NTT Communications
Go the Distance.

NTT Communications Corporation

CSR Report 2020

Expanded Version

CONTENTS

Creating communication methods that open up new possibilities for people and our world.

We aim to create a world that maximizes the potential of people, organizations, and societies, giving them the opportunity to shine. In such a world, every person can lead rich and contented lives, cooperating in harmonious freedom. This is why we'll keep striving to create innovative, user-friendly communication methods that optimize the flow of information in our society.

Our Core Beliefs

Take the Initiative

Everyone has the potential to create.

Break out of your comfort zone and start challenging yourself in small ways. This is the first step toward creating something no one has imagined before.

Inspire Each Other

Engage in honest discussion for a better tomorrow.

Be sincere when debating with those who share your goals and respect their viewpoints. This will inspire a group synergy that helps you achieve unprecedented results.

Respond to Society's Needs

Pay attention to society and your clients to create the future they need.

Ask yourself whether you're truly doing what's best for your clients and society.
It's through answering and then surpassing their expectations that you can create the future they want to see.

Corporate Message

Connecting into Tomorrow

This message expresses our intention to constantly mediate between today and tomorrow, to continually create a desirable future while contributing to society today. The term "tomorrow" expresses our determination to spearhead into the future by creating innovative and unprecedented communication methods.

Tagline

Go the Distance.

This tagline expresses our commitment to seek out and offer new value by going beyond time and distance and creating innovative and unprecedented communication methods. There is also an underlying meaning to persevere, alluding to our resolution to surpass the expectations of our clients and society, be true to our core beliefs, and realize our mission with the integrity that we have embraced for a long time.

We will redefine values for a "new normal" in the wake of COVID-19 and reconnect people, businesses and society toward achieving the SDGs and realizing a sustainable future.

Toru Maruoka
President & CEO
NTT Communications Corporation

The NTT Communications Group established its new corporate mission of "Creating communication methods that open up new possibilities for people and our world" upon its 20th anniversary in 2019. We also implemented bold reforms as we underwent major changes in the wake of the global reorganization of the NTT Group as a whole, such as overhauling our organization to respond to the digital transformation of our customers and realizing a Smart World in which ICT is used to resolve social issues.

We are in the midst of an unprecedented period of social change triggered by the COVID-19 pandemic. In the resulting "new normal," premised on a remote world (decentralized society), consumers, businesses and society need to embrace fundamentally different world views and values. Instead of solely focusing on efficiency and convenience, as we have in the past, greater emphasis must be placed on values such as adopting the consumer's viewpoint, demonstrating resilience to change and contributing to the realization of a sustainable society.

To quickly respond to such changes, we will seek to redefine the values for a remote world and co-create with customers, partners and other stakeholders in the restoration of safe, secure and flexible connections between people, businesses and society for a sustainable future.

This aspiration is expressed by the term "Re-connect X," which we have designated as our new business vision. Specifically, we will construct a new Smart Data Platform for sharing the use of data with our customers and partners to accelerate digital transformation. Our goal is to realize a Smart World by developing ICT solutions that cater closely to social needs and applying them for diverse purposes, including manufacturing, education, work style reform and urban development. We will also rise to the challenge of creating new values by transcending business and industry boundaries and spearheading efforts to apply our business activities to CSR.

Looking ahead, we will continue to open up new possibilities by deploying our strengths in ICT to address social issues that arise in the "new normal" world. We will always heed the voices of our stakeholders and society as a whole as we seek to play a major role in achieving the SDGs and realizing a sustainable future.

Corporate Overview (as of March 31, 2020)

Company Name	NTT Communications Corporation
Headquarters	OTEMACHI PLACE WEST TOWER, 2-3-1 Otemachi, Chiyoda-ku, Tokyo 100-8019, Japan
Date established	July 1, 1999
Paid-in Capital	230.9 billion yen
Operating Revenues* (IFRS)	794.6 billion yen
Operating Income* (IFRS)	96.2 billion yen
Number of employees	5,500 (NTT Communications Group: 11,500)
Business	Domestic and international telecommunications services
Group Companies in Japan (as of October 1, 2020)	● NTT Com Engineering Corporation ● NTT Com Online Marketing Solutions Corporation ● NTT Com Solutions Corporation ● NTT Com CHEO Corporation ● NTT Com DD Corporation ● NTT Com Marketing Corporation ● NTT Smart Trade Inc. ● NTTPC Communications, Inc. ● NTT World Engineering Marine Corporation ● N. F. Laboratories, Inc. ● NTT BizLink, Inc. ● NTT Resonant Inc. ● X-LISTING Co., Ltd. ● CodeTakt Inc. ● Phone Appli Inc.

*Actual results for FY2019 (figures for the NTT Com Group that reflect the integration of global operations).

Editorial Policy

The NTT Communications Group is committed to creating new value for society and addressing social issues. In the NTT Communications Group CSR Report 2020, Toru Maruoka, our newly appointed president and CEO, conveys the Group's future vision in his message. The expanded version seeks to clearly define the scope and direction of Group initiatives for solving social issues by grasping the impact of our business activities on society and the environment along the entire length of our value chain and clarifying how each initiative relates to specific SDG targets. We also provide a comprehensive report on the progress of our CSR Priority Activities and information on our CSR activities together with in-depth data arranged by the Priority Areas of our Fundamental CSR Policy—Contributions to Society, Contributions to the Global Environment, Respect for Employees and Continuous Strengthening of Corporate Governance.

◆ Scope of the Report

This report covers the activities of NTT Communications Corporation and its Group companies, unless otherwise indicated.
   As part of integrating the NTT Group's international operations, NTT Communications transferred its overseas operations to the NTT Ltd. Group. This report therefore provides information concerning our activities in Japan.

◆ Period Covered

Fiscal 2019: April 1, 2019 to March 31, 2020
(also contains information on activities conducted before or after this timeframe)

◆ Issue Date Information

This report: October 2020
(previous report: October 2019; next report scheduled for October 2021)

◆ Reference Guidelines

GRI Sustainability Reporting Standards 2016/2018
Ministry of the Environment "Environmental Reporting Guidelines 2018"
Ministry of the Environment "Environmental Accounting Guidelines 2005"
ISO 26000: 2010 Guidelines on Social Responsibility

Web > For more information on our editorial policy, see:

https://www.ntt.com/en/about-us/csr/profile.html

Providing a Wide Range of Services that Sustain Society

As a DX Enabler™ helping customers accomplish their digital transformation (DX), we endeavor to deliver management solutions and to realize the Smart Society through ICT.

   We enhanced our lineup of supportive services and expanded the areas we serve by integrating our global operations in July 2019. Our system and solutions have been upgraded to support our customers' global businesses.

Global Tier 1 Provider *1

As a world-leading provider, we want to deliver the world's highest level of infrastructure.

Global Network Services

190+ Countries/Regions
(as of March 31, 2020)

We provide global network services that extend across 190 countries and regions worldwide.

Global Business Support

70+ Countries/Regions
(as of March 31, 2020)

We support our customers' global businesses through bases in over 70 countries and regions.

Managed Service for Centralized Control of the Entire ICT Environment

Managed Services

Our managed service enables centralized control over not only the services offered by NTT Communications but also those by other companies and the existing systems, realizing a one-stop service for managing the operation of the entire ICT environment.

Personal Services

7,153,000

OCN Members
(as of March 31, 2020)

We provide the largest Internet connection service in Japan and promote society's conversion to ICT.

Global Data Center Service Offering the Highest Levels of Quality

20+ Countries/Regions

500,000㎡+ Server Room Space

Our Nexcenter brand provides high-quality data center services across the globe by operating over 300 facilities based on unified standards, with more than 500,000 m² of server room space. We seek to unify our service specifications further, in collaboration with Group companies, in order to realize even greater customer convenience. Moreover, we are expanding our data center business, primarily in the United States, Europe, and the Asia-Pacific region including Japan, to respond more flexibly to the scope and speed of service that customers require.

Recognition for Our Global Network Services

Leaders *2

Gartner Magic Quadrant for Network Services, Global

Our one-stop global network services exist because of our advanced technological capabilities and wealth of know-how unique to a telecommunications carrier. NTT Communications was ranked among global leaders in the 2020 Magic Quadrant for Network Services, Global, chosen by U.S.-based Gartner Inc.

*1 Tier 1 Provider: An Internet service provider that controls its own worldwide broadband IP backbone and is capable of ensuring the quality of its network without depending on an upper tier provider.
*2 : Gartner Magic Quadrant for Network Services, Global, Neil Rickard, Bjarne Munch, Danellie Young, February 20, 2020.
   Gartner does not endorse specific vendors, products, or services presented in publications issued by Gartner Research, nor does it advise technology users to choose only those vendors that were given the highest ratings or otherwise recognized. Gartner Research's publications express the opinions of Gartner Research and should not be construed as statements of fact. Gartner disclaims all responsibilities with regard to the marketability of this research, including its relevance to specific purposes, either expressly stated or implied.
   Certain offerings are provided joinly with NTT Ltd.

Fundamental CSR Policy

The NTT Communications Group is committed to addressing social issues through ICT. We believe that it is essential to identify the diverse potential risks inherent within the global society and strive to avoid or mitigate such risks.

While we prepare for global risks as the responsibility of an ICT company that is sustained by stakeholders around the world, we also view this responsibility as an opportunity to focus on the four priority issues for realizing our goals for society.

Four Priority Areas

Our Goals for Society

Diverse Risks and Social Issues

- Failure to mitigate or adapt to climate change
- Major natural disasters
- Cyberattacks
- Breakdown in mission-critical information infrastructure and networks
- Failure to implement global governance
- Spread of infectious diseases etc.

Fundamental CSR Policy

As a partner that links the present to the future, the NTT Communications Group contributes to the realization of a safe, comfortable and abundant society by working to solve social issues and create new value for society on a global scale through ICT.

Society

Contributions to Society
We shall contribute to the resolution of social issues in Japan and overseas through the development and provision of innovative ICT while providing highly reliable services for the sustained development of society. As a group of companies that provides key infrastructure that supports society and protects our lifestyles, we shall provide secure environments for communications that are fortified against cybersecurity threats and resilient to natural disasters.

Environment

Contributions to the Global Environment
We shall endeavor to solve environmental problems on a global scale through initiatives to use ICT to reduce the impact of society on the environment, while lightening the environmental burden of our business activities as a Group.

People

Respect for Employees
We shall create work environments that invigorate each and every employee, while respecting the diversity of our employees and other stakeholders. Moreover, we shall contribute to the creation of an abundant society by changing ourselves for the better and seeking to break free from our own limitations.

Management

Continuous Strengthening of Corporate Governance
While valuing opportunities to communicate with all our stakeholders, we shall contribute to the sustainable development of society by engaging in business with high ethical standards and respect for human rights.

A society where everyone is connected through ICT
- ◆ A society unrestricted by time, distance or language
- ◆ A society with always secure and fast networks

A society in harmony with nature, preserving the planet's abundance
- ◆ A low-carbon society with a light environmental footprint that thoroughly recycles resources
- ◆ A society that respects biodiversity and protects abundant natural resources

A society where everyone acknowledges and lifts each other higher
- ◆ A society where diversity is respected in terms of individuality, attributes and beliefs
- ◆ A society where people can use their abilities to the fullest

A society built on coexistence and mutual trust between stakeholders and companies
- ◆ A society where corporate actions are completely in line with laws, regulations and ethics
- ◆ A society that benefits from corporate activities and daily dialogue with stakeholders

Reference: World Economic Forum "Global Risks Report 2020"

Supporting the UN's SDGs as the NTT Group

In fiscal 2016, the NTT Group announced its support for the UN's Sustainable Development Goals (SDGs). As a member of the NTT Group, we also began promoting efforts to contribute to the SDGs in fiscal 2016. We have been training employees to raise awareness of CSR and the SDGs and will seek to achieve these goals through business activities, including the CSR Priority Activities linked to them.

