhancing the quality of response and support. They also engage in various efforts including telephone response competitions and training to enhance skills for providing better responses.

As a result of these initiatives, the response rate in fiscal 2016 was about 73.3% and the average speed of response was about 13.2 minutes for the NTT Group's major call centers.

▼

▶ Major Consumer Call Centers of Group Companies

NTT EAST   **NTT WEST**   NTT East and NTT West

● Inquiries about phones
116
*NTT East 0120-116-000
*NTT West 0800-2000116

● Inquiries about malfunctions
113
*0120-444-113
* When calling from mobile phones, PHS, or landline phones other than NTT East or NTT West

● Inquiries about the Internet (FLET'S)
0120-116-116

● Inquiries about malfunctions
NTT East 0120-000-113
NTT West 0120-248-995

● Customer Assistance Center
0120-019000

NTT Communications   NTT Communications

● Customer service/Applications
0120-506-506

● OCN Technical Support/Inquiries about malfunctions
0120-047-107

docomo   NTT DOCOMO

● General inquires (docomo Information Center)
151
*0120-800-000
*When calling from landline phones.

● Inquiries about malfunctions and area status
113
*0120-800-000

● Inquiries about lost phones
0120-524-360

For service hours and other inquiries, please refer to the website of each Group company.
NTT East   🖥 https://www.ntt-east.co.jp/en/contact/
NTT West   🖥 https://www.ntt-west.co.jp/english/contactus/
NTT Communications   🖥 https://www.ntt.com/en/contact.html
NTT DOCOMO   🖥 https://www.nttdocomo.co.jp/english/support/inquiry/

▼

Reflecting the "Voice" of Customers

The NTT Group listens to the "voice" of its customers, including their opinions and requests, through its call centers. Each Group company has constructed a system for reflecting the "voice" of customers in making operational upgrades and improving and developing products and services, and they are making an active effort in related activities as well.

NTT EAST	**● "Service with a Smile" activities** NTT East discusses the opinions and requests provided by customers through its Customer Consultation Center and other channels from various angles, and after holding final discussions under the auspices of the Smile Committee chaired by the President, applies the Committee's recommendations on a companywide basis. Negative feedback is shared with relevant sections, and the whole company acts to prevent recurrence.
NTT WEST	**● "Customers First" activities** Meetings to promote Customers First Activities are held once a month under the leadership of the vice president to discuss customer feedback received through the company's 116 customer service line, the Customer Consultation Center and other channels. The Working Group decides on the direction of improvements to be made to improve services and develop products based on customer feedback.
NTT Communications	**● Analyzing the voice of customers received via social media** In addition to the VOC (Voice of Customers) Survey, we analyze the voice of customers we receive daily at our call centers and customer feedback posted to Twitter and other social media. The opinions and requests obtained through the analysis are shared with the customer service departments and enhancements made in response are published on our website.
docomo	**● Sharing the voice of customers and "findings feedback" among all employees** Employees are able to check up on the voice of customers received at the docomo shops and through call centers and customer surveys at any time, and such information is transmitted virtually real-time throughout the DOCOMO Group. Moreover, all employees and staff working for DOCOMO can send "findings feedback" on possible improvements they found through their contact with customers and requests related to operational processes, which are delivered to the relevant departments through the internal system.

In fiscal 2016, the four Group companies listed above made a total of 558 operational improvements based on the "voice" of their customers. For more information on these initiatives, please refer to each company's website, CSR Report, Sustainability Report and other publications.

Customer Satisfaction Survey

Each NTT Group company has received highly favorable evaluations in customer satisfaction surveys conducted by specialized external institutions. We will continue our efforts to achieve even greater customer satisfaction by enhancing our products and services.

NTTEAST	Nikkei Business Publications, Inc. **Nikkei Computer Customer Satisfaction Survey 2015-2016** Ranked No. 1 in the network service (cable) section for third consecutive year (as of September 2015)
NTT Communications	Ocean82, Ltd. (UK) **Voice of the Customer: Global Data VPN, Issue 20** Ranked No. 1 in overall customer satisfaction for fifth consecutive year (as of May 2016)
docomo	J.D. Power Asia Pacific **2015 Japan Mobile Phone Service Study** Ranked No. 1 Disclaimer: J.D. Power Asia Pacific 2015 Japan Mobile Phone Service Study[SM]. Study based on a total of 31,200 responses from mobile phone subscribers in Japan. japan.jdpower.com
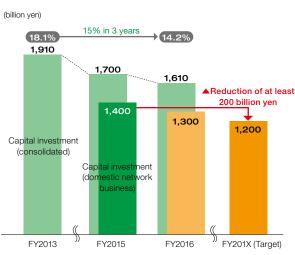
Optimizing Capacity Utilization and Establishing Highly Efficient Business Management

Under its medium-term management strategy "Towards the Next Stage 2.0," the NTT Group is seeking to optimize capacity utilization and establish highly efficient business management. We are striving to streamline capital investment in the domestic network business by at least 200 billion yen by fiscal 2018 compared to fiscal 2015 so that we can optimize capacity utilization and reduce operational costs on fixed line/mobile access networks by at least 800 billion yen, which will ensure highly efficient business management. In fiscal 2016, we cut back capital investment by approximately 100 billion yen and operational costs by 414 billion yen.
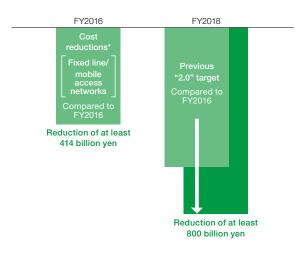
We will build on these efforts and continue to provide customers with reasonably priced products and services with high added value.

▶ Optimizing Capital Investment

■ Improve Capex to Sales
■ Optimize Domestic Network Businesses

(billion yen)

18.1%   15% in 3 years   14.2%

1,910
1,700
1,610
1,400
1,300
1,200

▲Reduction of at least 200 billion yen

Capital investment (consolidated)
Capital investment (domestic network business)

FY2013   FY2015   FY2016   FY201X (Target)

*1 Excludes real estate assets.
*2 Excludes NTT Communications' data centers and certain other assets.

▶ Cost Reductions

FY2016   FY2018

Cost reductions*
Fixed line/ mobile access networks
Compared to FY2016

Reduction of at least 414 billion yen

Previous "2.0" target
Compared to FY2016

Reduction of at least 800 billion yen

* Excludes impact of revision in depreciation method.

Fair Advertising and Sponsorships

▶ Taking the Customer Perspective in Advertising

To ensure that advertising materials would be appropriate and easy for customers to understand, NTT East and NTT West established their Advertising Review Office in June 2008, followed by NTT Communications in November of the same year. At NTT DOCOMO, the legal affairs department has been carrying out advertising reviews.

To ensure appropriate advertising, the offices for reviewing advertising have developed internal rules for advertising materials as well as for vetting advertisement implementation. They also promote compliance with the rules through measures including regular committee meetings to check on the status of implementation of the advertising policies and the appropriateness of advertising materials. In fiscal 2016, NTT East vetted about 4,700 advertisements, NTT West vetted about 3,100, NTT Communications vetted about 150, and NTT DOCOMO about 240.

Our education and awareness-building activities for employees include training on suitable advertising for all employees and training sessions for creators of advertising materials at the head office, regional headquarters and Group companies aimed at improving their advertising material creation skills.

We will continue our efforts to ensure compliance with relevant laws and regulations and provide clear-worded and easy-to-understand advertising materials through further institutionalizing advertisement vetting practices and improving the quality of our advertising materials.

▶ Initiatives as a Gold Partner of the Tokyo 2020 Olympic and Paralympic Games

Preparations are underway for the Tokyo 2020 Olympic and Paralympic Games, and excitement is building. In addition to convenience, the Tokyo 2020 Games will require greater security than past events due to rapid advances in ICT.

For the Tokyo 1964 Olympic Games, Sapporo 1972 Olympic Winter Games and Nagano 1988 Olympic and Paralympic Winter Games, NTT has offered its support through a broad range of cutting-edge technologies. As for the Tokyo 2020 Games, NTT was the first to sign a Gold Partner agreement with the Tokyo Organizing Committee of the Olympic and Paralympic Games, under which NTT, NTT East, NTT West, NTT Communications and NTT DOCOMO will provide telecommunications services.

One of the three core concepts for Tokyo 2020 Games is "unity in diversity," which aims to turn the event into an opportunity for nurturing a society of coexistence that embraces diversity in all its forms. Therefore, NTT will seek to connect people to people and connect Japan with the world while contributing to the event's management by ensuring security and comfort.

We will strive to provide an unprecedented level of hospitality for staff, participating athletes and guests from Japan and abroad by utilizing the telecommunications and security technologies and service infrastructure we have accumulated over the years.
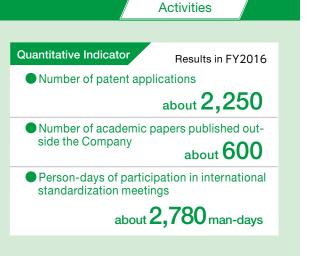
TOKYO 2020 / TOKYO 2020 PARALYMPIC GAMES

Tokyo 2020 Gold Partner
(Telecommunications Services)

NTT

NTT EAST NTT WEST

NTT Communications docomo

Generate Innovation

Why this is a CSR Priority Activity for the NTT Group
Generating innovation is a key driver that brings change to our products, services and organization. It breathes vigor into the NTT Group's businesses, benefits a broad range of users, and vitalizes diverse markets as an activity essential to achieving sustainable growth for society as a whole.

The NTT Group strives to deliver greater prosperity to society by offering products and services that address social issues through the basic research of the NTT laboratories and applied research of each Group company.

Quantitative Indicator — Results in FY2016

- Number of patent applications
  about **2,250**
- Number of academic papers published outside the Company
  about **600**
- Person-days of participation in international standardization meetings
  about **2,780** man-days
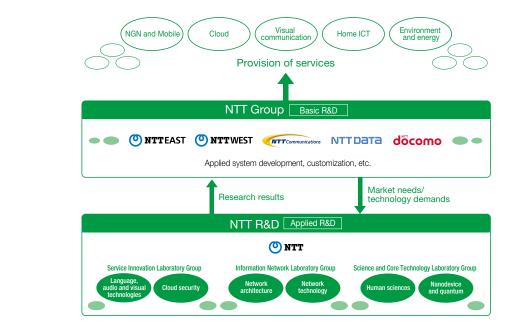
Management Approach

With respect to R&D undertaken by the NTT Group, NTT's laboratories are responsible for conducting basic research that serves as the backbone of telecommunications, such as basic and component technologies related to services and networks, while each operating company conducts applied research that is closely related to its business, toward delivering quality services to its customers in a timely manner. The NTT Group currently employs about 5,500 researchers and spends approximately 210 billion yen on annual R&D expenditures.

We strive to fill our role as a general producer, formulating marketing and business plans and forging alliances so that the results of research by NTT laboratories can be transformed into Group businesses. As a general producer, we seek to develop business in a timely manner by combining the wide-ranging basic technologies of NTT laboratories with commercialized technologies in collaboration with Group companies and other companies to create new services.

▶ NTT Group R&D Framework

NGN and Mobile   Cloud   Visual communication   Home ICT   Environment and energy

Provision of services

NTT Group | Basic R&D

NTT EAST   NTT WEST   NTT Communications   NTT DATA   docomo

Applied system development, customization, etc.

Research results   Market needs/ technology demands

NTT R&D | Applied R&D

NTT

Service Innovation Laboratory Group
Language, audio and visual technologies   Cloud security

Information Network Laboratory Group
Network architecture   Network technology

Science and Core Technology Laboratory Group
Human sciences   Nanodevice and quantum

▶ R&D Initiatives

Under the NTT R&D vision of developing cutting-edge technologies that contribute to the advancement of society, science and industry, NTT maintains approximately 3,000 researchers in the Service Innovation Laboratory Group, Information Network Laboratory Group and Science and Core Technology Laboratory Group. These groups engage in a wide range of diverse research activities, from basic research to R&D that supports the business development initiatives of operating companies.

▶ NTT R&D Organization Chart

Laboratory	Description
Service Evolution Laboratories	Creation of innovative broadband and ubiquitous services and technologies, and R&D of service provision platform configuration
Media Intelligence Laboratories	Research on elemental media processing technologies, which provide the basis for broadband and ubiquitous services, and development of engines for these technologies
Software Innovation Center	Promotion of open innovation centering on the development of open source platforms, collaborative service development with NTT operating companies, and other R&D
Secure Platform Laboratories	R&D of cryptography and security technologies essential to a safe and secure society
Network Technology Laboratories	R&D of network architecture, communication traffic and quality, and platform technologies for network convergence services
Network Service Systems Laboratories	R&D of network services and next-generation network infrastructure
Access Network Service Systems Laboratories	Creation of new access services for next-generation ICT infrastructure, and R&D of underlying access system networks
Network Innovation Laboratories	R&D of network system architecture based on innovative communication methods, and methods for communications services that generate new added value
Device Innovation Center	R&D of devices and sub-systems that will pave the way to next-generation ICT and new ICT business opportunities, and promotion of open innovation
Device Technology Laboratories	R&D of cutting-edge devices and materials based on the convergence of photonics and electronics that generate new value
Communication Science Laboratories	Creation of new concepts and technologies in information and social sciences that will revolutionize telecommunications
Basic Research Laboratories	Creation of new principles and concepts for overcoming the limitations of current network technologies such as speed, capacity and size

Organization units:
- Audit & Supervisory Board
- Audit & Supervisory Board Members
- Office of Audit & Supervisory Board Members
- Board of Directors
- Chairman
- President
- Corporate Strategy Planning Department
- Technology Planning Department
- Research and Development Planning Department
- Finance and Accounting Department
- General Affairs Department
- Strategic Business Development Division
- Global Business Office
- Service Innovation Laboratory Group — R&D of new communication services
- Information Network Laboratory Group — R&D of platform technologies for communications networks
- Science and Core Technology Laboratory Group — R&D of cutting-edge platform technologies for the next 10 years
- Intellectual Property Center

▶ Initiatives for 2020

We are pursuing technology that will deliver highly realistic sensations, allowing people around the world on a real-time basis to feel as if, for example, they are in a stadium, so that everyone can share in the excitement. Moreover, we are promoting R&D toward creating a technology to understand the needs of people, such as visitors to Japan, in order to realize the provision of "proactive hospitality."

CASE 1

Immersive Telepresence Technology, *Kirari!*

NTT

Kirari! is an immersive telepresence technology that combines next-generation compression standards (HEVC) developed by NTT and Advanced MMT, a technology that synchronizes various media to produce highly realistic sensations. *Kirari!* will enable the transmission of not only athletes' images and sounds but also information about their surroundings and environment. With projection mapping technology, *Kirari!* makes it appear as if athletes are competing right in front of the viewers, even from remote locations. To date, we have conducted testing with partners in a wide variety of fields, including not only sports but also culture and entertainment. For example, together with DWANGO and Shochiku, we have taken on the challenge of realizing an entirely new Kabuki experience.

Targeting 2020, we continue to advance R&D for *Kirari!*. Through the creation of highly realistic sensations, we will aim for the distribution in in real time of the entire competitive space, not only in Japan and but also around the world.

With "Kirari!" technology, audiences in remote locations can enjoy a sports competition or concert as if they are actually there.

CASE 2

"Visual Search" Using Angle-free Object Recognition Technology

NTT

Visual Search uses NTT's Angle-free Object Recognition Technology. We are making progress with testing of Visual Search as one facet of R&D initiatives for the purpose of using ICT to provide world-class experiences, impressions, and hospitality for visitors to Japan in preparation for 2020. When visitors have a question about a transfer at a station, they can simply point their smartphone, tablet, or other device at the information board. The information that they need to proceed to their destination, such as a map showing the current location and route guidance, is translated into an appropriate language and provided to them. The limits on such factors as viewing angle at the time of recognition are less restrictive than those for QR codes and bar codes, and there is no need to move close to take a picture. Accordingly, Visual Search will contribute not only to increasing convenience but also to alleviating congestion. At Haneda Airport International Passenger Terminal and nearby Tokyo Station, we are already moving ahead with testing to improve image recognition accuracy and to verify usefulness in such areas as guidance expressions.

▶ Pursuing Collaboration through the NTT Group's corevo™ AI Technology

The NTT Group does not aim for AI that emulates human intelligence or thinking but rather for AI that substitutes for and supports certain activities and that coexists and co-creates with people, thereby fostering the realization of abundant lifestyles.

We have defined four types of AI technologies that we will work with: Agent-AI, Heart-Touching-AI, Ambient-AI, and Network-AI, and we have chosen corevo™ as the brand name for the Group's AI technologies. We are already advancing a variety of initiatives that utilize our AI through collaboration with diverse partners, and these initiatives incorporate the concept of fostering a revolution in technology.

Agent-AI
Identifies information transmitted by humans to understand underlying intentions and feelings

Ambient-AI
Analyzes humans, objects and the environment and offers instant predictions and control

corevo

Heart-Touching-AI
Analyzes the mind and body to understand the deep psyche, intelligence and instincts

Network-AI
Optimizes an entire social system through an AI network

▼

The NTT Group is aiming for sentient IoT, which integrates locality, which is one of the characteristics of IoT, with the concept of Ambient-AI (analysis of humans, objects, and environments; instant forecasting and management). Based on this approach, the NTT Group has developed and is providing R-env: Rembu®, a general-use, shared interface that facilitates free combinations of robots and a wide range of other IoT devices, Big Data processing technologies, visual and voice recognition technologies, and other technologies. New services utilizing these technologies are already being created in such fields as finance, transportation, nursing care, lifestyles, and business.

◪ NTT's Group-wide Initiatives Based on corevo™

NTT Group companies will collaborate with overseas Group companies in global activities that deploy corevo™ in various situations and areas.

▶ Examples of Activities by Group Companies in Various Areas

Business	We will seek to provide solutions that enable efficient cost control by substituting and supporting operations such as middle and back office including screening, analysis and monitoring and front office including contact points and call centers.
Transportation	We will engage in activities targeting applications in social infrastructure such as transportation in order to provide safe and secure traffic control by preventing accidents.
Infrastructure	We will apply AI technology to raise operational efficiency by making network system operations maintenance-free.
Healthcare	We will seek to extend the healthy life expectancy against the social backdrop of a falling birth rate and aging population by applying AI to advance and sustain natural voice communication and interaction using diverse sensors and communication robots.
Daily Life Support	We will offer services that facilitate communication through natural voice communication and provide contents that match customer needs by applying AI technology to social media and other platforms.

CASE 1   Verification Test for Supporting the Elderly with Communication Robots

NTT DATA

For three months beginning in March 2015, NTT DATA conducted verification trials at nursing homes for a senior citizen service using communication robots and sensors. As Japan's population continues to age, the government is seeking to structurally reform medical and nursing services, and the development of a framework for supporting the elderly who live at home has become a social concern. The purpose of the trials was to raise the efficiency of elderly care and prevent the advance of dementia. Following research on the current staffing and daily lives of elderly people in nursing homes, the trials were conducted using robots with mounted sensors to take on the task of checking on the elderly and monitoring their physical condition. We intend to develop an organic link with various services and introduce robots that can assist with daily living needs, which will be essential for providing support that closely aligns with demand.

The "Sota" communication robot

Applying the Results of R&D

Under the NTT Law, NTT is required to equally share the results of basic research conducted by its laboratories with other companies. To ensure that NTT's proprietary technologies are broadly applied by all for the benefit of the telecommunications market as well as other markets, NTT discloses its licensing policy and procedures along with detailed information of its R&D activities and technological licenses.

R&D Activity   http://www.ntt.co.jp/RD/e/active/index.html
NTT Technology Licensing Site   http://www.ntt.co.jp/ntt-tec/e/index.html
Licensing policies and procedure   http://www.ntt.co.jp/ntt-tec/e/procedure/index.html

Results of R&D Activities in Fiscal 2016

Patents and Technology Disclosures
We actively apply for patents on technologies achieved by our R&D in a wide range of fields and provide these technologies at an appropriate price to ensure their timely use by the industry.
In fiscal 2016, we applied for a total of 2,250 patents including 1,820 in Japan and 430 overseas.

Scientific Papers and External Announcements
R&D achievements by our laboratories are actively presented at conferences for experts and published in specialized academic journals.
In fiscal 2016, we made 600 presentations at academic conferences in Japan and overseas.

Standardization Activities
Backed by R&D activities across a broad spectrum of telecommunications technologies, we actively participate in standardization projects undertaken by various organizations, including the ITU and ISO, as well as forums where recent discussions have been under way. By doing this, we shoulder a part of NTT's corporate activities and pursue the orderly development of global telecommunications
In fiscal 2016, we put in an aggregate total of 2,780 person-days to participate in international standardization conferences.

Public Recognition and Technological Awards

For the fifth straight year, NTT received an award for the Thomson Reuters (New York) Top 100 Global Innovator 2015 program. The award recognizes companies that lead in global business by protecting their unique ideas for inventions through intellectual property rights and successfully turning them into businesses. The accolade is presented to 100 companies around the world selected by Thomson Reuters based on its unique criteria of overall patent volume, patent-grant success rates, global reach and invention influence as evidenced by citations. NTT understands the award certifies that R&D activities of the NTT Group are pioneering inventions with significant value in a global market. We will continue to advance inventions based on R&D by the NTT Group and endeavor to maximize the use of our intellectual property.

2015 THOMSON REUTERS
TOP**100**
GLOBAL INNOVATORS
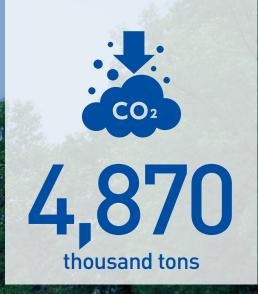
Protect the Global Environment

We are committed to reducing both the environmental impacts of our own business activities and those of society as a whole through providing ICT services.

Reductions in CO_2 emissions

4,870 thousand tons

Final disposal rate of waste

0.82%

Paper consumption

45 thousand tons

Formulation of "The NTT Group Environmental Statement" and "The Eco Strategy 2030"

The NTT Group Environmental Statement

The NTT Group has formulated "The NTT Group Environmental Statement" to serve as a frame work for our environmental activities. In the statement, we have expressed the future of our planet that stakeholders and the NTT Group are creating and the kind of enterprise we would like to be in that future.

In the future of "People & Planet in Harmony," a sustainable society has been realized and everything in the world is connected and communicating. To realize that future, the NTT Group will engage in environmental activities with the aim of becoming a member of eco-friendly corporations in the world.

We envision three futures in which people are living in harmony with the planet. While focused on realizing those futures, we will continue to develop our core competencies: developing and providing the most advanced ICT services and technologies.

The NTT Group Environmental Statement

People & Planet in Harmony
Dedicated to Environmental Preservation

To ensure a future that is better for all life on Earth, we are devoting a great amount of resources to groundbreaking technological advances and superior eco-oriented ICT services.

CO₂ — Realizing a Low Carbon Future

We are contributing to the reduction of CO_2 emissions and facilitating adaptation to climate change.

Implementing Closed Loop Recycling

We are working toward more effective resource allocation.

Planning a Future of Natural Harmony

We are contributing to the preservation of ecosystems.

* Adaptation: A response to the effects of climate change defined as "an action that moderates harm or exploits beneficial opportunities" according to the Intergovernmental Panel on Climate Change. Adaptation is positioned as an action that complements the effects of mitigation, such as reducing CO_2 emissions.

Message from Management

Hiromichi Shinohara

Senior Executive Vice President, Head of Research and Development Planning
Chairperson of The NTT Group Global Environmental Protection Promotion Committee

Five years have passed since we announced "THE GREEN VISION 2020" as the NTT Group's environmental vision in 2010. Over this period, dramatic changes associated with the global environment have taken place in the world. In Japan, East Japan and Kumamoto were ravaged by earthquakes. Countries around the world set targets for reducing greenhouse gases toward 2030, and the idea of "natural capital" emerged as a new way of looking at environmental issues.

Considering these global trends, we at the NTT Group have decided to review our environmental activities to advance toward the future beyond 2020.

The NTT Group has contributed in various ways to social development by connecting people with people through its telephone business for over a century and by connecting people and companies with information, and information with other information and goods through the information and communications businesses. We have sought to do "connecting" at every opportunity and thereby have contributed to resolving the social challenges of each era.
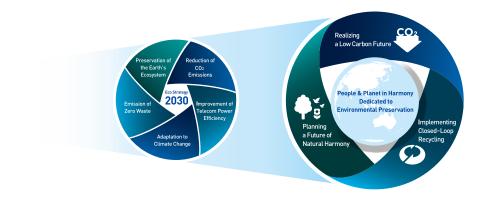
We believe that the NTT Group can contribute to resolving global environmental issues in a united effort involving people around the world through the value generated by "connecting."

The Paris Agreement reached at the COP21 conference in 2015 stipulates that each country sets its targets for addressing the climate change issue and takes action toward 2030 and the future that lies beyond. The agreement also included expectations for contributions that could be made by ICT. Furthermore, there is growing expectation that ICT could be applied to address other issues as well, such as the effective use of fossil and mineral resources, chemical substances, protection of water and forest resources, and biodiversity.

Aspiring to meet these expectations, we have formulated "The NTT Group Environmental Statement," which expresses the future of our planet that we hope to create with all our stakeholders, the kind of enterprise we would like to become in that future, and the environmental activities we should carry out toward that common future.

We also set "The Eco Strategy 2030," which is the targets of our environmental activities until fiscal 2031, to guide us toward the future expressed in "The NTT Group Environmental Statement."

United under "The NTT Group Environmental Statement," the NTT Group will continue to engage in environmental activities as it plays its part in the sustainable development of society.

Eco Strategy 2030

Preservation of the Earth's Ecosystem
Reduction of CO_2 Emissions
Improvement of Telecom Power Efficiency
Adaptation to Climate Change
Emission of Zero Waste

Realizing a Low Carbon Future
CO_2
People & Planet in Harmony
Dedicated to Environmental Preservation
Implementing Closed-Loop Recycling
Planning a Future of Natural Harmony

The Eco Strategy 2030

As a result of our materiality analysis (p.056), we have identified the NTT Group's key environmental issues to be climate change, energy (electricity), resources, and ecosystems. Related to these important issues, we have set "The Eco Strategy 2030" as the targets of the environmental activities of fiscal 2031.

CO₂ Realizing a Low Carbon Future	We will contribute to reducing the CO_2 emissions of society by at least 10 times more than the NTT Group's own emissions.
	We will raise power efficiency per data transmission in our telecommunications businesses by at least 10 times compared to fiscal 2014 levels.
	We will play our part in adapting to climate change by actively promoting initiatives through all our activities and by collaborating with our stakeholders.
Implementing Closed Loop Recycling	We will achieve zero emissions* with regard to the final disposal rate for waste discharged from the NTT Group.
Planning a Future of Natural Harmony	We will play our part in preserving ecosystems by actively promoting initiatives through all our activities and by collaborating with our stakeholders.

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

CO₂ Realizing a Low Carbon Future

To realize a low carbon future and adapt to the effects of climate change, we have set three targets leading up to fiscal 2031. These are reducing overall CO_2 emissions across society, improving telecom power efficiency, and adapting to climate change.
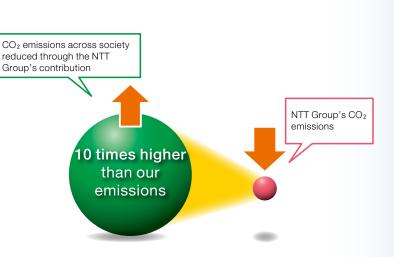
Reduction of CO₂ Emissions across Society	We will contribute to reducing the CO_2 emissions of society by at least 10 times more than the NTT Group's own emissions.

Significance

We will seek to curb our own CO_2 emissions (red ball) generated by the NTT Group's businesses while contributing to overall reductions in CO_2 emissions across society (green ball) through the provision of services and technologies.

Actions

- Provide services and technologies that contribute to the reduction of CO_2 emissions across society

- Promote R&D that contributes to reducing CO_2 emissions

- Disseminate examples of contributions made inside and outside the Company
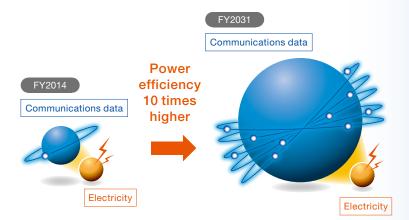
CO_2 emissions across society reduced through the NTT Group's contribution

NTT Group's CO_2 emissions

10 times higher than our emissions

Improvement of Telecom Power Efficiency

We will raise power efficiency per data transmission in our telecommunications businesses by at least 10 times compared to fiscal 2014 levels.

Significance

We will seek to raise the efficiency of our electricity use, which is essential for us to continue our business. Achieving this target will also contribute to reducing CO_2 emissions since electricity is the primary cause of our CO_2 emissions.

Actions

- Reduce energy consumption of communications equipment
- Raise efficiency of communications facilities including networks and data centers
- Promote R&D that contributes to energy conservation

FY2014
Communications data
Electricity

Power efficiency 10 times higher

FY2031
Communications data
Electricity

Adaptation to Climate Change

We will play our part in adapting to climate change by actively promoting initiatives through all our activities and by collaborating with our stakeholders.

Significance

We will take action on climate change by adapting as a means of moderating its effects that have already materialized and those that will be unavoidable in the mid- to long-term.

Actions

- Disseminate examples of adaptation inside and outside the Company
- Promote R&D that facilitates adaptation to climate change
- Engage in initiatives with employees of the Group as well as with customers and business partners

Adaptation of the NTT Group:

Developing disaster-resilient telecommunications networks and equipment

The NTT Group is striving to develop disaster-resilient telecommunications networks and equipment. These measures are aimed at mitigating the effects of disasters, and we will also continue providing communications services in the event of a disaster, while serving as an example of adaptation to disasters caused by climate change.

Adaptation of society by providing ICT:

Mobile ICT unit

We provide mobile boxes and automobiles equipped with communications, information processing and storage functions to enable the swift recovery of communication functions in areas affected by a disaster. We also offer functions for collecting data on the people affected. These services are disaster prevention measures and adaptation to disasters caused by climate change.

Implementing Closed Loop Recycling

To realize a future in which resources can be sustainable, we have set the target for fiscal 2031 as Emission of zero waste.

| Emission of Zero Waste | We will achieve zero emissions* with regard to the final disposal rate for waste discharged from the NTT Group. |

* Zero emissions: The NTT Group considers a final disposal rate of 1% or less to be that which satisfies zero emissions conditions.

Significance

We will seek to promote resource circulation by effectively utilizing resources, which are primarily mineral and fossil resources, in the NTT Group's operations.

Actions

- Maintain and advance 3R activities
- Prolong the useful life of communications infrastructure
- Promote R&D that contributes to the effective utilization of resources

Recycling

Final disposal rate of 1% or less

Final disposal waste

Planning a Future of Natural Harmony

To realize a future where the beauty and bounty of our natural world is sustained, we have set the target for fiscal 2031 as Preservation of the Earth's ecosystem.

| Preservation of the Earth's Ecosystem | We will play our part in preserving ecosystems by actively promoting initiatives through all our activities and by collaborating with our stakeholders. |

Significance
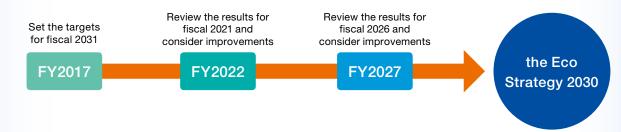
Recognizing ecosystem as the foundation that sustains our social activities, we will promote preservation of the Earth's ecosystem. We will pursue initiatives centered on preserving biodiversity and work to solve issues related to the blessings from these ecosystems, such as water and food.

Actions

- Promote activities for preserving ecosystems, such as tree planting and greening, both inside and outside the Company
- Carry out educational activities and human resource development both inside and outside the Company
- Promote R&D that contributes to preserving ecosystems
- Engage in initiatives with employees of the Group as well as with customers and local communities

Roadmap to 2030

We plan to annually disclose results regarding "The Eco Strategy 2030" and consider necessary improvements for our activities and targets for fiscal 2031 every five years based on our achievements.

Set the targets for fiscal 2031 — **FY2017**

Review the results for fiscal 2021 and consider improvements — **FY2022**

Review the results for fiscal 2026 and consider improvements — **FY2027**

the Eco Strategy 2030

● NTT Group Global Environmental Charter

The NTT Group established the NTT Group Global Environmental Charter under the NTT Group CSR Charter, which lays out the basic policy of our CSR activities. The NTT Group Global Environmental Charter expresses the basic principles and policies on protecting the global environment.

　　We based "The NTT Group Environmental Statement" and "The Eco Strategy 2030" upon the foundations of these basic principles and policies.

NTT Group Global Environmental Charter

Basic principle

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

Basic policies

❶ Compliance with laws and regulations and fulfillment of social responsibilities
❷ Reducing environmental loads
❸ Establishing and maintaining environmental management systems
❹ Developing environmental technologies
❺ Social contribution efforts
❻ Disclosure of environmental information
❼ Conservation of biodiversity

NTT Group Global Environmental Charter 　 http://www.ntt.co.jp/kankyo/e/management/charter.html

▶ History of the NTT Group's Environmental Activities

Year	Month	Event
1991	April	Set up the Environmental Response Office.
	July	Set up the Global Environmental Protection Promotion Committee as a decision-making organ.
	October	Established the NTT Global Environmental Charter stipulating the basic environmental principles, basic policies and promotion system. Formulated the Basic Program of Environmental Protection to set targets for key action plans.
1992	March	Formulated a detailed program compiling the action plans of each business unit.
1997	November	Set up issue-based committees for promoting initiatives on six key issues.
1999	July	Changed the name of the organization to the Environmental Protection Office following the restructuring of NTT. Established the new NTT Group Global Environmental Charter to clearly express our basic principles and policies. Formulated NTT Group Ecology Program 21 as our basic concept for promoting environmental protection.
2000	March	Set our targets for fiscal 2011 on paper resource management, global warming prevention and waste management.
2006	May	Formulated the NTT Group Vision for Environmental Contribution as a guideline for activities for contributing to the reduction of environmental impact for society.
2010	November	Added "conservation of biodiversity" to the basic policy of the NTT Group Global Environmental Charter. Announced THE GREEN VISION 2020 as the NTT Group's environmental vision for fiscal 2021.
2016	September	Announced "The NTT Group Environmental Statement," which expresses the future of our planet and the kind of enterprise we would like to become in that future. Set "The Eco Strategy 2030" as the targets for fiscal 2031.

Identifying the Priority Environmental Issues of the NTT Group

We identified five issues as the NTT Group's CSR Priority Activities in the domain of Protect the Global Environment: using ICT to contribute to the environment; reinforcing value chain management; addressing climate change; reducing the environmental impact of business operations; and effectively using resources (p.014).

These CSR Priority Activities are related to activities and initiatives encompassing a broad area of the environment. To focus on our priority issues related to the environment, we carried out a materiality analysis to examine them in greater detail.

Consequently, climate change and ecosystems have been identified as important environmental issues in society. Climate change, energy (electricity) and resources have been identified as important environmental issues to the NTT Group's business activities.

We will promote the contribution to solving important environmental issues in society through all our activities, such as by providing ICT services and developing groundbreaking technologies and activities undertaken by our employees. We will also work to reduce our own environmental impact with regard to the environmental issues of significant importance to the NTT Group's business activities.

▶ NTT Group CSR Priority Activities (Protect the Global Environment)

Address climate change
Reinforce value chain management (environmental)
Reduce environmental impact of business operations
Use ICT to contribute to the environment
Effectively use resources

High — Relevance to stakeholders

Relevance to the NTT Group — High

Focusing on priority issues related to the environment

Important environmental issues in society

High — Significance of risks to society

Ecosystems
Climate change
Energy
Resources

Significance of risks to the NTT Group's business activities — High

Important environmental issues to the NTT Group's business activities

Important environmental issues in society		
Priority issues	·Climate change	·Ecosystems
Risks	Climate change may cause various risks including abnormal weather and shortages of water or food.	Blessings from ecosystems, including biodiversity, are essential to all life, including humankind, and the loss of ecosystems may cause stagnation in social activities.
Response	We must pursue initiatives on "mitigation" aimed at reducing CO_2 emissions for all society. We must also pursue "adaptation" initiatives.	Efforts must be made across society to coexist with nature and ensure that we receive the blessings from the ecosystems on a sustainable basis.

| Important environmental issues to the NTT Group's business activities		
Priority issues	·Climate change ·Energy	·Resources
Risks	Disasters associated with climate change may lead to a suspension of our operations. Energy, electricity in particular, is essential for the provision of our services, and a shortage may lead to a suspension of our operations.	Depletion of resources, both metal and nonmetal affects the maintenance of the communications infrastructure (communications networks) and may disrupt business continuity.
Response	Approximately 95% of the NTT Group's CO_2 emissions are generated by electricity. Therefore, initiatives to address electricity use are important both as measures for mitigating climate change and for reducing power shortages.	It is important to use resources in sustainable ways.
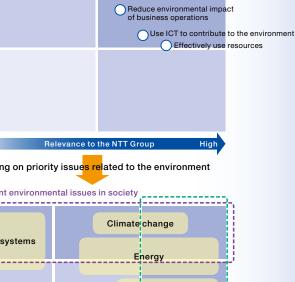
Contribute to resolving environmental issues for society through all our activities

Reduce our own environmental impact

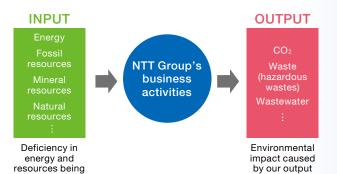## Steps of Materiality Analysis to Focus on Our Priority Environmental Issues

STEP 1 Identification of environmental issues

We examined environmental issues by focusing on the entire value chain and identifying deficiencies in our input (procurement and purchasing) and the environmental impact generated by our output (emissions and waste). We referred to a number of guidelines to assist in identifying issues.
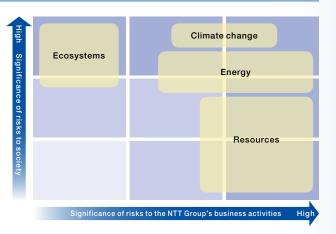
* Referenced guidelines
  GRI-G4, ISO 26000, ISO 14000:2015, DJSI, Quick ESG assessment criteria, LIME3

INPUT

Energy
Fossil resources
Mineral resources
Natural resources
⋮

Deficiency in energy and resources being input

NTT Group's business activities

OUTPUT

CO_2
Waste (hazardous wastes)
Wastewater
⋮

Environmental impact caused by our output

STEP 2 Assessment of environmental issues

We assessed the identified environmental issues based on the two axes of "Significance of risks to society" and "Significance of risks to the NTT Group's business activities."