CSR Management

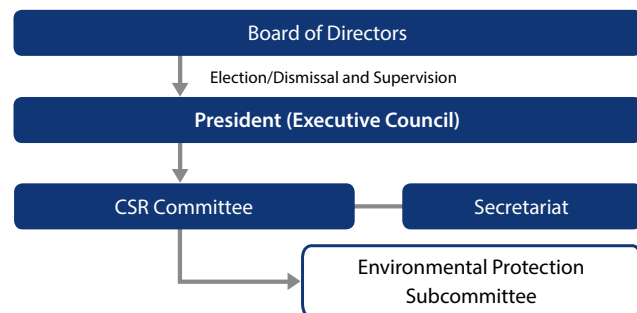## NTT Communications CSR Management

> CSR Promotion Structure

The NTT Communications Group promotes CSR initiatives through the CSR Committee. Chaired by the managing director in charge of CSR, the committee is responsible for establishing a structure for implementing management initiatives from economic, environmental, and social perspectives. Under this committee we have set up the Environmental Protection Subcommittee.

The CSR Committee meets twice a year to report on the progress of CSR activities and to consider and implement measures for promoting the activities. In fiscal 2019, representatives of 13 major Group companies attended the CSR Committee meeting. Matters reported to and discussed by the committee, including important information related to social or environmental risks, are shared with the Board of Directors as needed.

We will continue to promote and establish our CSR initiatives across the entire NTT Communications Group by continually discussing the issues during regular meetings of the CSR Committee.

◆ **CSR Promotion Structure**

```
                    Board of Directors
                            |
            Election/Dismissal and Supervision
                            |
              President (Executive Council)
                            |
        CSR Committee ————————— Secretariat
                |
        Environmental Protection
             Subcommittee
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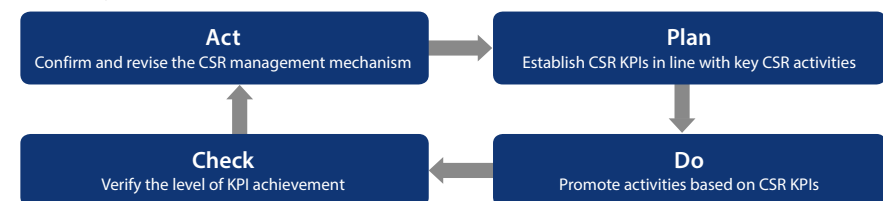
> Assessment Process for CSR Management

To ensure the effective functioning of our structure for promoting CSR activities, we have continuously operated an established mechanism for reviewing the results of our activities.

Specifically, we regularly establish CSR KPIs that serve as targets for key CSR activities for each fiscal year. Moreover, we gauge the effectiveness of our CSR management by verifying and reviewing the level of achievement every year.

These processes are implemented by the CSR Committee, and the chairperson is responsible for achieving the CSR KPIs and executing the activities.

The committee is charged with confirming and revising the CSR management mechanism as needed, including reviewing the Fundamental CSR Policy and updating the KPIs.

◆ **PDCA Cycle for CSR Management**

```
Act                                    Plan
Confirm and revise the           Establish CSR KPIs in line
CSR management mechanism          with key CSR activities

Check                                  Do
Verify the level of              Promote activities based
KPI achievement                  on CSR KPIs
```

In fiscal 2019, we considered our next CSR strategy based on our newly established Mission and Core Beliefs, and in fiscal 2020 we plan to promote initiatives that place even greater emphasis on diverse, newly emerging social issues and SDGs through our business activities.

> Process of Identifying Materiality

Having decided on the medium-term targets and guidelines to steadily disseminate and put into practice the Fundamental CSR Policy, NTT Communications Group has been stipulating CSR Priority Activities based on an analysis of their importance and deploying PDCA activities. The CSR Priority Activities were identified through the following process.

Step ❶

Sorting the Issues

We assessed the impact of each stage of the NTT Communications Group value chain by referencing a variety of international guidelines and initiatives, such as the UN Global

Compact and SDGs, ISO 26000, and the GRI Guidelines, and sorted our material CSR issues based on a broad view of the value chain.
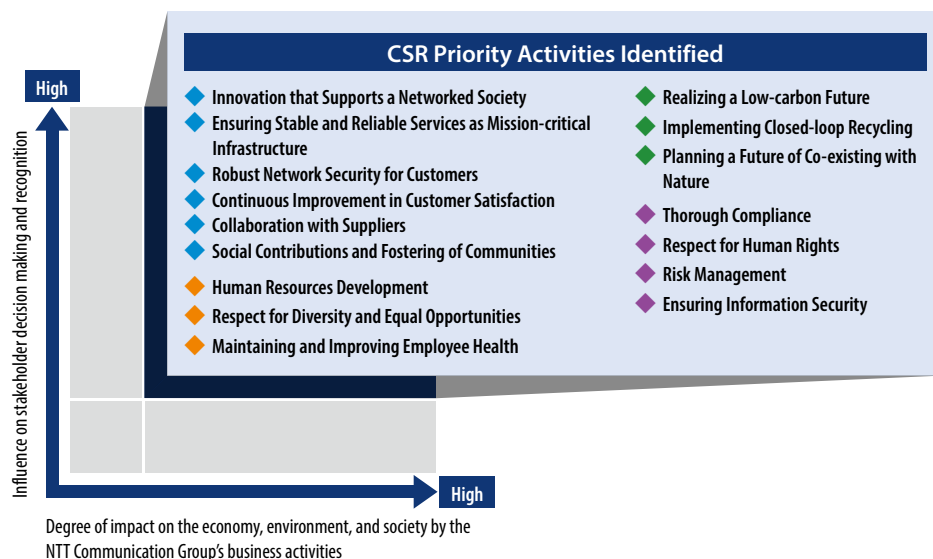
> 📖 > NTT Communications Value Chain
> **P.11**

Step ❷

Evaluating the Significance of the Issues

We evaluated the issues to be addressed by plotting them on a matrix according to their influence on stakeholder decision making and recognition and their degree of impact on the economy, environment, and society by the NTT Communication Group's business activities.

Step ❸

Identifying Materiality

We identified the CSR Priority Activities to be addressed by the NTT Communications Group based on the results of prioritization with due consideration for maintaining consistency with our Fundamental CSR Policy.

CSR Priority Activities Identified

High

Influence on stakeholder decision making and recognition

- ◆ Innovation that Supports a Networked Society
- ◆ Ensuring Stable and Reliable Services as Mission-critical Infrastructure
- ◆ Robust Network Security for Customers
- ◆ Continuous Improvement in Customer Satisfaction
- ◆ Collaboration with Suppliers
- ◆ Social Contributions and Fostering of Communities
- ◆ Human Resources Development
- ◆ Respect for Diversity and Equal Opportunities
- ◆ Maintaining and Improving Employee Health

- ◆ Realizing a Low-carbon Future
- ◆ Implementing Closed-loop Recycling
- ◆ Planning a Future of Co-existing with Nature
- ◆ Thorough Compliance
- ◆ Respect for Human Rights
- ◆ Risk Management
- ◆ Ensuring Information Security

High

Degree of impact on the economy, environment, and society by the NTT Communication Group's business activities

▷ CSR Priority Activities and Medium-term Targets

The NTT Communications Group sets medium-term targets for each initiative of the CSR Priority Activities and pursues them through PDCA cycles.

> 📖 > For more information, please refer to the list of Fiscal 2019 Activity Results and Fiscal 2020 Targets provided in the first part of our report on each activity.

Contributions to Society	Contributions to the Global Environment	Respect for Employees	Continuous Strengthening of Corporate Governance
P.13	P.32	P.57	P.71

▷ Outside Advice for Management

As a global ICT company, we believe that we have an important responsibility for conducting business with due consideration to the diverse outlook of our stakeholders. With this in mind, each executive not only participates in dialogues as part of daily business but also takes part in internal and external meetings and individual interviews. To incorporate the perspective of sustainability into our business strategies, we believe it is important to exchange opinions with internal and external experts, and we will continue to convene dialogues involving management and outside experts.

Dialogue with an external expert (January 2020)

   In fiscal 2019, we invited President Masahiko Kawamura of Sun Messe Innovative Network Center to take part in a dialogue with our CSR Committee chairperson. Having reached the milestone year of our 20th anniversary, we addressed issues such as meeting public expectations as exemplified by the SDGs as well as our challenges and outlook for the future, and we received valuable advice for our management strategy. Ongoing dialogue with experts by department personnel delegated by management to promote the sustainability strategy is shared with management as appropriate by the CSR Committee.

Relationship with the NTT Group

❯ As a Member of the NTT Group

◆ Promoting CSR throughout the Entire Group

There has been increasing demand for a commitment to a sustainable society on a global scale. This includes the adoption of the SDGs and the Paris Agreement. The NTT Group has therefore revised the CSR Priority Activities that represent key issues (materiality) for promoting CSR through the united effort of every Group company, and it formulated the NTT Group CSR Charter in May 2019. Applying this charter, the NTT Communications Group is engaged in resolving social issues on an ongoing and Group-wide basis.

◆ NTT Group CSR Charter

◆ NTT Group CSR Committee

In fiscal 2015, the NTT Group established the NTT Group CSR Committee, chaired by the chairperson of NTT's CSR Committee (a representative director and senior executive vice president) and comprising the chief CSR executives (senior executive vice presidents and executive vice presidents) from the eight main NTT Group companies, and it is working toward adopting CSR management across the Group.

◆ Participation in NTT Group CSR Conferences

The NTT Group has been holding NTT Group CSR Conferences since fiscal 2013 to encourage awareness of the SDGs for understanding and promoting CSR activities. NTT Communications received awards at the conference for three consecutive years from fiscal 2016.

◆ NTT Group CSR Conference

Relationship with External Entities

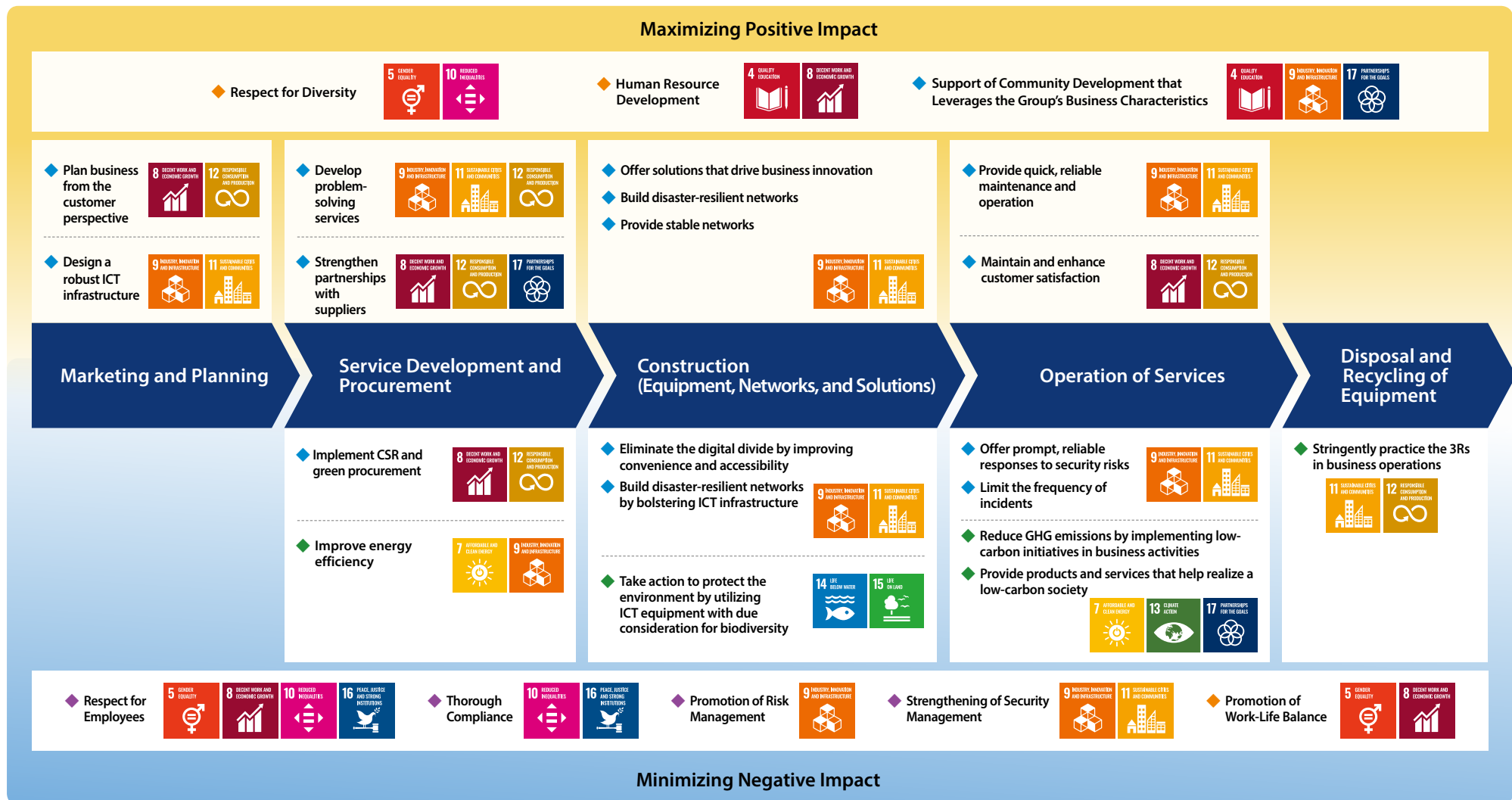### ❯ Participation in External Groups

NTT Communications actively participates in external organizations and shares information so that initiatives for addressing social issues can be shared beyond corporate boundaries.

Participation in External Organizations (Major Groups Only)	• Okinawa Open Laboratory (Member of the Board) • Advanced IT Architect Human Resource Development Council (Member of the Board) • Internet Content Safety Association (ICSA) (Member of the Board) • The Green Grid • Security Promotion Council (SPREAD)

NTT Communications Value Chain

We will maximize the positive impact and minimize the negative impact of our business activities toward achieving the SDGs. Therefore, we determined how society and the environment will be impacted by the business activities of NTT Communications across its entire value chain and clarified the scope and direction of the Group's initiatives for resolving social issues with respect to the SDGs.

Four Priority Areas

- ◆ Contributions to Society
- ◆ Respect for Employees
- ◆ Contributions to the Global Environment
- ◆ Continuous Strengthening of Corporate Governance

Maximizing Positive Impact

- ◆ Respect for Diversity — 5 GENDER EQUALITY / 10 REDUCED INEQUALITIES
- ◆ Human Resource Development — 4 QUALITY EDUCATION / 8 DECENT WORK AND ECONOMIC GROWTH
- ◆ Support of Community Development that Leverages the Group's Business Characteristics — 4 QUALITY EDUCATION / 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 17 PARTNERSHIPS FOR THE GOALS

Marketing and Planning
- ◆ Plan business from the customer perspective — 8 DECENT WORK AND ECONOMIC GROWTH / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- ◆ Design a robust ICT infrastructure — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 11 SUSTAINABLE CITIES AND COMMUNITIES

Service Development and Procurement
- ◆ Develop problem-solving services — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 11 SUSTAINABLE CITIES AND COMMUNITIES / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- ◆ Strengthen partnerships with suppliers — 8 DECENT WORK AND ECONOMIC GROWTH / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION / 17 PARTNERSHIPS FOR THE GOALS

Construction (Equipment, Networks, and Solutions)
- ◆ Offer solutions that drive business innovation
- ◆ Build disaster-resilient networks
- ◆ Provide stable networks — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 11 SUSTAINABLE CITIES AND COMMUNITIES

Operation of Services
- ◆ Provide quick, reliable maintenance and operation — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 11 SUSTAINABLE CITIES AND COMMUNITIES
- ◆ Maintain and enhance customer satisfaction — 8 DECENT WORK AND ECONOMIC GROWTH / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Disposal and Recycling of Equipment

- ◆ Implement CSR and green procurement — 8 DECENT WORK AND ECONOMIC GROWTH / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- ◆ Improve energy efficiency — 7 AFFORDABLE AND CLEAN ENERGY / 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

- ◆ Eliminate the digital divide by improving convenience and accessibility
- ◆ Build disaster-resilient networks by bolstering ICT infrastructure — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 11 SUSTAINABLE CITIES AND COMMUNITIES
- ◆ Take action to protect the environment by utilizing ICT equipment with due consideration for biodiversity — 14 LIFE BELOW WATER / 15 LIFE ON LAND

- ◆ Offer prompt, reliable responses to security risks
- ◆ Limit the frequency of incidents — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 11 SUSTAINABLE CITIES AND COMMUNITIES
- ◆ Reduce GHG emissions by implementing low-carbon initiatives in business activities
- ◆ Provide products and services that help realize a low-carbon society — 7 AFFORDABLE AND CLEAN ENERGY / 13 CLIMATE ACTION / 17 PARTNERSHIPS FOR THE GOALS

- ◆ Stringently practice the 3Rs in business operations — 11 SUSTAINABLE CITIES AND COMMUNITIES / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- ◆ Respect for Employees — 5 GENDER EQUALITY / 8 DECENT WORK AND ECONOMIC GROWTH / 10 REDUCED INEQUALITIES / 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
- ◆ Thorough Compliance — 10 REDUCED INEQUALITIES / 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
- ◆ Promotion of Risk Management — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
- ◆ Strengthening of Security Management — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 11 SUSTAINABLE CITIES AND COMMUNITIES
- ◆ Promotion of Work-Life Balance — 5 GENDER EQUALITY / 8 DECENT WORK AND ECONOMIC GROWTH

Minimizing Negative Impact

Society

Contributions to Society

Helping More People around the World Connect Seamlessly with ICT in Their Daily Lives

Our businesses have come to play diverse roles as information and communications technology (ICT) continues to deepen its penetration into social infrastructures. Under our Fundamental CSR Policy, we are working on improvements in technologies and on ensuring information security while providing stable, highly reliable ICT services worldwide. Furthermore, through the provision of new business models, CSR activities, and other means, we are contributing to the creation of a society in which all kinds of people can participate. Since fiscal 2011, we have been incorporating all of these efforts into the CSR targets (medium-term targets) of the CSR Priority Activity "Contributions to Society" and have pursued continuous improvements. In fiscal 2019, we were able to achieve solid results for each CSR Priority Activity based on new medium-term targets that reflect the changing times. In fiscal 2020, we will continue to strengthen our PDCA system while seeking further progress in our initiatives toward a safe, comfortable, and prosperous future.

CSR Priority Activities

◆ **Innovation that supports a networked society**
◆ **Ensuring stable and reliable services as mission-critical infrastructure**
◆ **Robust network security for customers**
◆ **Continuous improvement in customer satisfaction**
◆ **Collaboration with suppliers**
◆ **Social contribution and fostering of communities**

Targeted SDGs

4 QUALITY EDUCATION **8 DECENT WORK AND ECONOMIC GROWTH** **9 INDUSTRY, INNOVATION AND INFRASTRUCTURE** **11 SUSTAINABLE CITIES AND COMMUNITIES**

CSR Priority Activities

Fiscal 2019 Activity Results and Fiscal 2020 Targets

Actions Implemented in Line with CSR KPIs

We have been pursuing the sustainable development of society by providing stable and highly reliable services while also offering secure environments for communication with robust disaster countermeasures and information security. As a result of these efforts, we were able to attain our targets in the six areas of the CSR Priority Activities: "Innovation that Supports a Networked Society," "Ensuring Stable and Reliable Services as Mission-critical Infrastructure," "Robust Network Security for Customers," "Continuous Improvement in Customer Satisfaction," "Collaboration with Suppliers," and "Social Contributions and Fostering of Communities."

In particular, we developed measures to address major natural disasters by establishing a process for gathering information and releasing external reports during large-scale events, identifying issues, and formulating solutions. In addition, the Group-sponsored Shining Arcs rugby team pursued various initiatives for addressing social issues, such as organizing rugby classes at elementary schools and junior-high schools and actively participating in classes promoting the Tokyo 2020 Olympic and Paralympic Games. The team also supported the "deleteC" movement during their official games in the Japan Rugby Top League.

◆ **Fiscal 2019 Activity Results and Fiscal 2020 Targets**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization

CSR Priority Activities | Innovation that Supports a Networked Society   Relevant SDGs ▶ **9** **11**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within the Organization	Outside the Organization
Provision of new value that contributes to business transformation	Utilize IoT and cloud technologies to develop and seamlessly deploy a range of global services that meet the business needs of corporate customers	Create new areas for applying IoT by strengthening the three solutions from the perspective of providing a full-stack, full-lifecycle service and by expanding the co-creative ecosystem through the Things Partner® Program	Enhanced the Things Partner® Program and created a mechanism for providing full-stack support of IoT systems. Launched the Things Advisory, Things Coordination, and Things Management services to provide a one-stop service for customer support.	Expanded participation in the Things Partner® Program to 36 companies (from 13 in FY2018). Enhanced the networks by adding 6 services and options, including LoRaWAN/Sigfox connectivity and the Things Cloud Private service, which provide a secure environment for gathering IoT data. Created new areas for applying IoT.	★★★	Contribute to realizing a Smart World by providing customers with valuable IoT solutions in combination with Smart Data Platform services that serve as an IoT infrastructure. To do so, we will create new IoT applications through value proposals that address customers' operational issues and continuously expand the capabilities of the Things Partner® Program.	●	●
Realization of safe and secure daily lifestyles; bridging the digital divide	Bridge the digital divide inside and outside Japan, develop accessibility-enhanced services for individual users and a framework for delivering them	Launch new services for improving OCN and continuously implement functional enhancements	Began offering a new OCN Mobile ONE plan for phone and Internet access, starting at 980 yen a month (November 20, 2019)	One activity	★★★	• Launch new services for improving OCN and continuously implement functional enhancements • Continue to implement measures to support the change in network usage resulting from the COVID-19 pandemic	●	●

Achievement levels based on self-assessment ★★★: Target achieved ★★: Target almost achieved ★: Target only partially achieved