As shown in the diagram at right, we identified important environmental issues in society and important environmental issues to the NTT Group's business activities.

The assessment was carried out through internal discussions incorporating external third-party opinion, and the results of the assessment were approved by the NTT Group Global Environmental Protection Promotion Committee (p.058) chaired by the general manager of the NTT Environmental Protection Office.
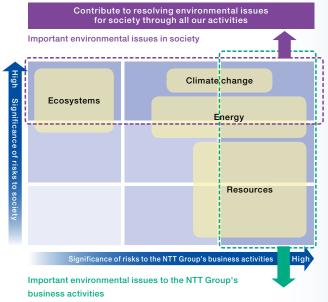
* Risks were assessed solely on the basis of their significance and not on their causes, and impact was assessed as being global in scope.

High

Significance of risks to society

Ecosystems
Climate change
Energy
Resources

Significance of risks to the NTT Group's business activities   High

STEP 3 Decision on actions for resolving environmental issues

We are aware that contributing to resolving the important environmental issues in society by providing ICT services and technologies is a unique activity of the NTT Group. We will take action toward resolving these issues for society by contributing through all our activities, including activities of our employees.

With regard to the environmental issues that are important in the NTT Group's business activities, we will particularly focus on measures and initiatives for reducing the environmental impact of the NTT Group's own business activities.

Contribute to resolving environmental issues for society through all our activities

Important environmental issues in society

High

Significance of risks to society

Ecosystems
Climate change
Energy
Resources

Significance of risks to the NTT Group's business activities   High

Important environmental issues to the NTT Group's business activities

Reduce our own environmental impact
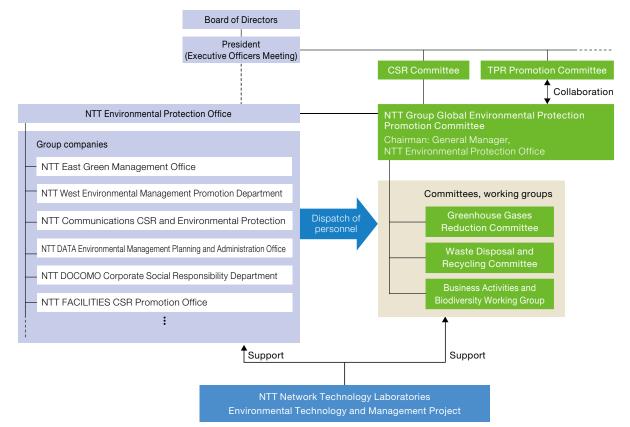
Environmental Management

Organization for Environmental Management

We established the NTT Group Global Environmental Protection Promotion Committee as an internal unit under the CSR Committee to discuss and determine the environmental activities policies for the entire Group.

The NTT Group Global Environmental Protection Promotion Committee, which meets twice a year, is chaired by the NTT director and general manager of the NTT Environmental Protection Office (Head of Research and Development Planning) with membership comprising heads of environmental departments at six major Group companies (NTT East, NTT West, NTT Communications, NTT DOCOMO, NTT DATA, and NTT Facilities). The committee formulates environmental activities policies based on the decisions of the CSR Committee and reports its decisions to the CSR Committee. The committee deploys environmental activities throughout NTT Group companies. The committee oversees issue-based subcommittees on greenhouse gas reduction, and waste disposal and recycling, and directs Group-wide working groups and projects, such as the Business Activities and Biodiversity Working Group that are organized as occasion demands, formulates basic policies, manages targets and addresses any issues that emerge.

In addition to working with the environmental departments, the committee also cooperates with other departments to pursue related initiatives. Particularly with regard to electricity usage, which accounts for more than 90% of the NTT Group's CO_2 emissions, the committee collaborates with the TPR Promotion Committee, which is positioned under the Executive Officers Meeting and responsible for promoting the Total Power Revolution (TPR) campaign, the NTT Group's energy conservation activities. As for the risks and opportunities presented by environmental issues to our facilities and equipment, monitoring and assessment are conducted through a collaborative effort between staff in charge of environmental issues and those responsible for facilities, and these individuals are appointed for every Group company.

We strive to be at the frontline of environmental activities with support from the NTT Network Technology Laboratories in the form of expert knowledge provided by its environmental researchers.
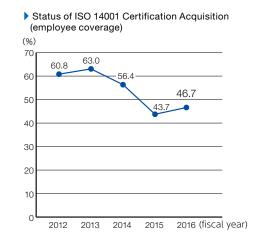
▶ NTT Group Organization for Environmental Management

▶ Environmental Management System

The NTT Group has been seeking to introduce environmental management systems (EMS) including voluntary programs in addition to ISO 14001 certification and Eco-Action 21. Of these systems, our ISO 14001 employee coverage currently stands at 46.7%.

To improve operational efficiency through the obtaining and maintaining of certifications, which includes obtaining guarantees from external auditing institutions, we also support EMS construction and maintenance by having employees with environmental auditor qualifications conduct internal audits. Many NTT Group employees are qualified as auditors, including lead auditors, and sharing the list of auditors within the Group has enabled us to conduct mutual internal audits and thereby optimize the cost of maintaining the EMS.

▶ Status of ISO 14001 Certification Acquisition
(employee coverage)

(%)

(fiscal year)	2012	2013	2014	2015	2016
	60.8	63.0	56.4	43.7	46.7

▶ Risks and Opportunities Related to Climate Change

Business risks associated with the environment are identified as the important environmental issues to the NTT Group's business activities. We have also considered business opportunities related to the environment in consideration of our action of contributing to resolving the important environmental issues in society through all our activities.

These risks and opportunities are prioritized by the Global Environmental Protection Promotion Committee, and major KPIs, opportunities and risks are reported to the CSR Committee. Risks and opportunities identified as having a significant impact on business are presented to the board of directors.

Risks and opportunities posed by climate change are specifically recognized as environmental issues of particular significance for society as well as the NTT Group, and we are seeking to more closely integrate our management strategies and environmental management with regard to these issues by implementing assessments and actions in accordance with our management strategies.

◣ Risks Driven by Changes in Regulations

Description of the Most Significant Risk and Methods Used to Manage This Risk

Higher electricity prices caused by the feed-in tariff (FIT) system poses the risk of raising our operating costs.

The Act on Special Measures concerning the Procurement of Renewable Electric Energy by Operators of Electric Utilities, which came into force on July 1, 2012, stipulates that costs due to FIT will be recovered from users (through a surcharge on electricity charges). This risk has already materialized as some electricity companies have begun to raise their prices.

Since the NTT Group uses more than 8 billion kWh of electricity each year to operate its telecommunications facilities in Japan, there is now a real risk that we will suffer a severe financial impact.

We have been pursuing measures for reducing electricity usage to minimize the increase in costs. Specifically, we have reduced electricity usage by focusing on telecommunications facilities, which account for most of the NTT Group's electricity usage, and streamlining our operations by consolidating facilities and upgrading to equipment with higher levels of energy efficiency (or bringing upgrades forward) and enhancing air conditioning and power supply equipment by introducing air conditioner optimal control systems and direct current power feeding systems. Introducing systems to analyze electricity usage has enabled us to alter electricity purchasing by concluding more suitable contracts with energy suppliers to reduce actual electricity charges. As a result of the measures outlined above, in fiscal 2016 we reduced electricity usage by approximately 940 million kWh from projected levels.

Estimated Financial Implication of the Risk Before Taking Action

If the total tax burden resulting from the FIT system is passed on in electricity charges, we estimate that these charges will increase by between 1.0 and 2.5 yen/kWh. In this case, the NTT Group will incur an additional financial burden of between 9 and 22 billion yen a year (this estimate is based on the actual electricity usage in fiscal 2016 of 8.74 billion kWh).

Estimated Costs of These Actions

In fiscal 2016, we invested approximately 7.8 billion yen into measures for reducing electricity usage.

▼

◤ Risks Driven by Change in Physical Climate Parameters or Other Climate Change-Related Developments

Description of the Risk and Methods used to Manage This Risk

Increases in electricity consumption by air conditioning equipment in response to rising temperatures may pose the risk of higher operating costs.

The equipment used at our telecommunications facilities and data centers is set to operate within a specific range of temperatures. Those exceeding this range could cause equipment shutdowns and failures, making it difficult to provide telecommunications services. For this reason, we maintain room temperatures within a certain range, including through the use of air conditioners. When ambient temperature rises, the energy efficiency of air conditioners declines and that in turn raises electricity consumption. Therefore, the NTT Group faces the risk of suffering a severe financial impact due to increases in energy costs caused by rising electricity usage.

To minimize increases in cost, we are taking steps to reduce the electricity consumption of air conditioning equipment. Specifically, we operate air conditioner optimal control systems that save energy by installing wireless temperature sensor modules and automatically controlling the air conditioners in response to temperatures detected by the sensors. We also seek to maintain appropriate temperature settings for air conditioners by installing diffusers and blank panels to release exhaust heat from equipment and by efficiently laying out double flooring to improve airflow by preventing hotspots.

Estimated Financial Implication of the Risk Before Taking Action

We estimate that a 1°C rise in ambient temperature results in increasing electricity charges between 0.1 and 0.3 yen/kWh. In this case, the NTT Group will incur an additional financial burden of between 0.9 and 2.6 billion yen a year (this estimate is based on the actual electricity usage in fiscal 2016 of 8.74 billion kWh).

Estimated Costs of These Actions

In fiscal 2016, we invested 7.8 billion yen into measures for reducing electricity usage.

◤ Opportunities Arising from Climate Change

Description of Opportunities

Damage from such natural disasters as heavy rains and more frequent typhoons is becoming more common as the climate changes, and there is a growing risk of water and lightning damage and power outages, which also cause extensive damage when they occur. As a consequence, many companies need to take measures to ensure that if emergency situations such as disasters occur in the future, the organizations are able to continue important operations and restore order quickly.

The NTT Group has developed a solution business that leverages its reliable track record and expertise in business continuity planning gained over 100 years of protecting and sustaining Japan's telecommunications, which cannot be allowed to be interrupted in the event of a disaster, and considers this to be an exceptional opportunity.

The NTT Group is able to develop a business for business continuity solutions across a wide range of fields, including the cloud technology from NTT Communications, NTT Data, NTT Comware and Dimension Data, and the technology relating to buildings and power from NTT Facilities. In particular, NTT Facilities has been making substantial efforts toward winning new business.

Annual Financial Positive Implications of This Opportunity

In Japan the scale of the BCP and disaster prevention solutions market has been growing at an annual pace of 3.9% and is projected to reach 900 billion yen by fiscal 2021. Capturing 10% of this market share would increase our revenues by 90 billion yen.

▼

Annual Costs Associated with Developing This Opportunity

NTT FACILIITES is developing its BCP business by assigning about 40 dedicated staff. We estimate the annual costs of maintaining dedicated staff and hiring outside consultants to be in excess of 800 million yen.

Environmental Management Measures

Environmental Guidelines

NTT Group operations have the following four key attributes: (1) procurement of a great many products; (2) possession of many buildings; (3) high electricity consumption by telecommunications equipment; (4) in-house R&D facilities. To promote the effective reduction of our environmental impacts, we have drafted the following green guidelines that address each of these four key attributes.

・Guidelines for Green Procurement
・Green Design Guideline for Buildings
・Energy Efficiency Guidelines
・Green R&D Guidelines

In particular, the development and procurement of ICT devices with outstanding energy efficiency is essential for the effective reduction of the CO_2 emissions of the NTT Group.

To address this issue, we have been applying the NTT Group Energy Efficiency Guidelines since May 1, 2010. These guidelines give concrete form to the ICT device-related energy-saving stipulations of our Guidelines for Green Procurement and Green R&D Guidelines, and define our basic philosophy and device-specific targets with respect to the development and procurement of routers, servers and other ICT devices used in NTT Group.

Under the Energy Efficiency Guidelines, the NTT Group develops and procures ICT devices with consideration for energy-efficient performance in addition to function, performance and cost. Also, we are endeavoring to apply this initiative to the reduction of electricity consumption and concomitant CO_2 emissions related to customer communications.

Pursuing Initiatives across the Industry for Energy-Efficient ICT Devices

NTT is a member of the Telecommunications Carrier Association (TCA) and in that capacity participates in the ICT Ecology Guideline Council[1], an organization that seeks to enhance the energy efficiency of telecommunications-related products. The council formulates guidelines on the criteria for evaluating the energy efficiency of telecommunications devices, and NTT has contributed to the technical aspect of this effort. Our Energy Efficiency Guidelines are based on the guidelines created by this council.

In August 2010, eight NTT Group companies[2] acquired the Eco ICT Logo on submitting self-evaluations of their CO_2 emissions reduction efforts, including the establishment of the Energy Efficiency Guidelines. The Eco ICT Logo was created by the ICT Ecology Guideline Council to signify efforts by telecommunications service providers to reduce CO_2 emissions.

We will continue to drive the development and procurement of energy-efficient equipment, and work with the ICT Ecology Guideline Council to help bring both vendors and carriers together to promote the industry-wide procurement of energy-efficient equipment. We will ensure that vendors are consistently provided with requirements for NTT Group specification processes, and include energy efficiency information disclosure and corporate stance on energy efficiency in our criteria for selecting vendors.

[1] ICT Ecology Guideline Council:
An organization established jointly by the Telecommunications Carriers Association, Telecom Services Association, Japan Internet Providers Association, Communications and Information Network Association of Japan and ASP-SaaS-Cloud Consortium to drive industry-wide efforts to address the issue of global warming.

[2] The eight NTT Group companies are NTT, NTT East, NTT West, NTT Communications, NTT DOCOMO, NTT DATA, NTT FACILITIES, and NTT COMWARE.

Eco ICT Logo

ICT Ecology Guideline Council   🖥 http://www.ecoict.jp/eng/index.html

Disseminating Environmental Activities Policies and Measures among Employees

The NTT Group conducts environmental education to disseminate NTT Group policies and measures among employees and develop a shared understanding of Group-wide activities for promoting environmental protection. In addition to training related to the Group's environmental activities such as group training and e-learning for all employees, we also provide lectures on the environment for new employees.

The NTT Environmental Protection Office organizes environmental education for staff in charge of environmental issues at each Group company and has been holding study sessions every year since fiscal 2002. Along with lectures for disseminating our environmental policies and sharing outstanding issues, we invite outside lecturers to speak on recent topics. These study sessions are intended for the NTT Group throughout Japan and are therefore offered via a teleconferencing system so that staff in remote areas can attend and ask questions through two-way connections.

In fiscal 2016, the session included a lecture on the relationship between climate change and abnormal weather and was attended by a total of 196 environmental staff at six locations around the country.

Compliance with Environmental Laws and Regulations

The NTT Group complies with laws and regulations related to the environment and works to reduce its impacts on the environment.

We have established a mechanism for dealing with cases of legal violations on a Group-wide basis. There were no violations nor payment of penalties in fiscal 2016.

As part of its environmental management measures, the Group also tracks the number of complaints related to the environment for each fiscal year. In fiscal 2016, no complaints related to environmental impact were submitted, handled or resolved through our systems for dealing with complaints.

Environmental Achievements in Fiscal 2016

▶ Review of THE GREEN VISION 2020

In THE GREEN VISION 2020, we upheld seven numerical targets and two action goals for 2020 (fiscal 2021). Having now reached the halfway point since setting these goals in fiscal 2011, we have reviewed the status of THE GREEN VISION 2020.

| Theme	Targets for fiscal 2021	Results for fiscal 2016	Status of attainment
Creating a low carbon society	Reduce the NTT Group's CO_2 emissions by 2 million tons or more compared to the projected CO_2 emissions.	Reduced by 2,590 thousand tons	○
	Reduce the NTT Group's CO_2 emissions by 15% or more compared to fiscal 2009	Increased by 21%	×
	Contribute to reducing CO_2 emissions across society by 20,000 thousand tons through the provision of ICT services	Reduced by 60,320 thousand tons	◎
	Contribute to reducing CO_2 emissions across society by more than 5 times of the NTT Group's CO_2 emissions through the provision of ICT services	Reduced by 12 times	◎
Implementing closed loop recycling	Reduce the final disposal rate for all waste to 2% or less	0.82%	○
	Achieve zero emissions (1% or less) for decommissioned telecommunications equipment	0.10%	◎
	Reduce paper consumption by 30% or more compared to fiscal 2009	Reduced by 46%	○
Conserving biodiversity	"Implementation based on our business activities" Monitor the impact of our business activities and continuously promote conservation initiatives	Environmental consideration at time of installation (p.083) Building design based on consideration for biodiversity (p.084) Protection of coral reef linked with business activities (p.085)	○
	"Implementation based on social contribution" Promote conservation initiatives with stakeholders	Transmission and exchange of information using ICT Tree planting, satoyama conservation and other activities involving employees	○

Creating a Low Carbon Society
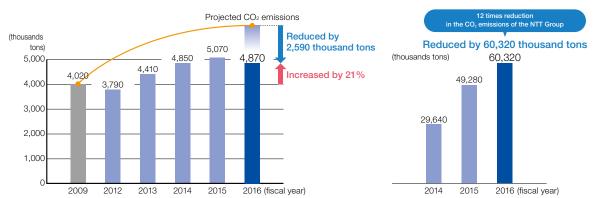
In our Green OF ICT actions for reducing the NTT Group's environmental impact, we set two targets for reducing the NTT Group's CO_2 emissions by 2 million tons compared to the projected CO_2 emissions (the volume estimated on a BaU basis), and by 15% compared to the level in fiscal 2009.

Approximately 95% of the NTT Group's CO_2 emissions are generated by electricity used in the process of providing communications services. In fiscal 2016, we achieved a reduction of 940 million kWh in electricity usage from projected levels as a result of our Group-wide Total Power Revolution (TPR) campaign for promoting energy conservation. In cumulative terms, we have reduced CO_2 emissions by 2,590 thousand tons from fiscal 2010 to 2016.

On the other hand, the volume of CO_2 emissions from generation of purchased electricity has considerably increased compared to the reduction plan shown in fiscal 2011, and as of fiscal 2016 the electricity emission factor (CO_2 emissions per 1 kWh of electricity generation) has risen by about 20% from the benchmark fiscal year of 2009. Consequently, CO_2 emissions from the NTT Group's use of energy increased by 21% in fiscal 2016, even after accounting for the reduction effects of our energy conservation efforts.

In our Green BY ICT actions for reducing the environmental impact of society, we set two targets, while also providing ICT services, for reducing CO_2 emissions across society by 20,000 thousand tons, and five times more than the CO_2 emissions of the NTT Group.

The dissemination of smartphones and realization of high-speed, large-capacity networks have led to a proliferation of new services such as video streaming, expanding opportunities for use by customers. Expanded use of ICT has also resulted in a reduction of CO_2 emissions across society as we provide ICT services each year. As a result, this reduction associated with the provision of ICT services in fiscal 2016 reached 60,320 thousand tons, signifying more than 12 times the CO_2 emissions of the NTT Group and exceeding our target by a large margin.

▶ CO_2 Emissions from Business Activities

▶ Reduction in CO_2 Emissions across Society through the NTT Group's ICT

Projected CO_2 emissions

(thousands tons)

Fiscal year	Emissions
2009	4,020
2012	3,790
2013	4,410
2014	4,850
2015	5,070
2016	4,870

Reduced by 2,590 thousand tons

Increased by 21%

12 times reduction in the CO_2 emissions of the NTT Group

Reduced by 60,320 thousand tons

(thousands tons)

Fiscal year	Reduction
2014	29,640
2015	49,280
2016	60,320

The use of ICT continues to expand toward the creation of a safe, secure and prosperous society. The significance of being connected at all times and in all places during a disaster or other emergencies has gained renewed recognition, and ICT is playing an increasingly important role. This in turn creates the need to expand facilities to provide safe, secure communications services.

Meanwhile, there is little possibility that the electricity emission factors will be reduced significantly over the years leading up to 2020. Considering the energy consumption required by telecommunications facility expansion, there is currently no guarantee that the NTT Group's target for CO_2 emissions will be attained.
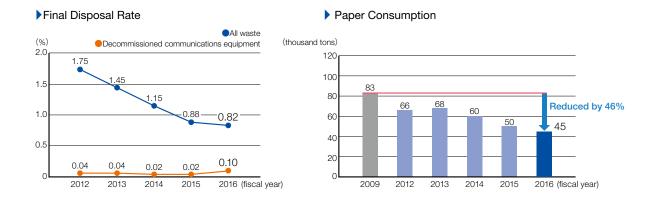
In view of these circumstances, the NTT Group will redouble its efforts to promote measures for addressing electricity use by raising the efficiency of facilities and conserving energy while also striving to expand our facilities to provide safe and secure ICT services. Also, we will seek to expand our contribution to reducing CO_2 emissions across society through the benefits we provide by strengthening our services in line with the expansion of our facilities.

◥ Implementing Closed Loop Recycling

With regard to waste reduction, we have worked toward achieving a final disposal rate of 2% or less for all waste and zero emissions (1% or less) for decommissioned telecommunications equipment.

As for decommissioned telecommunications equipment, we have achieved zero emissions (1% or less) for the 12 consecutive year since fiscal 2005.

We have also sought to improve the recycling rate for waste other than decommissioned telecommunications equipment in collaboration with intermediate treatment contractors. As a result of promoting these 3R initiatives, we were able to exceed our target and achieve a final disposal rate of 0.82% for all waste in fiscal 2016.

In our efforts to reduce paper consumption, we are targeting a reduction of 30% or more compared to levels in fiscal 2009. We were able to reduce our paper consumption in fiscal 2016 by 46% compared to fiscal 2009 through such efforts as closed loop recycling of telephone directories and Internet billing services (electronic invoice).

▶Final Disposal Rate

▶ Paper Consumption

◥ Conserving Biodiversity

The NTT Group is engaged in initiatives for conserving biodiversity using two approaches.

One approach is implementation based on our business activities; we endeavor to install our equipment and cables in ways that minimize impact on ecosystems (p.083). We are also carrying out initiatives such as designing office buildings with due consideration for biodiversity (p.084) and protecting coral reefs in conjunction with our business activities (p.085).

The other approach is implementation based on social contribution through using ICT to disseminate information or support the sharing of information on the conservation of biodiversity. NTT Group employees throughout the country are also involved in tree planting, satoyama* conservation and many other biodiversity-related initiatives.

* Satoyama: Traditional agricultural landscapes of Japan that are mosaics of arable land, woodlands and other types of land that have been exploited sustainably for centuries and support rich biodiversity.

Environmental Impacts Overview

To minimize the environmental impacts of our business activities, the NTT Group endeavors to gather and analyze information on the resources and energy that it consumes and the resulting environmental impacts.

▶ Material Balance of the NTT Group

INPUT

Purchased electricity	Fuel consumption	Gas consumption	Water consumption (total tap and wastewater)	Virgin pulp consumption	Fuel consumption by company vehicles
8.74 billion kWh	26,000 kl	51.20 million m³	11.68 million m³	21 thousand t	• Gasoline 15,000 kl • Diesel fuel 3,000 kl • Oil Gas / Natural Gas 7,000 m³

Suppliers

- Manufacturers
- Service providers
- Telecommunications contractors

NTT Group

Regional communications business	• FLET'S • Hikari Denwa
Long distance and international communications business	• Cloud service • OCN
Mobile Communications business	• Smartphone • Mobile phone
Data communications business	• System integration
Other businesses	• Real estate • Finance

Customers

- Businesses
- Individuals

OUTPUT

GHG emissions	Wastewater (estimated value)	Waste
Scope 1 200 thousand t Scope 2 4,690 thousand t	5.5 million m³	683 thousand t Recycling rate: 98.6%

Scope 3   Total 17,590 thousand t

Category 1
Purchased goods and services
3,420 thousand t

Category 2
Capital goods
5,610 thousand t

Category 3 Fuel- and energy-related activities not included in Scope 1 and 2
340 thousand t

Category 4
Upstream transportation and distribution
49 thousand t

Category 5
Waste generated in operations
35 thousand t

Category 6
Business travel 54 thousand t

Category 7
Employee commuting 25 thousand t

Category 14
Franchises 92 thousand t

Category 15
Investments 1,570 thousand t

Category 11
Use of sold products
6,280 thousand t

Category 12
End-of-life treatment of sold products
82 thousand t

Category 13
Downstream leased assets
15 thousand t

Collection of used products

Transmission units, batteries and accessories (chargers, etc.) collected from customers: 11.65 million units	Mobile phones: 4.17 million units

▶ **Environmental Accounting**

The NTT Group introduced environmental accounting in fiscal 2001 to boost the efficiency and effectiveness of its environmental conservation efforts by quantitatively determining the costs of environmental conservation programs undertaken as part of its business activities and the effects (economic and material benefits).

In fiscal 2016, the economic benefits were 59,810 millions of yen. As a result, there was an increase of 90 millions of yen in terms of economic benefits compared to fiscal 2015.

Moving forward, we aim to implement even more efficient and effective environmental management by continuously carrying out quantitative monitoring and analysis to understand the effects of our environmental activities, clarifying outstanding issues and sharing information.

Category	Environmental investment (millions of yen)		Environmental costs (millions of yen)		Economic benefits (millions of yen)			Material benefits (thousands of tons)		
	Fiscal 2015	Fiscal 2016	Fiscal 2015	Fiscal 2016		Fiscal 2015	Fiscal 2016		Fiscal 2015	Fiscal 2016
(1) Business area costs	12,040	7,960	18,700	19,350						
Pollution prevention costs	130	120	4,010	5,900						
Global environmental conservation costs	11,760	7,750	4,040	3,600	Cost reductions through energy conservation	8,710	8,720	Reductions in CO_2 emissions through energy conservation measures	583	502
Resource recycling costs	150	80	10,640	9,850	Revenues from sale of recyclable waste (decommissioned communications equipment, etc.)	6,200	5,610	Recycled decommissioned communications equipment	231	242
					Waste disposal cost reductions through recycling	280	290	Recycled construction waste	156	244
					Cost reductions through reuse of decommissioned communications equipment	16,420	14,780	Recycled civil engineering works waste	157	141
					Cost reductions through reuse of communications devices	10,520	13,880	Recycled office waste	37	37
					Cost reductions through reusing office waste materials	0.0	0.0	Other recycled items	9	10
(2) Upstream/ downstream costs	120	10	8,230	11,580	Revenues from sale of recyclable waste (subscriber communications devices, etc.)	450	430	Number of communications devices collected from customers (thousands)	12,983	11,650
					Cost reductions in postal expenses through computerization	17,140	16,110			
(3) Administrative costs	40	60	5,040	4,890						
(4) R&D costs	1,920	2,470	7,610	8,270						
(5) Citizenship activity costs	0.0	0.0	70	40						
(6) Environmental remediation costs	0.0	0.0	0.0	0.0						
Total	14,110	10,500	39,650	44,130	Total	59,720	59,810			

Scope of data

The companies subject to consolidated environment accounting are NTT, NTT East, NTT West, NTT Communications, NTT DATA, NTT DOCOMO and their group companies (132 companies in total).

Applicable period

・Data for fiscal 2016 is from April 1, 2015 to March 31, 2016.
・Data for fiscal 2015 is from April 1, 2014 to March 31, 2015.

Accounting method

・Accounting is based on the NTT Group Environmental Accounting Guidelines. These guidelines comply fully with the Environmental Accounting Guidelines 2005 issued by the Ministry of the Environment.
・Environmental conservation costs are tabulated separately as environmental investments and environmental costs. Personnel costs and depreciation costs are also included in environmental costs.
・Reductions in CO_2 emissions through energy conservation measures are calculated by subtracting actual emissions from projected emissions in the event that no such measures were taken.
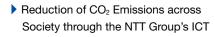
Creating a Low Carbon Society

▶ Our Approach

Reducing CO_2 and other greenhouse gas emissions, which are known causes of climate change, is an important issue for society. Advances in ICT have been accompanied by a rise in electricity consumption, which has also led to increasing calls for energy conservation. Conversely, ICT also possesses the potential to help realize lower society-wide energy consumption and CO_2 emissions.
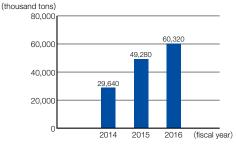
    The NTT Group goes beyond simply reducing the CO_2 emissions that are emitted through its business activities. By actively developing ICT services and promoting their widespread use, it contributes to an overall reduction of CO_2 emissions across society, and we are thus also working to contribute to the creation of a low carbon society.

▶ Reduction of CO_2 Emissions across Society through ICT

In fiscal 2016, ICT services provided by the NTT Group are estimated to have reduced 60,320 thousand tons of CO_2 emissions across society in fiscal 2016.

    The spread of smartphones and realization of high-speed, large-capacity networks have led to a proliferation of new services such as video streaming, expanding opportunities for use by customers. As a result, the reduction in CO_2 emissions across society through the provision of ICT has also become greater each year.

    The NTT Group will continue to leverage ICT in various fields to reduce our society's environmental footprint.

▶ Reduction of CO_2 Emissions across Society through the NTT Group's ICT

(thousand tons)

fiscal year	value
2014	29,640
2015	49,280
2016	60,320

Calculation method

Green by ICT benefits were calculated using the Telecommunication Technology Committee's Methodology for the Assessment of the Environmental Impact of Information and Communication Technology Goods, Networks and Services (JT-L1410) and Life Cycle Assessment Society of Japan's Guideline for Information and Communication Technology (ICT) Eco-Efficiency Evaluation. The results of an online questionnaire survey regarding average ICT service usage time and usage of different ICT services were also used.

◾ Environmental Labeling System for Solutions

The NTT Group has been implementing an environmental labeling system for solutions formulated in fiscal 2010, which enables us to communicate the environmental contributions made by ICT to customers in a manner that is easy to understand, and to promote Group environmental efforts.

    Under the system, ICT solutions offered by Group companies that provide a certain level of environmental load reduction effects are certified as environmentally-friendly solutions and the companies are allowed to display the environmental label designated by the NTT Group. A solution must meet the criteria of demonstrating a reduction rate of over 15% based on a quantitative assessment of the reduced volume of CO_2 emissions.

    Certified solutions and their assessment results are published in the Environmental Labeling System for Solutions section under NTT Group Environmental Protection Activities on the official NTT website. In fiscal 2016, 8 solutions were certified as environmentally friendly, bringing the total number of certified solutions to 51 (as of March 31, 2015).

Note: The Environmental Solution Label is a self-declared program (TYPE II) formulated by the NTT Group.

Environmental Solution Label   🖳 http://www.ntt.co.jp/kankyo/e/protect/lowcarbon/lowcarbon05.html

▼

◤ CO_2 Emissions Reduction Benefits Derived from Ict at Overseas Group Companies

Dimension Data has set a target for reducing CO_2 emissions across society by 1.8 million t-CO_2 between our financial years 2014-2018 by encouraging customers to use ICT. To meet this target, it is proposing the following three services as concrete ways in which customers can utilize ICT (please refer to page 073).

1. Use of video conferencing

Approximately 20,000 km of unnecessary travel can be eliminated each year by using conventional video conferencing systems. Cutting back on an average 1,000,000 km of travel annually is also possible by using immersive telepresence* conference rooms.

2. Active introduction of cloud computing

We believe that approximately 4,000 kWh of energy consumption per year can be saved by shifting computer resources from customers' data centers to a managed cloud platform and actively embracing cloud computing.

3. Innovation
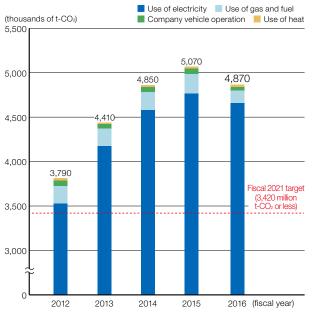
We will seek to reduce our own CO_2 emissions and to provide innovative services that reduce our customers' CO_2 emissions through innovations that include virtual data centers, smart buildings and the construction of energy management networks.

* System that simulates the perception of a conference involving participants from multiple locations actually taking place in a single space.
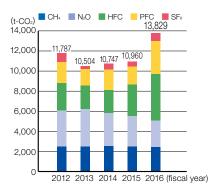
▶ CO₂ Emissions of the NTT Group

In fiscal 2016, the NTT Group's CO₂ emissions decreased by 200 thousand tons from the previous year to 4,870 thousand tons due to reductions of both electricity purchased by the NTT Group and the electricity emission factor.

▶ CO₂ Emissions from Business Operations

▶ Breakdown of Emissions from Business Operations

Fiscal year	2012	2013	2014	2015	2016
Electricity purchased (billion kWh)	8.66	8.56	8.52	8.95	8.74
Electricity emission factor (kg/kWh)*	0.408	0.488	0.541	0.540	0.534
CO₂ attributable to electricity consumption (thousands of t-CO₂)	3,530	4,170	4,610	4,840	4,670
CO₂ attributable to gas and fuel consumption (thousands of t-CO₂)	177	164	164	159	139
CO₂ attributable to company vehicles (thousands of t-CO₂)	66	59	55	47	42
CO₂ attributable to heating (thousands of t-CO₂)	17	16	20	26	27
Total CO₂ emissions (thousands of t-CO₂)	3,790	4,410	4,850	5,070	4,870
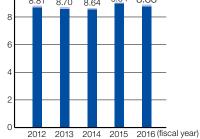
* Weighted average of electricity emission factors announced annually by each power company weighted according to the amount of each company's power used by the NTT Group

▶ Greenhouse Gas Emissions other than CO₂ Emissions (CO₂ emissions-equivalent)
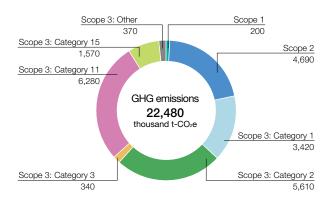

▶ Electric Power Consumption

◢ Indirect GHG Emissions Generated over the whole Value Chain (Scope 3 Categories)

In addition to the environmental impact directly generated by our business activities, the NTT Group has been calculating and disclosing the indirect GHG emissions that have been generated over the whole value chain (Scope 3).

In fiscal 2016, our Scope 3 emissions totaled 17,590 thousand tons (CO_2 emissions-equivalent). Emissions under Categories 1, 2 and 11 particularly account for more than 85% of total emissions, and to address these aspects, we have been promoting the introduction of devices with low environmental impact in manufacturing under our Guidelines for Green Procurement and encouraging our customers to use energy-saving devices.

▶ Fiscal 2016 Scope 3 Emissions

Scope category	Scope and method of calculation	Emissions (thousands of t-CO_2e)
Scope 1 (direct emissions)	–	200
Scope 2 (indirect emissions from energy use)	–	4,690
Scope 3 (indirect emissions from the value chain)		17,590
Category 1: Purchased goods and services	Calculation based on the number of units and monetary value of purchases of devices and services sold to customers	3,420
Category 2: Capital goods	Calculation based on capital investment costs on communications and other equipment	5,610
Category 3: Fuel- and energy-related activities not included in Scope 1 and 2	Calculation based on annual consumption by energy type	340
Category 4: Upstream transportation and distribution	Calculation based on weight and distance, or number of devices with regard to the transport of devices sold to customers	49
Category 5: Waste generated in operations	Calculation based on volume of waste by type	35
Category 6: Business travel	Calculation based on paid expenses for business travel	54
Category 7: Employee commuting	Calculation based on paid expenses for employee commuting	25
Category 8: Upstream leased assets[1]		Excluded from calculation[1]
Category 9: Downstream transportation and distribution[2]		Excluded from calculation[2]
Category 10: Processing of sold products[3]		Excluded from calculation[3]
Category 11: Use of sold products	Calculation based on number of service subscriptions, number of devices and monetary value of communications services and devices used by customers	6,280
Category 12: End-of-life treatment of sold products	Calculation based on number of service subscriptions, number of devices and monetary value of communications devices used by customers	82
Category 13: Downstream leased assets	Calculation based on average use of leased assets	15
Category 14: Franchises	Calculation based on total floor area of sales franchises	92
Category 15: Investments	Calculation based on Scope 1 and 2 emissions of investees in proportion to shareholding	157

GHG emissions
22,480
thousand t-CO_2e

Scope 3: Other 370
Scope 1 200
Scope 3: Category 15 1,570
Scope 2 4,690
Scope 3: Category 11 6,280
Scope 3: Category 1 3,420
Scope 3: Category 3 340
Scope 3: Category 2 5,610

[1] We have excluded Category 8 (upstream leased assets) from the calculation because the fuel and electricity used by leased assets is included in Scope 1 and 2 calculations.