CSR Priority Activities | Ensuring Stable and Reliable Services as Mission-critical Infrastructure

Relevant SDGs ▶ **9** **11**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization
Development of disaster-resilient networks	Preventing the loss of communications during disasters by constantly developing resilient ICT infrastructure (buildings, steel towers, electricity, power lines/ public works)	• Consider construction projects - Flood prevention: Odori, Sapporo, etc. - Fire alarm receiver: Tsu, Mie, etc. - Elevator: Jicchaku, etc. - Plumbing: Utsunomiya, etc. Environmental maintenance: Hitotsubashi - Upgrade power receiving equipment: Sainen, Kanazawa, Odori, Sapporo, etc. - Repair smoke exhaust device: Sakae, Nagoya, etc. - Building removal: Nakano-koji Building, Saga - Underground leakage: Aomori, etc. - Air conditioner conversion: Yamashita, Yokohama, etc. • Improve the reliability of power receiving equipment and engines • Decide on new buildings and start construction • Upgrade power receiving equipment at 16 buildings Upgrade 12 engines • Improve the reliability of landing stations • Strengthen building security and other measures (introduction of a suspicious person detector)	• Completed or began flood prevention work • Completed or began seismic reinforcement and building removal • Improved the reliability of power receiving equipment and engines » Addressed upgrades for power receiving equipment and engines at a decision making meeting and began construction work • Installed surveillance cameras along the outer perimeter of Shima Landing Station	• Flood prevention: completed at 1 building (August 2019); started at 7 buildings • Seismic reinforcement and building removal: completed 1 building (March 2020); started at 1 building • Improved the reliability of power receiving equipment and engines » Power receiving equipment: discussed and approved upgrades for 15 out of 16 planned buildings at a decision making meeting » Engines: discussed and approved upgrades for 9 out of 12 planned engines at a decision making meeting (decided to postpone 1 building and 3 engines to next fiscal year due to necessary adjustments for future building plans and lack of building space) » Started construction of 13 out of 16 buildings approved for upgrades • Enabled surveillance of Shima Landing Station	★★	• Flood prevention and seismic reinforcement - Started work on flood prevention: 5 buildings - Started work on seismic reinforcement and removal: 1 building • Improved the reliability of power receiving equipment and engines » Decide on new buildings - Upgrade power receiving equipment at 6 buildings - Upgrade 9 engines • Communication routes: allocate materials for relieving route interruptions • Transmission equipment: create BCPs to flexibly procure materials and bases for allocating alternative equipment • Internal surveillance network: reinforce security (introduce system for detecting abnormal transmissions) • Formulate maintenance guidelines Assess vulnerability level of existing routes and incorporate results in an upgrade policy for nationwide DSM (dedicated service handling module) cables	●	
Measures to address major natural disasters	• Continuous strengthening of the planned response for hypothetical earthquakes in the Nankai Trough and directly under the Tokyo metropolitan area, conducting blind drill themes (drill format not made known to participants) • Gathering disaster relief information for liaising with government and municipal bodies and making reporting processes faster and more operationally entrenched • Enhance liaison within the NTT Communications Group	• Reconfirm the process of basic actions to be taken for a hypothetical earthquake in the Nankai Trough; confirm the operational process for the new Disaster Response Headquarters; conduct an emergency assembly drill assuming the occurrence of an earthquake directly under Tokyo at night or on a holiday and conduct an initial response drill for west Japan • Firmly establish processes for gathering information on damage and reporting to entities outside the company by members of the west Japan initial response centers • Upgrade the system to bolster information gathering ability and simplify the disaster response process	• Conducted a case study to review response to a natural disaster (Typhoon No. 19) that occurred during a large-scale event (Rugby World Cup 2019) (December 2019) • Knowledge gained from the above-mentioned review was applied to the internal operating team for the Tokyo 2020 Olympic and Paralympic Games* scheduled for FY2020 and incorporated into its response procedures (February 2020) • Collaborated with the government's verification team for natural disasters, including typhoons No. 15 and No. 19; identified, compiled, and implemented improvements based on various standpoints and perspectives (March 2020) (http://www.bousai.go.jp/kaigirep/r1typhoon/index.html)	• Response to major disasters that occurred in fiscal 2019 showed greater understanding of the process for gathering damage information and reporting to entities outside the company • Identified 15 specific issues and formulated countermeasures in the course of reviewing actual cases of natural disasters and applying the results to the internal operating team for the Tokyo 2020 Olympic and Paralympic Games* • Strengthened collaboration with relevant government agencies and other companies through interaction with external organs such as the national government (implemented 6 drills and study groups with external organizations)	★★★	• Reconfirm the process of basic actions to be taken for a hypothetical earthquake in the Nankai Trough; confirm the operational process for the new Disaster Response Headquarters • Reconfirm the response procedures in anticipation of a natural disaster during a large-scale national event • Upgrade the system to bolster information gathering ability and simplify the disaster response process (including response to infectious diseases such as COVID-19)	●	

*NTT Communications is a Gold Partner of the Tokyo 2020 Olympic and Paralympic Games in the telecommunication services category.

Achievement levels based on self-assessment ★★★: Target achieved ★★: Target almost achieved ★: Target only partially achieved

CSR Priority Activities | Robust Network Security for Customers   Relevant SDGs ▶ **9** **11**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization
Network surveillance 24 hours a day, 365 days a year	• Constantly monitor customer services, including networks, Internet, cloud, email, hosting, and voice-based services • Construct a framework to monitor seamless global networks • Ongoing reduction in the number of long-term malfunctions	Due to the solid progress being made in reducing the number of long-term malfunctions for networks in Japan (more than 3 hours) and for overseas networks (more than 4 hours), a new target of more than 1 hour of long-term malfunctions will be set for these networks and other services DNW: 1,297 lines/month CL: 17 incidents/year A&C: 38 incidents/year Voice: 16 incidents/year	• Alternative routes and equipment are in place and operational from normal times as backup for maintaining the functionality of overall services in the event of a malfunction in part of the networks or systems; work began on reinforcing measures for quickly discovering malfunctions and automatically switching to backup systems by anticipating specific malfunctions • Replaced obsolete equipment to reduce the occurrence of malfunctions	Number of long-term malfunctions exceeding 1 hour for each service: DNW: 947 lines/month CL: 16 incidents/year A&C: 24 incidents/year Voice: 7 incidents/year	★★★	• While FY2019 targets were achieved in all services, the following targets have been set for long-term malfunctions exceeding 1 hour to firmly establish the effort: DNW: 1,303 lines/month CL: 12 incidents/year A&C: 46 incidents/year Voice: 16 incidents/year • Maintain and enhance the quality of service and operations by taking into consideration remote monitoring and associated operation systems to prepare for an outbreak of disease such as COVID-19	●	●
Strengthening vulnerability response functions	Develop measures for both domestic and overseas Group companies to strengthen their vulnerability response functions	• Conduct vulnerability assessment of Web-based apps owned by the NTT Communications Group and overseas Group companies • Bolster the Group's software development capability by continuously improving the assessment record management system	• Set up a vulnerability assessment system for the NTT Communications Group • Improved the assessment record management system	• Completed the assessment system and continue to identify issues for assessment • Established an agile development system and improved the assessment record management system by conducting upgrades about once a month	★★	Integrate vulnerability assessment with system audits and apply throughout the Company	●	
Rapid and reliable responses to security threats	Continuously enhance and strengthen services that contribute to safe and secure corporate and national information systems	• Strengthen solutions that support CSIRT operations in professional services • Expand security measures for cloud gateways and IoT/OT*1 in managed security services	• Bolstered customer security by offering OSINT Monitoring*2 as part of NTT Com's professional services to promptly detect and report information that may pose a threat to cybersecurity on the Internet; began providing a Cloud Diagnosis Solution that visualizes usage status to ensure secure SaaS operation • Strengthened measures against cyberattacks on ICT in general by developing security services for cloud gateways and IoT/OT in managed security services	Number of new services: 2	★★★	Expand security measures for cloud gateways, end points, and IoT/OT to strengthen the ICT environment based on the zero trust model and changing work styles	●	●

*1 OT: operational technology
*2 OSINT: open-source intelligence

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization

CSR Priority Activities | Continuous Improvement in Customer Satisfaction   Relevant SDGs ▶ **8**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within	Outside

Ongoing CS surveys	Continuous improvements in customer satisfaction level scores	• Strengthen analysis of customer needs and utilize results in marketing activities.
		• Change survey questions to further promote the PDCA cycle for improvements by measuring the effect of the previous year's activities (Example: add a question asking whether the results of kaizen activities have led to higher levels of customer satisfaction)
			• Revised the survey method to launch a relational survey targeting CXOs and business users within corporate customers to strengthen needs analysis for creating new businesses; collected information on the status of DX and future plans from corporate customers
			• Continued to conduct the ongoing service survey in FY2019; added a question asking respondents to compare their level of satisfaction over successive years to measure the effectiveness of actions taken in the previous fiscal year
			• Began interviewing target users of the VOC survey to more deeply analyze customer needs; analyzed survey results to gain an accurate understanding of customer requests and promote planing actions that cater to their needs
				• Survey responses
				  - Relational survey (new): 292
				  - Service survey (continuation): 2,703 (year on year increase in rate of response: +1.5%)
				  - Customer interviews: 12
					★★★	Review survey questions and conduct advanced analysis of survey results to clearly identify topics with higher impact on customer satisfaction; particularly during the COVID-19 outbreak in FY2020, raise customer satisfaction by grasping their needs and issues and working on sales activities and service improvements	●	●

CSR Priority Activities | Collaboration with Suppliers   Relevant SDGs ▶ **8**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within	Outside
Dissemination of CSR and green procurement	• Promoting the procurement of environmentally sound products through measures such as having individual suppliers assess products • Preventing complicity in anti-social behavior across the supply chain by, for example, addressing the conflict minerals issue	Continue to conduct the annual supplier survey on promoting CSR procurement	Continue to conduct the annual supplier survey on promoting CSR procurement	Survey conducted for 18 companies	★★★	Continue to conduct the annual supplier survey on promoting CSR procurement	●	●

Achievement levels based on self-assessment ★★★: Target achieved ★★: Target almost achieved ★: Target only partially achieved

| Initiatives | Medium-term Targets (Form We Want to Take in Five Years) | Fiscal 2019 Activity Results | | | | Fiscal 2020 Targets | Boundary | |
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization

CSR Priority Activities | Social Contribution and Fostering of Communities   Relevant SDGs ▶ **4**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within	Outside
Contributions to communities	Promoting social contribution activities in a variety of fields and according to the social contribution principles, such as sustainability, efficiency, due diligence, global perspective, and skills	• Continue local cleanup activities and introduce cleanups by individual Group companies • Continue holding events with sales of breads, snacks, and other items in cooperation with local organizations supporting persons with disabilities	• Conducted a cleanup activity around the head office; local cleanups also took place at other business bases and Group companies • Held sales events at the head office building and other locations as well as some Group companies	• Head office area cleanup activities: held twice (June and November) with a total of 588 participants • Head office sales events: held 3 times (July, November, and February), with gross sales of 300,650 yen	★ ★ ★	• Continue local cleanup activities • Continue holding events* with sales of breads, snacks, and other items in cooperation with local organizations supporting persons with disabilities *Reconsider schedule of events with respect to the spread of COVID-19	●	●
Fostering communities and the next generation	Developing a strategic social contribution framework that leverages the Group's business characteristics to support community development and contribute to fostering youth	Continue promoting initiatives for the sound development of children by providing social education opportunities such as workplace visits that offer firsthand experience of cutting-edge AI and IoT technologies, and by organizing rugby classes by the Group's sponsored rugby team	• Held Family Day and a beach cleanup • Held rugby classes, career education classes, and leadership training at elementary and junior high schools in Urayasu City; dispatched employees to local events in Urayasu City • Organized classes promoting the Tokyo 2020 Olympic and Paralympic Games at elementary, junior high, and high schools in Tokyo • Offered physical fitness training and stretching programs as part of an effort to promote health management and healthy living both inside and outside the Company • Participated in the deleteC project for educating the public about cancer and held activities including deleteC matches and donations to cancer research • Held the Calorie Offset Program, which is part of the Shining Arcs 2019 project, in which the monetary equivalent of calories burnt by players and fans in the top league is donated through TABLE FOR TWO International toward addressing the global food shortage	• Family day: held 3 times in August, with 64 children participating • Conducted a beach cleanup in June, with 49 children participating • Held 12 classes, training sessions, and workplace visits in Urayasu City • Dispatched players to 6 elementary and junior high schools in Tokyo to offer classes promoting the Tokyo 2020 Olympic and Paralympic Games • Held events to promote health with 4 outside companies and shared 20 videos titled Arcs Break for addressing the lack of exercise for employees and the general public • On January 18, 2020, held the second match in the top league against Suntory as a deleteC match and raised awareness through social media and the Internet; produced goods and collected donations; project was expanded to involve the top league and attracted 15,826 spectators • The 5 matches of the 2019 Top League Cup were attended by 5,800 fans and supporters, and the calories they burned, combined with those of the players, were converted into a donation of 114,622 yen; 2 matches of the 2020 Top League were attended by 4,377 fans and supporters and resulted in a donation of 56,058 yen	★ ★ ★	• Continue promoting initiatives for the sound development of children by providing social education opportunities such as workplace visits that offer firsthand experience of cutting-edge AI and IoT technologies • Earnestly engage with SDG activities* through sports based on various perspectives to address social issues and continue building a team deeply rooted in the local community by contributing to the region *Reconsider schedule of events in response to the spread of COVID-19	●	●