[2] We have excluded Category 9 (downstream transportation and distribution) from the calculation because these emissions are almost entirely from our own transportation and use in our own facilities (included in Scope 1 and 2) or from outsourced transportation (included in Category 4).

[3] We have excluded Category 10 (processing of sold products) from the calculation because our main businesses involve no processing of intermediate products.

* In fiscal 2014, the NTT Group became the first telecommunications carrier in Japan to calculate and disclose emissions from all 15 Scope 3 categories based on actual data for that year, in addition to the emissions generated directly from fuel use, etc., (Scope 1) and emissions generated indirectly in conjunction with electrical and other energy use, etc., (Scope 2). We based our calculations on the Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (Ver. 2.1). We will endeavor to improve the precision of our data collection while continuing to calculate and disclose Scope 3 emissions.

▼

◢ CO_2 Emissions at Overseas Group Companies

Dimension Data has developed and operates an IT infrastructure called the Sustainability Management System, which has enabled it to centralize calculations of CO_2 emissions, including some estimated data, for the entire Group.

Dimension Data has also calculated estimates through fiscal 2018. It estimates CO_2 emissions of 1.0 million t-CO_2 from its business operations between our financial years 2014-2018.

Meanwhile, we project that our customers can reduce their CO_2 emissions by 2.8 million t-CO_2 over the 2014-2018 period by using the IT services that Dimension Data provides.

Based on these projections, the target set by Dimension Data is to reduce CO_2 emissions across society by 1.8 million t-CO_2 between our financial years 2014-2018. The company calculated its CO_2 emissions by seeking technical support and consultation from the Carbon Trust[1], Carbon Smart[2] and CISCO[3].

▶ CO_2 Emissions of Dimension Data (results of year ended September 2015[4])

(t-CO_2)

Category	CO_2 emissions	Rate (%)
Scope 1	10,217	8.3%
Scope 2	89,497	72.6%
Scope 3	23,511	19.1%
Total	123,225	100%

▶ CO_2 Emissions of Dimension Data (estimates for year ending September 2018[4])

(t-CO_2)

Category	CO_2 emissions	Rate (%)
Scope 1	18,669	6
Scope 2	161,136	50
Scope 3	144,753	45
Total	324,558	100

[1] Carbon Trust is a world-leading organization helping businesses, governments and the public sector to accelerate the move to a sustainable, low carbon economy through carbon reduction, energy-saving strategies and commercializing low carbon technologies.

[2] Carbon Smart has been providing sustainability consultancy services since 2007. They deliver innovative and practical solutions to a variety of organizations, each with their own sustainability challenges and objectives.

[3] Cisco (NASDAQ: CSCO) is the worldwide leader in IT that helps companies seize the opportunities of tomorrow by proving that amazing things can happen when you connect the previously unconnected.

[4] Dimension Data's fiscal year begins in October and ends in September of the following year.

▼

Initiatives for Creating a Low Carbon Society

Group-Wide TPR Campaign to Reduce Electricity Usage

Approximately 95% of the CO_2 emissions created by NTT Group business operations are attributable to office and communications equipment power consumption. The NTT Group accordingly created a Group-wide energy conservation strategy called Total Power Revolution (TPR) in October 1997 to reduce our electricity usage.

By promoting efficient energy management at buildings owned by NTT and installing energy-efficient electrical power units, air conditioning systems and telecommunications equipment, we managed to continue to reduce electricity usage across the NTT Group by approximately 940 million kWh from projected levels in fiscal 2016.

Energy-Saving Data Centers

NTT Communications offers data centers with a PUE* of less than 1.2, and NTT COMWARE offers data centers with a PUE of less than 1.1, which are at the top worldwide for energy efficiency. We are striving to enhance PUE for our other data centers as well, introducing five-star equipment with the highest level of energy efficiency in accordance with the NTT Group Energy Efficiency Guidelines. NTT FACILITIES has been developing technology for reducing the electricity consumption of data centers by incorporating higher efficiency technology for electrical power units and air conditioning systems as well as central air conditioning control systems.

We are also operating some data centers using renewable energy and have installed a 5 kW solar power generating system at NTT East's Komagome Data Center. Solar power systems have also been set up at NTT East's Chiba Data Center, NTT West's Osaka Data Center, NTT Communications' No. 2, No. 4 and No. 5 data centers and the Takamatsu No. 2 Data Center, in an effort to promote energy savings at these facilities.

* Power Usage Effectiveness: PUE is calculated by dividing the total power consumption of a data center by the power consumption of the computing equipment it houses. It is a figure larger than 1, with higher efficiencies represented by values approaching 1.
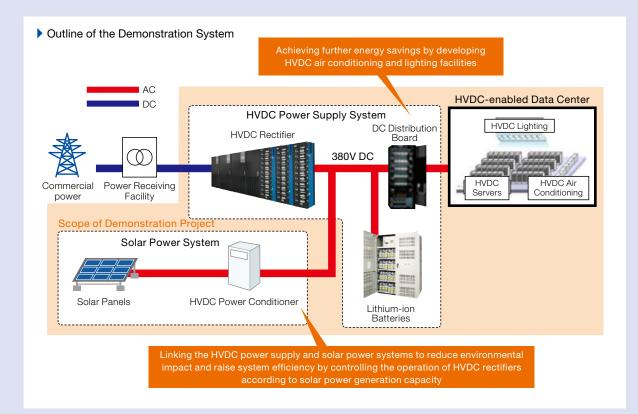
CASE 1

Energy Conservation Demonstration Project Using an HVDC Power Supply System Launched at U.S. Data Centers

NTTFACILITIES

Electricity is supplied as either alternating current (AC), typically used through household wall sockets, or as direct current (DC) used in railways, communications and electronic circuits. Energy is lost whenever one type of current is converted to the other. Japan has been working on commercializing and introducing an HVDC (high-voltage direct current) power supply system that can save more energy than conventional AC power supply systems by reducing the frequency of conversions. The mechanism was developed by the NTT Group and realized with support from the New Energy and Industrial Technology Development Organization (NEDO). Directly connected to ICT equipment and storage batteries, the system can provide a highly reliable supply of energy. With this feature, the system is expected to be able to cope with the increasing scale of data centers and has excellent prospects for being broadly adopted in the United States and other countries.

Under consignment from NEDO, NTT Facilities will construct an HVDC power supply system at the Advanced Computing Center of the University of Texas at Austin and conduct an energy conservation demonstration project between August 2015 and March 2017. By conducting a demonstration project in the United States, which is the greatest market in the ICT field, we hope to promote the HVDC power supply system and reduce energy consumption at data centers by demonstrating the system's effectiveness based on objective performance data in areas such as energy conservation, reliability, maintenance and operability.

We plan to build on this demonstration project by developing a global business for the HVDC power supply system, primarily focused on the United States, home to the largest market for data centers.

▶ Outline of the Demonstration System

Achieving further energy savings by developing HVDC air conditioning and lighting facilities

Linking the HVDC power supply and solar power systems to reduce environmental impact and raise system efficiency by controlling the operation of HVDC rectifiers according to solar power generation capacity

CASE 2

Making Data Centers Energy Efficient—India's First LEED GOLD Certified Data Center

The data center market in India has been growing at an annual pace of over 15% and NTT Communications provides data center services through its Group company, Netmagic. In October 2015, we opened a data center named Mumbai DC5 in Mumbai, the heart of India's economy, and the data center is equipped with one of the largest server rooms in the country. This is part of our drive to reinforce our ICT business base in India.

To set up data centers that are friendly to the natural environment, we have been working to achieve lower power usage effectiveness (a measure of a data center's energy efficiency), cut operational costs, realize efficient cooling and reduce CO_2 emissions. One specific effort is the adoption of Leadership in Energy and Environmental Design (LEED) certification, a U.S. program for green buildings.

Our data center in Chennai was the very first LEED Gold data center in India, followed by our Bangalore DC2. To construct an environmentally sound, next-generation data center, we adopted a design for absorbing groundwater and controlling the discharge of wastewater into the sewage system, reduced water use by adjusting the flow from taps and other outlets, saved energy for air conditioning by improving ventilation, and used local wood for 20% of the construction material. Certification of the center was granted in recognition of these diverse features.

We will continue to provide energy-efficient data center services as our contribution to the global environment.
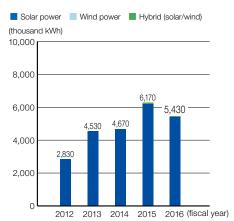
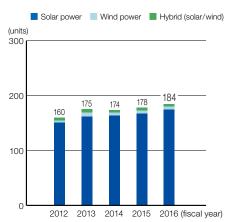LEED Certificate for the data center in Bangalore

LEED Certificate for the data center in Chennai

Use of Clean Energy

The NTT Group has been engaged in activities that use clean energy, and we will continue our Group-wide effort of actively using of clean energy.
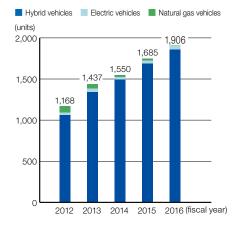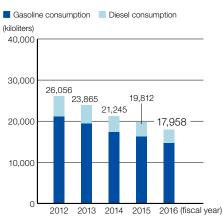
▶ Clean Energy Generation

Solar power　Wind power　Hybrid (solar/wind)

(thousand kWh)

▶ Number of Clean Energy Generators

Solar power　Wind power　Hybrid (solar/wind)

(units)

Increasing low-Emission Company Vehicles

The NTT West Group is seeking to reduce CO_2 emissions from its company vehicles by upgrading its fleet to fuel-efficient and low-emission vehicles. It is actively introducing fuel cell vehicles, which do not emit toxic substances that cause CO_2 and air pollution. Also it is promoting the shared use of company vehicles on a building-by-building basis to optimize the allocation of its fleet. As of the end of fiscal 2016, the number of its fleet has decreased by approximately 800 cars to approximately 12,000. NTT Communications intends to raise the rate of low-emission vehicles in its fleet to 100% by 2016, while NTT FACILITIES has sought to reduce CO_2 emissions by revising its guidelines for low-emission vehicles in 2011 to promote the selection of: (1) electric vehicles, (2) hybrid vehicles, or (3) other vehicles certified for fuel efficiency and low emissions, in that order, when considering vehicle type.
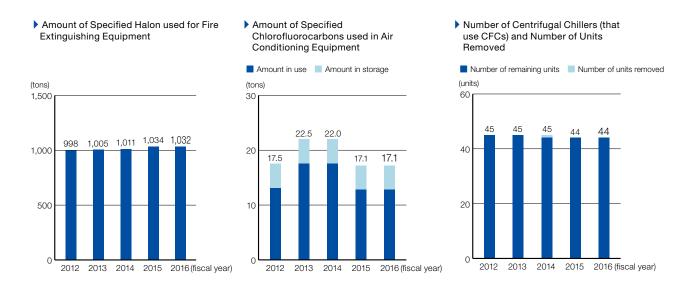
▶ Number of low-Emission Company Vehicles

Hybrid vehicles　Electric vehicles　Natural gas vehicles

(units)

▶ Fuel Consumption by Company Vehicles

Gasoline consumption　Diesel consumption

(kiloliters)

▼

◳ Initiatives for Protecting the Ozone Layer

Halon contained in widely used gaseous fire extinguishing agents and fluorocarbons used in air conditioners and refrigerators are specified as ozone-depleting substances. The NTT Group has sought to avoid new construction and the expansion of facilities that use specified halon or fluorocarbons (chlorofluorocarbons (CFCs)) and to promote the shift to alternative facilities. We also manage centrifugal refrigerators using CFCs to ensure the number of units do not rise.

▸ Amount of Specified Halon used for Fire Extinguishing Equipment

(tons)

	2012	2013	2014	2015	2016 (fiscal year)
	998	1,005	1,011	1,034	1,032

▸ Amount of Specified Chlorofluorocarbons used in Air Conditioning Equipment

■ Amount in use　■ Amount in storage

(tons)

	2012	2013	2014	2015	2016 (fiscal year)
	17.5	22.5	22.0	17.1	17.1

▸ Number of Centrifugal Chillers (that use CFCs) and Number of Units Removed

■ Number of remaining units　■ Number of units removed

(units)

	2012	2013	2014	2015	2016 (fiscal year)
	45	45	45	44	44

◳ Implementing Cool Biz and Warm Biz

Every NTT Group company engages in the Cool Biz campaign during the summer and the Warm Biz campaign in the winter as part of their employee participation initiatives against global warming.

Cool Biz is intended to reduce electricity consumed by air conditioning during the summer by maintaining room temperatures at 28°C and adopting the Cool Biz style of wearing no tie or jacket at work. Warm Biz is a similar initiative for reducing electricity consumption from air conditioning during the winter.

In fiscal 2016, we maintained our efforts to prevent global warming and respond to the limited supply of domestic electricity caused by the Great East Japan Earthquake by undertaking electricity saving measures for the summer season, from May 7 to October 31, during which we engaged in Cool Biz activities in the office while actively seeking to reduce the use of electricity. Similarly, during the winter season, from December 1 to March 31, 2016, we engaged in Warm Biz activities in combination with electricity-saving measures.

▼

Implementing Closed Loop Recycling

▶ Our Approach

Although our one-way society of mass production, consumption and disposal has brought affluence and convenience to our lives, it has also raised various problems such as illegal dumping and depletion of natural resources. To resolve these issues we must first review how companies manage their businesses as well as our social and economic systems, and shift to a closed loop society.

At the NTT Group, we practice the 3Rs (reduce, reuse, recycle), working to reduce the amount of materials consumed by our business activities and reuse or recycle the resources that are consumed.
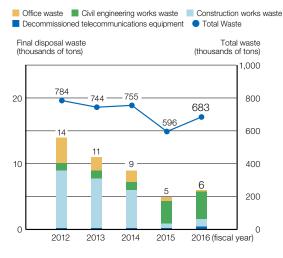
▶ Waste Discharged by the NTT Group

The amount of Waste discharged by the NTT Group in fiscal 2016 totaled 683 thousand tons. By recycling 674 thousand tons and reducing weight by 1 thousand tons, the volume of waste sent to final disposal was 6 thousand tons.

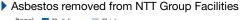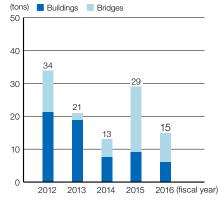▶ Results of Recycling, Waste Reduction and Final Disposal

Recycled decommissioned telecommunications equipment	Recycled construction works waste	Recycled civil engineering works waste	Recycled office waste	Others	Amount of waste reduced by incineration	Amount of final disposal waste
242 thousand t	244 thousand t	141 thousand t	37 thousand t	10 thousand t		
Recycling				674 thousand t	1 thousand t	6 thousand t

▶ Waste and Final Disposal Waste

■ Office waste　■ Civil engineering works waste　■ Construction works waste
■ Decommissioned telecommunications equipment　● Total Waste

Final disposal waste
(thousands of tons)
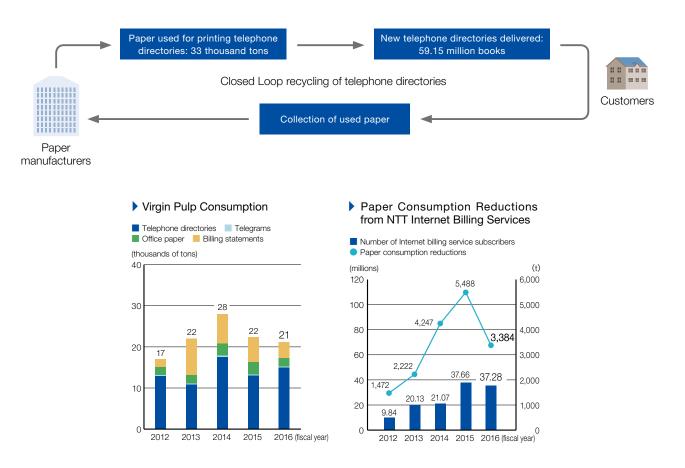
Total waste
(thousands of tons)

Hazardous Waste

For NTT Group operations, hazardous waste as defined by law applies to asbestos contained in waste generated from construction work on relay stations, transformers and condensers containing PCB, and lead batteries. These are disposed of appropriately and in compliance with the Waste Management and Public Cleansing Law (Waste Disposal Law) as well as other laws and regulations, and the NTT Group does not export such waste. We also pay meticulous attention to the proper storage and management of equipment containing PCBs and PCB-contaminated wastes, and dispose of them with safe and appropriate methods in conformity with the Law Concerning Special Measures Against PCB Waste.

▶ Asbestos removed from NTT Group Facilities

(tons) ■ Buildings ■ Bridges

	2012	2013	2014	2015	2016 (fiscal year)
Total	34	21	13	29	15

Paper Management and Recycling

Paper consumption of the NTT Group was 45 thousand tons. As for telephone directories, which account for approximately 70% of our paper consumption, we established a closed loop recycling system in 1999 to collect old directories and reuse the paper for new ones. We undertake numerical management for our use of virgin pulp. Also, we are working to reduce paper consumption of society through the use of ICT, which includes measures such as our Internet billing service (electronic invoice).

Paper used for printing telephone directories: 33 thousand tons

New telephone directories delivered: 59.15 million books

Closed Loop recycling of telephone directories

Customers

Collection of used paper

Paper manufacturers

▶ Virgin Pulp Consumption

■ Telephone directories ■ Telegrams
■ Office paper ■ Billing statements

(thousands of tons)

	2012	2013	2014	2015	2016 (fiscal year)
Total	17	22	28	22	21

▶ Paper Consumption Reductions from NTT Internet Billing Services

■ Number of Internet billing service subscribers
● Paper consumption reductions

(millions) (t)

	2012	2013	2014	2015	2016 (fiscal year)
Subscribers	9.84	20.13	21.07	37.66	37.28
Paper consumption reductions	1,472	2,222	4,247	5,488	3,384

▼

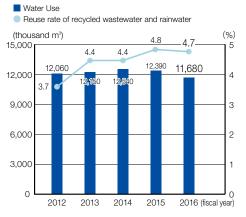## ▶ Water Management and Recycling

Due to the nature of the NTT Group's business, little water is consumed in our operations. In Japan, domestic and industrial water consumption totaled 26.5 billion m³*, while the NTT Group's consumption of tap water, wastewater, recycled wastewater and rainwater totaled 11.68 million m³. Even if tap water accounted for all of the water consumed by the NTT Group, this would be only 0.04% of the total for all of Japan (less than 0.02% if agricultural water is included). Moreover, our water use is spread out across the country and so we believe our water intake does not have any significant impact on water sources. The NTT Group reduces its consumption of tap water by using recycled wastewater and rainwater, which accounted for 4.7% of our total water use in fiscal 2016. We estimate that our total water discharge was 5.5 million m³.

The Atsugi R&D Center, where we use chemical substances in our research activities, discharged wastewater totaling 93 thousand m³ into the Sagami River area and Sagami Bay in fiscal 2016. We monitor the quality of domestic and industrial wastewater and have confirmed that the quality of wastewater is within our voluntary targets, which are twice as much more stringent than mandated targets.

At the Musashino R&D Center, in an effort to promote the use of recycled water and reuse of water, rainwater and blow-down water from our cooling tower is reused on each floor for flushing toilets after it has been filtered and sterilized. As a result, tap water use in the center has been reduced to 76% of the total volume of water used, calculated by dividing 17 thousand m³ of tap water by 73 thousand m³ of discharged wastewater.

The NTT Group has not been involved in any significant spills.

* From the Ministry of Land, Infrastructure, Transport and Tourism: Actual water use in fiscal 2010 (water intake basis) was approximately 80.9 billion m³ per year (domestic and commercial use of water: approximately 15.2 billion m³; water for industrial use: approximately 11.3 billion m³; water for agricultural use: approximately 54.4 billion m³).

▶ Use of Water Resources

■ Water Use
● Reuse rate of recycled wastewater and rainwater

(thousand m³)   (%)

* Water Use is total of consumption of tap water, wastewater, recycled wastewater and rainwater.

▼

▶ Initiatives for Implementing Closed Loop Recycling

◣ Reuse and Recycling of Telecommunications Equipment

The NTT Group owns various types of telecommunications equipment and related items including telephone poles, switching equipment, communications cables, public telephone booths and public telephones. These are decommissioned and disposed of when they reach the end of their service life or are replaced during system upgrades for new services and so forth.

We reuse and recycle decommissioned telecommunications equipment within the Group by, for example, recycling concrete waste from discarded concrete poles as road building material. Public telephone booths and public telephones are taken to a specialized intermediate treatment plant, where parts of the booths are sorted into aluminum, stainless steel, glass and plastic. Similarly, the baseboards, copper wires and various plastics in the public telephones are meticulously sorted. They are then sent to a recycling plant to become recycled materials such as rare metals, copper and pellets. The recycling rate there is reflected in the precision as a result of careful hand sorting at the intermediate treatment plant.

To prevent the inappropriate treatment of the materials, such as illegal dumping, NTT East collaborated with NTT-ME to construct a system that uses GPS and photography to confirm proper disposal from the site of disposal to the disposal plant.

◣ DOCOMO Recycling Process Receives Wide-Area Authorization from the Ministry of Environment

Containing gold, silver, copper, palladium and other metals, mobile phones could be regarded as a valuable recycling resource in Japan with its paucity of mineral resources. NTT DOCOMO has accordingly collected used mobile phones from customers since 1998 at its approximately 2,400 docomo Shops throughout Japan, and through various events.

In fiscal 2012, the company introduced a new recycling process for pyrolyzing any plastic used in mobile phones to turn it into oil for use as a fuel, after which gold, silver and other metals are recovered from the residues of this process. This is the only process in the telecommunications industry to have been authorized by the Ministry of Environment as a wide-area general and industrial waste disposal program[1].

In fiscal 2015, we made a broad call for cooperation in collecting terminals by exhibiting at CEATEC JAPAN[2] and by delivering our message through social networking media. Through these efforts we collected about 4.17 million mobile phones[3] in fiscal 2016, bringing the cumulative total to about 95.6 million phones since the collections began. The collection system has also spread among corporate customers, with 424 companies cooperating in fiscal 2016.

We will seek to achieve greater efficiency in our recycling system and promote the collection of used mobile phones from customers.

[1] Wide-area authorization program: A special measure specified in Articles 9-9 and 15-4-3 of the Waste Management and Public Cleansing Act (#137, 1970) that relieves businesses that recycle their products effectively of the need to obtain local authority permissions related to waste disposal.
[2] Asia's largest international exhibition for imaging, information and communications.
[3] Figures for fiscal 2016 include units collected for reuse.

Conserving Biodiversity

▶ Our Approach

The NTT Group installs telecommunications equipment, particularly power poles and cables, in natural environments, exerting a considerable impact on biodiversity. On the other hand, natural ecosystems can at times impact our operations. For example, communications cables, located in natural environments with rich ecosystems, sustain damage by being nibbled by squirrels or crows.

Mindful of this relationship between biodiversity and the NTT Group, we seek to enhance our efforts to conserve biodiversity through concrete initiatives based on two approaches.

One approach is implementation based on our business activities; we endeavor to install our telecommunications equipment in ways that minimize our impact on ecosystems. We also contribute to conservation activities by using our services and products.

The other approach is implementation based on social contribution. As an enterprise providing ICT services, we seek to promote initiatives to communicate information to convey the significance of biodiversity to the public. In addition to transmitting information and supporting exchange, NTT Group employees throughout the country are involved in tree planting, satoyama* conservation and many other biodiversity-related initiatives (p.130).

▶ Examples of Implementation Based on Our Business Activities

◾ Environmental Assessments when Selecting Locations for Data Centers and Other Facilities

When planning to construct new data centers or other buildings, we research the historical, social, geographical, biological and environmental attributes of the prospective building site and surrounding district based on our NTT Group Green Design Guideline for Buildings, and endeavor to reflect the necessary aspects in facility's design.

For example, we use native plant species as vegetation for greening our data centers, which have in recent times become the core components of ICT infrastructure.

When drawing up proposals for the construction of new data centers for customers, the NTT Group applies the Comprehensive Assessment System for Built Environment Efficiency (CASBEE*) and submits proposals designed to obtain the highest CASBEE rank of S. While paying due consideration to the environment in this way, we also take care to minimize noise and vibration and maintain the scenic appeal of the district during construction while endeavoring to ensure that exhaust heat and noise from the air conditioning outdoor units and emergency generators of functioning data centers will have minimal impact on neighboring areas.

* CASBEE: A system for the comprehensive assessment of the quality of a building from such perspectives as environmental performance, interior comfort and scenic appeal

CASE 1 — Shinagawa Season Terrace—A Green Office Building that Meets Japan's Highest National Standards

NTT UD

The Shinagawa Season Terrace, a joint project undertaken by Taisei Corporation, Hulic Co., Ltd., Tokyo Urban Development Co., Ltd. and NTT Urban Development Corp., held its opening day on May 28, 2015. This is a large-scale development project for reconstructing the Shibaura Water Reclamation Center, managed by the Tokyo Metropolitan Government, which had sustained urban activity and daily life for 80 years since starting operations in 1931, and effectively using the vast vertical space above the facility. Under the theme of coexistence with the environment, the project sought to create a sustainable urban community that connects natural features such as light, wind, water and greenery with human activity.

The Shinagawa Season Terrace was built by incorporating the technologies of NTT Group companies in various ways. For example, the building is equipped with NTT Facilities' solar power generation system and BEMS, which is used to diagnose the status of energy conservation by visualizing energy use.

These technologies contribute to reducing CO_2 emissions for the entire building by approximately 43% compared to CO_2 emission standards*.

Significant effort has also gone into preparing for disasters, including NTT DOCOMO's emergency satellite phones and NTT Communications' emergency earthquake alert system.

The site also includes an expansive 3.5 hectare park that brings people closer together and injects the area with an energetic liveliness that not only gives this business hub a relaxed atmosphere but also helps to nurture and contribute to the community as a whole. The park lies on the border of the Musashino upland and the coastal area of Tokyo Bay and is expected to function as a relay point for the two natural ecosystems. This aspect of the project was strongly recognized under the Social and Environmental Green Evaluation System (SEGES) of Japan's Organization for Landscape and urban Green Infrastructure, leading to its designation as a development project contributing to society and the environment through green space conservation and creation (Urban Development Edition SEGES).

As a result of these efforts, the Shinagawa Season Terrace has received top ratings in various third-party certifications, including the S-ranking under CASBEE, the Comprehensive Assessment System for Built Environment Efficiency.

NTT Urban Development will continue to promote community development by applying creative ideas to reduce the environmental impact associated with urban development as well as to make comfortable spaces where people can feel close to nature.

* According to the Metropolitan Tokyo Architectural Energy Savings Evaluation Report

Environmental certifications awarded to the Shinagawa Season Terrace

Development project contributing to society and the environment through green space conservation and creation (Urban Development Edition SEGES)	DBJ Green Building Certification **Platinum** (top rank)	CASBEE (Comprehensive Assessment System for Built Environment Efficiency) **S-rank** (top rank)	Tokyo Green Building Program **Level 3** (top rank)

🌳 Green ●Green roof and wall greening

Light
- ●Solar lighting system
- ●Solar power generation
- ●Automated sunlight tracking blinds
- ●Solar retro-reflector exterior panels
- ●High-performance low-E insulated glazing
- ●LED lighting and next-generation human sensors

Water
- ●Use of reclaimed water for flushing toilets
- ●Thermal power supply system using sewage heat
- ●Cool roads, cool walls
- ●Use of rainwater

Wind
- ●Passive night-purge ventilation
- ●Exterior view showing natural air vents
- ●Large volume outdoor air cooling

Photograph provided by Forward Stroke Inc.

CASE 2 — Environmental Protection Initiative Linked to Business Activities

NTT Plala Inc.

NTT Plala Inc. provides various entertainment services for individual users, centered on its Hikari TV service, and seeks to take advantage of its strengths as a media outlet to engage in fun activities with its customers as its CSR action policy. As part of this policy, we have been involved in initiatives for protecting a coral reef in Okinawa through our Bukatsu DO![1] and Hikari TV.

We organized a coral transplant tour in Okinawa for members of Bukatsu-DO! on October 2015. While enjoying the tour, the participants learned about the role that coral plays in ocean ecosystems and its economic benefits.

On Hikari TV, we began distributing a self-produced program "Regenerating a Coral Reef in Okinawa—Creating the Future in Fun Ways[2]" through our video-on-demand service on January 2016 to raise customer awareness of protecting biodiversity while they enjoy 4K video. We donate part of the fees for viewing the program to activities aimed at regenerating the coral reef.

NTT Plala will continue to engage in social issues with its customers well into the future.

[1] Bukatsu DO! is an online community service for grown-ups, based on the concept of "club activities for grown-ups."
🖥 https://bukatsu.hikaritv.net/#/introduction (Japanese only)

[2] "Regenerating a Coral Reef in Okinawa—Creating the Future in Fun Ways".
🖥 https://www.hikaritv.net/sp/okinawa/ (Japanese Only)

A scene from the self-produced program: "Regenerating a Coral Reef in Okinawa—Creating the Future in Fun Ways"

Ensure Reliable Communications

We provide reliable and disaster-resistant ICT services while also protecting personal information and maintaining information system security.

Number of security experts

Approximately

20,000

Service stability

100%

Number of major accidents

0 CASES

Protecting Personal Information

CSR Priority Activities

Why this is a CSR Priority Activity for the NTT Group

The NTT Group has been entrusted with a considerable quantity of personal information, ranging from data on individual customers to that of corporate customers. Over the past few years, extensive leaks of personal information have occurred in Japan and overseas, driving up demand for more customer protection. The regulatory impact of protecting personal information has also grown, as seen in the European Union's personal information protection rules, requiring an even greater degree of information management.

Under these circumstances, the occurrence

Quantitative Indicator

Results in FY2016

● Number of incidents of personal information leaks

9

of a personal information leak could have various repercussions for the NTT Group in the operations of its businesses, including damage to its corporate value and loss of customers, which makes the rigorous management of personal information essential.

Management Approach

The NTT Group has established a policy and rules on information concerning its customers, shareholders, employees and others under the NTT Group Information Security Policy. We exercise rigorous management of information security by appointing a chief information security officer (CISO), who is ultimately responsible for our security management system.

In addition, each Group company has established a personal information protection system commensurate with their business. They have also formulated respective policies to conduct initiatives such as setting up organizational structures for information security management and installing systems for handling security issues.

NTT Group's Information Security Policy

In order to continue supplying safe, secure services at all times and remain to be a company relied on by customers forever, the NTT Group, as one of the responsible companies that shoulder the information communication industry, shall strive to maintain the security of information and contribute to the sound development of ubiquitous broadband society in accordance with the following policy.

(1) With a strong recognition of the importance of information security in ubiquitous broadband society, the Group shall strive to create a safe, secure, convenient communication environment and maintain information security.

(2) All the board members and employees of the NTT Group shall fully recognize that protecting information is the base of the Group's business activities and an important social responsibility of any company, and the Group shall strictly observe the secrecy of communications and comply with the relevant laws and regulations, including the Personal Information Protection Act.

(3) The Group shall reinforce its organization for maintaining information security, take thoroughgoing measures to prevent illegal access to information and loss, alteration, leak, etc. of information and implement activities necessary for protection of information, including thoroughgoing employee education and proper supervision of contractors, on a continual basis.

NTT Group's Information Security Policy 🖳 http://www.ntt.co.jp/g-policy/ (Japanese only)

▼

▶ Policy on Protecting Personal Information

Under the NTT Group Information Security Policy, we have formulated specific policies for protecting the personal information of customers and shareholders and for protecting specific personal data required by the introduction of Japan's Individual Number for its social security and tax identification system. Our Policy for Protecting the Personal Information of Customers also includes procedures for responding to requests for disclosure, correction, suspension of use and other actions at the request of customers.

Policy on Protecting Personal Information of Customers 🖥 http://www.ntt.co.jp/kojinjo/okyaku.html (Japanese only)
Policy on Protecting Personal Information of Shareholders 🖥 http://www.ntt.co.jp/kojinjo/kabu.html (Japanese only)
Policy on Protecting Specific Personal Information of Business Partners 🖥 http://www.ntt.co.jp/kojinjo/okyaku-m.html (Japanese only)
Policy on Protecting Specific Personal Information of Shareholders 🖥 http://www.ntt.co.jp/kojinjo/kabu-m.html (Japanese only)

▶ Security Management System

The NTT Group operates an information security management system to respond to risks related to information security. The Group CISO Committee was established in 2015 to set up a system for rigorously managing information security by formulating policies on related initiatives, planning and implementing measures and reviewing activities. We concurrently set up Group-wide working groups for resolving information security issues.

The senior executive vice president, as chief Information security officer (CISO), is responsible for managing the NTT Group's information security, and the secretariat for the Group CISO Committee was set up within the Systems Planning Department as the responsible organization. Similar entities have also been set up at Group companies.

► Initiatives for Information Security and the Protection of Personal Information

We have established a system for ensuring security by preventing illegal access to information or the loss, alteration or leak of information as well as managing antivirus measures and the physical transfer of information. Along with these stringent measures on the physical and systems aspects of security, we also strive to thoroughly educate our employees and appropriately supervise outsourcing contractors.

▶ Initiatives Taken by Group Companies

NTT EAST
- Establishment and regular meeting of the Information Security Promotion Committee
- Addressed revisions in regulations and guidelines by revising internal rules concerning the proper handling of specific personal information and stronger supervision over contractor companies, and established operational processes and conducted employee education related to these issues
- Provision of practical training for learning ways to deal with targeted e-mail attacks
- Practical cyber training under simulated conditions and utilization of security lectures via e-learning aimed at developing security experts

NTT WEST
- Establishment of the Customer Information Protection Reinforcement Period and Information Security Awareness Period
- Physical isolation of important terminals capable of outputting customer information, etc., to external recording media, and deployment of cameras and biometric authentication-based entry and exit controls
- Practical training for responding to scenarios of targeted e-mail attacks
- Establishment of the Information Security Promotion Committee to deliberate on basic information security policies
- Establishment and regular meetings of Information Security Promotion Committee to deliberate on basic policies related to information security

NTT Communications
- Conducting security surveys of domestic and overseas Group companies
- Applying an application and approval system for access to customer information
- Fixing software vulnerabilities and continuing the application of WideAngle integrated risk management services to all company IT systems, as well as centralized management of IT systems using an information security management platform (ISMP) to share vulnerability information
- Setting up an Information Security Division and organizing CSIRT functions; promoting across-the-board incident response and control and measures for related issues, including cyber security

docomo
- Holding of regular Information Management Committee meetings chaired by the chief privacy officer (CPO) and chief information security officer (CISO) (roles performed by a senior executive vice president)
- Integration of security measures against cyber attacks across the entire company
- Limitation on employees allowed to use the customer information management system (mandatory fingerprint authentication and periodic review of usage log); encryption of management information
- Conducting training for all employees at least once a year
- Establishment of an information security month (November) across the DOCOMO Group

NTT DATA
- Established the Information Security Policy in December 1998 to ensure information security through the appropriate handling of information assets
- Establishment and regular meetings of the Information Security Committee. Members who are the heads of individual organizations serve as information security managers to build an information security management system.
- Establishment of NTTDATA-CERT in July 2010 as an organization responsible for preventing information security incidents and responding promptly to any incidents that occur

NTT FACILITIES
- Established an ICT Systems Division in April 2015 to strengthen ICT governance
- Established an Information Security Promotion Office in October 2015 to strengthen information security management
- Held experience-based training against targeted e-mail attacks
- Obtained ISO 27001 certification in 2006 to promote information security management

NTT COMWARE
- Establishment and regular meetings of the Information Security Liaison Committee in the company and with other Group companies
- Heads of individual organizations serve as information security execution managers to establish information security procedures
- Successful acquisition of Privacy Mark and ISMS certification for the entire company
- Implementation of Web access and e-mail tracing management, virus protection and unauthorized communications detection

NTT UD
- Establishment and regular convening of the Information Security Committee
- Heads of individual organizations serve as chief information security mangers to establish a security management system
- Revision of the "Policy on the Protection of Personal Information" and implementation of measures to prevent unauthorized access and the loss, alteration or leakage of information
- Promotion of activities to instill information security awareness

For more information on the initiatives of each NTT Group company, please refer to their respective websites or reports on information security.

NTT DATA Information Security Report   ▯ http://www.nttdata.com/global/en/csr/security/

◪ Initiatives Taken by Overseas Group Companies

Upon request from customers when disposing of ICT devices, Dimension Data makes sure that the destruction of data by waste disposal services meets the highest standards, adhering to CESG IA5 (CESG: Communications-Electronics Security Group) in the U.K. and DoD 5220.22-m (standard of the United States Department of Defense) in order to prevent data leaks from the waste.

▶ Contact Points on Personal Information

NTT has set up the Customer Contact Point on Personal Information, and similar contact points for services related to personal information have been set up at each NTT Group company. Since NTT is a holding company that does not directly provide telecommunications services, the handling of personal information related to services and related inquiries are redirected to the contact points of the operating companies providing those services.

Nippon Telegraph and Telephone Corporation

Customer Contact Point on Personal Information
Tel: 81-3-3201-1198
(Operating hours: 10:00–12:00, 13:00–17:00, excluding weekends, national holidays and New Year holidays)
🖥 http://www.ntt.co.jp/kojinjo/

Contact points for major operating companies (Japanese only)

NTT East Contact Point on Personal Information　🖥 http://www.ntt-east.co.jp/policy/
NTT West Contact Point on Personal Information　🖥 http://www.ntt-west.co.jp/share/privacy.html
NTT Communications Contact Point on Personal Information　🖥 http://www.ntt.com/about-us/hp/privacy.html
NTT DOCOMO Contact Point on Personal Information　🖥 https://www.nttdocomo.co.jp/utility/privacy/
NTT Urban Development Contact Point on Personal Information　🖥 http://www.nttud.co.jp/statement.html
NTT DATA Contact Point on Personal Information　🖥 http://www.nttdata.com/jp/ja/privacy_policy/index.html
NTT COMWARE　🖥 http://www.nttcom.co.jp/privacypolicy/
NTT FACILITIES　🖥 http://www.ntt-f.co.jp/policy/policy.html

▶ Track Record on Complaints, Leaks and Other Issues Related to Personal Information

Each company manages the inquiries, consultations and complaints received through their contact points. In fiscal 2016, NTT received no inquiries on personal information at its contact point and received no administrative guidance from the Ministry of Internal Affairs and Communications or other related government agencies.

　　With regard to the NTT Group, there were 9 confirmed incidents of leaks, theft or misplacement of personal information in fiscal 2016.

Reinforcing Information Security

Why this is a CSR Priority Activity for the NTT Group

The importance of information security grows each year as people seek to ensure the safety of Internet transactions and prevent leaks of confidential information. As an operator of telecommunications infrastructure, the NTT Group is charged with the responsibility of combating the ever more sophisticated and increasing threats to information security in order to protect customers' precious information assets.

The NTT Group has positioned Global Cloud Services as the cornerstone of its business operations in the Medium-Term Management Strategy, and we realize the need to provide an additional degree of security in managing customers' information assets

Quantitative Indicator

Results in FY2016

● Number of security experts

about **20,000** employees

through networks.

It is no less important to prepare against sophisticated large-scale cyber attacks on major international events and other venues, and the NTT Group is expected to demonstrate its true value in this area.

Management Approach

With the risk of cyber attacks emerging as a serious problem, we are focusing on training security experts as the key to reinforcing security as well as organizing and pursuing educational programs throughout the Group.

We are contributing to provide safe and secure services by developing technologies and services that ensure information security and by setting up NTT-CERT to implement preventive and follow-up support on security incidents as part of a multi-layered defense from the perspectives of equipment, operations and response required to combat cyber attacks.

Training Security Experts

Threats to information security are increasingly sophisticated and diversified, making damage from cyber attacks and information leaks a public concern. On the other hand, an approximately estimated 160,000 out of 265,000 information security engineers are believed to lack the skills necessary for performing their tasks and approximately 80,000 more security engineers are needed. In this context, the NTT Group is working to strengthen the Group's expert security resources by setting concrete goals.

Believing that the same need exists at the national level, we will cooperate with the government, other companies and educational institutions to contribute to the training of security experts across Japan.

Training Security Experts in the NTT Group

In November 2011, the NTT Group set a goal to increase the number of security experts in Japan from around 2,500 now to about 10,000 by fiscal 2021 so that it could bolster its security expert resources. Specifically, we roughly divided these resources into three job classifications (security management consulting, security operation and security development) and three human resource levels (beginner, intermediate and advanced). Each Group company is promoting development of security expert resources according to the expected roles of each classification and level.

The number of certified security experts has increased at a faster pace than anticipated to approximately 20,000 as of March 31, 2016. Over the next few years, we will seek to enhance our practical development programs to further expand the workforce of intermediate and advanced level personnel, who will shoulder the responsibility of core security operations.

	Title	Job classification		
		Security management consulting	Security operation	Security development
Level — Advanced	Security Master	Produce first-rate experts with the best performance in the industry		
	Security Principal			
Intermediate	Security Professional	Reinforce the pool of specialists with deep experience and judgment		
Beginner	Security Expert	Raise the level of workers who can do their work with the required knowledge		

Contributing to Training Security Experts for Japan

To address the shortfalls in the skills and numbers of engineers working on information security, the NTT Group Established the "Cyber-attack and Cyber-defense Technologies" course at Waseda University, opened an information security course through "gacco*" provided by DOCOMO gacco, and implemented other initiatives to bolster the training of security experts in Japan.

Furthermore, in fiscal 2016 we contributed to establishing and managing the Cross-industrial Cybersecurity Human Resource Development Committee, which aims to cultivate cyber security human resources and enhance security skills through cross-industry collaboration among companies involved in key industries centered on critical infrastructure.

* An educational Web service through which anyone can participate free of charge, operated in partnership with Massive Open Online Courses.

CASE 1

Identifying Common Challenges of Industries in the Cross-industrial Cybersecurity Human Resource Development Committee

NTT

Japan will be hosting a number of international events in the coming years, creating an urgent need to address the threat of cyber attacks targeting large-scale facilities and the environments around them. Moreover, as all companies and "things" become increasingly connected to networks, the scope of targets that require the protection of each industry or company continues to expand. Cross-sector efforts to improve responsiveness to security risks across industries and companies are essential for safeguarding security. In particular, the development of human resources for cyber security by companies involved in key industries centered on critical infrastructure will serve as a pivot in these efforts.

To address this issue, companies involved in key industries centered on critical infrastructure came together to establish the Cross-industrial Cybersecurity Human Resource Development Committee (hereafter, the Committee) in June 2015. NTT has been formulating the overall guidelines and promoting collaboration with external organizations as the secretariat since the inception of this forum, which now has more than 40 corporate members.

The forum takes actions toward building a cooperative, cross-industry system in Japan, defining and visualizing the type of human resources required by industries, and facilitating the development of human resources within industries. In the future, we will seek to create an ecosystem for developing human resources for cyber security through a cycle of developing, hiring and utilizing human resources.
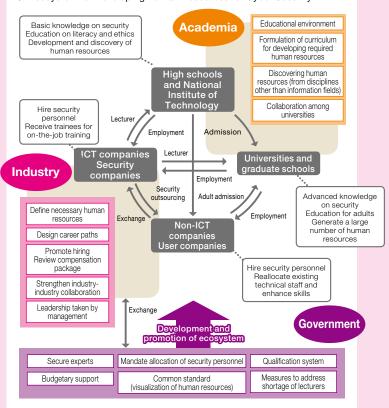
In pursuing these initiatives, we have sought to understand the current status across industries. From the relationship between the organizational structures of Japanese companies and security operations, we were able to identify the following common issues that lie in the path of defining and visualizing the human resources needed.

(1) Security operations (functions) are broadly dispersed within the corporate organization so that developing human resources specifically for organizations consisting of security experts such as the Computer Security Incident Response Team (CSIRT) would not be insufficient.
(2) There is an essential need for a mechanism enabling user companies to develop or hire security personnel and continue utilizing and retaining them.

Our latest discussion clearly identified issues related to defining and visualizing the type of required human resources that are common across industries. Looking ahead, we plan to expand the scope of discussions to defining the type of human resources by industries and classification (skill level).

Once we define the type of required human resources, we will analyze the current shortages in human resources by industry and company, discuss measures for developing these resources at a formal meeting of the forum, and raise the feasibility of establishing an ecosystem.

▶ Ecosystem for Developing Human Resources for Cyber Security

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▶ Management of CSIRT

NTT-CERT was set up in 2004 as the Computer Security Incident Response Team (CSIRT) of the NTT Group. The team has been gathering information on security incidents related to the NTT Group, offering support for responsive action, considering preventive measures, developing training programs and providing information related to security issues. As the core organization of the NTT Group's initiatives on security, NTT-CERT also provides a reliable contact point on information security and collaborates with organizations and experts inside and outside the Group to detect and resolve security incidents, minimize damage and support preventive action. NTT-CERT thereby plays an instrumental role in enhancing security for the NTT Group and the information network community at large.

NTT-CERT shares information on the latest trends and countermeasures with CSIRT organizations in and outside Japan through its collaboration with US-CERT and the JPCERT Coordination Center and through its membership in organizations such as the Forum of Incident Response and Security Teams (FIRST) and Nippon CSIRT Association. It also participates in the cross-sector exercises organized by the National Center of Incident Readiness and Strategy for Cybersecurity (NISC) to share know-how and collect information. In addition, NTT-CERT promotes the development of CSIRT at each Group company to enhance overall responsiveness.

NTT-CERT 🖥 https://www.ntt-cert.org/index-en.html
FIRST 🖥 https://www.first.org/members/teams
(NTT, NTT Communications and NTT DATA are participating members)
Nippon CSIRT Association 🖥 http://www.nca.gr.jp/en/index.html
(NTT, NTT East, NTT West, NTT Communications, NTT DATA and NTT DOCOMO are participating members)
NTT-CERT is a founding member of the Nippon CSIRT Association.

▼

The NTT Group addresses security risks that are growing in sophistication and gravity by developing diverse technologies and services related to security, such as research on encryption technology for protecting information and development of services for supporting measures against cyber attacks, thereby contributing to the provision of safe and secure service.

CASE 1 Winning a Competition in Technology for Protecting Personal Information

⊙ **NTT**

The revision of the Personal Information Protection Law in 2015 has led to demand for appropriate anonymization technology to protect personal information while still effectively using the data. Appropriate anonymization requires the protection of privacy by making it impossible to specify individual identities, as well as the ability to effectively analyze the anonymized data. Developing the technologies and standards for balancing these two requirements requires vigorous technological research on protecting privacy through active discussion and exchange between academic institutions engaged in R&D and technical staff at the site of actual data use.

In this context, the first Privacy Workshop (PWS2015) was held concurrently with a computer security symposium attended by nearly 500 researchers and technical experts involved in security. At PWS2015, a contest (the PWS Cup) was held for teams competing in the categories of anonymization and technologies for re-identifying anonymized data. The NTT team emerged as the winner in the overall standing by demonstrating its accumulated know-how on developing anonymization and re-identification technologies. The competition was held under the categories shown below, and the NTT team came out on top in all of them, leading to its overall victory. In the contest, the relative merits of anonymized data were compared using the total scores of several pre-determined numerical indicators. It took more than applying common anonymization techniques to maximize the numerical indicators, so the NTT team sought creative ideas and applied randomization, its specialty, to come up with results that excelled in terms of usability and safety, thereby achieving the highest scores in the anonymization category. In the category of re-identification, which is uncommon in research, the team made the best use of its members' extensive knowledge of anonymization methods to obtain the highest number of successful re-identifications. Also, in the pseudo-microdata generation category, they randomized data while retaining its properties and earned significant praise for their advanced technology.

Ensuring Stable and Reliable Communications Services

CSR Priority Activities

Why this is a CSR Priority Activity for the NTT Group

Securing critical communications and the 110, 119 and 118 emergency call services for rescue and restoration operations during a disaster and for maintaining public order may prove crucial in saving lives. Japan is a country prone to natural disasters such as earthquakes and typhoons. As such, telecommunications networks are especially important, a fact that was reaffirmed by the devastating Great East Japan Earthquake.

Faced with the possible occurrence of a major earthquake directly under Tokyo or the Nankai Trough off Japan's southern coastline, there is a pressing need for society to prepare for such potential disasters while ensuring the stability and reliability of its telecommunications infrastructure.

Quantitative Indicator

Results in FY2016

● Service stability

100%

● Number of major accidents

0

Management Approach

The NTT Group has defined three key themes for disaster countermeasures: improving communications network reliability, securing critical communications, and prompt restoration of communications services. We have been strengthening efforts based on these themes since the Great East Japan Earthquake.

Specifically, we are taking measures to improve the reliability of our telecommunications infrastructure. To ensure that our communications services operate without interruption at all times, we employ transmission trunk line multi-routing, have enacted blackout countermeasures for communications buildings and base stations, and are making communications buildings more quake-proof. In addition, we are expanding the assortment of power supply vehicles and other disaster response equipment that we have positioned throughout Japan, and are repeatedly conducting trainings to prepare for major natural disasters. We are making a daily effort to guarantee that, in the event of a disaster, we are able to immediately set up a Disaster Countermeasures Office and other emergency structures and make the necessary emergency and critical communications as designated public institutions prescribed in the Basic Act on Disaster Control Measures.

In fiscal 2016, no major accidents[1] occurred at the four telecommunications businesses (NTT East, NTT WEST, NTT Communications and NTT DOCOMO), and service stability[2] was 100%.

Improving communications network reliability

Building disaster-resistant facilities and transmission trunk line multi-routing 24/365 network monitoring and control, etc.

Countermeasures strengthened since the Great East Japan Earthquake

- Enhanced disaster resistance (damage prediction, hazard map utilization)
- Stable provision of communications services (improving trunk line reliability, etc.)

countermeasures
Three key themes

Disaster!

Securing critical communications

Securing 110, 119, 118 and other emergency services and critical communications Installing emergency use public phones and providing safety status checking services when disasters strike, etc.

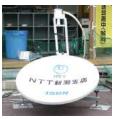**Countermeasures strengthened since the Great East Japan Earthquake**

- Measures for securing critical communications
- Early resolution of communications blackouts
- Enhancements of disaster message services
- Further Information Station implementation

Prompt restoration of communications services

Early restoration of services by utilizing disaster countermeasure equipment, procurement of materials, equipment, and manpower for restoration purposes, etc.

Countermeasures strengthened since the Great East Japan Earthquake

- Building up stock of disaster response equipment
- Enhancement of organization for disaster countermeasure operations
- Exercises and practice for a major earthquake
- Training of crisis management personnel and utilization of knowledge and skills

[1] Number of accidents that led to a suspension of telecommunications services or a decline in communications quality that meet the following criteria regarding duration and number of people affected:
- Emergency call services (110, 119, etc.): at least 1 hour affecting at least 30,000 users
- Voice services other than emergency calls: at least 2 hours affecting at least 30,000 users, or at least 1 hour affecting at least 100,000 users
- Internet-related services (free of charge): at least 12 hours affecting at least 1 million users, or at least 24 hours affecting at least 100,000 users

[2] [1 – total hours under the impact of major accidents (number of affected users × hours of major accidents) / total hours of major service provision (number of users × 24 hours × 365 days)] × 100%

An emergency-use public phone installed during a disaster

Power supply vehicle dispatched for the prompt restoration of communications services

24/365 network monitoring

Free mobile phone charging service

DOCOMO mobile base-station vehicles

Installation of an emergency-use public phone

▶ Securing Critical Communications

To secure necessary communications in the event of a disaster, the NTT Group is implementing various initiatives, including the installation of emergency-use public phones, a mobile phone lending service in disaster areas, and the provision of means for confirming the safety of people in areas hit by a disaster.

We simultaneously install multiple lines to secure connections to the headquarters of the police department, fire department and coast guard to prepare against the possibility that the 110, 119 and 118 emergency call services may be damaged.

A major disaster could also lead to social disorder, such as the disruption of transport systems. In such an event, we would consider the overall situation, including the state of limitations placed on mobile and fixed line phones at each telecommunications carrier, and offer the use of public phones free of charge if needed*.

* We will not charge carriers for which we have set call fees and will not settle payments between carriers for which we have set connection fees. For the specific names of carriers, please refer to the following URLs. (Japanese only)

Free charge public phone policy for areas covered by NTT East 🖥 http://www.ntt-east.co.jp/info-st/saigai/index.html
Free charge public phone policy for areas covered by NTT West 🖥 https://www.ntt-west.co.jp/open/sonota/tokusetsu_ryoukin.html
🖥 http://www.ntt-west.co.jp/ptd/basis/disaster.html

◣ Providing Services for Easy Safety Status Checking and Information Gathering When Disaster Strikes

To enable people to check on the safety of relatives and friends in areas hit by a major disaster that has caused phone connection problems, the NTT Group provides 171 Disaster Emergency Message Dial for leaving voice messages by phone, the Disaster Message Board Service (i-mode/sp-mode) for leaving text messages by mobile phone, the Disaster Voice Messaging Service (i-mode/sp-mode/mopera U) for leaving voice messages reporting the status of personal safety and the Web 171 Disaster Message Board for leaving text messages via the Internet. When we launch these emergency services in the event of a disaster or other contingency, we promptly inform our customers through the mass media, website and other means.

▼

▶ Useful Communication Services during a Disaster

171 Disaster Emergency Message Dial 電話・ケータイ・スマートフォンで **171** 災害用伝言ダイヤル	Service for recording and retrieving voice messages on personal safety keyed to phone numbers of persons in affected areas. The service can be accessed throughout Japan where fixed lines and mobile phones can be used (via fixed line phones, INS-Net, public phones, HIKARI phones and emergency-use public phones operated by NTT East and NTT West, and mobile phones operated by NTT DOCOMO).
Disaster Message Board Service (i-mode/sp-mode) ドコモケータイ・スマートフォン・タブレットで **災害用伝言板**	Special service provided in the event of a major disaster that enables persons living in or visiting an affected area to leave messages on their status using DOCOMO's mobile phones or smartphones. The messages can be retrieved from anywhere in the world through the Internet and other networks.
Disaster Voice Messaging Service (i-mode/sp-mode) ドコモケータイ・スマートフォン・タブレットで **災害用 音声お届け サービス**	Special service provided in the event of a major disaster, when an overflow of voice communications makes establishing a connection difficult. Voice messages are delivered via packet communications instead of voice communications. When a voice message is posted, the intended party is notified via SMS (Short Message Service). The service can also be used by smartphones or Disaster Kit in the case of tablets.
Web 171 Disaster Message Board インターネットで **web171** 災害用伝言板	Service that enables residents in areas affected by a disaster (including evacuation centers) to access the Disaster Message Board (Web 171) via the Internet and post a text message keyed to phone numbers. The message can be retrieved from anywhere in and outside Japan using the telephone number, and additional messages can be posted. The message can also be sent to others. The service can be used in areas with Internet access.
J-anpi All-Japan Safety Confirmation Portal for Disaster website j-anpi 安否情報まとめて検索	A website jointly operated with NHK that can be used through a Web browser on a personal computer, smartphone or mobile phone and entering a phone number or name to search all safety status information (text) stored by disaster messaging boards operated by telecommunications carriers, media outlets, companies and organizations. All the results of the search can be viewed at once.

By integrating the Web 171 Disaster Message Board with the Disaster Message Board Service for mobile and PHS phones (i-mode/sp-mode), we have also made it possible to conduct one-stop searches spanning both services from the companies providing those services. There are additional functions for notifying designated contacts by e-mail or voice when safety status information is posted. We are continuing to make improvements, such as by offering support in English, Chinese and Korean for the Web 171 Disaster Message Board, and in English and Chinese for the Disaster Message Board Service (i-mode/sp-mode), increasing the number of messages that can be posted and extending message storage time.

▶ Early Restoration of Communications Services

The NTT Group is devoted to early restoration of communications services by deploying and enhancing the functions of mobile power supply vehicles, portable satellite equipment and other mobile equipment as well as participating in disaster drills held in the respective regions.

CASE 1

Start of Collaboration with the Petroleum Association of Japan for Sharing Information on Key Facilities in the Event of a Disaster

NTT Group

Communications infrastructure represented by fixed line and mobile phones are indispensable for daily life and corporate activity. In the event of a major disaster, these channels play an even more significant role as the foundation for ensuring public safety and the continuity of government functions. To ensure that we fulfill our vital responsibility for securing critical infrastructure, the NTT Group signed a disaster-specific agreement and memorandum of understanding with the Petroleum Association of Japan in March 2016, becoming the first designated public institution to do so in Japan, a nation particularly prone to natural disasters.

Facilities in which the NTT Group's communications equipment has been installed require petroleum as fuel for electricity to drive emergency power generators in case of extended power outages caused by major disasters. In the aftermath of the Great East Japan Earthquake, it became difficult to supply the petroleum required for restoring and maintaining communications services through regular procurement routes. Consequently, the Petroleum Association of Japan, the primary oil distributors, responded to a government request for emergency oil supply to affected areas, including facilities of the NTT Group. However, the effort did not go smoothly due to such problems as a mismatch between the type of storage tank inlets at the facilities and the mounting bracket on the hose carried by the tankers. We have sought to learn from this experience by sharing information related to oil supply. As a result, in the event of a major disaster, member companies of the association will be able to act on the government request for emergency oil supply based on the Plan for Collaboration on Oil Supply in a Disaster to efficiently and reliably supply oil to NTT Group facilities, which in turn will allow us to restore and maintain communications services for everyone.

Signing ceremony with the Petroleum Association of Japan

CASE 2

Conducting Disaster Drills in Partnership with the Central and Local Governments and other External Organizations under the Scenario of a Large-scale Disaster

NTT

NTT holds disaster drills on Japan's Disaster Prevention Day on September 1 to coincide with the government's annual comprehensive disaster drills held on the same day. In September 2014, we conducted drills in line with a scenario that envisioned an earthquake centered on Tokyo. Members of the NTT Disaster Countermeasures Office participated in the drills without prior knowledge of the scenario. The drills included rushing from their homes to the office, setting up the Disaster Countermeasure Office and the alternate site, and travelling by foot. They checked mechanisms for classifying and sharing information on the status of damage and impact on communications services, as well as the operation of information sharing tools.

We also participate in the government's annual comprehensive disaster simulation exercises. These exercises are designed to improve process implementation capabilities and examine the efficacy of emergency response measures with respect to cooperation between the Emergency Response Headquarters of the government, relevant local governments, designated public institutions and other organizations based on the government's Guidelines for Emergency Response Activities and other references.

Scenes from disaster drills

▼

▶ Ensuring Reliability of Communications Services

Communications networks represent lifelines that are indispensable to the functioning of society, business activities and public safety.

　　The NTT Group endeavors to build disaster-resistant communications infrastructure and maintain and operate it in a way that ensures its proper functioning at all times by conducting regular safety patrols, replacing devices as a preventive maintenance measure, and other such means, in an effort to develop disaster-resilient communication networks and equipment.

◾ Ensuring the Disaster Resistance of Communications Equipment

We also strive to enable communications equipment housings, pylons and other facilities to withstand contingencies such as earthquakes, storms, flooding, fire and power outages in accordance with predetermined design standards.

　　For example, NTT's communications buildings and pylons are designed to withstand earthquakes of a seismic intensity of 7 on Japan's intensity scale, and 60 m/sec winds experienced during the strongest typhoons. Our facilities are equipped with flood doors and other defenses according to location to prevent inundation of communications equipment by tsunamis or floods. We also equip our communications equipment rooms with fire doors or shutters. Our communications buildings and wireless base stations are fitted with backup power sources to keep them running for extended periods in the event of sudden power outages, and as a further fallback, power supply vehicles can be hooked up to them to supply power. We use trunk line multi-routing to ensure that our communications services operate without interruption at all times. We are also deploying large zone base stations capable of covering wide areas in disaster and other emergency situations, and installing emergency power supply fuel tanks.

◾ Strengthening Monitoring Processes

NTT East, NTT West, NTT Communications and NTT DOCOMO monitor their communications networks on a 24/7 basis from their operation centers. On discovery of a failure or abnormality caused by a disaster or some other contingency, they work to restore service by switching to standby equipment and other means through remote operations, and dispatch maintenance personnel if on-site repairs are required. Depending on the scale of the failure, the Disaster Countermeasures Office or Risk Management Office of the relevant Group companies takes appropriate action. Clear and simple failure information is promptly posted on company websites, and a failure report is submitted to the central government.

Promoting Knowledge for Safe and Secure ICT Use and User Etiquette

The NTT Group provides users with relevant information and encourages user etiquette to ensure a more comfortable, safer and secure use of communications services. Above all, we believe that guaranteeing the safe use of ICT in public places and promoting consideration among people across generations is a part of our role in providing telecommunications infrastructure.

CASE 1 — Holding NTT Dream Kids Net Town across the Country

NTT Group

Every year, the NTT Group holds NTT Dream Kids Net Town, a summer holiday event in which children learn the rules and etiquette for safe and secure use of information communications services while having fun in a comfortable setting.

The event is jointly held by NTT, NTT East, NTT West, NTT Communications, NTT DOCOMO and NTT Data. Elementary school children from the third to sixth grades accompanied by their guardians can participate in the event free of charge. The tenth event was held in fiscal 2016 at four sites in Sapporo, Tokyo, Osaka and Fukuoka, with approximately 1,900 children in attendance.

Children participating in NTT Dream Kids Net Town learn about the structure and services of the Internet, smartphones and programming as well as basic etiquette and cautions for their use in an enjoyable way and using actual equipment. They can also apply what they have learned here for summer vacation research projects. In fiscal 2016, we created new video content and sought to keep up with the latest trends in technology so that children can gain a deeper understanding of wireless communications and cloud technology. We also offered an opportunity to experience programming. During the event, we opened an online study site for children who could not physically attend.

Children have shared favorable comments such as, "I've learned that the Internet is useful in our daily life" and "It was fun to see the program I have made actually work," while parents expressed appreciation for how the event conveyed not only the fun of communications but also its rules and etiquette. We have received highly favorable feedback in the questionnaire conducted after the event, with 96.8% of children and 97.6% of parents expressing satisfaction.

Children at the NTT Dream Kids Net Town

Complying with Laws and Providing Information Related to Radio Wave Safety

Mobile base stations and terminals of NTT DOCOMO observe the provisions of laws and ordinances regarding radio waves and are operated under the reference value of the radio-wave protection guidelines. Radio waves under the reference value are recognized internationally as being harmless to health, and DOCOMO mobile phones can be safely used.

NTT DOCOMO Radio Wave Safety   https://www.nttdocomo.co.jp/corporate/csr/network/index.html (Japanese only)

Unite the Energies of Team NTT

As Team NTT, we pledge to contribute to society by conducting our business according to the highest ethical standards and awareness of human rights and creating agreeable workplaces where diversity is respected.

Ratio of women in managerial positions

4.0%

Ratio of participation in training concerning human rights

92.0%

Number of accidents causing injury or death during construction work

2 CASES

Ratio of employees participating in volunteer activities

69.0%

Promoting Diversity

Why this is a CSR Priority Activity for the NTT Group

As a global ICT conglomerate, the NTT Group must create innovation to breed new value and address the needs of various users around the world. We are also upholding global cloud services as a pillar of our Medium-Term Management Strategy and intend to expand overseas sales as a global ICT conglomerate. To respond to dramatic changes in the markets and meet diversifying customer needs, as well as to become a consistently selected "Value Partner," we believe that respecting the individuality of employees and their differing values is essential.

Quantitative Indicator

Results in FY2016

● Ratio of women in managerial positions

4.0%

Accordingly, the NTT Group places great importance on creating diverse workplaces in which people can realize their full potential irrespective of sex, age, race, nationality, disability, sexual orientation, gender identity, or other factors.

Management Approach

NTT aims to double the current ratio of female officers and managers in Japan by fiscal 2021, and we are actively fostering and promoting capable women to these managerial positions. At the same time, our business is becoming more global at an accelerated pace, and now approximately 30% of Group employees are working overseas in one of our various countries of operation. In light of this situation, we are hiring and cultivating employees who are capable of understanding and communicating with people from other cultures and who are thereby able to compete on the global stage. Furthermore, we are promoting the employment of people with disabilities and striving to create a workplace environment in which such individuals feel motivated.

The NTT Group operates a qualification rank system, and while salary and bonus levels may differ depending on qualification rank, there are no differences in terms of gender or disability within the same rank.

We hope to make the NTT Group into a place where a diverse range of employees are understanding of each other's individuality and where all of these people can work to their full potential.

▶ Creating Workplaces Where Everyone can Realize Their Full Potential
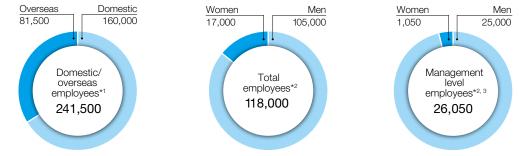
To become a "Value Partner" that is consistently chosen by customers, the NTT Group seeks to generate innovation and strengthen its corporate capabilities by appreciating and effectively deploying its diverse human resources. We recognize diversity management as a key strategy of our management and have always striven to create diverse workplaces in which people can realize their full potential irrespective of sex, age, race, nationality, disability, sexual orientation, gender identity, or other factors. In October 2007, NTT established the Diversity Management Office to bolster workplace diversity efforts across the whole Group, and by April 2008, diversity promotion supervisors were in place in Group companies. In the shared conviction that diversity can drive innovative actions and outcomes, the Diversity Management Office and diversity promotion supervisors have worked together to support work-life management improvements and career development for an increasing diversity of employees, and conduct educational activities aimed at reforming corporate culture and ingrained practices.

We also hold twice yearly diversity promotion conferences to enable individual Group companies to share their initiatives with the whole NTT Group and monitor female manager ratios, status of hiring people with disabilities and other diversity management parameters.

In December 2013, we announced a plan to double the ratio of our female managers by intensifying our efforts to support the career development of female employees in 41 NTT Group companies*.

* Number of employees at NTT, companies in Japan directly controlled by NTT, and their major subsidiaries (59 companies at the time of plan formulation, 41 companies at present).

▶ Employment in the NTT Group

Overseas
81,500

Domestic
160,000

Domestic/
overseas
employees[1]
241,500

Women
17,000

Men
105,000

Total
employees[2]
118,000

Women
1,050

Men
25,000

Management
level
employees[2, 3]
26,050

[1] Approximate number of employees in the NTT Group companies (907 companies) as of March 31, 2016
[2] Approximate number of employees in NTT, companies in Japan directly controlled by NTT, and major subsidiaries (41 companies) as of March 31, 2016
[3] Section managers and above

CASE 1 — Holding a Diversity Workshop to Coincide with the CSR Conference

NTT

As a new initiative launched in fiscal 2016, we held a diversity workshop to coincide with the CSR Conference in February 2015. The workshop, entitled "Inclusion of Diversity—Accepting Differences as a Value to Work Together," was divided into two parts under the themes of "LGBT and sexual minorities" and "Persons with special needs." The program included a keynote address by an external speaker, a presentation of representative corporate pioneers, panel exhibits and group work presented by persons with disabilities, and experience-based training for understanding disabilities. We also set up numerous exhibits, such as booths introducing special purpose subsidiaries of the NTT Group and a zone for gaining firsthand experience of blind soccer.

Participants, including personnel from each Group company, came away with deeper insight into the two issues and useful references for developing initiatives at their respective organizations.

We will continue to bolster our Group-wide initiatives to become an organization in which diverse human resources can demonstrate their full potential.

Keynote address about LGBT

Experiencing blind soccer

▶ Actively Promoting the Empowerment of Women in the Workforce

The NTT Group is working across its whole organization to empower the participation of women in the workforce.

The Diversity Management Office and Group company diversity promotion supervisors share information on nurturing female leaders, supporting the balancing of work with child-rearing, work style reforms and other common goals so as to implement the successful initiatives of individual companies across the Group. We continued to pursue initiatives such as the provision of Company information to employees on childcare leave, training for employees preparing to return to work after childcare leave, and the use of e-learning materials to promote understanding of diversity. To put the ideas and values of a greater diversity of people to use in our management and services, in December 2013 we also announced a plan to double the current ratio of our female managers at section chief level and above by fiscal 2021 and intensified efforts to train and promote female employees to managerial positions in 41 companies* of the NTT Group.

Women occupied 4.0% of managerial positions as of the end of fiscal 2016 and comprised 28% of new graduates joining the NTT Group in 2017. We published these figures on the website launched by the Cabinet Office Gender Equality Bureau in January 2014 for companies to declare their achievements in promoting female leadership. Furthermore, NTT East and NTT Communications received the highest rating (Rank 3) in the "Eruboshi" certification mark program for recognizing excellent companies under the Act to Promote the Active Participation of Women in the Workplace, which took effect in April 2016.

NTT Group companies also hold joint forums and training sessions to promote networking among managerial level female employees and motivate them to nurture future female leaders. These forums and training sessions provide female employees from different Group companies with an opportunity to exchange views, inspire each other, share concerns and otherwise boost motivation.

* Number of employees at NTT, companies in Japan directly controlled by NTT, and their major subsidiaries (59 companies at the time of plan formulation, 41 companies at present).

CASE 1 — Three NTT Group Companies among the New Diversity Management Selection 100 for FY2015

NTT Group

The NTT Group has been nurturing a corporate culture in which diverse members of its organizations can thrive. It has also achieved promising management results by integrating strategies for further developing and expanding the business domains pursued by each Group company in diversity management. In recognition of our efforts and achievements, NTT East, NTT Communications and NTT DOCOMO were simultaneously selected to the list of companies in the New Diversity Management Selection 100 for FY2015, presented by Japan's Ministry of Economy, Trade and Industry. The award evaluates companies based on their achievements in diversity management as well as the efforts that led to the success. Recognition is given to projects that create innovation and generate value with diverse human resources while providing them with the opportunity to exercise their full potential. NTT will actively engage in a Group-wide effort to further promote diversity.

▶ **Major Initiatives and Achievements of the Three Companies**

	Initiatives	Achievements
NTT EAST	● System for promoting careers at each level (career development seminars for women, seminars for supervisors with female subordinates, exchange of views with companies in other industries) ● "Workstyle Reform" aimed at working efficiently within a limited time frame (using mobile work and other means, shifting overtime work in the mornings, actively encouraging taking paid leave)	● Increased orders and expanded presence in the business user market by empowering women in workforce ● Realized collaboration with other sectors, such as the energy and medical industries ● Expanded business through community activities carried out by a female branch manager
NTT Communications	● Promotion of hiring and allocation of global human resources (hiring of non-Japanese engineers and constructing a human resource platform for international personnel exchange) ● Promotion of seamless operational processes on a global scale (introducing global standards for service operations and a workflow management system) ● Initiatives for enhancing motivation of diverse employees (support for balancing work with childcare or nursing, promotion of women's careers, introduction of a specialist employee system)	● Enhanced technological capabilities for the entire Group, improved operational efficiency through closer collaboration, and received a major order ● Cut costs through a global improvement of business processes and realized diverse personnel allocation ● Gained greater recognition in the world as a global player
docomo	● Promotion of women's careers (support for career development according to job position, active appointment to managerial posts) ● Strengthen the role of management and change the male-oriented mindset (introduce development of subordinates as assessment criteria for managers, encourage male employees to take part in housework and childcare) ● Mid- to long-term career support by offering flexible work styles (encouraging leaving the office on time and shifting to working in the mornings, creating personalized work shifts)	● Employees with diverse experience and skills are developing their careers toward realizing the Smart Life domain "+d" ● Development of "d-living (Home Security Partner)" based on the concept of a team led by working mothers ● Japan's first free online university course developed by a project led by a female manager

▶ Expanding Employment of People with Disabilities

The NTT Group has established special purpose subsidiaries to actively recruit people with disabilities and expand hiring opportunities for them, and it endeavors to create pleasant, agreeable workplaces.

In September 2015, the NTT DOCOMO Group established DOCOMO PlusHearty, Inc., bringing the total of NTT Group special purpose subsidiaries to four.

We are pursuing initiatives that harness the unique attributes of persons with special needs, as in our system for promoting web accessibility throughout the NTT Group based on the collaborative work of our special purpose subsidiaries and the NTT Laboratories.

As of June 2016, the ratio of persons with disabilities in the workforce was 2.30%.

▶ Status of Group Companies

Special purpose subsidiary within the NTT Group	Status of employment (as of June 1, 2016)	Company information and businesses
NTT CLARUTY CORPORATION	Number of employees: 285 (including loaned employees) Employees with disabilities: 236	Established in 2004 as a special purpose subsidiary of the NTT Group and is wholly owned by NTT. Currently employs 236 persons with disabilities at five offices nationwide, including the head office in Musashino City, Tokyo. Engages in businesses ranging from operating the "Yu Yu Yu" universal portal site that provides information from the standpoint of persons with special needs, web accessibility diagnosis based on the Japanese Industrial Standards (JIS), training on special needs awareness, digitization operations, production and sales of handmade paper products, production of name cards, solicitations for maintenance support services for information devices, call center operations and office massage services.
NTT West lucent	Number of employees: 89 (including loaned employees) Employees with disabilities: 74	Established in 2009 as a wholly-owned special purpose subsidiary of NTT WEST. Currently employs 74 persons with disabilities at three offices in Osaka; some work out of their homes. 　Working under consignment from the NTT WEST Group, the Company engages in sales operations such as sending out direct mail related to NTT West's support and maintenance services and recommending subscriptions by phone, facilities operations such as inputting and processing data on electricity use, and planning and administrative operations such as agency services for administrative work. It also provides web accessibility diagnosis based on the Japanese Industrial Standards (JIS).
NTT DATA DAICHI Corporation	Number of employees: 169 (including loaned employees) Employees with disabilities: 129	Established in 2008 as a special purpose subsidiary of NTT DATA. Upholding the goal of promoting employment of persons with disabilities and creating sites that offer the joy of working together, our four offices located across Japan from Ishigaki island, Okinawa to Sapporo, Hokkaido provide IT services such as website production, web accessibility diagnosis based on the Japanese Industrial Standards (JIS) and IT training, as well as office support services, including health-keeper operations for relieving the fatigue of NTT DATA employees, collection and dissolution of confidential documents and maintenance of office greenery.
docomo DOCOMO PlusHearty	Number of employees: 61 Employees with disabilities: 40	Began operating in December 2015 as a special purpose subsidiary of NTT DOCOMO and obtained certification in February 2016. Actively employs persons with intellectual disabilities and mental disorders and develops employee capabilities by applying the Kumon method of learning. Aims to be a company that contributes broadly to society and upholds the corporate philosophy of "growth, challenge and contribution." Engages in businesses such as cleaning services primarily for buildings owned by DOCOMO, training related to persons with disabilities for DOCOMO Group employees and a contact point for consultations, support for hiring and retaining persons with disabilities, and personnel placement.