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

CSR Priority Activities

Innovation that Supports a Networked Society

Our Approach

As the pace of ICT and digital technologies quickens, we are also seeing ever wider opportunities that will enable us to contribute to society through innovative ICT products and services.

The use of cloud services has spread to general applications for daily lives and business, and the development of various types of cloud services and the advances being made in data center service networks have become a major thread in the contributions we have made through our businesses over the past few years.

With AI (artificial intelligence) and IoT (Internet of Things) also having rapidly gained attention in recent years, we are actively facing the challenges of developing innovative ICT services to provide secure and convenient everyday lifestyles to people in all walks of society.

We believe SDG 9 "Industry, Innovation and Infrastructure" holds great significance for our stance and activities in these areas. Going forward, we will examine CSR targets based on this while continuously seeking to contribute by bringing to fruition innovative products and services.

Primary Concept

The CSR Committee reviews activities under the CSR Priority Activity "Innovation that Supports a Networked Society," verifies achievements, and pursues initiatives for further improving activities in conjunction with the department charged with implementing each initiative. The CSR Priority Activities are closely connected to the global growth strategies that we are currently promoting.

Under our mission of "Creating communications methods that open up new possibilities for people and our world," we aspire to generate new social value by providing advanced technologies and services to ensure global connectivity. At the same time, our mission serves as a major guideline for implementing CSR that leverages our business characteristics and strengths anticipated by society.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

Our actions under the CSR Priority Activity "Innovation that Supports a Networked Society" are intended to produce innovative solutions to social issues through our business. Stated within is the "provision of new value that contributes to business transformation" and "realization of safe and secure daily lifestyles; bridging the digital divide."

In fiscal 2019, we expanded the Things Partner® Program to offer one-stop support from the research stage, in which we introduced IoT, design, maintenance, and operations. Looking ahead, we will contribute to realizing a Smart World by creating new areas for applying IoT.

In addition, we launched a new service menu for OCN Mobile ONE that allows users to access the Internet and use their phones at a reasonable price. We will continuously undertake measures to support our customers in meeting changes in network usage associated with the COVID-19 pandemic and promote services based on innovative technologies that address social issues through our business.

Providing Services that Help Advance the Evolution of an ICT Society

❯ Pursuing Our Mission to Realize a Smart World

The NTT Communications Group intends to facilitate the digital transformation (DX) that will lead customers to create new businesses and bolster their competitiveness and to realize a Smart World in which social issues are resolved through the utilization of ICT. Effective use of digital data is the key factor for achieving DX. We support customers in this endeavor by integrating and organizing corporate data dispersed in the cloud or on-site into a secure environment on a single platform and by providing all the functions required for data-based businesses through our Smart Data Platform (SDPF), a one-stop service that enables customers to make full use of data.

We will pursue these activities to resolve social issues and achieve sustainable growth, which in turn will lead to generating new value for society.

that simulate large-scale natural disasters.

◆ **Overview of the Smart Data Platform**
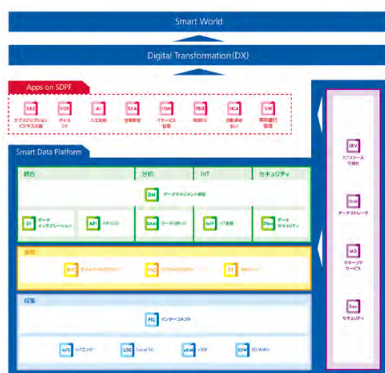
❯ Promoting Digital Transformation to Create Value through the Use of IoT

NTT Communications established its IoT Office in August 2015 and created the Business Innovation Office in October 2017 in an effort to promote value creation and business co-creation through innovation with customers based on the concept of design and use of IoT.

We developed a framework for providing full-stack support to IoT systems in fiscal 2019 and increased participation in our Things Partner® Program to 36 companies from 13 at the end of fiscal 2018. We also expanded the scope of IoT application by creating the Condition Viewer for Worker Care, a health management solution targeting on-site workers in the construction and manufacturing industries. It has been favorably received for the ease with which users can collect data and manage devices using Things Cloud® and for providing full-stack support ranging from devices to visualization. Site managers can use Condition Viewer for Worker Care to practice unified health management by monitoring heart rate data and environmental data along with GPS data, thereby preventing poor health conditions such as heatstroke and providing a safe, secure workplace environment.

In fiscal 2020, to provide customers with valuable IoT solutions combined with SDPF services, we intend to continuously make value proposals for their business operation challenges and expand the capabilities of the Things Partner® Program toward our goal of realizing a Smart World.

❯ Providing the Benefits of ICT to All

As ICT gains importance as social infrastructure, the bridging of the digital divide, which will allow people all over the world to benefit from its use free of any constraints in the areas in which they live, their age and economic standards, is being looked at closely as a challenge confronting the entire human race. While collaborating with Group and partner companies and deploying high-quality communication networks across the globe, we will continue to build systems that provide highly convenient services at reasonable prices and contribute to the elimination of the digital divide.

CSR Priority Activities

Ensuring Stable and Reliable Services as Mission-critical Infrastructure

Our Approach

In tandem with the advancement of ubiquitous computing across society, economic and social damage caused by telecommunication breakdowns in the event of emergency is becoming incalculably serious. As we are entrusted with managing networks and vital data associated with the globalization of many companies, we are absolutely required to fulfill our responsibility to maintain network connections at all times.

As a corporate group that provides global telecommunications services by utilizing the network technologies that underpin advanced ICT societies and maintenance systems, we have set "the ensuring of highly stable and reliable mission-critical infrastructure" as a key initiative for the essential CSR area of "contributions to society." We are making constant efforts to improve the communication environment that allows for the confident use of networks even in the event of a disaster or other emergencies. Specifically, we have been expanding the capacity and enhancing the reliability of our communication routes, ensuring redundant and decentralized equipment and facilities, and maintaining year-round, 24-hour monitoring throughout the network while also pursuing initiatives throughout the Group. We will further develop our approach from the added perspective of contributing to continual expansion and improvement in ensuring access to high-quality, sustainable living environments emphasized by SDG 11 "Sustainable Cities and Communities."

Primary Concept

Activities based on the CSR Priority Activity "Ensuring Stable and Reliable Services as Mission-critical Infrastructure" involve implementing reviews and setting CSR targets on the basis of internal and external circumstances, while the CSR Promotion Office and the departments responsible for each activity cooperate with each other.

With natural disasters occurring with increasing frequency in Japan and elsewhere, it has become more important to maintain and strengthen accurate emergency response systems with the aim of steadily implementing countermeasures. From this standpoint, we focus on the Three Disaster Policy Fundamentals to address disasters and are taking steps to thoroughly apply this throughout the Group.

Three Disaster Policy Fundamentals

1. **Improving Network Reliability**
   We are working to improve reliability so that partial damage to telecommunications systems does not have a great effect on others.

2. **Ensuring Crucial Communications**
   We have secured means of communication to allow important communications in a disaster situation.

3. **Quickly Restoring Communications Services**
   We will restore to service damaged telecommunications equipment as soon as possible.

Web > For more information on the Three Disaster Policy Fundamentals, see:
http://www.ntt.com/about-us/cs/saitai.html (Japanese only)

Main Achievements in Fiscal 2019 and Goals for the Coming Years

All CSR activities based on the CSR Priority Activity "Ensuring Stable and Reliable Services as Mission-critical Infrastructure" are configured in a variety of ways relating to making information infrastructure more disaster resilient. They include the development of disaster-resilient networks and measures to address major natural disasters and similar events.

Acting on the results of inspections conducted in fiscal 2018, we implemented measures and improvements in fiscal 2019. Specifically, we took action against accidents that could occur during large-scale events to prepare for the Tokyo 2020 Olympic and Paralympic Games* scheduled to be held next year. We also quickly addressed the possibility that the spread of COVID-19 would prevent employees from commuting to the office to conduct disaster recovery by developing a system and environment for remotely controlling work tasks. Furthermore, we ensured the safety of staff working in offices and other sites and confirmed the feasibility of our disaster response under the impact of COVID-19. We were able to either achieve or nearly achieve each initial target. In fiscal 2020, we will continue to promote activities set as ongoing targets.

*NTT Communications is a Gold Partner (communications services category) of the Tokyo 2020 Olympic and Paralympic Games.

Development of Disaster-resilient Networks

Keeping Networks Reliable Following Disasters

NTT Communications has adopted the Three Disaster Policy Fundamentals to address disasters. With them we work to maintain mission-critical communications and swiftly restore disrupted communication services.

During the Reiwa 1 East Japan Typhoon that caused extensive damage mainly across the Kanto, Koshin, and Tohoku regions in October 2019, torrential rain caused roads to collapse and bridges to fall. This disrupted our main relay cables between Gunma and Nagano. We prepared recovery plans on-site to open a new route extending about 14 kilometers that skirted around areas affected by landslides and completed restoring the cables 16 days after the disaster.

We work daily to raise awareness about disasters among our employees and those of partner companies so they can rapidly respond to disasters. Specifically, we conduct training that makes use of the Biz Safety Confirmation and Notification service, offered by NTT Communications, and also regular training exercises that simulate large-scale natural disasters.

Web ❯ For more information on disaster response, see:

https://www.ntt.com/about–us/cs/saitai.html(Japanese Only)

Providing Services that Underpin Corporate Business Continuity

Offering a range of services to respond to such crises as major earthquakes and pandemics, NTT Communications supports the continuity of its customers' businesses. For example, earthquake early-warning information is provided through a service and includes details about seismic intensity and

arrival time before the tremors are felt. As the service enables initial damage prevention and ensures personal safety, it is considered effective for formulating a business continuity plan (BCP), since business restoration can be expected soon after an earthquake. A service that simultaneously reports personal safety confirmations both verifies and gathers information on the safety of employees during times of disaster, including outbreaks of news strains of influenza and earthquakes. Available on a routine basis via communications networks, the service is also effective in confirming the safety of school contact networks and elderly persons as well as for simultaneously contacting employees dispatched to client companies.

Moreover, we are expanding services to our overseas bases on the Enterprise Cloud service, which consists of highly reliable, disaster-resilient data centers for companies that leverage outstanding technological capabilities as telecommunications carriers, and we connect high-quality, high-volume networks between Japan and overseas bases. Consequently, this optimal service provides BCP measures that ensure the timely backup of data at remote locations.

Subsea Cable-laying Ship Kizuna with Cutting-Edge Features

Receiving favorable evaluations for the effectiveness of ships used in restoring telecom equipment during disasters, we are examining various ways of using ships not only for NTT Communications but also throughout the NTT Group.

The subsea cable-laying ship Kizuna carries disaster recovery equipment, six 20-foot containers, aerial work platforms, and a mobile base station, which enables the NTT Group to transport emergency supplies and vehicles used for disaster reconstruction. Kizuna supported the rapid restoration of the telecommunications network during

recovery work following the Hokkaido Eastern Iburi Earthquake and Typhoon No. 24 by transporting supplies and vehicles to the nearest ports.

Kizuna also has an onboard emergency mobile base station with dynamic positioning functions. This allows it to set up temporary regional telephone services disabled during a disaster. The ship's upper bridge has enough space for numerous parabolic antennas that keep satellite communications from being impeded. This design allows for the installation of more telecom equipment during a disaster

In addition, the ship features unique living quarters that can be equipped with lodging and support equipment (including meal provision) for disaster relief workers. It is also equipped with switchboards and water intake ports that enable ship-to-shore energy and water supply.