▶ Creating an International Workforce

To address market changes and diversifying customer needs and become a "Value Partner" that will continue to be our customers' first choice, we are endeavoring to enhance our powers of innovation and corporate strengths through hiring and leveraging the abilities of a diversity of people. We consider diversity management to be critical to achieving our management goals, and actively seek to create workplaces where a diversity of people can realize their full potential irrespective of race or nationality. We apply the same conditions to the hiring and promotion of non-Japanese personnel as we do to our Japanese employees, and allow non-Japanese candidates to be interviewed or give presentations in English.

　Of the 2,688 people hired by the NTT Group's eight major companies in fiscal 2016, 82 (approximately 3.1%) were non-Japanese.

▶ Status of Group Companies

Group company	Number of non-Japanese hired in FY2015	Number of non-Japanese hired in FY2016
NTT	3	3
NTT East	4	7
NTT West	0	1
NTT Communications	36	26
NTT DOCOMO	28	18
NTT DATA	20	25
NTT COMWARE	0	0
NTT FACILITIES	7	2

Continuous Employment of Retired Employees

In 1999 the NTT Group introduced a continuous employment program for employees who have reached the retirement age of 60 in response to employee needs and public expectations regarding elderly employment.

Furthermore, from the standpoint of making maximum use of limited human resources in managing the NTT Group's businesses in the future, we introduced a new program in October 2013 that will enable applicants to continue working in a way that fits their lifestyles up to the age of 65 and demonstrate their abilities by putting their experience to work.

Many retired employees have opted to use this program, which has been applied to approximately 22,000 employees* as of April 1, 2016.

* Number of retired employees who were continuously employed in fiscal 2016.

Rehiring Program that Responds to Former Employees' Aspirations for Reemployment

A significant number of employees who left the Company for reasons such as childcare, elderly care or the relocation of their spouse aspire to resume work at the NTT Group in the future. To respond to their requests and to effectively use the experience and skills they had acquired during their previous period of employment, NTT has established a program for rehiring former employees.

The program applies to employees with more than three years of service who were forced to leave due to their need to care for children under the age of third grade elementary school or for family members, or due to their inability to continue commuting because of a change of address necessitated by the relocation or career change of their spouse, or by marriage. A request for reinstatement is followed by interviews and a health checkup, and the Company decides whether or not to reemploy the former employee.

As of March 31, 2016, 36 individuals have been reemployed since the program was introduced.

Consideration for LGBT and other Gender Minorities

With regard to diversity management, we have been working to promote women's careers and the hiring of persons with special needs by setting up dedicated organizations, such as the diversity promotion offices at major NTT Group companies, since 2007. We have begun to pursue initiatives related to LGBT and other gender minorities in view of expanding social awareness.

The NTT Group endeavors to develop its organization and realize a society in which everyone can live and work based on who they are, regardless of their sexual orientation or gender identity. We strive to motivate our employees to appreciate diversity and maximize their abilities as well as to create a working environment that allows for efficient work styles. In April 2016, we clearly expressed our stance of applying programs related to important life events, such as marriage leaves, bereavement leaves, congratulatory/condolence money and the sending of congratulatory/condolence telegrams, to same-sex partnerships.

Initiatives at Overseas Group Companies

At Dimension Data, a subsidiary of NTT and headquartered in South Africa, the policy of Broad-Based Black Economic Empowerment (B-BBEE) is being promoted to enhance the status of people who had been disadvantaged by discriminatory treatment during the apartheid era. Under B-BBEE, companies are rated on a scorecard showing their level of contribution with regard to ownership, management, employment equity, skills development, preferential procurement, enterprise development and socio-economic development. Dimension Data has attained its performance targets for all of these criteria, scoring 86.14 out of 100 as of December 2015. As a result, it has been recognized as a Level 2 contributor, the second highest possible recognition in the B-BBEE system.

Respect for Human Rights

Why this is a CSR Priority Activity for the NTT Group

The NTT Group is actively expanding its global operations centered on the "Towards the Next Stage 2.0" initiatives that it incorporated into its Medium-Term Management Strategy. In this context, we are aware of the critical importance of carrying out activities, as a global requirement, with respect for the human rights (as identified in declarations such as the Universal Declaration of Human Rights and ILO Declaration) of our employees around the world and the various people involved in the NTT Group's value chain. We must also remain aware that any incidents of human rights violations, such as child labor and forced labor in the NTT Group's business activities, including its value chain, may have a serious impact on NTT's reputation.

Quantitative Indicator Results in FY2016

● Ratio of participation in training concerning human rights **92.0**%

● Number of confirmed human rights violations **15** cases

Management Approach

The NTT Group stipulates in the NTT Group CSR Charter that we will "maintain the highest ethical standards and respect for human rights in business; value diversity and personal growth in the workplace; and contribute to building vibrant local communities." Over the years, NTT has recognized the United Nations Universal Declaration of Human Rights, the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO), and similar principles as the global standards for human rights. In addition, as a corporate group actively engaged in overseas business with full understanding of the principles of ISO 26000, published in 2010, and the Guiding Principles on Business and Human Rights adopted by the United Nations in June 2011, we established the NTT Group Human Rights Charter in 2014 by incorporating global respect for human rights. We intend to raise our awareness and strengthen our management with regard to human rights Group-wide by encouraging understanding and disseminating our initiatives to incorporate the global principle and awareness of human rights into our business activities.

▶ NTT Group's Human Rights Charter and Basic Policy

As a company that is actively growing on the global stage, the NTT Group recognizes that respecting the human rights of employees and all stakeholders is part of its corporate social responsibility and established the NTT Group's Human Rights Charter in 2014 to express this principle. This charter clearly defines the human rights to be respected as internationally recognized human rights, and we understand the minimum standards that require compliance to be those stipulated under the Universal Declaration of Human Rights and the International Bill of Human Rights*, and under the eight core principles of the ILO Declaration on Fundamental Principles and Rights at Work. We require all Group companies to comply with these standards. Moreover, we have separately laid out Our Basic Policies on Human Rights based on the charter in an effort to address various human rights issues. We will continue to encourage a greater understanding of the content and approach of the charter and dissemination throughout the Group, while promoting our global initiatives on respecting human rights by sharing this awareness and collaborating with our partners.

* The International Bill of Human Rights: The name adopted at the UN General Assembly for the two international treaties established by the United Nations, which are the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights.

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The NTT Group's Human Rights Charter

We recognize that the respect for human rights is a corporate responsibility and aim to create a safe, secure and rich social environment by fulfilling its responsibility.

1. We*1 respect internationally recognized human rights*2, including the Universal Declaration of Human Rights in all company activities.
2. We responsibly respect for human rights by efforts to reduce any negative impacts on human rights holders. We respond appropriately when negative impacts on human rights occur.
3. We aim to not be complicit in infringing human rights, including being involved in discrimination, directly or indirectly.
4. When negative impacts on human rights are done by a business partner and are linked to a product or service of the NTT Group, we will expect them to respect human rights and not to infringe on them.

*1 "We" means the NTT Group and its officers and employees.
*2 "Internationally recognized human rights" are rights included in declarations and rules that form the basis for international standards of universal human rights throughout the world and specifically refer to the following.
   United Nations (the Universal Declaration of Human Rights and the two Covenants on human rights)
     • The Universal Declaration of Human Rights (adopted by the United Nations General Assembly in 1948)
     • International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights (adopted by the United Nations General Assembly in 1966, in force from 1977)
   International Labour Organization (eight basic principles of the Core Conventions of the ILO Declaration)
     • The eight core principles of the ILO Declaration on Fundamental Principles and Rights at Work (adopted at the 86th International Labour Conference in 1998) are: Forced Labour, Freedom of Association and Protection of the Right to Organize, Right to Organize and Collective Bargaining, Equal Remuneration, Abolition of Forced Labour, Discrimination (Employment and Occupation), Minimum Age Convention, and Elimination of the Worst Forms of Child Labour.
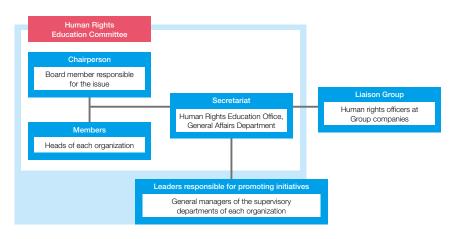
Our Basic Policy on Human Rights

Nippon Telegraph and Telephone Corporation, hereunder NTT, believes that human rights is an important issue, and recognizes the fact that making efforts towards promotion of and respect towards human rights is a social responsibility that all companies should discharge. NTT aims to build up corporate culture that respects human rights in order to build a safe secure and enriched society.

1. The NTT management themselves take a lead in respecting human rights of all the stakeholders.
2. NTT will, through its business activities, strive for a solution on the Dowa issue* and other human rights issues.
3. NTT respects diversity, promotes equal opportunity, and strives to create a healthy working environment that is free of harassment issues.
4. NTT will, and from the standpoint of respect to human rights, review its operation, as appropriate, and will adapt and improve these to its business activities.
5. NTT will, through its Human Rights Education Committee, initiate and execute employee-focused activities.
6. NTT is committed to supporting its Group companies in their efforts to raise awareness on human rights issues.

NTT Group Human Rights Charter and Basic Policy on Human Rights 🖥 http://www.ntt.co.jp/csr_e/governance/human.html

▼

▶ Human Rights Management System

NTT has set up the Human Rights Education Committee, which meets twice a year, to manage its initiatives on respecting human rights, such as the formulation of policies on the issue, planning and implementation of measures, and review of activities. We have positioned respect for human rights as one of the foundations of our management and promote a broad range of initiatives under the management system led by this committee. Our initiatives on respecting human rights are being promoted Group-wide through regular liaison meetings with Group companies.

Human Rights Education Committee

Chairperson
Board member responsible for the issue

Members
Heads of each organization

Secretariat
Human Rights Education Office, General Affairs Department

Liaison Group
Human rights officers at Group companies

Leaders responsible for promoting initiatives
General managers of the supervisory departments of each organization

▶ Due Diligence

A corporate group with global business operations must always be aware of the impact of its activities on the human rights of various stakeholders. To instill this awareness throughout the Company, we believe it is necessary to explicitly recognize how our corporate activities impact or potentially impact the human rights of our stakeholders.

In fiscal 2016, we examined business areas pursued by Group companies overseas by focusing on BPO and data centers and on China and India as countries where we operate in order to understand the social conditions and human rights issues on a global scale and consider developing a mechanism for preventing the human rights issues we will seek to address in future in a Group-wide effort, and the management methods we should adopt in doing so.

With these considerations, NTT plans to investigate the state of human rights management at all its Group companies in fiscal 2017 to determine which human rights issues are considered important by each company and how they are being addressed. As the next step, we will conduct an assessment based on the results of our investigation and consider developing a tool for reviewing the status of human rights issues through expert consultations. We will make a united Group effort to bolster our human rights management based on a PDCA cycle aimed at respecting human rights.

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▶ Group-wide Human Rights Training and Education Programs

We conduct various training and education activities to disseminate the concept of respecting human rights and basic human rights and to instill an awareness of global standards on human rights. We provide training for employees across a broad range of human rights issues associated with business activities at certain points of their career, such as when they join the Company or when they are promoted. For those in management positions, including top management of Group companies and supervisors, we offer programs that include lectures by outside experts on the latest global trends related to human rights. We also cultivate employee awareness through campaigns timed with Human Rights Day each year, such as by issuing a human rights message from the board member responsible for the issue and inviting employees and their families to submit human rights slogans.

Since fiscal 2015, the NTT Group has been working to disseminate its Human Rights Charter by sharing the content of e-learning with Group companies in Japan and continuously carrying out educational activities during training for all employees as well as on other occasions.

Group-wide training was attended by approximately 250,000 NTT Group employees, including contract employees, over a period of 97,357 hours, bringing attendance to 92.0% of all employees. With a firm understanding of the importance of respecting human rights and the significance of making a Group-wide effort, we will continue to promote broad familiarity of the Human Rights Charter and provide training for employees. Starting in fiscal 2017, we will seek to spread the concept of international human rights even further by extending our activities to overseas Group companies.

▶ Contact Point for Human Rights Issues

We provide an internal contact point that employees can consult on various concerns related to human rights, such as sexual harassment or power harassment. We also provide an external Corporate Ethics Help Line outsourced to a law firm, which responds to consultation by employees as well as third parties on a confidential basis.

▶ Incidents of Human Rights Violations and Corrective Actions

In an effort to ensure awareness and prevent recurrence, we use our corporate ethics website for Group employees to provide the Corporate Ethics Action Q&A, which cites nine representative examples describing each action, explains why these are violations of corporate ethics, and introduces laws and regulations that serve as the basis of reasoning. When the NTT Group has taken disciplinary action related to human rights, we publish excerpts of the cases and expound the cases on the site to raise employee awareness and prevent recurrence by calling for their attention and organizing training and other educational opportunities.

In fiscal 2016, there were 15 confirmed cases of human rights violations* in the NTT Group.

* Number of employees at NTT, companies in Japan directly controlled by NTT, and their major subsidiaries (59 companies at the time of plan formulation, 41 companies at present).

Reinforcing Value Chain Management

Why this is a CSR Priority Activity for the NTT Group

Companies must take responsibility not only for monitoring the ESG risks and impact on sustainability, including conflict minerals and resource depletion, of their own group companies but also throughout the entire value chain.

We are seeking to expand B2B2X and global cloud services under our Medium-Term Management Strategy "Towards the Next Stage 2.0" and expect our value chain to expand further, requiring us to enhance our initiatives as the NTT Group.

Quantitative Indicator

Results in FY2016

● Number of confirmed high-risk suppliers

0

Management Approach

To provide its customers with valuable services, the NTT Group uses cost-effective products and technologies. Also, in order to contribute to society, the Group procures products with consideration for the environment, human rights and other issues. Building trust-based partnerships with suppliers is essential to implementing such policies.

Under this concept, we have formulated the NTT Guidelines on CSR in Supply Chain along with other guidelines, carry out risk assessments for environmental and social issues, and organize seminars for suppliers.

▶ Promoting CSR Procurement

We promote CSR procurement through a united Group effort in line with our belief that it is vital to meet the expectations of our stakeholders as we strive to enhance the corporate value of the NTT Group as well as the products and services Group companies offer.

The NTT Group has released its Procurement Policies and formulated the NTT Guidelines for CSR in Supply Chain and NTT Guidelines for Green Procurement. In accordance with these guidelines, we are working to conduct socially responsible procurement together with our suppliers.

Procurement Policies

1. NTT will strive to provide competitive opportunities with fairness to both domestic and foreign suppliers, and to build mutual trust and understanding.
2. NTT will conduct economically rational procurement of competitive goods and services that meet its business needs, deciding on suppliers based on quality, price, delivery times, and stable supply in a comprehensive manner.
3. NTT will conduct procurement in a manner that follows laws and regulations as well as social norms, and takes the environment, human rights, and other issues into account to contribute to society.

Procurement Policies　🖥 http://www.ntt.co.jp/ontime/e/policy/index.html

▼

◤ NTT Guidelines for CSR in Supply Chain

In recent years, a number of supply chain issues have come to light, including excessive working hours, child labor, unlawful disposal of chemicals, bribery, and other examples of malpractice. These issues have served to intensify society's expectations for companies to comply with legal and social standards in their procurement activities.

In light of this, we formulated the NTT Guidelines for CSR in Supply Chain in December 2013 to guide our efforts as we work together with suppliers in order to conduct procurement activities in a socially responsible manner.

We have published the NTT Guidelines for CSR in Supply Chain in Japanese and English, seeking to communicate to a broad range of NTT Group's suppliers both in Japan and overseas. We expect suppliers to adhere to these guidelines along with our Procurement Policies and the NTT Guidelines for Green Procurement.

Procurement website 🖥 http://www.ntt.co.jp/ontime/e/index.html

NTT Guidelines for CSR in Supply Chain 🖥 http://www.ntt.co.jp/ontime/e/img/pdf/supply_chainE2.pdf (PDF: 30 pages)

◤ Specific Requests to Suppliers on Environmental and Social Concerns

We formulated the Guidelines for Green Procurement and the Energy Efficiency Guidelines as specific requests related to environmental aspects under the NTT Guidelines for CSR in Supply Chain. We also formulate and publish specific technical requirements for procuring products with due consideration for quality, safety, the environment and other issues, and seek compliance from suppliers.

NTT Guidelines for Green Procurement 🖥 http://www.ntt.co.jp/ontime/e/img/pdf/green_e1.pdf

NTT Group Energy Efficiency Guidelines 🖥 http://www.ntt.co.jp/kankyo/e/management/img/energy/guidelinever7_e.pdf

Technical Requirements 🖥 http://www.ntt.co.jp/ontime/e/policy/tr/index.html

We are promoting initiatives to ban the use of conflict materials as a specific social justice request to suppliers. The trade in minerals originating in the Democratic Republic of the Congo and nine adjoining countries has become a global human rights issue owing to the likelihood that some of these minerals have become a source of financing for militant armed groups suspected of committing inhumane acts. Companies listed in the United States are obliged by law to disclose any use of these conflict minerals in their products. With NTT and NTT DOCOMO listed in this country, the NTT Group issued the NTT Group's Approach to Conflict Minerals in March 2013 as a basic policy with respect to conflict minerals so as to fulfill its social responsibility in the area of procurement in line with U.S. laws.

NTT Group's Approach to Conflict Minerals 🖥 http://www.ntt.co.jp/ontime/e/policy/conflict/index.html

▶ Risk Assessment for the Supply Chain

We assess social and environmental risks to the supply chain by conducting a survey of suppliers to gain an understanding of the CSR activities they carry out under various guidelines.

We will continue to scrutinize the survey method, survey content and analysis method and use the findings of these questionnaires to provide feedback and advance discussions with suppliers in order to reduce risks across the value chain of the NTT Group.

Assessment of Social and Environmental Risks

We assess social and environmental risks by conducting a Supply Chain CSR Survey using the Supply Chain CSR Promotion Check Sheet to confirm the status of compliance with various guidelines and technical requirements. We specifically check compliance with environmental management in general as well as overall prevention and management with regard to freedom of association, child labor, forced labor and various forms of discrimination. Also, we request that suppliers strengthen their response as needed. While the survey covers primary suppliers, we seek to assess risks that exist further upstream by including items aimed at confirming whether efforts to educate secondary suppliers about social responsibility are being carried out. In our survey for fiscal 2016, we received responses from 100% of the primary suppliers we had surveyed, and no suppliers were rated as high risk.

Check points for the Supply Chain CSR Survey (140 items)

❶ CSR promotion in general (4 items) ❺ Fair trade and ethics (27 items)
❷ Human rights and labor (22 items) ❻ Quality and safety (11 items)
❸ Safety and hygiene (25 items) ❼ Information security (15 items)
❹ Environment (23 items) ❽ Others (social contribution activities, etc.) (13 items)

Assessment of Risks Associated with Conflict Minerals

Based on the NTT Group's Approach to Conflict Minerals, we conducted written surveys and inspected the offices and factories of suppliers to determine whether or not these minerals are used in their products. In our survey for fiscal 2016, we received responses from 90% of the primary suppliers surveyed. The results of the survey were submitted to the U.S. Securities and Exchange Commission and made available on the websites of NTT and NTT DOCOMO. We are also carrying out questionnaires and exchanges of views regarding methods of information management in order to identify exemplary suppliers and those that require improvement and also to understand the current state of their response toward achieving an even higher rate of response in our surveys.

Cooperation with Suppliers

Seminars on Conflict Minerals

Since 2013, we have been holding seminars on conflict minerals for the NTT Group suppliers with whom we cooperate in order to determine the current status of use of conflict minerals.

VA Proposal System and Supplier Awards System

NTT East and NTT West engage in value analysis (VA) activities in which we invite our suppliers to submit proposals for enhancing quality, safety and workability, and for contributing to environmental protection, and then we incorporate their ideas in product specifications. We award suppliers that offer particularly outstanding proposals.

In addition, we participate in improvement presentations held by suppliers and work with them to make improvements based on dialogue and cooperation.

Improvement presentation by a supplier

Promoting Safety, Health and Welfare

Why this is a CSR Priority Activity for the NTT Group

For diverse human resources to be able to fully demonstrate their capabilities, creating a working environment that ensures the health and safety of employees is essential. Our Group companies engage in telecommunications-related work and repairs involving high risk operations such as aerial work, and so we must consistently ensure rigorous adherence to basic procedures and enhance safety awareness.

Moreover, the revised Industrial Safety and Health Act of Japan, which became effective in December 2015, mandates that companies check employees for stress-related symptoms. Regulations related to mental health, including reduction of overwork, are

Quantitative Indicator　　**Results in FY2016**

● Number of accidents causing injury or death during construction work **2** cases

● Number of industrial accidents **10** cases

also being reinforced and require that we promote health management for both the physical and mental well-being of our employees. Also, establishing health management lowers medical costs and, in turn, improves business performance.

Management Approach

In addition to observing relevant laws and regulations such as Japan's Labor Standards Act and Industrial Safety and Health Act, the NTT Group endeavors to provide further protection of its employees' safety and health by establishing its own Safety Management Rules and Health Management Rules and taking measures to ensure their smooth implementation.

More specifically, we have established a safety and health management system at each site to achieve our goal of securing the safety and health of employees in the workplace and appointed a general safety and health manager as well as safety managers. Under the system, we provide regular health checks, arrange workplace inspections by industrial physicians, and otherwise endeavor to create safe and comfortable workplaces and promote the health of our employees.

We ensure that specific measures related to the individual operations of each worksite are in compliance with the ministerial order of the Ministry of Health, Labour and Welfare, and fulfill our obligation of implementing health checks for all NTT Group employees as well as measures for assessing, managing and reducing excessive working hours.

▶ Occupational Safety and Health

◾ Initiatives for Ensuring Industrial Safety and Health

In April 2014, the NTT Health Insurance Union launched a health point system for insured employees and spouses under the same coverage. We leverage such initiatives to maintain and improve employee health and reduce our healthcare bill. We also aim to contribute to society by utilizing the data and knowledge gained from such initiatives to develop and provide services for local authorities and corporate customers.

Meanwhile, we confirm the safety of each workplace by regularly checking to ensure that no objects are obstructing escape routes and that fire extinguishers have been installed in locations of which all staff are aware.

◤ Initiatives to Eliminate Accidents

In fiscal 2016, two serious accidents resulting in casualties* occurred during telecommunications work and repairs either directly undertaken by NTT Group companies involved in the construction and maintenance of telecommunications equipment and building facilities, or by a subcontractor. The incidents involved falls during aerial work at night and were both the result of inconsistencies in standard procedures. In response, we are promoting initiatives to raise employee safety awareness and remind them to consistently apply basic practice, such as reconfirming standard procedures and renewing rigorous adherence to them, as well as identifying high risk tasks and alerting employees before they begin working.

We have also designated a common Safety Day for the NTT Group during which all employees take part in hazard prediction training related to past incidents, and we have created a system for alerting workers onsite by promptly sharing information on previous accidents. In fiscal 2015, we increased the frequency of the Safety Measure Reinforcement Period from once to twice a year (from June 1 to July 7 and from December 1 to January 15). At these times, we encourage employees to reconfirm the rules that have been set in an effort to prevent any recurrence of accidents, and we display safety posters throughout the NTT Group in an effort to promote better understanding of safety measures towards our goal of zero industrial accidents.

* Serious accidents resulting in casualties: Accidents that led to fatalities or disabling injuries that would prevent the employee from working again.

▶ Safety Measures and Track Record for Construction Work at Group Companies

Group company	Serious accidents resulting in casualties	Implementation status of safety measures
NTT EAST	0	● The NTT East Group is building a strong safety management system in order to eliminate accidents and create a safe working environment where everyone can work with peace of mind. ● Designated the tenth day of each month as Safety Day in an initiative intended to keep alive the memory of past serious accidents resulting in casualties and preventing recurrence. All employees and frontline staff at partner companies involved in construction and maintenance work took part in KYT (hazard prediction training) and reconfirmed basic actions and other measures for preventing accidents based on lessons from the past. ● Also implemented safety reinforcement training and small group activity* leadership training for KYT leaders and managers. ● Implemented various measures for the health management of employees, such as inviting lecturers to speak about approaches to mental health during training and other opportunities. ● In fiscal 2017, we will continue to promote safety through initiatives such as Safety Day and small group activities* while also seeking to enhance safety training for new employees, introduce a corporate qualification system concerning safety, nurture awareness and enhance skills related to safe operations. * Small group activity: Discussion and debate conducted by units of 6 to 8 members.
NTT WEST	2	● Defined uncontrolled movement of boom lift trucks, ordinary vehicles crashing into worksites, falls, and carbon monoxide poisoning as accidents that should never happen and sought to broadly disseminate preventive measures during Safety Day. We also reconfirmed preventive measures taken by companies where such accidents have occurred. ● Confirmed the content and implementation of onsite KY (hazard prediction) and carried out nighttime safety patrols during the Safety Measure Reinforcement Period. ● Held Liaison Meeting on Safety Measures in each regional block to develop a foundation for sharing information across different work areas. ● Launched the Safety Operations Liaison Group (Safety Task Force) to establish a mechanism for promptly sounding alarms in the event of an accident and providing effective responses. ● Formulated a reform plan in the form of guidelines and held explanatory briefings for partner companies in an effort to disseminate the guidelines to the frontlines of worksites.
NTT Communications	0	● Information on past accidents leading to injury and safety measures at NTT Group companies are being shared with all employees involved in construction work and maintenance operations to improve safety awareness and knowledge. ● Designated the tenth day of each month as a Safety Day. All employees involved in construction and maintenance work took part in KYT (hazard prediction training), with the use of photographs of worksites where accidents resulting in injuries occurred. ● Informed all employees about preventive measures against serious accidents resulting in casualties, which had occurred in the past, and tested the participants to ensure that the measures were understood. ● Checked unsafe behavior through safety patrols and improved safety awareness at a construction sites.

Group company	Serious accidents resulting in casualties	Implementation status of safety measures
docomo	0	• Enhanced safety patrols to improve the safety awareness of construction site workers while ensuring the implementation of onsite KY (hazard prediction) and various safety measures. • Implemented training to develop an understanding of the characteristics of special vehicles and skills training for high elevation work jointly with partner companies in light of the lessons learned from past accidents involving special vehicles and high elevation work. • Sought to improve the required safety management skills as an outsourcer by gathering NTT DOCOMO Group employees across Japan for DOCOMO safety training sessions, where they practiced KYT (hazard prediction training) and high elevation work and acquired knowledge on related laws and regulations as well as vehicle characteristics. • Implemented a safety overhaul of all work teams at all sites using checklists to confirm the status of safety measures, accident prevention, work procedures and basic actions. • Conducted a safety awareness survey to interview construction site workers on their awareness of past accident cases, and reviewed safety measures at each site.
NTT FACILITIES	0	• Planned safety activities based on F-OSMS, checked safety activities with a focus on improvements, and developed effective measures. • Motivated employees to implement checks and action such as checking performance after an accident and developing cross-sectional recurrence prevention measures, shared accident information, conducted safety initiatives, and checked the spread of the initiatives in cooperation with the regional block offices. • Implemented e-learning for safety specialized in the Industrial Safety and Health Act for all employees with the aim of enhancing the educational content. • Improved the safety of the working environment through the standardization of safety tools. • Implemented SQAT activities, repeated e-SQAT learning until a full score was achieved, and conducted follow-up activities. • Cultivated a safety mindset throughout the entire NTT Group by sharing information about the accidents that have occurred. • Shared accident information with partner companies through a dedicated website for safety information.

◤ Industrial Accidents

The NTT Group monitors occurrences of industrial accidents in its effort to create a secure workplace for employees.

▶ Status of Group Companies

Group company	Operational accidents	Commuting accidents
NTT	1	7
NTT East	0	0
NTT West	0	7
NTT Communications	6	9
NTT DOCOMO	3	10
NTT DATA	0	4
NTT COMWARE	0	0
NTT FACILITIES	0	0
NTT Urban Development	0	0

* Figures exclude accidents that did not result in lost work as well as injuries caused by participation in sports.

▶ Prevention of Overwork

To prevent overwork and maintain employee health, the NTT Group is taking measures such as designating Wednesday as a weekly no-overtime day. Each Group company is actively striving to prevent overwork according to the nature of their respective businesses.

Group companies are seeking to optimize working hours and prevent overwork by using log management functions that record when an employee logs in and off their computer. In fiscal 2016, the average annual overtime hours per person was 14.7 hours.

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▶ Mental Healthcare

To strengthen mental health management on an ongoing basis, the NTT Group has set up contact points inside and outside the Company and has been providing medical interviews on mental health as well as periodic training to raise employee awareness.

Each Group company is seeking to enhance their systems and initiatives according to their respective business characteristics and actual circumstances of their operations.

▶ Status of Group Companies

Group company	Training implementation status, number of employees with relevant qualification, initiatives and results
NTT East	Number of employees who attended stress management training to cope with changes in the environment: 161
NTT West	Participants of self-care training: 7,676; participants of staff-care training: 1,741
NTT Communications	Mental Health Management Proficiency Exam Number of employees who took the test in FY2015: 195; number of employees who passed the test: 182 Total number of employees who took the test: 2,685
NTT DOCOMO	Implementation rate of stress survey: 98.2%
NTT DATA	Number of employees who passed the Mental Health Management Proficiency Exam: 193; pass rate: 93.3%
NTT COMWARE	Number of employees who passed the Mental Health Management Proficiency Exam: 362 (accumulated total) Rate of taking the mental check: 98.2%
NTT FACILITIES	Number of employees who passed the Mental Health Management Proficiency Exam: 60; pass rate: 82.2% Rate of taking the mental check: 97.9%
NTT Urban Development	Implementation rate of mental health interview (stress checks): 98.7%

▶ NTT Group's Extensive Benefit Programs

The NTT Group operates a cafeteria-style service for its benefit programs. Employees are given points that can be used for a variety of benefit "menu items," ranging from property accumulation and support for life plans such as child-rearing, to the use of lodgings and amusement facilities. The program applies to approximately 100 thousand employees at 80 NTT Group companies (as of April 2016).

Creating Attractive Workplaces

Why this is a CSR Priority Activity for the NTT Group

Retaining a diverse array of competent human resources serves as a powerful management foundation for any organization. Doing this requires the development of employment conditions, such as fair evaluation, equal opportunity, opportunities for growth and benefit programs. Students have recently started to seek jobs by considering the benefit programs and favorable working conditions of companies, and so the creation of an attractive workplace has also become

Quantitative Indicator

Results in FY2016

● Employee satisfaction

3.88points
(out of 5 points)

vital from the standpoint of securing competent human resources.

Management Approach

The NTT Group has developed a personnel system that responds to diverse work styles and provides generous benefit programs for employees and their families to create an environment in which employees can work with a sense of security and fully demonstrate their abilities.

We are currently constructing a personnel database for registering past career experience and expert knowledge of employees engaged in our international businesses to accelerate the pace of visualizing and nurturing global human resources toward ensuring an optimal allocation of personnel.

To attract, in the coming years, competent human resources who thrive on the global stage, NTT Group companies have launched a joint information website for students and are jointly hosting NTT Group events. Also, to secure highly capable personnel, not only from Japan but from around the globe, we are promoting hiring worldwide.

In order to measure the results of these initiatives, we have started conducting a survey on the level of satisfaction felt by NTT Group employees toward their work and workplaces. We intend to continuously monitor this benchmark to understand outstanding issues and seek improvements.

▶ Enhancing Employee Satisfaction

The NTT Group strives to understand the issues at hand for improving its working environment and corporate mechanisms toward creating companies that are acceptable for workers. As part of this effort, we regularly conduct a survey of employees at Group companies and use the results to improve the working environment. Results of the survey conducted at Group companies in fiscal 2016 showed the level of employee satisfaction at 3.88 out of 5 points.

	FY2015	FY2016
Employee satisfaction (out of 5points)	3.69	3.88

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▶ Fair Evaluation and Compensation

◤ Fair Evaluation of Employee Performance

The NTT Group operates a qualification system that puts priority on performance, and sets behavior and performance targets tailored to each qualification rank. Our human resources management system is designed to encourage employees to think and act for themselves in the execution of their work duties through an evaluation process that incorporates the setting of targets and provision of feedback to employees as well as actual work performance evaluation.

Performance Evaluation that Employees are Happy with

Rather than having each company operate their own mechanisms for human resources management and development, we operate an all-inclusive system for managing employee placement, capacity building, evaluation, rating and pay, centered on an employee qualification system that indicates our expectations in terms of behavior and performance according to employee level.

Proper evaluation requires a sound understanding of the principles and content of the human resources management system, and appropriate execution of the successive processes of target setting, everyday communication, evaluation implementation and interviews to provide feedback. To this end, we adhere to the following process.

The evaluation system applies to 66% of the NTT Group, including companies outside Japan.

● Regular Personal Interviews with Superiors and Human Resources Managers

All NTT Group employees meet regularly with their superiors and human resource managers for personal interviews to ensure that they share the same perception as their superiors regarding performance targets and the processes required to achieve them, to share thoughts on areas that can be improved, and to discuss career paths and personal growth.

Employees are given six opportunities each year to talk personally with their superiors, once each at the start, middle, and end of each fiscal year, plus one overall evaluation feedback interview and two performance evaluation feedback interviews (April and October).

The first interview of the year is for employees and their superiors to align their views on targets for the year and for employees to seek advice on any outstanding matters. The mid-year, year-end and feedback interviews are for managers and their subordinates to review results, performance, and the processes for achieving targets, and for managers to provide advice and motivation for making further improvements and growth. Records are kept on the implementation of these interviews, which are held without fail except in cases in which vacations or leave prevent implementation in the allotted period.

● Evaluator Meetings

We endeavor to enhance the fairness and objectivity of our evaluation process and prevent subjective and arbitrary evaluations by having all of the evaluators in the same business unit hold evaluator meetings to align their evaluation criteria and perspectives.

● Evaluator Training

We provide employees in evaluator positions with evaluator training (e-learning) and new manager training as well as our Human Resources Evaluation Manual as part of our efforts to further improve the fairness of evaluations and employee satisfaction with those evaluations. We also provide employees subject to evaluations with evaluation subject training, a handbook explaining evaluation, target setting and other topics, online educational tools for promoting understanding of our human resources management and pay systems, and a collection of high performance model examples.

Improving Human Resource Management and Pay Systems

The NTT Group implements policies aimed at enabling each and every employee to make the most of their abilities as members of Team NTT and to grow steadily as competent professionals and take the initiative in developing their careers.

We reconstructed our human resources management and pay systems in October 2013 to create an environment in which employees of all ages can realize their full potential in a way that grows our business. We also hire the right mix of both people possessing frontline skills and specializations and people eager to take on new challenges based on our perception of the period from start of employment up to the age of 65 as a single block. The new systems are designed to better reward employees who perform the roles and produce the results expected of them through introducing evaluation-based compensation and expanding results-based awards.

▶ Average Salary in the NTT Group*

Average salary for female employees	Average salary for male employees
3,515,525 yen (basic salary only)	4,035,117 yen (basic salary only)

* Ratio of average salary to minimum local wage in Japan, upon which the majority of NTT Group operations is based, is 5.2:1. (Average annual salary of 2,763 employees at NTT Corporation: 8,887,342 yen; minimum local wage: calculated based on the minimum wage in Tokyo (907 yen/hour) to be 1,714,230 yen (21 days × 907 yen × 7.5 hours × 12 months).

Adheres to equal compensation as stipulated by the Equal Employment Opportunity Law. The difference in compensation between men and women is due to the difference in the length of service.

▶ Promoting Work-Life Management

Encouraging Employees to Take Annual Paid Leave

The NTT Group encourages taking annual paid leaves in an effort to promote the work-life management of each employee. We encourage employees to take their annual paid leave ahead of long major holidays such as Golden Week, end-of-year and New Year holidays, and summer vacation to create an encouraging environment.

In fiscal 2016, the average length of total annual paid leaves taken at eight major NTT Group companies was 19.0 days, and the utilization ratio for paid leave was 95.1%.