◆ **Subsea Cable-Laying Ship Kizunawith Cutting-Edge Features**

Total tonnage: 8,598 tonne
Deadweight capacity: 4,098 tonne
Total length: 108.64 meters; width: 20 meters
Designed load draft: 6.0 meters
Sea speed: 13.2 knots
Maximum passenger capacity: 60
Cruising distance: 9,500 nautical miles (around 30 days)
Registry location: Japan (Tokyo)

◆ **Disaster recovery support**

Robust Network Security for Customers

CSR Priority Activities

Our Approach

As the adoption of ICT becomes more widespread and more information on companies and individuals is accumulated on networks, we are responsible as an ICT services provider for ensuring that the information we receive from customers remains confidential and for securely retaining and managing that information. Focusing on SDG 11 "Sustainable Cities and Communities," the realization of advanced, safe, secure, and sustainable living environments is a management issue closely connected to ICT.

To meet society's expectations for the development of "Industry, Innovation and Infrastructure," as stated in SDG 9, we continue to enhance our efforts toward robust network security for our customers. In compliance with the set of security regulations maintained and shared by the entire Group, we are advancing the continuous monitoring and operational systems of the ICT systems and networks entrusted to us by our customers. We are also making them more robust while enhancing their vulnerability response functions with regard to unknown threats. Moreover, we are planning to enhance our vulnerability response functions to include overseas Group companies. In view of the materiality analysis and review of the CSR medium-term targets conducted in fiscal 2016, we regard these issues as independent priority activity areas and are working to strengthen our initiatives.

Primary Concept

Regarding the CSR Priority Activity "Robust Network Security for Customers," we are undertaking measures positioned as important initiatives that include "network surveillance 24 hours a day, 365 days a year", "strengthening our vulnerability response functions", and "developing rapid and reliable responses to security threats". Given these, we implement reviews and set CSR targets on the basis of current problems and issues of social concern, while the CSR Promotion Office and departments responsible for each activity cooperate with each other.

These multifaceted activities are all necessary for steadily building on and implementing robust security systems. Positioning our NTT Communications Security Declaration as a priority activity common to all these initiatives, we will take steps to implement them thoroughly.

◆ **NTT Communications Security Declaration**

> At NTT Communications, we believe that our most important mission is to provide our customers with services which they can use with the assurance that their critical information is being protected and to contribute to improving the security of our customers. We view security as the single most important issue to be addressed in providing services, and we pledge to work together with our customer to provide the best in security for their needs. To achieve this end, we do our utmost to ensure security throughout all aspects of the value chain, from the development of technologies and services to the construction and operation of systems. As ICT professionals, all of us at NTT Communications are committed improving our capability to ensure security.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

CSR activities based on the CSR Priority Activity "Robust Network Security for Customers" are intended to protect customer networks against certain threats, including security risks and various disasters, with "network surveillance 24 hours a day, 365 days a year", "strengthen vulnerability response functions," and "provide developing rapid and reliable responses to security threats".

In the area of network surveillance for customers in fiscal 2019, we strengthened our capabilities to detect problems early, automatically switch to alternative routes, and back up equipment in order to better provide uninterrupted services in the event of a malfunction.

Providing rapid and reliable responses to security threats, we launched services such as OSINT monitoring and cloud diagnosis, which detects and reports information about situations that may pose a cybersecurity threat. Also, we work to provide safe services consistently with ongoing assessment of the vulnerability of Web-based apps that Group companies own.

As we strive to ensure robust network security for customers, we will continue to promote activities for achieving our targets in fiscal 2020.

Around-the-clock Efforts to Protect Customer ICT Systems

❯ Providing Stable Enterprise System Network Surveillance and Operating Services

The Management Solutions Center (Sapporo), operated by NTT Com Solutions, has constantly monitored and stably operated ICT system networks since June 2008. Not only does it monitor and operate customer ICT systems all year round, it is also responsible for customer inquiries, malfunction rectifications, and BCP management support.

ICT systems and stable operation centers have recently become essential to business continuity, so they must be highly reliable as the underlying infrastructure protecting customer ICT systems. Some distance from Tokyo, Sapporo and its surroundings are not ordinarily hit by lightning strikes or large-scale natural disasters such as earthquakes and typhoons. It is therefore unlikely that the center would be severely affected by a major disaster or pandemic, making it suitable to stand in for any of the operation centers in the Tokyo area.

The center has established an IT Service Management System (ITSMS), which is based on ITIL®*, to enhance service quality, increase value for customers, and boost their satisfaction levels while improving efficiency and productivity. The center acquired ISO 20000 certification, the international standard for ITSMS, in December 2009. Customer systems are undergoing major changes in terms of operation and technology as they have been using cloud and other services. Work will continue to enable the center to keep pace with these changes and provide high quality at a low cost to increase customer satisfaction.

*UK-formulated guidelines compiled in multiple volumes covering the operation and management of computer systems. ITIL® (IT Infrastructure Library) is a registered trademark of the Office of Government Commerce (OGC) of the UK.

Rapid and Reliable Responses to Security Threats

❯ Monitoring Enterprise Network Security

While digital transformation presents business opportunities for companies, it also signifies the start of an era of zero trust in an ICT environment where business expansion leads to assimilation into the Internet, thereby increasing cyber risks. Under these circumstances, safeguarding business continuity in the face of both foreseeable and unforeseeable risks, as well as risks associated with external attacks or internal foul play, has become a major management concern. NTT Communications established the Security Operation Center in 2003 and began offering corporate security management services. We then brought a company that specialized in overseas security into the Group and globally launched WideAngle, a comprehensive security risk management service, in June 2013, with the cooperation of NTT Secure Perspective Laboratories. In fiscal 2019, we addressed the growing need for zero trust security by providing OSINT* Monitoring to detect cyber risks quickly. As cyberattack targets expand to include systems related to the cloud, telework, and industrial control, we began providing cloud analysis solutions (CASB) and strengthened our security services for cloud gateways and industrial control systems. We will continue to help companies achieve digital transformation by providing solutions that support the generation of new value through the safe use of data.

*Open Source INTelligence

❯ Countering Malware

Malware can open unauthorized access to personal information. In February 2016, NTT Communications became the first internet service provider (ISP) in Japan to provide a service that protects users from malware-related information leaks. It is free of charge to individual and corporate customers.

Continuous Improvement in Customer Satisfaction

CSR Priority Activities

Our Approach

Our business covers the full gamut, from the building of global telecommunications networks to the provision of cloud services.

Our key responsibilities are listening attentively to feedback from our varied customer base and developing and enhancing the mechanisms that allow us to use that feedback flexibly and directly, with the aim of continually boosting customer satisfaction. These are also prerequisites that guide us as we seek to grow alongside society as a leading global ICT company and continue to provide highly reliable, high-quality services.

We believe that these efforts will contribute to an increase of the high added value and improved productivity in the global economy, as well as sustainable economic growth, in alignment with SDG 8 "Decent Work and Economic Growth." Therefore, we will continue to strengthen the mechanisms in place that permit us to reflect those opinions, of a wide range of stakeholders, on our businesses.

Primary Concept

Our goal is to enhance service quality and raise customer satisfaction by accurately addressing customer needs, requests, and expectations while continuously assessing and improving all our operations. Accordingly, our corporate planning, sales, service, and operation divisions together conduct customer satisfaction surveys on a regular basis. Regardless of the area they oversee or the products and services they provide, every employee must always consider customer service as the foundation of our corporate integrity. From this perspective, we have established and stringently adhere to Our Mindset, which is disclosed to our customers and other stakeholders.

◆ Our Mindset

At NTT Communications, employees work together to provide services that satisfy all customers. Listening closely to customers' daily feedback, we will pursue improvements to our services. For this reason, we start by bearing in mind the following approaches as our customers' ICT solution partner.

1. Find solutions to customer concerns and problems
2. Boost customer business growth
3. Help consolidate customer core operations

With these focused concerns, we provide one-stop, end-to-end services extending from marketing to construction/operations as well as rapid solutions in order to be the trusted partners of our customers.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

We are engaged in multifaceted activities with a primary focus on continuous customer satisfaction surveys. In fiscal 2019, we revised the methodology of our Voice of Customer (VOC) survey to better grasp what customers expect of NTT Communications and conducted two kinds of survey. A relational survey obtains information on customer needs, requests, and expectations, and a service survey collects suggestions for service improvement.

Altogether we received around 3,000 valuable comments concerning customer expectations in areas such as solution and proposal capabilities, service quality, stability, and support, with which we have been implementing about a hundred improvement measures. We will continue reviewing and updating the survey questions.

In fiscal 2020, we plan to use the VOC survey to identify customer needs and issues amid the ongoing COVID-19 pandemic in order to improve our sales activities and services.

Ongoing Customer Satisfaction Surveys

› Efforts to Incorporate Feedback from Corporate Customers

If we are to remain the service provider of choice for customers around the world, daily contact with customers cannot be limited to sales personnel. All employees consider customer interaction as a top priority and make every effort to increase customer satisfaction through innovative services and daily improvement efforts. One such initiative is the annual VOC survey on customer satisfaction. We take the comments seriously and incorporate them to enhance our operations.

The Corporate Planning Division conducts the VOC survey with the cooperation of each division. It undertakes the entire process from designing the survey to compiling the results and reporting to management.

In fiscal 2019, we revised the method for the VOC survey and conducted a relational survey focused on understanding customer needs, requests, and expectations, along with a service survey focused on seeking suggestions for improving individual services. We received around 3,000 valuable comments and, with this feedback, implemented about 100 improvement measures.

Looking ahead, we will continue to pay close attention to what our customers have to say as we strive to make permanent improvements that will increase their satisfaction.

Efforts to Incorporate Feedback from Individual Customers

› Operation of the Customers' Front for Individual Customers

Under the OCN provider service, the Customers' Front, as a point of contact, receives questions and requests from individual OCN members on matters related to undertaking various kinds of support work.

We place priority on customer support preparations so that customers can securely and comfortably use the ISP service. Consequently, contact center staff including those who telecommute have been assigned to respond to inquiries on a daily basis. In addition, we are focusing on operator training and continuing our efforts to realize high-quality support, for example by mandating both Web-based and practical training.

› Sharing through the Dedicated OCN Customer Feedback Website

We have set up the OCN Customer Feedback website to further raise the quality of the OCN service.

The website receives numerous comments and requests from customers and shares case studies of improvements.

We will continue to make the best use the website to improve our service and further develop it to deliver a more comfortable Internet experience for customers.

Web › For more information on OCN Customer Feedback, see:
https://www.ocn.ne.jp/cs/ (Japanese Only)

CSR Priority Activities

Collaboration with Suppliers

Our Approach

In recent years, there have been calls for companies to implement CSR activities along their entire supply chains. Naturally this has necessitated not only Groupwide CSR activities but also the building of honest, sustainable relationships with suppliers. These initiatives are indispensable for realizing fair trade practices and decent labor practices globally, which are in line with the basic premise of achieving SDG 8: Decent Work and Economic Growth.

As a responsible international ICT company, we established the Guidelines for CSR in Supply Chain and focus on developing mutual understanding and relationships of trust with our suppliers. We also focus on promoting CSR and green procurement. At the same time, we are developing a procurement system based on the concept of CSR procurement, which extends beyond environmental issues, with thorough consideration of humanitarian and social issues as well.

Primary Concept

Maintaining a focus on value creation through business, NTT Communications needs to procure high-quality services and products in an economical and timely manner. We have therefore defined our procurement policies and apply our Guidelines for CSR in Supply Chain when engaging in procurement activities from the perspective of the broad global marketplace to bolster our Group management competitiveness. Groupwide CSR procurement is conducted through close collaboration under the supervision of the Procurement and Billing Department.

◆ **Summary of Guidelines for CSR in Supply Chain**

Human Rights, Labor	• Prohibition of forced labor and child labor	• Respect for the right to organize and conduct collective bargaining
Health and Safety	• Factory safety measures	• Measures targeting occupational injury and illnesses