▶ Status of Group Companies

Group company	Total paid leave taken (average: days/person)	Utilization ratio of paid leave (%)
NTT	16.7	83.5
NTT East	19.5	97.3
NTT West	19.6	98.0
NTT Communications	18.0	90.0
NTT DOCOMO	18.0	90.0
NTT DATA	17.0	85.0
NTT COMWARE	19.4	97.0
NTT FACILITIES	18.3	91.5

◪ Encouraging the Use of Childrearing and Family Care Programs

The NTT Group believes in the importance of balancing careers with private life and offers childcare and family care benefits that go beyond legally mandated levels. In recognition of Company efforts to support childrearing by employees, NTT earned the Kurumin Mark[1] in April 2008, a certification provided by the Ministry of Health, Labour and Welfare, and received the new Kurumin Mark in August 2015 upon the revision of the Act on Advancement of Measures to Support Raising Next-Generation Children. Group companies[2] have also obtained the mark. In addition, the ministry created the Tomonin symbol mark in November 2014 to promote the establishment of working environments for balancing work and family care. NTT actively uses the mark to publicize its initiatives and develop a workplace environment that enables employees to balance work and family care.

We are endeavoring to further improve our childrearing and family care programs from the standpoint of promoting the careers of our diverse human resources, employee needs and social expectations. We have also created NTT-LiFE+, a childrearing and family care support website, for NTT Group employees. In addition to providing details and instructions on the use of the various programs, NTT-LiFE+ carries all sorts of other information, including articles about employees who have succeeded in balancing work, childrearing and family care commitments. We also hold seminars on childcare support and returning to work after childcare or family care leave, conduct personal talks with employees prior to maternity leave and after returning from childcare leave, and are establishing workplace creches. Each Group company organizes family care study sessions and other events aimed at creating an environment that enables their employees to balance work with family care commitments in the coming age when such needs are predicted to become greater than ever. Many employees participate in these events, demonstrating that this is a matter of keen interest to them, and we plan to continue providing such opportunities.

Through these initiatives, the NTT Group is striving to develop a working environment in which employees who must care for their children and family members can continue to pursue their careers without having to leave for these reasons. In fiscal 2016, we will continue to enhance our various programs for childcare and family care while actively developing initiatives to support balancing life and work.

[1] Kurumin Mark
Companies that developed an action plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children and achieved the goals set out in the plan while also meeting certain standards are recognized as Childcare Support Companies by the Minister of Health, Labour and Welfare and earn the Kurumin Mark.

[2] Kurumin Mark and new Kurumin Mark-certified Group companies: NTT, NTT East, NTT West, NTT Communications, NTT DOCOMO, NTT DATA, NTT FACILITIES, NTT COMWARE, NTT Software and Nippon Information and Communication

New Kurumin Mark

Tomonin Mark Support for balancing work and family care

▶ Status of Group Companies

Group company	Number of employees taking maternity leave	Number of employees who took childcare leave			Number of employees who took nursing care leave	
		Men	Women	Return rate (%)	Men	Women
NTT	19	2	28	100.0	0	0
NTT East	175	4	390	97.1	19	10
NTT West	284	9	291	91.1	8	13
NTT Communications	76	4	150	93.4	3	2
NTT DOCOMO	285	18	542	96.9	11	8
NTT DATA	188	16	326	98.4	4	3
NTT COMWARE	59	3	92	92.9	5	0
NTT FACILITIES	26	3	45	100.0	5	1

◤ Promoting Work Style Reform through the Telework System and Other Measures

For the NTT Group to create new values through innovation, each individual employee at the NTT Group is required to demonstrate even more initiative and creativity by breaking away from conventional work styles and shift to a more efficient way of working.

We are also aware of the importance of sustaining such a shift by cultivating a deeper understanding of work-life management across the entire workplace and nurturing a corporate culture that accepts the diverse work styles of each individual employee.

From this standpoint, the NTT Group has been focusing its resources on initiatives aimed at "work style reform."

All employees who work at the NTT Group, irrespective of their positions or type of work, will review the way they work in order to develop efficient and flexible work styles by making active use of telework including working from home as well as systems such as flex time that we provide as an ICT company.

We will also strive to create invigorating workplaces in which everyone can fully demonstrate their abilities by encouraging active use of annual paid leaves and life plan leaves for childcare, family care and volunteer activities.

▶ Status of Group Companies

Group company	Number of employees using telework system
NTT	564
NTT East	362
NTT West	523
NTT Communications	384
NTT DOCOMO	170
NTT DATA	1,438
NTT COMWARE	93
NTT FACILITIES	37

◤ Life Design Training at 40 and 50 Years and Other Career Milestones

In light of increasing diversity in employee life plans, the NTT Group provides life design training for employees reaching age or career milestones to consider how they wish to spend the rest of their lives, including their working lives.

▶ Status of Group Companies

Group company	Number of life design training sessions	Aggregate number of participants
NTT East	72	3,067
NTT West	20	913
NTT Communications	5	266
NTT DOCOMO	6	265
NTT DATA	15	1,029
NTT COMWARE	12	374
NTT FACILITIES	5	258

▶ Favorable Labor-Management Relationship

With the exception of managers, most NTT employees in Japan belong to the NTT Labor Union, a member of the Japan Labor Union Confederation, and labor-management relations have remained stable (membership: 78.5% as of March 2016). There have been no labor union strikes for more than 10 years. In fiscal 2016, management and labor engaged in 51 consultations and negotiations.

The Company adheres to the minimum notice period of 10 days before an official announcement, as designated by the "Agreement on Employee Relocation" under the collective agreement with the NTT Labor Union.

Human Resource Development

▶ Education and Training Programs

◤ Employee Education, Training Policies and Programs

The NTT Group creates an environment in which each employee can demonstrate their abilities through their work and become a high-value added human resource.

Each employee sets up a self-development plan based on the expertise required in their respective work and enhances their skills by following a PDCA cycle. Each Group company has established programs for cultivating diverse human resources by setting up a mechanism for recognizing areas of expertise relevant to the characteristics and content of their business and for certifying skills.

◤ Helping Employees Develop their Abilities

In addition to Group training and on-the-job training to enable employees to gain necessary skills in various fields of business, we provide many other opportunities for employees who are eager to get ahead, including e-learning, distance learning, in-house certification of skill levels, and support for earning qualifications.

We actively support employee career development in various ways, including having superiors hold personal talks with their subordinates at the start of the year, mid-year and year-end to review performance and career plans, and providing management training to employees tapped for promotion. To nurture personnel capable of performing on the world stage, we also send employees to study at overseas graduate schools or participate in our overseas work experience programs. In fiscal 2016, about 7,800 training programs were provided for employees in eight major Group companies (NTT, NTT East, NTT West, NTT Communications, NTT DOCOMO, NTT DATA, NTT COMWARE and NTT Facilities) and 55,000 yen was spent per employee.

▶ Status of Group Companies

Group company	Training costs (yen/person)	Length of training per employee (hours)	Number of training sessions
NTT	14.6	17	570
NTT East	4.4	8	1,255
NTT West	3.4	6	1,400
NTT Communications	8.9	11	1,070
NTT DOCOMO	7.4	50	1,040
NTT DATA	12.2	77	1,676
NTT COMWARE	6.2	25	510
NTT FACILITIES	13.0	43	230

◥ Skill Mapping

Each Group company sets up a unique program of skill mapping based on the characteristics of their respective business operations and develops human resources according to skill category. Employees are categorized into different levels based on the skill map, and companies identify the number of employees who are qualified for each level to measure the status of their skills. The process of operating the program is:

❶ Designate areas of expertise according to the expert skills required by each operation;
❷ Define and certify levels according to the skill set for each area of expertise; and
❸ Develop a PDCA cycle based on the employee's own career plan, supported by supervisors and the organization

NTT's five major Group companies in Japan have created 93 skill categories, while among our overseas Group companies Dimension Data is developing human resources based on a framework of 10 skill categories.

The NTT Group is also encouraging employees to acquire qualifications related to their respective operations and intends to boost the number of qualified employees. With regard to major qualifications that are in broad demand in the ICT industry, such as Professional Engineers, Information Technology Engineers and Certified Information Systems Security Technology Professionals (CISSP), we have steadily increased the number of qualified employees from 39,063 in fiscal 2015 to 39,373 in fiscal 2016.

▶ Placing the Right People in the Right Jobs

◥ Approach and System of Personnel Allocation

The NTT Group engages in businesses across a broad range of fields. The development of each business requires placing the right people in the right jobs so that each employee can fully demonstrate their potential. Therefore, we periodically rotate personnel on the basis of each employee's overall skill development and career plan decisions.

◥ In-house Recruitment Programs

We raise motivation and promote networking within the Group by providing ambitious employees with opportunities to seek new challenges through our NTT Group Job Challenge in-house recruitment program. In recent years, we have been using the Job Challenge program also to nurture and raise the number of employees across the whole Group who are capable of working globally. We are actively providing opportunities for employees to transfer to global posts by creating new global posts and increasing global recruit numbers. In fiscal 2016, 317 employees used the Job Challenge program, with 99 transferring as a result to their desired workplace.

◥ Employee Turnover

Human resources serve as the cornerstone of a company seeking economic growth or pursuing corporate strategies, and a company's ability to secure excellent human resources is a key indicator of its potential to achieve sustainable growth. Since fiscal 2014, we have been calculating the turnover rate for eight major NTT Group companies including their affiliated companies. As a result, the turnover rate* for fiscal 2016 was 8.5%.

* Includes employees who left at retirement age.

▶ Turnover Rate for Eight Major NTT Group Companies

	FY2014	FY2015	FY2016
Turnover rate for all employees	9.5%	8.8%	8.5%
Turnover rate for retirement due to personal reasons	1.8%	2.1%	2.3%

Layoffs

Organizational changes are implemented after discussion and negotiation with all labor unions. As in the previous year, no layoffs occurred in fiscal 2016.

▶ Hiring

In the NTT Group, hiring is undertaken by each Group company. In fiscal 2016, we launched the "Play to win" (Japanese only) website for deepening student understanding of the businesses pursued by each NTT company.

NTT Group Information for Students
"Play to win" 💻 http://action.ntt/ (Japanese only)

▶ Number of New Graduate Hires

Company	Male	Female	Total
NTT	51	14	65
NTT East	180	97	277
NTT West	86	47	133
NTT Communications	148	47	195
NTT DOCOMO	156	76	232
NTT DATA	255	124	379
NTT COMWARE	62	28	90
NTT FACILITIES	49	17	66

* Figures exclude new hires for medical institutions, such as hospitals

Promoting a United Group Effort on Social Contribution Activities

Why this is a CSR Priority Activity for the NTT Group

The NTT Group has operating bases located not only in Japan but also around the world, from which it provides telecommunications networks, an important lifeline. For these reasons, our business is deeply rooted in local communities. In order to further develop this business, it is absolutely essential that we pursue harmonious relationships and strive to resolve local issues in collaboration with local residents, central and local governments, NGOs, NPOs, and educational institutions.

The NTT Group looks to address the various issues faced by local communities in which we operate, including those related to environmental issues, aging populations, declining birthrates, and the education of children. NTT believes it is important to contribute to the development of flourishing and vibrant local communities through the actions of

Quantitative Indicator

Results in FY2016

● Percentage of employees participating in volunteer activities

69.0%

each member of Team NTT, comprising NTT Group employees, their families, and retired employees.

The ideal is for each employee of the 240,000 strong NTT Group to interact with members of their local community, identify local needs, and contribute in even small ways to addressing issues. Herein lies the strength of the NTT Group, a global enterprise that engages in businesses deeply rooted in local communities. We will continue to ensure that Team NTT's actions will lead to civic involvement that is unique to the NTT Group.

Management Approach

The NTT Group CSR Charter calls on Team NTT to work together to contribute to the further development of a flourishing and vibrant community. In accordance with this policy, we have defined the following six pillars for corporate citizenship activities: environmental conservation, social welfare, education and cultural promotion, local community development and dialogue, international exchange activities, and sports promotion. Since fiscal 2010, we have been promoting Group-wide activities particularly in the area of environmental conservation, with active participation by employees under the slogan "Green with Team NTT."

NTT also believes that reaching out to people that have been impacted by the Great East Japan Earthquake and other major natural disasters is another important way we must aid communities, and we have consistently participated in volunteer activities for reconstructing the areas affected by the Great East Japan Earthquake.

Results of Corporate Citizenship Activities in Fiscal 2016

The NTT Group engages in corporate citizenship activities by defining them in terms of six pillars: environmental conservation, social welfare, education and cultural promotion, local community development and dialogue, international exchange activities, and sports promotion. In fiscal 2016, the NTT Group in Japan carried out approximately 3,987 citizenship activities with the participation of approximately 167,000 employees in total. This accounts for about 69.0% of the NTT Group's workforce. Total expenditures on citizenship activities* were approximately 6.65 billion yen.

* Total expenditures on citizenship activities include: monetary donations, donation of goods, actual costs of opening facilities to the public, personnel costs of employee participation, and costs for implementing corporate citizenship programs (work consignment fees, transportation costs, and other expenditures).

▶ Results of Citizenship Activities in Fiscal 2016

Pillars of citizenship activities	Number of activities	Number of participants	Expenditures (million yen)
Environmental conservation	1,241	138,969	1,202
Social welfare	492	2,401	365
Education and cultural promotion	463	3,658	1,894
Local community development and dialogue	1,282	17,627	1,156
International exchange activities	62	131	80
Sports promotion	170	3,698	1,840
Others	277	801	112
Total	3,987	167,286	6,649

The NTT Group engages in business activities rooted in local communities and believes that maintaining a dialogue with these communities through its corporate citizenship activities will eventually provide us with returns in the forms of business opportunities and risk avoidance. Therefore, we have given top priority to activities aimed at investing in local communities and have implemented them consistently.

▶ Citizenship Activity Categories for Fiscal 2016

Category		Ratio in FY2016	Major projects
Investments in local communities	Corporate citizenship activities that are carried out on a one-time basis or are expected to be completed within a short period	18.7%	Supporting NGO activities for health and education in Southeast Asia (page 134)
Donations to charities	Corporate citizenship activities carried out over the mid- to long-term to address social issues that concern both the NTT Group and local communities	74.7%	Offering mental care through cooking classes and other activities for victims of the Great East Japan Earthquake (page 131) and activities for supporting local communities and education in India (page 133)
Commercial initiatives	Corporate citizenship activities that generate profit for the NTT Group	6.6%	Popularizing and bolstering para-sports through donations from the telegram service (page 132)

* Based on expenditure amount for citizenship activities

CASE 1

Offering Mental Care through Cooking Classes and other Activities for Victims of the Great East Japan Earthquake

The total number of evacuees displaced by the Great East Japan Earthquake has reached approximately 178,000, according to figures compiled by the Reconstruction Agency in 2016, and many evacuees still live in temporary shelters or the homes of relatives. Under the stress of the prolonged period of evacuation, evacuees are losing their desire to go out and suffer from the loss of their communities. This has given rise to a new need to offer "mental care."

To address these issues, NTT DOCOMO has sought to create opportunities for exchange between evacuees and to stimulate communication by utilizing the services that it and other NTT Group companies provide. We have held cooking classes and other activities at community centers adjacent to evacuation shelters and other venues by enlisting the help of ABC Cooking Studio. This project was realized through the Reconstruction Agency's project for coordinating support for disaster victims, which matched NTT DOCOMO's CSR activities with the needs of a local organization.

We held seven cooking classes from August 28, 2015 to January 19, 2016. The classes were attended by 103 locals (about 15 people per event) and 20 employee volunteers, who attended in groups of four beginning with the third event. The participants enjoyed making healthy dishes with local produce and dining together.

We also offered an opportunity to experience "dTV," a video distribution service provided by NTT DOCOMO. Employees gave instructions to participants on operating tablets, and the evacuees watched a video being distributed by the service on monitors set up at community centers. We contributed to stimulating communication by creating a moment to share in the joy of watching a video.

NTT DOCOMO will continue to support reconstruction efforts in areas in Tohoku that were affected by the disaster.

Scene from the cooking class

Meal prepared by participants
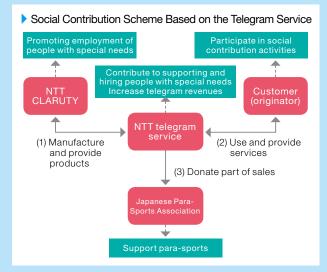

Participants watching dTV

CASE 2

Popularizing and Bolstering Para-Sports through Donations from the Telegram Service

NTT EAST
NTT WEST
TelWel — TelWel East Japan Corporation
NTT CLARUTY CORPORATION

The telegram service provided by NTT East and NTT West continues to be used by many customers as a means of expressing celebratory messages and condolences. TelWel East Japan, which handles requests and telegram delivery, hired a person with special needs in its manufacturing section in May 2015. This led to the creation of the Calligraphy Art Telegram "Connecting Dreams," a new telegram service for popularizing and bolstering para-sports.

The idea for this project originated with a working group of younger employees at TelWel East Japan who were seeking to develop a social contribution scheme using telegrams, and it was launched as a commercial service. There are three features to the service that are related to persons with disabilities. Part of the sales from the service will be donated to the Japanese Para-Sports Association. The Shioyama Factory of NTT CLARUTY, a special purpose subsidiary of the NTT Group, will manufacture the telegrams and by doing so promote the employment of persons with special needs. In addition, the telegram is designed by SHOKAs, a group of calligraphers who are actively involved in social welfare projects, which adds the dimension of promoting social contribution.

NTT East had received 6,600 orders for telegrams. NTT West has received 3,710 orders since the launch of the service on May 29, 2015. Part of these sales (NTT East: 1,981,000 yen and NTT West: 1,072,500 yen) was donated to the Japanese Para-Sports Association in February 2016.

▶ Social Contribution Scheme Based on the Telegram Service

Promoting employment of people with special needs

Participate in social contribution activities

NTT CLARUTY

Contribute to supporting and hiring people with special needs
Increase telegram revenues

Customer (originator)

NTT telegram service

(1) Manufacture and provide products

(2) Use and provide services

(3) Donate part of sales

Japanese Para-Sports Association

Support para-sports

Mount for the "Connecting Dreams" Calligraphy Art Telegram with donation
A product using handcrafted paper made by NTT CLARUTY's Shioyama Factory and designed by SHOKAs, a group of calligraphers actively involved in social welfare projects

CASE 3

Community and Educational Support Activities in India

netmagic
An NTT Communications Company

Even as India achieves remarkable progress in IT, the country's educational environment is far from ideal, with over half of fifth-grade students incapable of reading second-grade material or solving simple subtraction problems.

Netmagic, an NTT Communications Group company, plans to contribute to the education of children from low-income families in India starting in 2017 by supporting the "Teach for India" scholarship program. This is part of the "Teach for All" network spanning 35 countries around the world. The organization runs a program for sending promising, motivated students such as university graduates on two-year teaching missions to schools in low-income communities that face a shortage of teachers due to government budget cuts. The goal of the activity is to create a society in which all children in India can receive an excellent education.

There are two facets to the program's impact:
1. Children can receive guidance from competent, motivated teachers.
2. It creates an opportunity for the teachers to exercise leadership positions in society after engaging in partnerships across various areas for two years.

Netmagic, an NTT Communications Group company, plans to contribute to the development of underdeveloped areas near its data centers by engaging in charitable activities that include distributing food and providing medical services, setting up regular medical camps, and offering scholarships to students from low-income families. In addition, Netmagic provides hosting services free of charge to support NGOs in India that are pursuing social activities in various areas.

We will seek to enhance our corporate value by continuously contributing to the resolution of social issues and the enrichment of people's lives.

Photo is not related to the program

▶ Years of Services Provided to NGOs

Company Name	Start Year of Business with Netmagic
CRY	2009
Help Age India	2009
Educate Girls	2013
Smile Foundation	2010
Charities Aid Foundation	2009
Magic Bus	2014

CASE 4 — Supporting NGO Activities for Health and Education in Southeast Asia

NTT FINANCE

NTT Finance, which handles the billing and collection of communications service fees, celebrated its 20th anniversary in 2005 by donating a regional health and childcare center in Indonesia in cooperation with the maternal and child health improvement project managed by PH-J (People's HOPE Japan), an international NGO. In view of its track record of contributing to the improvement of local health, NTT Finance extended its support for two projects managed by international NGOs.

International NGO
PH-J
(People's HOPE Japan)
(Tokyo, Chairperson: Shingo Oda)

Recipient country
Myanmar

Project
Donation of a midwifery and medical center

Midwifery and medical center

Donation ceremony

International NGO
Room to Read
(San Francisco, Founder: John Wood)

Recipient country
Vietnam

Project
Donation of a library for an elementary school

An elementary school library

Children using the library

▶ Support for Citizenship Activities by Employees

With the belief that participation in citizenship activities can help to broaden the mind, the NTT Group is implementing an increasing range of policies to support employee citizenship activities, informing employees of support programs, and commending citizenship activities carried out under such programs. Other programs include a Matching Gift Program under which Group companies match donations collected independently by employees, and a Volunteer Gift Program under which Group companies donate goods to facilities and other places where employees are engaged in voluntary citizenship activities.

▶ Measures to Support Citizenship Activities

Programs	Details
Volunteer Gift Program	This program provides goods from the volunteer's company to facilities and other places where the volunteer has been active over a long period.
Matching Gift Program	Under this program, NTT Group companies support employees' fund-raising and charity activities by matching donations made by employees.
Volunteer Leave Program	This program enables employees to take extended leave for volunteer activities or other purposes in line with life design plans.

▼

▶ Citizenship Activities by Retired NTT Group Employees

Retired employees of the NTT Group are also actively participating in citizenship activities individually or in a group as a member of "Team NTT."

Denyu-Kai, whose membership consists of retired NTT Group employees, engages in a broad range of citizenship activities, including social welfare and environment beautification.

Denyu-Kai supports the citizenship activities of retired employees by annually presenting the Volunteer Activity Awards to members and organizations who undertake effective citizenship activities. In fiscal 2016, we recognized 36 individuals and 8 groups and presented a newly established award for outstanding achievement in volunteer activities to 11 recipients.

Reading to nursery school children

Governance

Corporate Governance

▶ Overview of Corporate Governance Systems
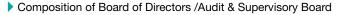
◣ Basic Policy

NTT believes that raising the effectiveness of corporate governance is an important management issue for meeting the expectations of various stakeholders, including shareholders and other investors, as well as customers, business partners, and employees, and for maximizing corporate value. Accordingly, NTT is working to strengthen corporate governance based on the purpose of the principles of Japan's Corporate Governance Code.
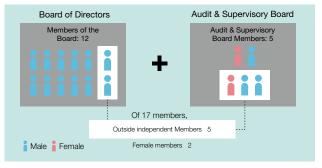
　　To advance the Medium-Term Management Strategy "Towards the Next Stage 2.0," and place the entire Group on a profit growth track, NTT will work to realize its basic policies of: (1) ensuring sound management; (2) executing appropriate decision-making and business activities; (3) clarifying accountability; and (4) maintaining thorough compliance.
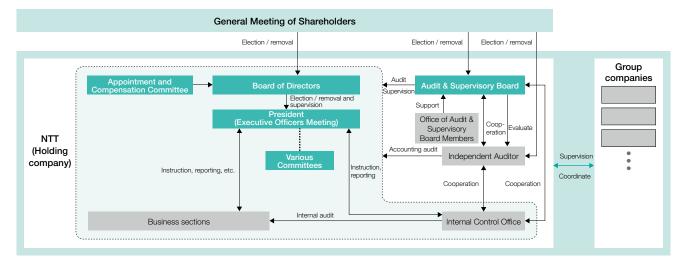
◣ Overview of Corporate Enhancing Governance System

Revisions of Related Laws and Regulations Related to Corporate Governance	2002 Passage of U.S. Sarbanes-Oxley Act 2004 Establishment of TSE's corporate governance principles for listed companies	2006 Enforcement of Companies Act 2007 Enforcement of Financial Instruments and Exchange Act	2015 Enforcement of revised Companies Act Enforcement of TSE's Corporate Governance Code
	–2005	**–2010**	**–2016**
Business Execution / Supervision Systems	1985 • Establishment of NTT, appointment of several outside Members of the Board 2003 • Increase in number of Audit & Supervisory Board Members: from 4 members (2 inside members, 2 outside members) to 5 members (3 inside members, 2 outside members) 2005 • Establishment of Appointment and Compensation Committee	2006 • Increase in number of outside Audit & Supervisory Board Members: from 5 members (3 inside members, 2 outside members) to 5 members (2 inside members, 3 outside members) • Appointment of financial expert as Audit & Supervisory Board Member	2011 • Appointment of first female corporate officer (1 outside Audit & Supervisory Board Member) 2015 • Establishment of independence standard for independent Members of the Board and independent Audit & Supervisory Board Members
Internal Control / Risk Management	2002 • Establishment of Business Risk Management Committee • Formulation of NTT Group Business Risk Management Manual • Establishment of NTT Group Corporate Ethics Charter • Establishment of Corporate Ethics Committee • Establishment of Groupwide Corporate Ethics Help Line 2003 • Commencement of response to U.S. Sarbanes-Oxley Act 2005 • Establishment of Internal Audit Office	2006 • Establishment of Internal Control Office * Consolidation of Internal Audit Office • Establishment of Basic Policy for the Development of Internal Control Systems 2010 • Establishment of Risk Management Rules	2015 • Revision of Basic Policy for the Development of Internal Control Systems 2016 • Commencement of disclosing information on operation (overview) of internal control systems
Ensuring the Exercise of Shareholder Voting Rights	2002 • Implementation of electronic voting for exercise of rights	2006 • Introduction of ICJ's electronic voting platform for institutional investors	2012 • Commencement of providing notes to non-consol-idated financial statements, etc. over Internet 2015 • Commencement of making Notice of Convocation available on Internet prior to mailing (42 days before date of ordinary general meeting of shareholders) 2016 • Implementation of Internet disclosure of Notice of Convocation prior to mailing (same day for Japanese- and English-language versions, 42 days before date of ordinary general meeting of shareholders) • Expansion of Internet disclosure of information
Information Disclosure	2003 • Commencement of disclosure of quarterly information • Establishment of disclosure regulations • Establishment of Disclosure Committee 2005 • Establishment of IR Office • Establishment of CSR Promotion Office • Establishment of CSR Committee • Commencement of issuance of CSR reports	2006 • Commencement of disclosure of Corporate Governance Report 2010 • Publication of disclosure policy	2014 • Commencement of issuance of integrated reports 2015 • Commencement of disclosure of Corporate Governance Report in response to Corporate Governance Code • Commencement of issuance of sustainability reports

◤ Corporate Governance System

NTT, in order to strengthen functions for appropriately supervising business execution, appoints several outside independent Members of the Board and establishes the Audit & Supervisory Board, of which outside independent Audit & Supervisory Board Members make up a majority to strengthen its auditing system. Additionally, NTT has voluntarily established the Appointment and Compensation Committee, which consists of two outside independent Members of the Board and two internal Members of the Board, to further increase the objectivity and transparency of decisions relating to appointment and compensation. NTT has determined that governance functions based on the Company with Board of Company Auditors model are sufficiently effective to achieve this purpose.

▶ Composition of Board of Directors /Audit & Supervisory Board

Board of Directors
Members of the Board: 12

Audit & Supervisory Board
Audit & Supervisory Board Members: 5

Of 17 members,
Outside independent Members 5
Female members 2

◼ Male ◼ Female

Board of Directors　　Number of meetings in fiscal 2015: 12

The Board of Directors consists of 12 Member of the Board, including two outside independent Members of the Board.

The Board of Directors makes decisions on matters stipulated by law and on important matters related to corporate management and Group management. Moreover, through such means as periodic reports from Members of the Board on the status of the execution of members' duties, the Board of Directors supervises the execution of duties by Members of the Board.

Audit & Supervisory Board　　Number of meetings in fiscal 2015: 25

The Audit & Supervisory Board consists of a total of five Audit & Supervisory Board Members, comprising two internal Audit & Supervisory Board Members and three outside independent Audit & Supervisory Board Members.

From an independent perspective that differs from that of executives, the Audit & Supervisory Board implement operational audits and accounting audits and audit the status of the execution of duties by Members of the Board.

Appointment and Compensation Committee　　Number of meetings in fiscal 2015: 2

For the purpose of improving objectivity and transparency in the decisions of appointments and compensation of Members of the Board, NTT has established on a non-statutory basis the Appointment and Compensation Committee, which consists of four Members of the Board, including two outside Members of the Board, as a preliminary review institution of the Board of Directors.

Executive Officers Meeting　　Number of meetings in fiscal 2015: 36

Important corporate matters to be decided are, in principle and in advance, discussed by the Executive Officers Meeting, which is made up of the president, senior executive vice presidents, full-time directors, and the heads of staff organizations. The Executive Officers Meeting is held about once a week. To improve the transparency of management decision-making, one Audit & Supervisory Board Member participates in the Executive Officers Meeting.

Various Committees

A number of committees have been established below the Executive Officers Meeting to discuss specific issues related to corporate and Group management strategies. These committees, which are convened as necessary throughout the year, are in principle chaired by the president or a senior executive vice president and are attended by relevant Members of the Board and others.

▶ **Major Committees**

Committee name	Overview
CSR Committee	Formulates basic CSR strategy and CSR goals for the Group, formulates basic policy for CSR-related reports
Corporate Ethics Committee	Establishes corporate ethics, takes thorough steps to maintain discipline
Human Rights Education Committee	Establishes human rights education systems and responds to discrimination incidents, etc.
Technology Strategy Committee	Formulates R&D vision, technology development strategy, and R&D alliance strategy
Investment Strategy Committee	Formulates investment strategy related to large investment projects, etc.
Finance Strategy Committee	Formulates basic strategies related to finance and policies for addressing financial issues
Business Risk Management Committee	Undertakes crisis management for the handling of business risks related to corporate management
Disclosure Committee	Establishes policies for compiling yearly reports
U.S. Sarbanes-Oxley Act Internal Control Committee	Tracks status of internal control in accordance with the Sarbanes-Oxley Act on a Groupwide basis, verifies and monitors measures to improve deficiencies
Group CISO Committee	Formulates of the Group's information security management strategies

▶ Board of Directors

◾ Background and Experience of Members of the Board (As of June 30, 2016)

Satoshi Miura

Date of Birth: April 3, 1944
Chairman of the Board
Years served as Member of the Board: 11
Shares Owned: 32,540
Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience

Apr. 1967: Joined Nippon Telegraph and Telephone Public Corporation
Jun. 1996: Senior Vice President
Head of Personnel
Member of the Board of the Company
Jul. 1996: Senior Vice President
Head of Personnel for Industrial Relations
Member of the Board of the Company
Jun. 1998: Executive Vice President
Head of Personnel for Industrial Relations
Member of the Board of the Company
Jan. 1999: Executive Vice President
Deputy Senior Executive Manager of the NTT-East Provisional Headquarters
Member of the Board of the Company
Jul. 1999: Senior Executive Vice President
Representative Director of Nippon Telegraph and Telephone East Corporation
Jun. 2002: President and Representative Director of Nippon Telegraph and Telephone East Corporation
Jun. 2005: Senior Executive Vice President
Head of the Corporate Management Strategy Division
Representative Member of the Board of the Company
Jun. 2007: President and Chief Executive Officer
Representative Member of the Board of the Company
Jun. 2012: Chairman of the Board of the Company (present post)
Jun. 2016: External Director of Hiroshima Bank, Ltd. (present post)

Principal Concurrent Positions
External Director of Hiroshima Bank, Ltd.

Hiroo Unoura

Date of Birth: January 13, 1949
President and Chief Executive Officer
Representative Member of the Board
Years served as Member of the Board: 14
Shares Owned: 27,200
Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience

Apr. 1973: Joined Nippon Telegraph and Telephone Public Corporation
Jun. 2002: Senior Vice President
Head of Department I
Member of the Board of the Company
Jun. 2005: Senior Vice President
Head of Department V
Member of the Board of the Company
Jun. 2007: Executive Vice President
Head of Corporate Strategy Planning
Head of Corporate Business Strategy
Member of the Board of the Company
Jun. 2008: Senior Executive Vice President
Head of Strategic Business Development
Representative Member of the Board of the Company
Jun. 2011: Senior Executive Vice President
Representative Member of the Board of the Company
Jun. 2012: President and Chief Executive Officer
Representative Member of the Board of the Company (present post)

Principal Concurrent Positions
None

Hiromichi Shinohara

Date of Birth: March 15, 1954
Senior Executive Vice President
Chief Technology Officer
Chief Information Security Officer
In charge of technical strategy and international standardization
Head of Research and Development Planning
Representative Member of the Board
Years served as Member of the Board: 7
Shares Owned: 14,300
Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience

Apr. 1978: Joined Nippon Telegraph and Telephone Public Corporation
Jun. 2009: Senior Vice President
Head of Research and Development Planning
Member of the Board of the Company
Jun. 2011: Senior Vice President
Head of Research and Development Planning
Head of the Information Sharing Laboratory Group
Member of the Board of the Company
Oct. 2011: Senior Vice President
Head of Research and Development Planning
Member of the Board of the Company
Jun. 2012: Executive Vice President
Head of Research and Development Planning
Member of the Board of the Company
Jun. 2014: Senior Executive Vice President
Head of Research and Development Planning
Representative Member of the Board of the Company (present post)

Principal Concurrent Positions
None

Jun Sawada

Date of Birth: July 30, 1955
Senior Executive Vice President
Chief Financial Officer
Chief Compliance Officer
Chief Information Officer
In charge of business strategy and risk management
Representative Member of the Board
Years served as Member of the Board: 2
Shares Owned: 10,500
Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience

Apr. 1978: Joined Nippon Telegraph and Telephone Public Corporation
Jun. 2008: Senior Vice President
Executive Manager of Corporate Strategy Planning Department
Member of the Board of NTT Communications Corporation
Jun. 2011: Executive Vice President
Executive Manager of Corporate Strategy Planning Department
Member of the Board of NTT Communications Corporation
Jun. 2012: Senior Executive Vice President
Executive Manager of Corporate Strategy Planning Department
Representative Member of the Board of NTT Communications Corporation
Jun. 2013: Senior Executive Vice President
Representative Member of the Board of NTT Communications Corporation
Jun. 2014: Senior Executive Vice President
Representative Member of the Board of the Company (present post)
Jun. 2016: Representative Director and President, Chief Executive Officer of NTT Security Corporation (present post)

Principal Concurrent Positions
Representative Director and President, Chief Executive Officer of NTT Security Corporation

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Mitsuyoshi Kobayashi

Date of Birth: November 3, 1957
Executive Vice President
Head of Technology Planning
Member of the Board
Years served as Member of the Board: 4
Shares Owned: 7,800
Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience

Apr. 1982: Joined Nippon Telegraph and Telephone Public Corporation
Jun. 2006: General Manager of Okayama Branch of Nippon Telegraph and Telephone West Corporation
Jul. 2008: General Manager of the Service Management Department of Nippon Telegraph and Telephone West Corporation
Jun. 2010: Senior Vice President
General Manager of the Service Management Department
Member of the Board of Nippon Telegraph and Telephone West Corporation
Jun. 2012: Senior Vice President
Head of Technology Planning
Head of Strategic Business Development
Member of the Board of the Company
Jun. 2012: Senior Vice President
Member of the Board of NTT COMWARE CORPORATION (present post)
Jun. 2014: Executive Vice President
Head of Technology Planning
Member of the Board of the Company (present post)

Principal Concurrent Positions
Member of the Board of NTT COMWARE CORPORATION

Akira Shimada

Date of Birth: December 18, 1957
Executive Vice President
Head of General Affairs
Member of the Board
Years served as Member of the Board: 4
Shares Owned: 7,404
Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience

Apr. 1981: Joined Nippon Telegraph and Telephone Public Corporation
Jul. 2007: General Manager of the Accounts and Finance Department of Nippon Telegraph and Telephone West Corporation
Jul. 2009: General Manager of the General Affairs and Personnel Department of Nippon Telegraph and Telephone East Corporation
Jun. 2011: Senior Vice President
General Manager of the General Affairs and Personnel Department
Member of the Board of Nippon Telegraph and Telephone East Corporation
Jun. 2012: Senior Vice President
Head of the General Affairs
Member of the Board of the Company
Jun. 2012: Member of the Board of Nippon Telegraph and Telephone West Corporation (present post)
Jun. 2015: Executive Vice President
Head of General Affairs
Member of the Board of the Company (present post)

Principal Concurrent Positions
Member of the Board of Nippon Telegraph and Telephone West Corporation

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* Number of shares held is as of June 30, 2016.
* Number of meetings attended is for fiscal 2015.

Tsunehisa Okuno

Date of Birth: October 12, 1960
Senior Vice President
Head of Global Business
Member of the Board

Years served as Member of the Board: 4

Shares Owned: 4,300

Number of Meetings Attended (Percent): 10/12 (83%)

Background and Experience
Apr. 1983: Joined Nippon Telegraph and Telephone Public Corporation
Jul. 2007: Vice President of the Corporate Business Strategy of the Company
Jun. 2008: Head of the Global Business Strategy Office of Strategic Business Development of the Company
Jan. 2011: Senior Vice President of Dimension Data Holdings plc (present post)
Jun. 2011: Head of Global Business of the Company
Jun. 2012: Senior Vice President
Head of Global Business
Member of the Board of the Company
(present post)
Jun. 2016: Director of NTT Security Corporation (present post)

Principal Concurrent Positions

Senior Vice President of Dimension Data Holdings plc
Director of NTT Security Corporation

Hiroki Kuriyama

Date of Birth: May 27, 1961
Senior Vice President
Head of Strategic Business Development
In charge of 2020 Project
Member of the Board

Years served as Member of the Board: 2

Shares Owned: 2,970

Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience
Apr. 1985: Joined the Company
Feb. 2003: Vice President of Department I of the Company
May 2005: Vice President of Corporate Business Strategy of the Company
Jun. 2008: Vice President of Corporate Strategy Planning of the Company
Jun. 2012: Vice President of President's Office of General Affairs of the Company
Jun. 2014: Senior Vice President
Head of Strategic Business Development
Member of the Board of the Company
(present post)

Principal Concurrent Positions
None

Takashi Hiroi

Date of Birth: February 13, 1963
Senior Vice President
Head of Finance and Accounting
Member of the Board

Years served as Member of the Board: 1

Shares Owned: 2,700

Number of Meetings Attended (Percent): 9/9 (100%)

Background and Experience
Apr. 1986: Joined the Company
May. 2005: Vice President of Corporate Business Strategy of the Company
Jun. 2008: Vice President of Strategic Business Development of the Company
Jul. 2009: Vice President of Corporate Strategy Planning of the Company
Jun. 2014: Head of Finance and Accounting of the Company
Jun. 2015: Senior Vice President
Head of Finance and Accounting
Member of the Board of the Company
(present post)

Principal Concurrent Positions
None

Eiichi Sakamoto

Date of Birth: September 3, 1963
Senior Vice President
Head of Corporate Strategy Planning
Member of the Board

Years served as Member of the Board: (First appointed in June 2016)

Shares Owned: 2,500

Number of Meetings Attended (Percent): —

Background and Experience
Apr. 1986: Joined the Company
Apr. 2002: Senior Manager of the Planning Department of Nippon Telegraph and Telephone East Corporation
Oct. 2005: Head of the Business Management Group of the Corporate Strategy Planning Department of Nippon Telegraph and Telephone East Corporation
Jul. 2009: Head of the Planning Group of the Corporate Strategy Planning Department of Nippon Telegraph and Telephone East Corporation
Jul. 2011: Head of the Public Relations of the Corporate Strategy Planning of the Company
Jun. 2015: Senior Vice President, Managing Director of Corporate Marketing Strategy Department of NTT DOCOMO, INC.
Jun. 2016: Senior Vice President
Head of the Corporate Strategy Planning of the Company
Member of the Board of the Company
(present post)
Member of the Board of Nippon Telegraph and Telephone East Corporation (present post)

Principal Concurrent Positions

Member of the Board of Nippon Telegraph and Telephone East Corporation

Katsuhiko Shirai

Date of Birth: September 24, 1939
Outside Independent Member of the Board

Years served as Member of the Board: 4

Shares Owned: 2,900

Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience
Apr. 1965: Assistant of the First Faculty of Science and Engineering of Waseda University
Apr. 1968: Full-time lecturer of the Faculty of Science and Engineering of Waseda University
Apr. 1970: Assistant Professor of the Faculty of Science and Engineering of Waseda University
Apr. 1975: Professor of the Faculty of Science and Engineering of Waseda University
Nov. 1994: Director of Academic Affairs and Director of the International Exchange Center of Waseda University
Nov. 1998: Executive Director of Waseda University
Nov. 2002: President of Waseda University
Nov. 2010: Educational Advisor of Waseda University (present post)
Apr. 2011: Chairperson of the Foundation for the Open University of Japan (present post)
Jun. 2012: Member of the Board of the Company (present post)
Jun. 2012: Director of Japan Display, Inc. (present post)

Principal Concurrent Positions

Chairperson of the Foundation for the Open University of Japan
Director of Japan Display, Inc.

Sadayuki Sakakibara

Date of Birth: March 22, 1943
Outside Independent Member of the Board

Years served as Member of the Board: 4

Shares Owned: 7,300

Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience
Apr. 1967: Joined Toyo Rayon Co., Ltd. (currently registered as Toray Industries, Inc.)
Jun. 1994: Director of the Corporate Planning Department of Toray Industries, Inc.
Jun. 1996: Director of the Board of Toray Industries, Inc.
Jun. 1998: Managing Director of Toray Industries, Inc.
Jun. 1999: Senior Managing Director of Toray Industries, Inc.
Jun. 2001: Executive Vice President of Toray Industries, Inc.
Jun. 2002: President of Toray Industries, Inc.
Jun. 2010: Chairman and Representative Member of the Board of Toray Industries, Inc.
Jun. 2012: Member of the Board of the Company (present post)
Jun. 2013: Director of Hitachi Ltd. (present post)
Jun. 2014: Chairman of the Japan Business Federation (Keidanren) (present post)
Jun. 2014: Chairman of the Board of Directors, Toray Industries, Inc.
Jun. 2015: Chief Senior Adviser and Chief Senior Counselor of Toray Industries, Inc. (present post)

Principal Concurrent Positions

Chief Senior Adviser, Chief Senior Counselor of Toray Industries, Inc.
Director of Hitachi, Ltd.
Chairman of the Japan Business Federation (Keidanren)

Composition of the Board of Directors

The Board of Directors is of a size appropriate to the Group's business, and the composition of the Board of Directors reflects consideration for a balance of experience and specialties and for diversity. The Board of Directors has 12 Members of the Board, including two outside independent Members of the Board who have been appointed in order to strengthen functions for appropriately supervising business execution.

For information about the past experience and specialties of individual Members of the Board, please refer to Background and Experience of Member of the Board on pages 42 and 43.

Activities of the Board of Directors

In principle, the Board of Directors meets once per month. In addition, extraordinary meetings are held as needed. The Board of Directors makes decisions on matters stipulated by law and on important matters related to corporate management and Group management. Moreover, through such means as periodic reports from Members of the Board on the status of the execution of members' duties, the Board of Directors supervises the execution of duties by Members of the Board.

In fiscal 2015, the Board of Directors met 12 times and made decisions on important matters relating to corporate management and Group management, such as the Medium-Term Management Strategy, "Towards the Next Stage 2.0," and "the future of fixed phones," which is a medium-to-long-term issue for local communications businesses. These decisions were made through a process of lively debate among Members of the Board.

Evaluation of the Effectiveness of the Board of Directors

To improve the effectiveness of the Board of Directors, and to strengthen corporate governance, meetings intended for the exchange of opinions among outside independent Members of the Board and Audit & Supervisory Board Members and among outside independent Members of the Board and Representative Members of the Board were held based on a variety of themes.

In these meetings, NTT received opinions on NTT's Board of Directors that adequate information is provided and Members of the Board engage in active debate, thereby ensuring the Board's effectiveness. As a result, these opinions constitute an assessment that the effectiveness of the Board of Directors has been ensured, and NTT will work to further improve the Board's effectiveness going forward.

Nomination Policies and Procedure for Members of the Board

NTT Group strives to contribute to the resolution of social issues and the realization of a safer, more secure, and more affluent society. To accomplish this goal, the Group acts as a trusted "Value Partner" that customers continue to select in order to provide them with new value on a global basis. We have established the policy of positioning human resources that share these ideals in the upper ranks of NTT Group's management, and we are selecting these human resources from both inside and outside the Group.

In regard to Member of the Board candidates, individuals who are selected have the broad-ranging perspective and experience necessary to contribute to the overall development of NTT Group in order to facilitate the increase of NTT Group's corporate value.

From the perspective of strengthening the function of supervising business execution, for outside independent Members of the Board, NTT selects individuals who present no risk of a conflict of interest with general shareholders. In principle, NTT appoints several outside independent Members of the Board.

The nomination procedure for candidates for Members of the Board involves the review of candidates by the Appointment and Compensation Committee. The candidates are then approved by the Board of Directors and presented for voting at the General Meeting of Shareholders.

For information about the nomination and appointment of each Member of the Board and Audit & Supervisory Board Member, please refer to pages 6 through 13 of the "Notice of Convocation of the 31st Ordinary General Meeting of Shareholders" (http://www.ntt.co.jp/ir/shares_e/shareholders_meetings/pdf/shmeeting31_1.pdf).

◥ Support System for Members of the Board

NTT has concluded contracts with the lawyers and other specialists who may be called upon as necessary to provide advice at the expense of NTT.

The secretariat of the Board of Directors is made available as a venue of contact for outside independent Members of the Board, which they can use to receive support with regard to their daily duties through explanations, responses to inquiries about business execution, and other means.

◥ Training for Members of the Board

When Members of the Board are elected, they are trained with respect to market trends, compliance, and other matters. After appointment, they continue to undergo training on broad spectrum of topics, including domestic and overseas economic and social issues. Their broad-ranging perspectives and management skills, which contribute to the overall development of NTT Group, are further enhanced. Additionally, outside Members of the Board can gain a deeper understanding of NTT and NTT Group businesses through opportunities to attend briefings on the business trends of Group companies, tour research facilities, and take part in other activities.

◥ Compensation of Members of the Board

NTT Group has established the following NTT Group Personnel Policy, which defines policies for determining the amounts and calculation methods for compensation of Members of the Board. Based on this policy, for the purpose of improving objectivity and transparency in the decisions of compensation of Members of the Board, NTT has established on a non-statutory basis the Appointment and Compensation Committee, which consists of four Members of the Board, including two outside Members of the Board, as a preliminary review institution of the Board of Directors.

NTT Group Personnel Policy (extract)

Compensation of Members of the Board

Compensation of Members of the Board (excluding outside Members of the Board) consists of a base salary and a bonus. The base salary is paid monthly on the basis of the scope of each Member of the Board's roles and responsibilities. The bonus is paid taking into account NTT's business results for the respective fiscal year.

Also, Members of the Board make monthly contributions of a minimum defined amount from their base salary for the purchase of NTT shares through the Board Members Shareholding Association in order to reflect NTT's medium- and long-term business results in compensation. Purchased shares are to be held by the Members of the Board throughout their terms of office.

In order to maintain a high level of independence, compensation of outside Members of the Board consists of a base salary only, and is not linked to NTT's business results.

▶ Total Compensation of Members of the Board (Fiscal 2015)

Position	Number of payees	Total compensation
Members of the Board	12	¥521 million

* The maximum limit on total annual compensation of Members of the Board was set at an aggregate of ¥750 million at the 21st Ordinary General Meeting of Shareholders held on June 28, 2006.

* Total compensation of Members of the Board includes ¥93 million in bonuses for the current fiscal year.

* In addition to the above, an aggregate of ¥13 million is to be paid to Members of the Board who are also employees as bonuses for their service as employees.

Audit & Supervisory Board

Background and Experience of Audit & Supervisory Board Members (As of June 30, 2016)

Akiko Ide

Date of Birth: February 28, 1955
Audit & Supervisory Board Member
Years served as Audit & Supervisory
Board Member: 2
Shares Owned: 5,000
Board of Directors Number of
Meetings Attended (Percent):
12/12 (100%)
Audit & Supervisory Board Number
of Meetings Attended (Percent):
25/25 (100%)

Background and Experience

Apr. 1977: Joined Nippon Telegraph and Telephone Public Corporation
Jun. 2003: General Manager of Customer Services of NTT DOCOMO, INC.
Sep. 2004: Concurrently General Manager of Customer Services and General Manager of Information Security of NTT DOCOMO, INC
Jun. 2005: General Manager of Customer Services of NTT DOCOMO, INC.
Apr. 2006: General Manager of Corporate Citizenship Department of NTT DOCOMO, INC.
Jun. 2006: Executive Director and General Manager of Corporate Citizenship Department of NTT DOCOMO, INC.
Jul. 2008: Executive Director and General Manager for Chugoku regional office of NTT DOCOMO, INC.
Jun. 2012: Executive Director and Director of Information Security of NTT DOCOMO, INC.
May 2013: President and Chief Executive Officer of Radishbo-ya Co., Ltd.
Jun. 2013: Executive Director and Senior Manager in Charge of Commerce Business Promotion of NTT DOCOMO, INC.
Jun. 2014: Full Time Audit & Supervisory Board Member of NTT (present post)

Principal Concurrent Positions

None

Takao Maezawa

Date of Birth: October 24, 1955
Audit & Supervisory Board Member
Years served as Audit & Supervisory
Board Member:
(First appointed in June 2016)
Shares Owned: 9,004
Board of Directors Number of
Meetings Attended (Percent):
—
Audit & Supervisory Board Number
of Meetings Attended (Percent):
—

Background and Experience

Apr. 1978: Joined Nippon Telegraph and Telephone Public Corporation
Jun. 2006: Executive Manager of Human Resources Management Department, General Manager of Training Institute
Executive Manager of the General Affairs of NTT Communications Corporation
Jun. 2008: Senior Vice President
Deputy General Manager of the Enterprise Business Division
Member of the Board of NTT Communications Corporation
Jun. 2011: Executive Vice President
Deputy General Manager of the Enterprise Business Division
Member of the Board of NTT Communications Corporation
Aug. 2011: Executive Vice President
Head of Second Sales Division
Member of the Board of NTT Communications Corporation
Jun. 2012: President and CEO of NTT PC Communications Incorporated
Jun. 2016: Full Time Audit & Supervisory Board Member of NTT (present post)

* Mr. Maezawa has extensive knowledge concerning finance and accounting matters resulting from experience in accounting departments at the Company and related companies.

Principal Concurrent Positions

None

Michiko Tomonaga

Date of Birth: July 26, 1947
Outside Independent Audit &
Supervisory Board Member
Years served as Audit & Supervisory
Board Member: 5
Shares Owned: 2,300
Board of Directors Number of
Meetings Attended (Percent):
11/12 (92%)
Audit & Supervisory Board Number
of Meetings Attended (Percent):
24/25 (96%)

Background and Experience

Mar. 1975: Registered as a certified public accountant (certification up-to-date)
Jul. 2007: Vice President of the Japanese Institute of Certified Public Accountants
Jul. 2008: Senior Partner at Ernst & Young Japan
Jun. 2010: Outside Corporate Auditor of Keikyu Corporation
Jun. 2011: Outside Audit & Supervisory Board Member of NTT (present post)
Feb. 2012: Audit & Supervisory Board Member of the Corporation for Revitalizing Earthquake affected Business
Jun. 2014: Outside Director of Japan Exchange Group, Inc.
Jun. 2016: Outside Director of Keikyu Corporation (present post)

* Audit & Supervisory Board Member Michiko Tomonaga is a Certified Public Accountant who has extensive knowledge concerning finance and accounting matters.

Principal Concurrent Positions

Certified Public Accountant
Outside Director of Keikyu Corporation

Seiichi Ochiai

Date of Birth: April 10, 1944
Outside Independent Audit &
Supervisory Board Member
Years served as Audit & Supervisory
Board Member: 4
Shares Owned: 4,804
Board of Directors Number of
Meetings Attended (Percent):
11/12 (92%)
Audit & Supervisory Board Number
of Meetings Attended (Percent):
24/25 (96%)

Background and Experience

Apr. 1974: Instructor in the Faculty of Law of the University of Tokyo
Apr. 1977: Associate Professor in the Faculty of Law of Seikei University
Apr. 1981: Professor in the Faculty of Law of Seikei University
Apr. 1990: Professor at the University of Tokyo Graduate Schools for Law and Politics and the Faculty of Law of the University of Tokyo
Apr. 2007: Professor at Chuo Law School
Apr. 2007: Registered as attorney-at-law (Dai-Ichi Tokyo Bar Association) (registration up-to-date)
Jun. 2007: Emeritus Professor at the University of Tokyo (present post)
Jun. 2008: Outside Director of EBARA CORPORATION
Jun. 2012: Outside Audit & Supervisory Board Member of NTT (present post)
Jul. 2012: Director of Meiji Yasuda Life Insurance Company (present post)
Jun. 2013: Outside Auditor of Ube Industries, Ltd. (present post)

Principal Concurrent Positions

Lawyer
Director of Meiji Yasuda Life Insurance Company
Outside Auditor of Ube Industries, Ltd.

Takashi Iida

Date of Birth: September 5, 1946
Outside Independent Audit &
Supervisory Board Member
Years served as Audit & Supervisory
Board Member: 2
Shares Owned: 2,400
Board of Directors Number of
Meetings Attended (Percent):
12/12 (100%)
Audit & Supervisory Board Number
of Meetings Attended (Percent):
25/25 (100%)

Background and Experience

Apr. 1974: Registered as attorney-at-law (Daini Tokyo Bar Association) (registration up-to-date)
Joined Mori Sogo Law Offices (currently Mori, Hamada and Matsumoto)
Apr. 1991: Deputy Chairman of the Daini Tokyo Bar Association
Apr. 1997: Executive Governor of the Japan Federation of Bar Associations
Apr. 2006: Chairman of the Daini Tokyo Bar Association
Apr. 2006: Vice President of the Japan Federation of Bar Associations
Jan. 2012: Established Kowa Law Office (present post)
Jun. 2012: Corporate Auditor for Shimadzu Corporation (present post)
Jun. 2013: Corporate Auditor of JAFCO Co., Ltd
Jun. 2013: Director of Alps Electric Co., Ltd. (present post)
Jun. 2014: Outside Audit & Supervisory Board Member of NTT (present post)

Principal Concurrent Positions

Lawyer
Corporate Auditor of Shimadzu Corporation
Director of Alps Electric Co., Ltd.

* Number of shares held is as of June 30, 2016.
* Number of meetings attended is for fiscal 2015.

▼

◤ Composition of the Audit & Supervisory Board

The Audit & Supervisory Board comprises three outside independent Audit & Supervisory Board Members, who have experience and knowledge in a range of fields—as a Certified Public Accountant, university professor, and lawyer—and two internal Audit & Supervisory Board Members. We conduct effective audits by combining the independence of the outside Audit & Supervisory Board Members with the superior information collection capabilities of the internal Audit & Supervisory Board Members. Two of the Audit & Supervisory Board Members have extensive knowledge concerning finance and accounting matters.

◤ Activities of the Audit & Supervisory Board

Audit & Supervisory Board Members attend meetings of the Board of Directors and other important meetings. In addition, Audit & Supervisory Board Members meet periodically with Representative Members of the Board and Members of the Board to exchange ideas and opinions and hold discussions on various topics. In this way, Audit & Supervisory Board Members maintain an understanding of the execution of duties by Members of the Board and provide their opinions as needed.

In fiscal 2015, the Audit & Supervisory Board met 25 times. Moreover, separate from meetings of the Audit & Supervisory Board, the Audit & Supervisory Board Members Preliminary Deliberation Meeting met approximately 40 times. These meetings provide a venue for the sharing of information. For example, at these meetings Audit & Supervisory Board Members receive explanations from corporate officers of matters to be discussed at the Executive Officers Meeting. Furthermore, the Audit & Supervisory Board Members exchanged opinions with the Independent Auditor and the Internal Control Office approximately 10 times. The Audit & Supervisory Board Members also receive explanations of audit plans and reports on the status of internal control systems and provide advice as needed.

In initiatives related to Group companies, the Audit & Supervisory Board Members received information from the Representative Members of the Board of approximately 20 major Group companies regarding the status of corporate governance and measures to maintain and enhance corporate governance, and discussions were conducted on those matters. In addition, Audit & Supervisory Board Members visited major bases in Japan and overseas (approximately 20 bases), received information from local representatives, and conducted discussions. Furthermore, Audit & Supervisory Board Members received reports regarding audit results, etc., from the Audit & Supervisory Board Members of major Group companies and exchanged opinions with them. In addition, Audit & Supervisory Board is implementing initiatives that contribute to enhancing the auditing activities of Audit & Supervisory Board Members of major Group companies, including regularly holding training sessions by outside experts for Audit & Supervisory Board Members of major Group companies.

Through these activities, the Audit & Supervisory Board Members support the sound, steady growth of NTT and Group companies from an independent perspective that differs from that of executives. In addition, the Audit & Supervisory Board Members contribute to the strengthening of corporate governance systems and the fostering of awareness of compliance matters.

◤ Nomination Policies and Procedure for Audit & Supervisory Board Members

NTT has the policy of selecting candidates for Audit & Supervisory Board Members that have the capacity to provide audits based on specialized experience and insight. From the perspective of guaranteeing fair audits of the execution of duties by Members of the Board, for outside independent Audit & Supervisory Board Members NTT selects people who present no risk of a conflict of interest with general shareholders. In accordance with the Companies Act, NTT ensures that outside independent Audit & Supervisory Board Members make up half or more of the Audit & Supervisory Board.

The procedure for nomination involves Members of the Board proposing Audit & Supervisory Board Member candidates based on the aforementioned nomination policies. These proposals are then discussed by the Audit & Supervisory Board, which consists of half or more of outside independent Audit & Supervisory Board Members, and consent is granted if appropriate. The candidates are then approved by the Board of Directors and presented for voting at the General Meeting of Shareholders.

◤ Compensation of Audit & Supervisory Board Members

Compensation of Audit & Supervisory Board Members is determined by resolution of the Audit & Supervisory Board.

▶ Total Compensation of Audit & Supervisory Board Members during Fiscal 2015

Position	Number of payees	Total compensation
Audit & Supervisory Board Members	5	¥110 million

* The maximum limit on total annual compensation of Audit & Supervisory Board Members was set at an aggregate of ¥200 million at the 21st Ordinary General Meeting of Shareholders held on June 28, 2006.

◤ Support Structures for Audit & Supervisory Board Members

The Office of Audit & Supervisory Board Members, which has four dedicated NTT employees, has been established as a structure to support audits by the Audit & Supervisory Board Members. In addition, NTT has concluded contracts with the lawyers and other specialists who may be called upon as necessary to provide advice at the expense of NTT.

In addition, when Audit & Supervisory Board Members are elected, they are trained with respect to market trends and compliance. They then continue to undergo training on broad spectrum of topics, including domestic and overseas economic and social issues, after appointment.

Moreover, we are creating opportunities for tours and implementing other initiatives so that outside Audit & Supervisory Board Members can further deepen their understanding of NTT and NTT Group.

Independent Members of the Board and Audit & Supervisory Board Members

Nomination Procedure for Outside Members of the Board and Outside Audit & Supervisory Board Members

From the perspectives of strengthening supervising functions for execution and guaranteeing appropriate audits of the execution of duties by Members of the Board, NTT has the policy of selecting individuals to serve as outside Members of the Board and outside Audit & Supervisory Board Members who do not represent risks of conflicts of interest with general shareholders.

NTT designates outside Members of the Board and outside Audit & Supervisory Board Members who fulfill both the independence criteria stipulated by the Tokyo Stock Exchange and NTT's own independence standards as independent Members of the Board or independent Audit & Supervisory Board Members.

Independence Standards

In order to meet the independence standards, a person may not fall under any of the categories below in the last three fiscal years
(1) A person who executes business in a partner company that exceeds NTT's standards[1]
(2) A person who executes business in a lending company that exceeds NTT's standards[2]
(3) A consultant, accountant, lawyer, or any other person providing professional services, who received monetary payments or any other gain in assets equal to or more than ¥10 million, excluding the Board Members' or Audit & Supervisory Board Members' compensation, from NTT or its major subsidiaries[3] in any of the last three fiscal years
(4) A person who executes business in an organization that received donations exceeding NTT's standards
Even if any of (1) through (4) above applies to a person, where it has been decided that a person meets the independence standards, the reasons shall be explained and disclosed at the time of the person's appointment as the Independent Member of the Board or Audit & Supervisory Board Member.

[1] "A company that exceeds NTT's standards" is defined as a company that has had any business dealing with NTT and its major subsidiaries[3] in any of the last three fiscal years equal to or more than 2% of the total operating revenues of NTT and its major subsidiaries for the respective fiscal year.
[2] "A lending company that exceeds NTT's borrowing standards" is defined as a company in which the total amount of borrowings on a consolidated basis in any of the last three fiscal years equals to or is more than 2% of the total operating revenues of NTT's consolidated total assets for the respective fiscal year.
[3] The major subsidiaries are NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION, NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION, NTT COMMUNICATIONS CORPORATION, NTT DATA CORPORATION, and NTT DOCOMO, INC.
[4] An "organization that received donations exceeding NTT's standards" is defined as an organization which received donations from NTT and its major subsidiaries[3] in any of the last three fiscal years exceeding ¥10 million or 2% of the total income of the organization, whichever is larger, during the respective fiscal year.

Reason for Nomination and Status of Independence

▶ Outside Members of the Board (Independent Members of the Board)

Name	Reason for nomination	Status of independence		
		Total amount of transactions with and total amount of donations from NTT and its major subsidiaries in the last three fiscal years		
Katsuhiko Shirai	Katsuhiko Shirai has a wealth of experience as operational director of an educational institution and a high level of integrity and insight. NTT believes that he will help strengthen the supervisory function for business execution and expects to incorporate the opinion he provides from his wide-ranging experience and his managerial perspective.	Waseda University, at which Katsuhiko Shirai has served as President	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the university	Less than 1%
			Total of donations	Comparison with total annual revenues of the university	Less than 1%
		The Open University of Japan Foundation, at which Katsuhiko Shirai currently serves as Chairperson	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the university	Less than 1%
			Total of donations	—	Less than ¥10 million
Sadayuki Sakakibara	Sadayuki Sakakibara has a wealth of experience, including as operational director of an educational institution, and a high level of integrity and insight. NTT believes that he will help strengthen the supervisory function for business execution and expects to incorporate the opinion he provides from his wide-ranging experience and his managerial perspective.	Toray Industries, Inc., at which Sadayuki Sakakibara served as Chairman of the Board	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the company	Less than 1%
		Japan Business Federation (Keidanren), at which Sadayuki Sakakibara currently serves as Chairman	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%

▶ Outside Audit & Supervisory Board Members (Independent Audit & Supervisory Board Members)

Name	Reason for nomination	Status of independence			
		Total amount of transactions with and total amount of donations from NTT and its major subsidiaries in the last three fiscal years			
Michiko Tomonaga	Michiko Tomonaga has worked for many years as a Certified Public Accountant, and NTT expects that she will conduct future audits based on the knowledge and insight that she has gained through her career.	Ernst & Young Japan, at which Michiko Tomonaga worked as Senior Partner (retired in June 2010)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the audit firm	Less than 1%
		Japanese Institute of Certified Public Accountants, at which Michiko Tomonaga served as Vice President (retired in July 2010)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the association	Less than 1%
Seiichi Ochiai	Seiichi Ochiai has been serving for many years as a university professor specializing in the study of law, and NTT expects that he will conduct future audits based on the knowledge and insight that he has gained through his career.	Tokyo University, at which Seiichi Ochiai was a professor	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the university	Less than 1%
			Total of donations	Comparison with total annual revenues of the university	Less than 1%
		Chuo University, at which Seiichi Ochiai was a professor (retired in March 2015)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the university	Less than 1%
			Total of donations —		Less than ¥10 million
Takashi Iida	Takashi Iida has worked for many years in legal sectors, and NTT expects that he will conduct future audits based on the knowledge and insight that he has gained through his career.	Mori, Hamada & Matsumoto with which Takashi Iida was affiliated (retired in December 2011)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
		Daini Tokyo Bar Association, at which Takashi Iida served as Chairman (retired in March 2007)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
		Japan Federation of Bar Associations, at which Takashi Iida served as Vice President (retired in March 2007)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%
				Comparison with total annual revenues of the association	Less than 1%
		Kowa Law Office, which Takashi Iida established	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%

Status of Activities of Outside Members of the Board and Outside Audit & Supervisory Board Members

	Name	Statements made at Board of Directors' Meetings and Audit & Supervisory Board Meetings
Outside Members of the Board (Independent Members of the Board)	Katsuhiko Shirai	Katsuhiko Shirai made comments mainly concerning the business strategies of Group companies, global strategy, and research and development from his perspective as an operational director of an educational institution with extensive experience.
	Sadayuki Sakakibara	Sadayuki Sakakibara made comments mainly concerning the business strategies of Group companies, investment, and business plans from his perspective as a corporate executive with extensive experience.
Outside Audit & Supervisory Board Members (Independent Audit & Supervisory Board Members)	Michiko Tomonaga	Michiko Tomonaga made comments mainly concerning the accounting audit based on the professional perspective fostered through her extensive experience as a Certified Public Accountant.
	Seiichi Ochiai	Seiichi Ochiai made comments mainly concerning corporate governance based on the professional perspective fostered through his extensive experience as a university professor and a lawyer.
	Takashi Iida	Takashi Iida made comments mainly concerning corporate governance based on the professional perspective fostered through his extensive experience as a lawyer.

Compensation of Outside Members of the Board and Outside Audit & Supervisory Board Members

In order to maintain a high level of independence, compensation of outside Members of the Board and outside Audit & Supervisory Board Members consists of a base salary only and is not linked to NTT's business results.

▶ Total Compensation of Outside Members of the Board and Outside Audit & Supervisory Board Members
   (during fiscal 2015)

	Number of persons	Total
Total compensation	5	¥60 million

* The above figures are included in the amounts listed in "Total Compensation of Members of the Board" on page 142 and "Total Compensation of Audit & Supervisory Board Members" on page 144.

Independent Auditor

Activities of the Independent Auditor

NTT has appointed KPMG AZSA LLC as its Independent Auditor.

The Independent Auditor maintains the level of coordination with the Audit & Supervisory Board and the Internal Control Office necessary to conduct appropriate audits. As part of this coordination, the Independent Auditor appropriately audits through reporting the audit plans and audit results to the Audit & Supervisory Board and working together with the Internal Control Office to establish systems for monitoring the status of oversight related to evaluating internal control systems for financial reports.

Nomination of the Independent Auditor

NTT believes that it is important to maintain and enhance audit quality while increasing audit efficiency. Based on this policy, the Audit & Supervisory Board evaluates Independent Auditor candidates from the perspectives of their independence and specialties and the appropriateness and adequateness of their auditing activities. The candidates that are approved by the Audit & Supervisory Board are then presented for voting at the Ordinary General Meeting of Shareholders.

The Audit & Supervisory Board may choose to dismiss or not reappoint the Independent Auditor in any of the cases described in Article 340 (1) of the Companies Act based on a unanimous vote by all Audit & Supervisory Board Members. In addition, if the Board of Directors determines that it would be difficult for the Independent Auditor to perform proper audits, the Audit & Supervisory Board may propose a resolution to the Ordinary General Meeting of Shareholders that the Independent Auditor be discharged or that the Independent Auditor not be reappointed.

Compensation of Independent Auditor

NTT and its major subsidiaries pay compensation to KPMG AZSA LLC, NTT's Independent Auditor, and other member firms of the KPMG network for audit services and for non-audit services.

	Fiscal 2014	Fiscal 2015
Compensation for audit services	¥4,527 million	¥4,812 million
Compensation for non-audit services	¥200 million	¥447 million
Total	¥4,728 million	¥5,259 million

* Audit services refer to the auditing of the financial statements of NTT and its consolidated subsidiaries in Japan and overseas.
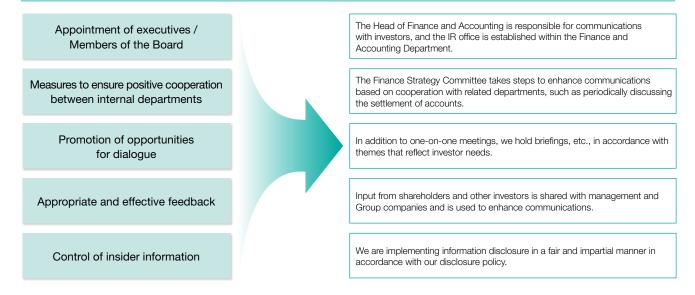
Non-audit services include the provision of guidance and advice related to International Financial Reporting Standards, tax returns and tax consultation for consolidated subsidiaries in Japan and overseas.

Dialogue with Shareholders and Other Investors

NTT promotes management that prioritizes discussions with shareholders, which not only includes discussions at General Meetings of Shareholders but also involves senior management, including the president, actively promoting discussions with shareholders about medium-term management strategies, corporate governance, business performance trends, and other topics through one-on-one meetings with institutional investors and briefings targeting individual investors.

The opinions received from shareholders through such discussions are shared in the Company. NTT considered and formulated the medium-term management strategy that was announced in May 2015 in light of shareholder opinions.

During discussions with shareholders, insider information is strictly controlled, and information is proactively disclosed with due consideration to fair disclosure (timely, fair and impartial information disclosure). To increase convenience for overseas investors, we strive to release Japanese- and English-language disclosure materials at the same time. The Japanese- and English-language versions of the entire Notice of Convocation for the ordinary general meeting of shareholders, including the business report, were released at the same time, more than one month prior to the date of the ordinary general meeting of shareholders.

◢ Policy for Constructive Dialogue with Shareholders and Other Investors

Appointment of executives / Members of the Board	The Head of Finance and Accounting is responsible for communications with investors, and the IR office is established within the Finance and Accounting Department.
Measures to ensure positive cooperation between internal departments	The Finance Strategy Committee takes steps to enhance communications based on cooperation with related departments, such as periodically discussing the settlement of accounts.
Promotion of opportunities for dialogue	In addition to one-on-one meetings, we hold briefings, etc., in accordance with themes that reflect investor needs.
Appropriate and effective feedback	Input from shareholders and other investors is shared with management and Group companies and is used to enhance communications.
Control of insider information	We are implementing information disclosure in a fair and impartial manner in accordance with our disclosure policy.

◢ Initiatives to Enhance Dialogue

For institutional investors
- Implementing quarterly financial results presentations (4 times)
- Participating in IR conferences in Japan and overseas (9 times)
- Holding NTT IR DAY (briefing for institutional investors, 1 time)
- Implementing one-on-one briefings in Japan and overseas (total of more than 400 times)
  (Topics: medium-term management strategy, financial results, corporate governance, etc.)

For individual investors
- Implementing Company briefings (20 times)
  (including 3 company briefings by senior executives)
- Implementing online Company briefings (1 time)
- Participating in individual investor fairs (1 time)

* The numbers of times are for fiscal 2015.

◢ Receipt of awards for IR activities

Best IR Award
(Japan Investor Relations Association)

Awards for Excellence in Corporate Disclosure
(The Securities Analysts Association of Japan)

Internet IR Excellence Awards
(Daiwa Investor Relations)

Internal Control

◤ Overview of Internal Control Systems

NTT maintains internal control systems related to financial reporting based on the U.S. Public Company Accounting Reform and Investor Protection Act of 2002 (Sarbanes-Oxley Act), Section 404, and the Financial Instruments and Exchange Act of Japan. Based on tests and evaluations of the design and operational effectiveness of these systems, we were able to confirm, as of March 31, 2016, the effectiveness of these systems without any particular issues.

In regard to general internal control systems, internal audits are conducted by the internal auditing divisions of each Group company, and the results of these auditing activities are reviewed by NTT. In addition, standardized audits are performed with regard to major risk factors that are common issues throughout the Group, and we are continually enhancing and verifying their effectiveness. As for internal audits, the Internal Control Office and its staff of 22 people verify the internal control systems in place throughout the Group and the status of their implementation. NTT is continually accelerating its efforts to develop and implement IT and other Groupwide internal control systems and to improve their operational procedures and efficiency.

For information on Basic Policy for the Development of Internal Control Systems, please refer to the following NTT website.
http://www.ntt.co.jp/about_e/internalcontrol.html

Compliance

▶ NTT Group Corporate Ethics Charter

Recognizing that it is imperative to conduct business in compliance with laws and regulations, and maintain high ethical standards in order to promote sound corporate activities, NTT drew up the NTT Group Corporate Ethics Charter in November 2002.

　　The charter, which applies to all officers and employees of the NTT Group, lays out the basic principles of corporate ethics and provides specific guidelines for ethical behavior. The stipulations in the guidelines are intended to remind everyone of their duty as members of a telecommunications group that bears significant responsibility to society in terms of preventing dishonesty, misconduct, and the disclosure of corporate secrets, as well as refraining from exchanging excessive favors with customers and suppliers, and ensuring that they conduct themselves according to the highest ethical standards in both private and public activities.

NTT Group Corporate Ethics Charter

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

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

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

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

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

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

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

NTT Group Corporate Ethics Charter　　🖥 http://www.ntt.co.jp/csr_e/governance/compliance.html

▶ Prevention of Bribery

The NTT Group has established the NTT Group Corporate Ethics Charter, which mandates compliance with all laws and regulations, social standards, and internal company rules whether in Japan or overseas. In particular, the charter contains clear, detailed rules on preventing corruption and bribery as well as information management.

In addition, NTT Corporation, NTT East Japan and NTT West Japan stipulate that corruption and bribery are forbidden under the Law Concerning Nippon Telegraph and Telephone Corporation (hereafter "the NTT Law") and that breaches are punishable by law. To prevent any illegal or illicit funding and remain in compliance with the Act on Prevention of Unjust Acts by Organized Crime Groups, contributions and other types of support are only given to charitable organizations deemed suitable by NTT. We have a zero tolerance approach to corruption. We strongly prohibit bribery of any kind, including facilitation payments*.

In fiscal 2016, no illegal conduct associated with bribery or contribution/support was confirmed within the NTT Group.

* Facilitation payment: payment of a small amount of money for the purpose of accelerating an administrative service process.

Political Contributions

As a holding company and in compliance with Japan's Political Funds Control Law, NTT Corporation refrains from making political contributions, while a few Group companies make political contributions at their own discretion and in accordance with the relevant laws and regulations as well as the companies' respective codes of corporate ethics.

Request to Business Partners for Compliance and Risk Assessment

The Guidelines for CSR in Supply Chain, the operational guidelines we issue to our suppliers, clearly outlines fair trade practices and business ethics (nine articles). With respect to major suppliers, we conducted a survey on the status of CSR procurement. We checked activities concerning compliance in general, including their response to preventing corruption, illegal political contributions and antisocial forces and also requested further improvements where necessary. No risks associated with bribery have been identified from the results of the survey conducted in fiscal 2016.