Environment	• Management of hazardous chemicals	• Effective use of resources and energy
Fair Trade	• Prevention of corruption and bribery	• Respect for intellectual property rights
Quality and Safety	• Ensuring product safety	• Creation of a quality management system
Information Security	• Prohibition of leaks of personal information	• Information system protection measures

Basic Policy on Procurement

1. NTT Communications will strive to provide competitive opportunities with fairness to both domestic and foreign suppliers, and to build mutual trust and understanding.
2. NTT Communications will conduct economically rational procurement of competitive goods and services that meet its business needs, deciding suppliers based on quality, price, delivery times and stable supply in a comprehensive manner.
3. NTT Communications 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.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

In order to realize the CSR procurement concept, we will thoroughly promote the procurement of products with minimal impact on the environment by conducting product surveys with the cooperation of suppliers. Also, we will encourage the worldwide adoption of supply chains that do not engage in the trade of conflict minerals or in any way intensify social and humanitarian problems. Under this concept, we have continued to have suppliers complete CSR procurement promotion surveys, which began in fiscal 2016, and we also strive to identify the related risks. Moreover, we are focused on more clearly stating our accountability to companies with consideration for NTT Communications as a supplier.

And we have been providing supplier information to EcoVadis*, an international sustainability rating organization.

In fiscal 2020, we will continue to build on the supplier surveys while simultaneously taking steps to promote the exchange of opinions with suppliers and increase information disclosure.

*An organization that evaluates supply chain sustainability. Providing platforms for evaluating the sustainability of companies related to policy and achievements, EcoVadis conducts surveys and evaluations of suppliers in 110 countries and 150 industries from the perspective of four areas: the environment, labor conditions, business activities, and the supply chain.

CSR and Green Procurement

Promoting CSR Procurement

We have formulated the Guidelines for CSR in Supply Chain, which encourage procurement policies for respecting human rights and protecting the environment, ensure the quality and safety of products and services, and recognize the overall needs of society. When selecting and entering into agreements with new business partners, we seek compliance with our CSR policy in addition to credit screening criteria, which include confirming corporate initiatives on human rights and labor issues. We also incorporated a clause requiring compliance with the Guidelines for CSR in Supply Chain into each order form, which suppliers are obligated to use. When we determine that a company has failed to meet our criteria and thus represents a risk, we do not trade with them.

To promote CSR procurement, we conduct a survey that targets major suppliers with the intention of confirming the management status of the Guidelines for CSR in Supply Chain. After the results are compiled and analyzed, we consider means of improvement for dealing with high risk concerns. In fiscal 2019, we received responses from 18 companies (response rate: 100%). As a result, we found no high-risk issues. Looking ahead, we will continue to work with our business partners to promote CSR procurement.

Web > For more information on the Guidelines for CSR in Supply Chain, see:
https://www.ntt.com/en/about-us/procurement.html

> For more information on green procurement, see: Contributions to the Global Environment
P.39

Developing Procurement Professionals

In maintaining sound Group management, we uphold our CSR procurement policy, which thoroughly establishes and enhances our CSR through efforts that also involve business partners.

We encourage our employees to obtain the Certified Procurement Professional (CPP) qualification, designated by the All Japan Federation of Management Organizations, so they can have specialized knowledge in purchasing and procurement. As of March 31, 2020, a total of 101 employees have been certified (Grade A: 34, Grade B: 67), including transferred employees and excluding those certified while working in other organizations.

Looking ahead, we will continue nurturing human resources in each area to practice sustainable and responsible procurement.

UK Modern Slavery Act Statement

The NTT Communications Group has released a statement on slave labor and human trafficking in accordance with the UK Modern Slavery Act 2015. We report on initiatives for preventing slave labor and human trafficking that are being implemented by the Company and throughout its supply chain. As an enterprise with a base in the U.K., we strive to procure high-quality services and products and prevent slave labor and human trafficking as we develop honest and sustainable relationships with a broad range of suppliers in and outside of Japan. Looking ahead, we will focus on further strengthening our system of cooperation with our suppliers, implement human rights impact assessments, and determine the risks and current status.

Web > For more information on the NTT Communications Modern Slavery Statement (April 2019–March 2020), see:
https://www.ntt.com/en/about-us/csr/modernslavery

Response to Conflict Minerals

NTT Communications and NTT Communications Group companies will conduct procurement activities in accordance with the NTT Group's Response to Conflict Minerals.

Disclosure of Supply Chain through EcoVadis

Rising public expectations for CSR activities that also encompass the supply chain have increased the importance of companies knowing the status of their suppliers' CSR activities and disclosing that information to clients. Since fiscal 2016, we have reported supply chain information with EcoVadis. We have also been proactively disclosing information to our clients and to companies considering doing business with us. We received a Silver rating following the first sustainability assessment in 2017, and after making improvements in regard to issues pointed out in that evaluation, we received a Gold rating for our second assessment in 2019. Evaluating on a global basis our activities in such areas as the environment, fair labor and human rights, ethics, and sustainable procurement, all of which have been positioned as benchmarks, we will steadfastly work to improve our CSR performance going forward.

CSR Priority Activities

Social Contributions and Fostering of Communities

Our Approach

NTT Communications has been implementing social contribution activities across a number of fields, encompassing international cooperation, environmental conservation, health, medical and welfare, and regional development toward realizing a prosperous society. In areas affected by the Great East Japan Earthquake, we are continuing our support to reconnect the bonds in those regions and do all we can to assist in rebuilding lives.

　　Companies are increasingly expected to play a role through their social contribution activities to support the development of dynamic communities that bridge regions and generations. We will broaden the scope of our social contribution activities with an emphasis on developing such vibrant communities.

◆ Social Action Principles

Sustainability·······We conduct lean but lasting activities over the long term.
Efficiency·······We engage in cost-effective activities to ensure continuity.
Due Diligence·······We carefully assess the relative benefit to society of prospective donations.
Global Perspective·······We contribute to Japan and the international community.
Skills·······We utilize services developed for information distribution markets as well as employee abilities gained in those markets for the benefit of society.

Serving Local and International Communities

The NTT Communications Group promotes activities to serve local and international communities by designating six pillars of social contribution: Preservation of the Natural Environment, Social Welfare, Promotion of Education and Culture, Regional Development and Exchange, International Exchange, and Promotion of Sports.

　　In fiscal 2019, we conducted 98 projects, in which a total of 1,893 employees participated. Expenditures for social contribution activities amounted to 25.33 million yen.

◆ Social Contribution Activities in Fiscal 2018

	Number of Projects	Number of Participants	Activity Expenditure (Yen)
Preservation of the Natural Environment	28	1,019	7,425,925
Social Welfare	37	120	3,313,607
Promotion of Education and Culture	16	413	9,419,971
Regional Development and Exchange	9	298	5,144,900
International Exchange	3	0	0
Promotion of Sports	2	2	20,000
Others	3	41	12,000
Total	98	1,893	25,336,403

Cleanup Activities

NTT Communications has participated in cleanup campaigns in Tokyo's Chiyoda Ward since 2008. In fiscal 2019, our cleanups took place around the head office on June 4 and November 7, with 292 and 296 employees participating, respectively.

　　Moreover, players from the Shining Arcs corporate rugby team have been leading cleanup activities mainly in Urayasu City, Chiba Prefecture, where they are headquartered. In fiscal 2020, the team expanded its activities by joining in the Leads to the Ocean project, a joint initiative between the NPO Umisakura and Nippon Foundation for addressing environmental issues related to the ocean.

Providing Nationwide Opportunities to Work from Home

NTT Com CHEO engages in businesses centered on technical support, including that for users of the OCN ISP service; contact centers offering support via telephone, email, chat, and PC remote control; on-site support for setting up ICT devices such as PCs and routers and providing operating instructions; and the operational management of corporate ICT equipment. These businesses actively provide opportunities for people in different regions of Japan to work from home. For example, our contact centers and on-site support visits across Japan are staffed by those working from home, from Hokkaido in the north to Okinawa in the south. As part of this drive, we are also pursuing initiatives for developing women's careers, revitalizing regional communities, and offering new employment opportunities.

　　Over the years, we have received numerous awards in and outside of Japan that recognize our contributions to developing women's careers, rebuilding local communities, and supporting employment. These include the Gold Award in the Best Home/Remote Agent Program category of the Contact Center World Awards 2019.

In addition, we have been participating as a "special supporting organization" in Japan's Telework Days campaign since 2017. This initiative implements and promotes telework as part of the workstyle reforms being pursued through a collaborative effort by the national government (Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare, Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure and Transport, Cabinet Secretariat and Cabinet Office), Tokyo Metropolitan Government, and relevant organizations.

Social Contribution Activities at Group Companies

For some time, we have been encouraging Group companies to develop their own social contribution activities, and each company has been actively doing so as a result. These include environmental conservation activities, such as natural woodland preservation, and donations of emergency food supplies. As a corporate citizen, we will continue to promote low-profile yet meaningful activities that help communities.

◆ Major Social Contribution Activities at Group Companies in Fiscal 2019

Company Name	Activity
NTT Com Solutions	Activities for preserving the Shiroi natural woodlands in the Hiratsuka Area of Shiroi City, Chiba Prefecture
NTT Com Marketing	
NTT Com Solutions	Donation and delivery of emergency relief food supplies for those facing hunger overseas
NTT Com Marketing	
NTT Com Engineering	Donation of books and the proceeds from sales of used books brought by employees to an international NGO working to improve the literacy rate in developing countries, among other causes
NTT BizLink, Inc.	In-house sale of products sold by persons with disabilities
NTT Communications Group	Cleanup around Group buildings and the neighborhood, and cleanup of beaches in Enoshima, Kanagawa Prefecture
	Sales of fair trade products in the company
	Rugby classes and career education at elementary schools in Chiba Prefecture to popularize the sport and nurture youth
	Educational programs in collaboration with JICA to cultivate awareness of human rights
	Collection and donation of plastic bottle caps, pull-tabs, stamps, calendars, used books, and other items

Activities of the Corporate Rugby Team

Youth Development

NTT Communication's rugby team, the Shining Arcs, is actively promoting the sound development of youth and engaging with local communities through sports. The team relocated its headquarters to Urayasu City, Chiba Prefecture in April 2018 and has been organizing rugby classes in elementary schools and engaging in other community-oriented initiatives aimed at boosting the health of city residents under a mutual cooperation and support agreement.

Since there are few rugby competitions with rankings for elementary school students, we host the Shining Arcs Cup to boost the level of rugby. While the sixth tournament, scheduled for February 29 and March 1, 2020, was canceled due to the spread of COVID-19, we will continue our contribution to educate the public on rugby as a sport with cultural value as well as the sound development of the next generation of youth.

◆ Fifth Shining Arcs Cup

› Participation in the deleteC Project

In October 2019, the Shining Arcs became the first sports team to participate in the deleteC project, a united effort to make cancer a curable disease.

"delete C" is an initiative in which companies and organizations delete the letter "C" from their brand logos and products to express their hope of eliminating cancer. They also commit to developing original products and services on the theme and donate a portion of their sales to cancer treatment research and to cultivating medical experts.

During the practice match in December 2019, prior to the opening match of the Japan Top Rugby League, we produced training jerseys in pink—the deleteC image color—for a team and donated part of the revenue from sales of original goods to deleteC.

In addition, a member of the Shining Arcs team who has overcome leukemia, known as the cancer of the blood, and went on to play for Australia in the Rugby World Cup 2019, conveyed messages through social media to raise awareness of deleteC.

The team is striving to achieve SDG 3 "Ensure healthy lives and promote wellbeing at all ages." It does this by helping balance medical treatment and work and by pursuing health management. In October 2018, Urayasu City, where the team is based, has also enacted an ordinance to promote anticancer measures to address the issue. We will seek to address social and local issues through rugby by participating in the project.

› TABLE FOR TWO × Shining Arcs Project

NTT Communications was the first Japanese rugby team to participate in this project aimed at resolving the global food shortage through the approved specified NPO TABLE FOR TWO International. We have engaged in various activities to promote health in the hope of harnessing the power of sports and developing the health of local communities and society. In this project, the calories burnt by players in an official match and by Shing Arcs fans at the stadium are converted into monetary value and donated to the cause.
(1) 1 yen for 1 kilocalorie burnt by players in a match
(2) 5 yen for 200 kilocalories burnt by fans supporting the team