▶ Initiatives for Anti-Monopoly

The NTT Group has adhered to the Anti-Monopoly Act, forbidding itself from monopolizing the telecommunications market. These initiatives have been effective, as evidenced by the fact that we have never been fined for violation of anti-monopoly regulations.

▶ Initiatives to Promote Awareness of the NTT Group Corporate Ethics Charter

To instill the NTT Group Corporate Ethics Charter in all Group companies, NTT Group companies offer training sessions on corporate ethics to employees. In addition, the NTT Group Corporate Ethics Charter and examples of corporate ethics issues are explained in detail on a website for employees, and employees are reminded of the importance of ethics in June and December each year. In these ways, NTT is working to enhance the understanding of employees. Furthermore, NTT conducts annual surveys of employees to measure their awareness, and the results are then used for awareness enhancement initiatives.

▼

Corporate Ethics and Compliance Training

Corporate ethics training is conducted as part of continuous educational activities for all officers and employees. This training is tailored to meet the specific compliance and corruption risks of each company throughout the NTT Group. In fiscal 2016, 100% of employees attended the corporate ethics training. Training for officers is also conducted every year.

Corporate ethics website for employees

Anti-Bribery Handbook

As part of our compliance training, we created the new Anti-Bribery Handbook in fiscal 2015, which has been used at all Group companies in Japan and abroad. Along with a message from the president, the Anti-Bribery Handbook provides knowledge and examples regarding the basics of bribery and facilitation payments.

Response to Compliance Violations

The NTT Group has strengthened measures to enhance compliance throughout the Group. The CEO of every NTT Group company identified the risk of being involved in illegal conduct and issued messages of zero tolerance toward illegal conduct. To enhance internal auditing, we added Group-wide standardized audit check items, such as checking the rationality/validity of contractor selection reasons stated in approval documents. In addition, we are randomly monitoring Group companies to instill awareness of compliance among employees and collect their feedback. The monitoring is performed under four different functions, comprising the departments in charge of business operations, compliance and internal auditing, as well as the Audit and Supervisory Board members, to ensure the activity is neutral and multifaceted.

In fiscal 2016, no illegal conduct associated with bribery or contribution/support was confirmed within the NTT Group.

▶ Establishment of Corporate Ethics Help Line Contact Point

To prevent illegal conduct or a scandal, each Group company has set up an internal consulting center. In addition, NTT has established the Corporate Ethics Help Line as an external contact point and outsources its operation to a law firm. The help line also handles consultations and reports related to human rights issues (see page 113). The NTT Group Corporate Ethics Charter clearly states that people who file reports with these help lines are protected from any disadvantage arising from the fact that they filed a report. The content of the consultations and reports are investigated and handled by the staff member in charge, and a report is submitted to the Corporate Ethics Committee of each Group company. All reports are collected at least once a year by NTT, where the response status is ascertained and reported to the Board of Directors.

Number of Reports Received by the Corporate Ethics Help Line (External Contact Point)

We monitor the number of reports received by the Corporate Ethics Help Line. In fiscal 2016, we received 304 reports. The number of reports has decreased over the past three years, and we believe this reflects the growing dissemination of our daily efforts to enhance corporate ethics among all NTT Group employees.

▶ Reports to the Corporate Ethics Help Line by Type of Violation (FY2014–FY2016)

	FY2014	FY2015	FY2016
Number of Reports	312	322	304
Number of Compliance Violations	31	58	68
Violation of Internal Rules	31	58	63
Misappropriation of Funds	17	21	23
Harassment	8	18	21
Others	6	19	19
Violation of Laws and Regulations	0	0	0
Bribery (e.g., criminal offenses, violations of the NTT Law)	0	0	0
Accounting Fraud (e.g., criminal offenses, violations of the Companies Act)	0	0	0
Disguised Contracting (e.g., violations of the Employment Security Act)	0	0	0
Violation of Human Rights (e.g., violations of the Equal Employment Opportunity Act for Men and Women)	0	0	0
Others (e.g., violations of the Unfair Competition Prevention Act)	0	0	0
Others	281	264	241

Disciplinary Actions against Confirmed Violations

A compliance violation or breach of the NTT Group Corporate Ethics Charter is reflected in the disciplinary measures taken in accordance with the disciplinary code established at each Group company, such as pay cuts and work suspension, and may also be reflected in assessments (evaluations) and personnel transfers.

In April 2016, eight employees belonging to NTT East's badminton team were found to have been involved in illegal gambling, which constitutes a significant compliance violation. These employees and related personnel received strict punishment set by the company's disciplinary code. We have since revised our corporate ethics training programs and initiated other efforts to more thoroughly educate employees on the issue and prevent any recurrence of such actions.

Risk Management

The NTT Group faces a rapidly changing business environment, including intensified competition in the information and telecommunications sector. In this context, NTT Group companies are exposed to an increasing amount of business risk.
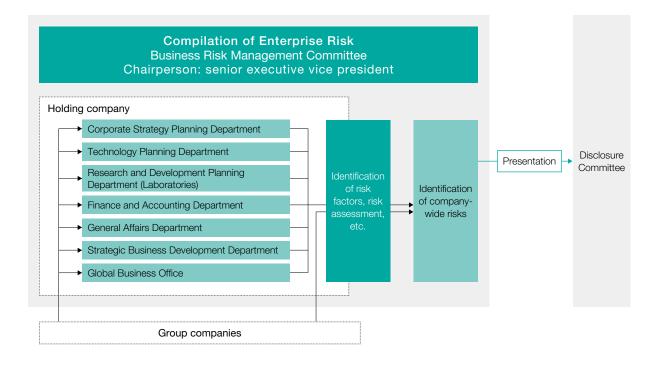
The NTT Group strives to minimize the impact of losses that could result from the materialization of risk by anticipating and preventing the occurrence of potential risks.

As part of these efforts, NTT has formulated the NTT Group Business Risk Management Manual and has distributed it to all Group companies so that the entire Group can work together to conduct risk management.
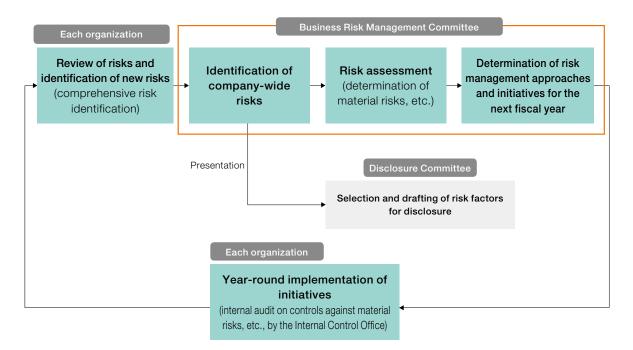
In addition, each Group company has formulated its own manuals and other guidelines, which reflect its specific business operations, business environment, and other factors, and is using these materials to control business risks.

▶ Risk Management System

At NTT, Risk Management Regulations are in place, which define fundamental policies concerning risk management for effective and efficient business operations, and a PDCA cycle has been conducted on a continuous basis under the leadership of the Business Risk Management Committee, chaired by the representative director and senior executive vice president.

Compilation of Enterprise Risk
Business Risk Management Committee
Chairperson: senior executive vice president

Holding company

- Corporate Strategy Planning Department
- Technology Planning Department
- Research and Development Planning Department (Laboratories)
- Finance and Accounting Department
- General Affairs Department
- Strategic Business Development Department
- Global Business Office

Identification of risk factors, risk assessment, etc.

Identification of company-wide risks

Presentation

Disclosure Committee

Group companies

Identifying Material Risks

From time to time, NTT reviews assumed risks and management policies based on changes in the social environment. The Business Risk Management Committee leads implementation of periodic risk analysis processes for each organization. A report is submitted to the Board of Directors, which reviews the results as well as the overall risk factors of each organization, prioritizes the material risks, and decides on responses.

Each organization

Review of risks and identification of new risks (comprehensive risk identification)

Business Risk Management Committee

Identification of company-wide risks

Risk assessment (determination of material risks, etc.)

Determination of risk management approaches and initiatives for the next fiscal year

Presentation

Disclosure Committee

Selection and drafting of risk factors for disclosure

Each organization

Year-round implementation of initiatives (internal audit on controls against material risks, etc., by the Internal Control Office)

Response to Individual Risks

Information Security Risk

If there is a leak or other misuse of confidential information such as personal information, the action may affect the NTT Group's business, including its credibility and reputation, and its ability to obtain new subscribers or secure governmental contracts may be adversely impacted.

To prevent such a situation, the NTT Group is making efforts to protect confidential information obtained in the course of its business, including the personal information of customers. In addition, the NTT Group has formulated the NTT Group Information Security Policy (see page 87), which outlines our stance on ensuring information security, and is taking rigorous steps on a Group-wide basis, including enhanced internal information management, training and awareness-raising for officers and employees, and publication of manuals, to protect the personal information of our customers and prevent any leakage.

NTT Group Information Security Policy 🖥 http://www.ntt.co.jp/g-policy/index.html (Japanese only)
Protection of Personal Information 🖥 http://www.ntt.co.jp/kojinjo/index.html (Japanese only)

Risks Related to Disasters

Five Group companies—NTT, NTT East, NTT West, NTT Communications, and NTT DOCOMO—have been designated public institutions under the Basic Act on Disaster Control Measures.

Accordingly, in preparation for a disaster, the NTT Group has formulated the Disaster Management Operation Plan for the purpose of smooth, appropriate implementation of measures to prevent damage. Damage prevention measures require an ongoing process of periodic review to reflect the latest knowledge and legal revisions.

In June 2014, the Japanese government revised the Nankai Trough Earthquake Countermeasures Basic Plan. In response, the NTT Group has revised the Disaster Management Operation Plan and is strengthening damage prevention measures.

Pandemic Risk

The global spread of novel influenza and other diseases has had a major influence on economies and lifestyles. In this setting, countermeasures have become a social issue.

In accordance with the Act on Special Measures for Countermeasures against Novel Influenza that was promulgated in 2012, five companies in the NTT Group (same as above) are designated public institutions.

In response, in March 2014 the NTT Group formulated the Novel Influenza Countermeasures Plan. In accordance with the stages of an outbreak of novel influenza or other diseases, we have created a specific plan for the fulfillment of our responsibilities as designated public institutions and for the prevention of infection from the viewpoint of respect for human life.

We also take action to prepare against novel influenza and other diseases by conducting response training in correlation with national training organized by the government.

Risks Arising from Climate Change

Responsible for environmental enhancement activities across the whole Group, the Environmental Protection Office is assigned to identify environmental risks that could affect our businesses not only environmentally but also financially.

As for the risks and opportunities with respect to facilities and equipment, monitoring and assessment are conducted through a collaborative effort between staff in charge of environmental issues and those responsible for facilities, and these individuals are appointed for every Group company. We consider future climate change a particularly imperative issue and are therefore working toward the environmental targets that have been set for the years leading up to 2030 (see page 52).

Please see page 59 for details about climate change risks and opportunities.

Tax Practice

▶ Appropriate Tax Practice

All directors and employees of the NTT Group have declared their commitment to the basic idea of complying with all laws and regulations, social standards, and internal company rules, whether in Japan or overseas, and of acting in accordance with the highest ethical standards in both private and public activities. In tax-related operations, we also strive to maintain and enhance tax compliance by setting up internal rules and providing education for employees.

More specifically, tax guidelines with the following stipulations were formulated at the Group's consolidated companies.
- Strive to maintain and improve tax compliance through employee education and supervision and the improvement of operational efficiencies in order to comply with relevant laws and regulations and fulfil tax obligations;
- With respect to the application of preferential tax treatment, do not interpret, apply or seek tax savings in a manner that circumvents the intent of the relevant laws or regulations; and
- With respect to transactions that carry potentially high taxation risks, establish a system for conducting sufficient prior consideration in an effort to mitigate such risks.

Furthermore, we have laid out the following measures to perform risk management regarding transfer pricing taxation and anti-tax haven rules, which has grown in importance as the NTT Group's activities become more globalized and the volume of its international transactions grows.

Transfer Pricing Taxation
- Prices that are applied to the NTT Group's international transactions will be calculated in accordance with the laws and regulations of each country or region and the Transfer Pricing Guidelines published by the OECD and also in accordance with the arm's length principle.
- In cases where the documentation of the price calculation method is obligatory, or where such documentation is necessary due to factors such as transaction size and potential taxation risks, we will generate the documents in an appropriate manner.
- We will strive to reduce taxation risks by considering the application of an Advance Pricing Agreement with tax authorizations.

Anti-Tax Haven Rules
- When investing in a low-tax country or region, or when a country or region in which we operate is newly categorized as a low-tax country or region due to the lowering of the effective tax rate, we will make appropriate tax payments in accordance with the laws and regulations of the relevant country or region.

▶ Tax Record and Reporting

NTT pays the various taxes associated with business management in an appropriate manner by complying with related laws and regulations. Income taxes for fiscal 2016 were 354,825 million yen, and the tax burden ratio to pretax income was 26.69%.

Intellectual Property Management

Protection and Utilization of Intellectual Property

Our Approach to Intellectual Property

The business activities of the NTT Group are sustained by products and services derived from the results of our aggressive R&D. For this reason, we believe that appropriate protection and utilization of intellectual property generated by R&D is vital for the NTT Group to achieve continuous growth, which in turn will enable us to continue contributing to our customers and society at large. We strive to protect the intellectual property of the NTT Group and promote activities that respect the intellectual property of others in every aspect of our business activities.

System of Intellectual Property Management

NTT protects the results of its R&D to maintain its competitive edge but at the same time makes its intellectual property available to a wider audience by licensing technologies that would contribute to the development of industries and businesses as well as standardized technologies that are already used in society. Under the leadership of the NTT Intellectual Property Center, NTT has established policies for intellectual property activities involving the entire NTT Group and also provides support and coordination for the use and management of intellectual properties, aggregates the opinions within the Group on the intellectual property system and disseminates information outside the Group.

Protection of Third Party Intellectual Property

In order to prevent the infringement of domestic and overseas third party rights, NTT examines the third party rights of technologies used in our business at every step from the early stage of research and development up to the provision of the developed technologies to Group companies. NTT also strives to enhance the Group's compliance with intellectual property laws and regulations in Japan and abroad and mitigate potential business risks by sharing among the Group companies information on system amendments, trends concerning intellectual property including disputes and court cases.

NTT Intellectual Property Center　💻 http://www.ntt.co.jp/chizai/index.html

GRI Index

GENERAL STANDARD DISCLOSURES			Report Pages	
Strategy and Analysis				
	G4-1	a. Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	pp. 005-007	Message from the President
	G4-2	a. Provide a description of key impacts, risks, and opportunities.	pp. 005-007 pp. 012-013 pp. 059-061 pp. 154-156	Message from the President Interview with NTT CSR Committee Chairperson Risks and Opportunities Related to Climate Change Risk Management
Organizational Profile				
	G4-3	a. Report the name of the organization.	p. 008	NTT Group in Brief
	G4-4	a. Report the primary brands, products, and services.	p. 008	NTT Group in Brief
	G4-5	a. Report the location of the organization's headquarters.	p. 004	Inquiries
	G4-6	a. Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	p. 008 p. 034 (Reference)	NTT Group in Brief Improve Access to ICT • Diagram of NTT Affiliate Groups http://www.ntt.co.jp/gnavi_e/index.html
	G4-7	a. Report the nature of ownership and legal form.	p. 008	NTT Group in Brief
	G4-8	a. Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	p. 008	NTT Group in Brief
	G4-9	a. Report the scale of the organization, including: ・Total number of employees ・Total number of operations ・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) ・Quantity of products or services provided	pp. 008-009	NTT Group in Brief
	G4-10	a. Report the total number of employees by employment contract and gender. b. Report the total number of permanent employees by employment type and gender. c. Report the total workforce by employees and supervised workers and by gender. d. Report the total workforce by region and gender. e. Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors. f. Report any significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries).	pp. 008-009 p. 105	NTT Group in Brief Creating Workplaces Where Everyone can Realize Their Full Potential
	G4-11	a. Report the percentage of total employees covered by collective bargaining agreements.	p. 125	Favorable Labor-Management Relationship
	G4-12	a. Describe the organization's supply chain.	pp. 114-116	Reinforcing Value Chain Management
	G4-13	a. Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain, including: ・Changes in the location of, or changes in, operations, including facility openings, closings, and expansions ・Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations) ・Changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination	p. 009	Major M&A During the Past Year
COMMITMENTS TO EXTERNAL INITIATIVES				
	G4-14	a. Report whether and how the precautionary approach or principle is addressed by the organization.	pp. 154-156	Risk Management
	G4-15	a. List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	p. 062 p. 093	Pursuing Initiatives Across the Industry for Energy-Efficient ICT Devices Identifying Common Challenges of Industries in the Cross-industrial Cybersecurity Human Resource Development Committee
	G4-16	a. List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: ・Holds a position on the governance body ・Participates in projects or committees ・Provides substantive funding beyond routine membership dues ・Views membership as strategic	p. 009	List of Memberships

GENERAL STANDARD DISCLOSURES			Report Pages
Identified Material Aspects and Boundaries			
	G4-17	a. List all entities included in the organization's consolidated financial statements or equivalent documents. b. Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	p. 008　　　　NTT Group in Brief (Reference) ● Diagram of NTT Affiliate Groups 　http://www.ntt.co.jp/gnavi_e/index.html
	G4-18	a. Explain the process for defining the report content and the Aspect Boundaries. b. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	pp. 014-019　　NTT Group Materiality
	G4-19	a. List all the material Aspects identified in the process for defining report content.	pp. 014-016　　NTT Group Materiality
	G4-20	a. For each material Aspect, report the Aspect Boundary within the organization, as follows: ・Report whether the Aspect is material within the organization ・If the Aspect is not material for all entities within the organization (as described in G4-17), select one of the following two approaches and report either: —The list of entities or groups of entities included in G4-17 for which the Aspect is not material or —The list of entities or groups of entities included in G4-17 for which the Aspects is material ・Report any specific limitation regarding the Aspect Boundary within the organization	pp. 014-019　　NTT Group Materiality
	G4-21	a. For each material Aspect, report the Aspect Boundary outside the organization, as follows: ・Report whether the Aspect is material outside of the organization ・If the Aspect is material outside of the organization, identify the entities, groups of entities or elements for which the Aspect is material. In addition, describe the geographical location where the Aspect is material for the entities identified ・Report any specific limitation regarding the Aspect Boundary outside the organization	pp. 014-019　　NTT Group Materiality
	G4-22	a. Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	Not applicable
	G4-23	a. Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	Not applicable
Stakeholder Engagement			
	G4-24	a. Provide a list of stakeholder groups engaged by the organization.	pp. 025-026　　Major stakeholders
	G4-25	a. Report the basis for identification and selection of stakeholders with whom to engage.	pp. 024-026　　Stakeholder Engagement
	G4-26	a. Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	pp. 024-026　　Stakeholder Engagement
	G4-27	a. Report 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. Report the stakeholder groups that raised each of the key topics and concerns.	pp. 024-026　　Stakeholder Engagement
Report Profile			
	G4-28	a. Reporting period (such as fiscal or calendar year) for information provided.	p. 002　　　　Scope of Organization
	G4-29	a. Date of most recent previous report (if any).	p. 002　　　　Scope of Organization
	G4-30	a. Reporting cycle (such as annual, biennial).	p. 002　　　　Scope of Organization
	G4-31	a. Provide the contact point for questions regarding the report or its contents.	p. 004　　　　Inquiries
GRI CONTENT INDEX			
	G4-32	a. Report the 'in accordance' option the organization has chosen. b. Report the GRI Content Index for the chosen option (see tables below). c. Report the reference to the External Assurance Report, if the report has been externally assured.	Reference
ASSURANCE			
	G4-33	a. Report the organization's policy and current practice with regard to seeking external assurance for the report. b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided. c. Report the relationship between the organization and the assurance providers. d. Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.	—

GENERAL STANDARD DISCLOSURES			Report Pages	
Governance				
GOVERNANCE STRUCTURE AND COMPOSITION				
	G4-34	a. Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	p. 020 pp. 136-138 p. 154	CSR Management System Overview of Corporate Governance Systems Risk management system
	G4-35	a. Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	p. 020 p. 138	CSR Management System Major Committees
	G4-36	a. Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	p. 020 p. 138	CSR Management System Major Committees
	G4-37	a. Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body.	p. 027 p. 138	Results of Engagement in Fiscal 2016 Major Committees
	G4-38	a. Report the composition of the highest governance body and its committees by: • Executive or non-executive • Independence • Tenure on the governance body • Number of each individual's other significant positions and commitments, and the nature of the commitments • Gender • Membership of under-represented social groups • Competences relating to economic, environmental and social impacts • Stakeholder representation	pp. 136-147	Corporate Governance
	G4-39	a. Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).	p. 139	Board of Directors (As of June 30, 2016)
	G4-40	a. Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members, including: • Whether and how diversity is considered • Whether and how independence is considered • Whether and how expertise and experience relating to economic, environmental and social topics are considered • Whether and how stakeholders (including shareholders) are involved	p. 141 p. 144 p. 145	Nomination Policies and Procedure for Members of the Board Nomination Policies and Procedure for Audit & Supervisory Board Members Nomination Procedure for Outside Members of the Board and Outside Audit & Supervisory Board Members
	G4-41	a. Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders, including, as a minimum: • Cross-board membership • Cross-shareholding with suppliers and other stakeholders • Existence of controlling shareholder • Related party disclosures	pp. 136-147	Corporate Governance
HIGHEST GOVERNANCE BODY'S ROLE IN SETTING PURPOSE, VALUES, AND STRATEGY				
	G4-42	a. Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	p. 020 pp. 136-138	Overview of CSR Management System Corporate Governance Structure Systems
HIGHEST GOVERNANCE BODY'S COMPETENCIES AND PERFORMANCE EVALUATION				
	G4-43	a. Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	p. 142	Training for Members of the Board
	G4-44	a. Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency. Report whether such evaluation is a self-assessment. b. Report actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice.	p. 141	Evaluation of the Effectiveness of the Board of Directors
HIGHEST GOVERNANCE BODY'S ROLE IN RISK MANAGEMENT				
	G4-45	a. Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes. b. Report whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities.	p. 020 pp. 154-155	CSR Management System Risk Management
	G4-46	a. Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	p. 020 pp. 154-155	CSR Management System Risk Management
	G4-47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	p. 020 pp. 154-155	CSR Management System Risk Management
HIGHEST GOVERNANCE BODY'S ROLE IN SUSTAINABILITY REPORTING				
	G4-48	a. Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.	p. 020	CSR Management System

GENERAL STANDARD DISCLOSURES			Report Pages	
Governance				
	HIGHEST GOVERNANCE BODY'S ROLE IN EVALUATING ECONOMIC, ENVIRONMENTAL AND SOCIAL			
	G4-49	a. Report the process for communicating critical concerns to the highest governance body.	pp. 024-027 pp. 038-039 p. 113 p. 125 p. 148 p. 152	Stakeholder Engagement Customer Contact Points Contact Point for Human Rights Issues Favorable Labor-Management Relationship Dialogue with Shareholders and Other Investors Establishment of Corporate Ethics Help Line Contact Point
	G4-50	a. Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them.	pp. 152-153	Establishment of Corporate Ethics Help Line Contact Point
	REMUNERATION AND INCENTIVES			

	G4-51	a. Report the remuneration policies for the highest governance body and senior executives for the below types of remuneration:
		 • Fixed pay and variable pay:
		  -Performance-based pay
		  -Equity-based pay
		  -Bonuses
		  -Deferred or vested shares
		 • Sign-on bonuses or recruitment incentive payments
		 • Termination payments
		 • Clawbacks
		 • Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees
		b. Report how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives.
			p. 142
			
			p. 144
			
			p. 146
				Compensation of Members of the Board
				Compensation of Audit & Supervisory Board Members
				Compensation of Outside Members of the Board and Outside Audit & Supervisory Board Members

	G4-52	a. Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.	p. 142 p. 144 p. 146	Compensation of Members of the Board Compensation of Audit & Supervisory Board Members Compensation of Outside Members of the Board and Outside Audit & Supervisory Board Members
	G4-53	a. Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	p. 142 p. 144 p. 146	Compensation of Members of the Board Compensation of Audit & Supervisory Board Members Compensation of Outside Members of the Board and Outside Audit & Supervisory Board Members
	G4-54	a. Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	The ratio of compensation between directors and employees in Japan, where the majority of NTT Group operations are based, is 5.59:1.	
	G4-55	a. Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country.	—	
Ethics and Integrity				
	G4-56	a. Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	p. 011 p. 111 p. 150	NTT Group CSR Charter NTT Group Human Rights Charter NTT Group Corporate Ethics Charter
	G4-57	a. Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	p. 152	Establishment of Corporate Ethics Help Line Contact Point
	G4-58	a. Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.	p. 152	Establishment of Corporate Ethics Help Line Contact Point

SPECIFIC STANDARD DISCLOSURES			Report Pages	
Disclosures on Management Approach				
	GENERIC DISCLOSURES ON MANAGEMENT APPROACH			
	G4-DMA	a. Report why the Aspect is material. Report the impacts that make this Aspect material. b. Report how the organization manages the material Aspect or its impacts. c. Report the evaluation of the management approach, including: The mechanisms for evaluating the effectiveness of the management approach The results of the evaluation of the management approach Any related adjustments to the management approach	p. 029 p. 034 p. 038 p. 043 p. 069 p. 079 p. 083 p. 087 p. 091 p. 096 p. 104 p. 110 p. 114 p. 117 p. 121 p. 129	Contribute to Society through ICT Improve Access to ICT Pursuing Customer Satisfaction Generate Innovation Creating a Low Carbon Society Implementing Closed Loop Recycling Conserving Biodiversity Protecting Personal Information Reinforcing Information Security Ensuring Stable and Reliable Communications Services Promoting Diversity Respect for Human Rights Reinforcing Value Chain Management Promoting Safety, Health and Welfare Creating Attractive Workplaces Promoting Citizenship Activities in a United Group Effort
Economic				
	Economic Performance			
	G4-EC1	Direct economic value generated and distributed	p. 008 p. 123 p. 130	NTT Group in Brief Improving human resource management and pay systems Results of corporate citizenship activities in fiscal 2016
	G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	pp. 059-061	Risks and opportunities related to climate change
	G4-EC3	Coverage of the organization's defined benefit plan obligations	Form 20-F: (3) Social Welfare Pension Scheme and NTT Kigyou-Nenkin-Kikin (NTT Corporate Defined Benefit Pension Plan) http://www.ntt.co.jp/ir/library/sec/pdf/20-F_1603.pdf	
	G4-EC4	Financial assistance received from government	Annual Report 2016: p. 121	
	Market Presence			
	G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	p. 123	Improving human resource management and pay systems
	G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	—	
	Indirect Economic Impacts			
	G4-EC7	Development and impact of infrastructure investments and services supported	pp. 096-100	Ensuring Stable and Reliable Communications Services
	G4-EC8	Significant indirect economic impacts, including the extent of impacts	pp. 029-033 pp. 034-037 p. 133	Contribute to Society through ICT Improve Access to ICT Community and Educational Support Activities in India
	Procurement Practices			
	G4-EC9	Proportion of spending on local suppliers at significant locations of operation	—	
Environmental				
	Materials			
	G4-EN1	Materials used by weight or volume	p. 067 p. 080	Environmental impacts overview Paper Management and Recycling
	G4-EN2	Percentage of materials used that are recycled input materials	p. 067 p. 079 p. 082	Environmental impacts overview Waste Discharged by the NTT Group Initiatives for Implementing Closed Loop Rec
	Energy			
	G4-EN3	Energy consumption within the organization	p. 067 p. 071 p. 077	Environmental impacts overview CO_2 emissions of NTT Group Use of clean energy
	G4-EN4	Energy consumption outside of the organization	p. 067 p. 077	Environmental impacts overview Increasing low-emission company vehicles
	G4-EN5	Energy intensity	—	

SPECIFIC STANDARD DISCLOSURES			Report Pages	
Environmental				
	Energy			
	G4-EN6	Reduction of energy consumption	p. 053 pp. 074-078	The Eco Strategy 2030 Initiatives for creating a low carbon society
	G4-EN7	Reductions in energy requirements of products and services	pp. 074-078	Initiatives for creating a low carbon society
	Water			
	G4-EN8	Total water withdrawal by source	p. 067 p. 081	Environmental impacts overview Water Management and Recycling
	G4-EN9	Water sources significantly affected by withdrawal of water	p. 081	Water Management and Recycling
	G4-EN10	Percentage and total volume of water recycled and reused	p. 081	Water Management and Recycling
	Biodiversity			
	G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	p. 083 p. 083	Our approach Environmental assessments when selecting locations for data centers and other facilities
	G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	p. 083 p. 083	Our approach Environmental assessments when selecting locations for data centers and other facilities
	G4-EN13	Habitats protected or restored	p. 085	Environmental Protection Initiative Linked to Business Activities
	G4-EN14	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	p. 083	Our approach
	Emissions			
	G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	p. 067 p. 071	Environmental impacts overview CO_2 emissions of NTT Group
	G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	p. 067 p. 071	Environmental impacts overview CO_2 emissions of NTT Group
	G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	p. 067 p. 072 p. 073	Environmental impacts overview Indirect GHG emissions generated over the whole value chain (Scope 3 Categories) CO_2 emissions at overseas Group companies
	G4-EN18	Greenhouse gas (GHG) emissions intensity	—	
	G4-EN19	Reduction of greenhouse gas (GHG) emissions	p. 019 p. 052 p. 065 p. 069 pp. 071-073 pp. 074-078	Targets and results for CSR Priority Activities up to fiscal 2016 The Eco Strategy 2030 Creating a low carbon society CO_2 emissions reduction of society derived from ICT CO_2 emissions of NTT Group Initiatives for Creating a Low Carbon Society
	G4-EN20	Emissions of ozone-depleting substances (ODS)	p. 078	Initiatives for protecting the ozone layer
	G4-EN21	NOx, SOx, and other significant air emissions	p. 071	Greenhouse gas emissions other than CO_2 emissions
	Effluents and Waste			
	G4-EN22	Total water discharge by quality and destination	p. 067 p. 081	Environmental impacts overview Water management and recycling
	G4-EN23	Total weight of waste by type and disposal method	p. 054 p. 066 p. 067 p. 079 p. 080	The Eco Strategy 2030 Implementing closed loop recycling Environmental impacts overview Waste Discharged by the NTT Group Hazardous waste
	G4-EN24	Total number and volume of significant spills	p. 080 p. 081	Hazardous waste Water Management and Recycling
	G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the basel convention2 annex I, II, III, and VIII, and percentage of transported waste shipped internationally	p. 080	Hazardous waste
	G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats signifi cantly affected by the organization's discharges of water and runoff	p. 081	Water Management and Recycling

SPECIFIC STANDARD DISCLOSURES			Report Pages	
Environmental				
	Products and Services			
	G4-EN27	Extent of impact mitigation of environmental impacts of products and services	p. 052 p. 069 pp. 083-085	The Eco Strategy 2030 CO$_2$ emissions reduction of society derived from ICT Conserving Biodiversity
	G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	p. 067 pp. 079-082	Environmental impacts overview Implementing Closed Loop Recycling
	Compliance			
	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	p. 063	Compliance with Environmental Laws and Regulations
	Transport			
	G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	p. 067 p. 072 p. 073 p. 077	Environmental impacts overview Indirect GHG emissions generated over the whole value chain (Scope 3 Categories) CO$_2$ emissions at overseas Group companies Increasing low-emission company vehicles
	Overall			
	G4-EN31	Total environmental protection expenditures and investments by type	p. 068	Environmental accounting
	Supplier Environmental Assessment			
	G4-EN32	Percentage of new suppliers that were screened using environmental criteria	p. 062 pp. 114-116	Pursuing initiatives across the industry for energy-efficient ICT devices Reinforcing Value Chain Management
	G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	pp. 114-116	Reinforcing Value Chain Management
	Environmental Grievance Mechanisms			
	G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	p. 063	Compliance with Environmental Laws and Regulations
Social				
	Labor Practices and Decent Work			
		Employment		
		G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	p. 108 p. 127 p. 128	Creating an international workforce Employee turnover Hiring
		G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	p. 109 p. 124 p. 125	Rehiring program that responds to former employees' aspirations for reemployment Encouraging the use of childrearing and family care programs Changing work styles by promoting the telework system
		G4-LA3	Return to work and retention rates after parental leave, by gender	p. 124	Encouraging the use of childrearing and family care programs
		Labor/Management Relations		
		G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	p. 125	Favorable Labor-Management Relationship
		Occupational Health and Safety		
		G4-LA5	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	100% of full-time employees	
		G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	pp. 117-119	Occupational safety and health
		G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	p. 119	Prevention of overwork
		G4-LA8	Health and safety topics covered in formal agreements with trade unions	p. 117	Occupational safety and health
		Training and Education		
		G4-LA9	Average hours of training per year per employee by gender, and by employee category	p. 126	Helping employees develop their abilities

SPECIFIC STANDARD DISCLOSURES	Report Pages	
Social		
Labor Practices and Decent Work		
Training and Education		
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	p. 109 pp. 126-127	Continuous employment of retired employees Human Resource Development
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	pp. 122-123	Fair evaluation and compensation
Diversity and Equal Opportunity		
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	pp. 104-109 pp. 087-096	Promoting Diversity Board of Directors
Equal Remuneration for Women and Men		
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	p. 104 p. 123	Management approach Improving human resource management and pay systems
Supplier Assessment for Labor Practices		
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	pp. 114-116	Reinforcing Value Chain Management
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	pp. 114-116	Reinforcing Value Chain Management
Labor Practices Grievance Mechanisms		
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	Not applicable	
Human Rights		
Investment		
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	pp. 110-113	Respect for Human Rights
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	p. 113	Group-wide Human Rights Training and Education Programs
Non-discrimination		
G4-HR3	Total number of incidents of discrimination and corrective actions taken	p. 110 p. 113	Number of confirmed human rights violations Incidents of human rights violations and corrective actions
Freedom of Association and Collective Bargaining		
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at signifi cant risk, and measures taken to support these rights	pp. 110-113 pp. 114-116	Respect for Human Rights Reinforcing Value Chain Management
Child Labor		
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	pp. 110-113 pp. 114-116	Respect for Human Rights Reinforcing Value Chain Management
Forced or Compulsory Labor		
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	pp. 110-113 pp. 114-116	Respect for Human Rights Reinforcing Value Chain Management
Security Practices		
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	—	
Indigenous Rights		
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	p. 113	Incidents of human rights violations and corrective actions
Assessment		
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	pp. 110-113	Respect for Human Rights
Supplier Human Rights Assessment		
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	pp. 114-116	Reinforcing Value Chain Management
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	pp. 114-116	Reinforcing Value Chain Management

SPECIFIC STANDARD DISCLOSURES		Report Pages	
Social			
Human Rights			
Human Rights Grievance Mechanisms			
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	p. 113 p. 152	Incidents of human rights violations and corrective actions Establishment of Corporate Ethics Help Line Contact Point
Society			
Local Communities			
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	p. 129	Promoting citizenship activities in a united Group effort
G4-SO2	Operations with significant actual and potential negative impacts on local communities	Not applicable	
Anti-corruption			
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	p. 151	Prevention of bribery
G4-SO4	Communication and training on anti-corruption policies and procedures	pp. 151-152	Initiatives to promote awareness of the NTT Group Corporate Ethics Charter
G4-SO5	Confirmed incidents of corruption and actions taken	p. 153	Initiatives to promote awareness of the NTT Group Corporate Ethics Charter
Public Policy			
G4-SO6	Total value of political contributions by country and recipient/beneficiary	p. 151	Prevention of bribery
Anti-competitive Behavior			
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	p. 151	Initiatives for Anti-Monopoly
Compliance			
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	pp. 150-153	Compliance
Supplier Assessment for Impacts on Society			
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	pp. 114-116 p. 151	Reinforcing Value Chain Management Prevention of bribery
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	pp. 114-116 p. 151	Reinforcing Value Chain Management Prevention of bribery
Grievance Mechanisms for Impacts on Society			
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	pp. 152-153	Establishment of Corporate Ethics Help Line Contact Point
Product Responsibility			
Customer Health and Safety			
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	In accordance with the Law Concerning Nippon Telegraph and Telephone Corporation, etc. (NTT Law), NTT Corporation is not permitted to provide services directly to customers. Therefore, NTT Corporation does not assess the health and safety impacts of our products or services. As for the related activities of operating companies of the NTT Group, please refer to their Sustainability Report or CSR Report.	
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	Not applicable	
Product and Service Labeling			
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	p. 042 p. 100 p. 101	Taking the customer perspective in advertising Strengthening monitoring processes Promoting Knowledge for Safe and Secure ICT Use and User Etiquette
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	Not applicable	
G4-PR5	Results of surveys measuring customer satisfaction	p. 041	Customer Satisfaction Survey

SPECIFIC STANDARD DISCLOSURES			Report Pages	
Social				
	Product Responsibility			
	Marketing Communications			
	G4-PR6	Sale of banned or disputed products	Not applicable	
	G4-PR7	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	
	Customer Privacy			
	G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	p. 087	Number of incidents of personal information leaks
			p. 090	Track Record on Complaints, Leaks and Other Issues Related to Personal Information
	Compliance			
	G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	Not applicable	