The collected money is donated to fund vegetable farms in developing countries seeking to meet their own caloric needs. A total of 170,680 yen was donated in the 2019–2020 season.

We will contribute to society through the united efforts of players and fans.

Environment

Contributions to the Global Environment

A Sustainable and Green Future that Nurtures Our Rich Earth

ICT companies are highly expected to engage in environmental protection activities. We have established the Green ICT Vision 2020, which focuses on the realization of a low-carbon society, the promotion of Closed-loop recycling, and the preservation of biodiversity. We are also promoting a multifaceted approach to these areas. In fiscal 2016, we implemented results-based enhancements and reforms and established the Environmental Statement and Eco Strategy 2030 as our new vision.

Moreover, we proactively promote these activities because they are necessary for the upgrading and strengthening of an environmental management framework. We will continue to strengthen our management framework Groupwide. To this end, we will aggressively pursue protection of the global environment in all processes pertaining to our business activities, ranging from reduced electricity use and improvements in efficiency and procurement to operations and waste disposal.

The Group, through its core businesses, will do what it can to establish a society that is friendly to the environment while ensuring that our planet remains healthy for future generations.

CSR Priority Activities

◆ **Realizing a Low-carbon Future**
◆ **Implementing Closed-loop Recycling**
◆ **Planning a Future of Co-existing with Nature**

Targeted SDGs

7 AFFORDABLE AND CLEAN ENERGY
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND

CSR Priority Activities

Realizing a Low-carbon Future — P.41

Implementing Closed-loop Recycling — P.47

Planning a Future of Co-existing with Nature — P.49

Fiscal 2019 Activity Results and Fiscal 2020 Targets

Actions Implemented in Line with CSR KPIs

In line with the three underpinning themes of fiscal 2019: "Realizing a Low-carbon Future," "Implementing Closed-loop Recycling," and "Planning a Future of Co-existing with Nature," we worked to reduce the environmental impact associated with all our business activities and achieved Groupwide results. In particular, we helped reduce global carbon emissions by deploying measures for lowering power consumption at more Group buildings, promoted remote work and paperless meetings as workstyle reform initiatives, and improved the landfill rate by promoting the 3Rs (reduce, reuse, and recycle). We also held the fourth biodiversity photo contest.

In fiscal 2020, we continue pursuing various measures with a focus on activities that include reducing electricity consumption, promoting waste recycling, and preserving ecosystems in order to contribute to reducing the environmental impact of our Group as well as society as a whole.

◆ **Fiscal 2019 Activity Results and Fiscal 2020 Targets**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization

CSR Priority Activities | Realizing a Low-carbon Future Relevant SDGs ▶ **7** **13**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within the Organization	Outside the Organization
Cutting carbon emissions from businesses	We will raise power efficiency per data transmission in our telecommunications businesses, including data centers, by at least 10 times compared to fiscal 2013 levels (fiscal 2030 target).	Raise power efficiency per data transmission in our telecommunications businesses, including data centers, by at least 10 times in 2030 compared to fiscal 2013 levels (fiscal 2019 target: 3.8 times higher) • Implement the following energy management measures to further reduce electricity use - Remove equipment that consumes large amounts of power and shut down surplus air-conditioners - Use Dash Board to visualize efficiency of air-conditioning and usage of power and air-conditioners - Improve airflows and promote air-conditioning controls that take into account external and internal temperatures through visualization - Install DASH (air-conditioning control system) at a data center • CO_2 emissions: 240,000 t-CO_2 (new calculation method)	• Adjustment of telecommunications facility intake • Improvement of airflow control using humidity sensors • Optimization of indoor temperature • Air-conditioning control • Increase installations of automated air-conditioning control systems	Fiscal 2019 Results • Power efficiency: Increased by 4.1 times compared to fiscal 2013 • CO_2 emissions generated by NTT Communications alone: 235,000 t-CO_2 (CO_2 emission factor: 0.462 kg-CO_2/kWh) - Telecommunications facility: 219,000 t-CO_2 - Offices: 17,000 t-CO_2	★★★	• Raise power efficiency per data transmission in our telecommunications businesses, including data centers, by at least 10 times in 2030 compared to fiscal 2013 levels (fiscal 2020 target: 4.5 times higher) • CO_2 emissions generated by NTT Communications alone: 233,000 t-CO_2 (CO_2 emission factor: 0.454 kg-CO_2/kWh) - Telecommunications facility: 217,000 t-CO_2 - Offices: 16,000 t-CO_2	●	
Cutting society's carbon emissions through products and services	We will contribute to reducing CO_2 emissions across society by at least 10 times more than the NTT Communications Group's own emissions (fiscal 2030 target).	Expand the use of the Environmental Solutions Label System to contribute to reducing CO_2 emissions across society by at least 10 times more than the NTT Communications Group's own emissions in 2030 (fiscal 2019 target is 15.9 times more)	• Maintain and promote the sales of Environmental Solutions Label-certified services capable of contributing to reducing CO_2 in society	Fiscal 2019 result: 16.5 times more	★★★	Expand the use of the Environ-mental Solutions Label System to contribute to reducing CO_2 emissions across society by at least 10 times more than the NTT Communications Group's own emissions in 2030 (fiscal 2020 target is 15.3 times more)	●	●

Achievement levels based on self-assessment ★★★: Target achieved ★★: Target almost achieved ★: Target only partially achieved

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization

CSR Priority Activities | Implementing Closed-loop Recycling   Relevant SDGs ▶ 12

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within the Organization	Outside the Organization
Realizing a low environmental impact business model	Implementing a low environmental impact business model	• Building and maintaining a low environmental impact business model - Implementing measures to reduce electricity use - Installing energy-saving equipment - Appropriately managing hazardous substances	• Installation of energy-saving equipment • Installation of direct and indirect ambient air-conditioning system • Increase in the number of buildings with airflow control systems • Appropriate management of PCB/asbestos hazardous substances	—	★ ★★ ★	• Building and maintaining a low environmental impact business model - Implementing measures to reduce electricity use - Installing energy-saving equipment - Appropriately managing hazardous substances	●	
Thorough implementation of a 3R policy in businesses	Thorough implementation of a 3R (reduce, reuse, and recycle) policy with regard to all resources relevant to our business activities - Improvement in the landfill rate: 1.5% or lower (fiscal 2030 target)	• Continue the implementation of a 3R (reduce, reuse, and recycle) policy with regard to all resources relevant to our business activities - Improvement in the landfill rate: 2.0% or lower • Strengthen measures at the level of individual organizations based on data on multifunction printer usage and promote a paperless working style that utilizes ICT equipment	• Enhanced promotion of the 3R policy • Confirmation of waste process flow and method and promote thermal recycling to improve the landfill rate • Promotion of a paperless working style based on data on multifunction printer usage	Landfill rate: 2.1%	★ ★	• Implement the 3R (reduce, reuse, and recycle) policy for all resources relevant to our business activities - Improvement in the landfill rate: 2.0% or lower - Reduce, reuse, and recycle plastic • Promote a paperless working style that utilizes ICT equipment	●	

CSR Priority Activities | Planning a Future of Co-existing with Nature   Relevant SDGs ▶ 14 15

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within the Organization	Outside the Organization
Facilities that show consideration for biodiversity	• Facility construction, maintenance, and repair based on NTT Group building concepts • Compliance with action guidelines with regard to biodiversity conservation	• Facility construction, maintenance, and repair based on NTT Group building concepts • Compliance with action guidelines in regard to biodiversity conservation	• Facility maintenance based on NTT Group building concepts • Compliance with action guidelines in regard to biodiversity conservation • Offering our stations for observing the migration of Chinese sparrow hawks	—	★ ★★ ★	• Facility construction, maintenance, and repair based on NTT Group building concepts • Compliance with action guidelines in regard to biodiversity conservation	●	
Utilize ICT to contribute to biodiversity	Utilize ICT to contribute/ respond to biodiversity	Utilize ICT to contribute/respond to biodiversity	• Expansion of Mimawari Rakutaro to 50 local governments nationwide • Information dissemination and educational • Activities through the goo Green Label	—	★ ★★ ★	Utilize ICT to contribute/respond to biodiversity	●	●

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

Basic Philosophy and Vision

While emphasizing the philosophy in the Global Environmental Charter, established by the NTT Group, our environmental protection activities take shape as the Environmental Statement, which applies the philosophy to the characteristics of our business. We set initiative goals and implement measures on an ongoing basis.

NTT Communications Group Global Environmental Charter

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

Web > For more information on the NTT Communications Group Global Environmental Charter, see:

https://www.ntt.com/en/about-us/csr/eco/details.html

Environmental Statement and Eco Strategy 2030

The NTT Communications Group has formulated The NTT Communications Group Environmental Statement as its overarching policy for promoting environmental activities.

In the statement, we have expressed how we should act as a company in order to fulfill our responsibilities toward the global environment in the future. We also established Eco Strategy 2030 as a means of identifying priority issues that should be addressed to realize the future outlined in the statement.

Working in unison, each and every NTT Communications Group employee around the world will engage in environmental activities to realize a future in which people and the planet remain in harmony by providing technologies and services that pioneer eras.

The NTT Communications Group Environmental Statement

Dedicated to global environmental management for a future in which people and the planet remain in harmony

We will address three futures by providing technologies and services that pioneer eras.

Realizing a Low-carbon Future

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

Implementing Closed-loop Recycling

We are working toward more effective resource allocation.

Planning a Future of Co-existing with Nature

We are contributing to the preservation of ecosystems.

Eco Strategy 2030

Under Eco Strategy 2030, we have set out specific initiatives to help realize the three futures outlined in the Environmental Statement.

Three Futures We Are Targeting	Initiative	
Realizing a Low-carbon Future	Contributing to the reduction of CO_2 emissions across society	We will contribute to reducing CO_2 emissions across society by at least 10 times more than the NTT Communications Group's own emissions.
	Raising power efficiency in our telecommunications businesses	We will raise power efficiency per data transmission in our telecommunications businesses by at least 10 times compared to fiscal 2013 levels.
	Adapting 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.
Implementing Closed-loop Recycling	Final waste disposal ratio	We will aim to keep the final disposal ratio of the waste generated by the NTT Communications Group at 1.5% or less.
Planning a Future of Co-existing with Nature	Preservation of ecosystems	We will play our part in preserving ecosystems by actively promoting initiatives through all our activities and by collaborating with our stakeholders.

Environmental Management

Promotion Framework for Reducing Environmental Impact

In order to continuously promote environmental protection initiatives in a Groupwide effort, we formed a working group for each relevant issue. Specifically, the NTT Communications Group holds Environmental Protection Subcommittee meetings once a year to formulate an overall plan that encompasses a wide range of issues, including the reduction of greenhouse gas emissions and waste. Through these meetings, we also share information on the results of actions taken and promote the horizontal deployment of various initiatives.

In fiscal 2019, we made particular efforts to expand the use of renewable energy, systematically dispose of PCBs, and also dispose of other waste properly.

In fiscal 2020, we reviewed our environmental management structure in line with new environmental targets, and we will make a Groupwide effort to engage in environmental protection activities and initiatives toward achieving them.

◆ **Environmental Protection Framework**

Working Group	Main Tasks
Greenhouse Gas Reduction	• Plan and implement energy-saving measures at telecommunications, data center, and office buildings • Respond to Japanese/foreign laws and regulations covering greenhouse gas emissions, etc.
Environmental Initiatives at Offices	• Encourage efforts to reduce environmental impact centered on activities to reduce paper usage, eliminate waste, and conserve electricity in office operations • Share and commonly apply examples of advanced efforts from each business unit
Dismantling Telecommunications Equipment	• Thoroughly process and manage dismantled telecommunications equipment in line with the law • Plan and implement measures designed to improve the recycling ratio
Construction Waste	• Encourage appropriate processing and recycling of construction waste • Submit government reports relating to asbestos removal and reconstruction
PCB Storage and Disposal	• Formulate plans for the appropriate storage and treatment of PCBs • Submit PCB management reports to the government
Container Recycling	• Comply with the Containers and Packaging Recycling Law
Green Procurement	• Encourage green purchasing • Instill throughout the supply chain the Guidelines for Green Purchasing
Environmental Accounting	• Build an environmental accounting system and provide performance analyses and reports for management
Group Company	• Share and disseminate information on environmental protection activities in the NTT Communications Group

President
CSR Committee (CSR Office)
Global Environmental Protection Subcommittee (Environmental Protection Office)

(as of March 31, 2020)

Environmental Impact of Business Activities

❯ Fiscal 2019 Material Flow

Customer (Environmental Impact Reductions from ICT Usage)

Input		Business Processes	Output	

Input

Procurement
Items purchased through green procurement	2.57 million
Procurement systems assessed	4 companies

Telecommunications Facilities
Power	460 million kWh
Fuel	1.68 million l
Gas	300,000 m^3
Heat	1.85 million

Offices
Power	30 million kWh
Water	100,000 m^3
Paper	174 t

Sales
Paper (brochures)	0.0 t
Invoices	112 t
Fuel (automobile)	100,000 l

Business Processes

- Procurement
- Telecommunications Facilities
- Offices
- Sales
- Reuse Recycle

Output

Telecommunications Facilities
Power	213,000 t-CO_2
Fuel	4,500 t-CO_2
Gas	700 t-CO_2
Heat	100 t-CO_2
General waste generated	634 t
Industrial waste generated	3,140 t
General waste landfills	3 t
Industrial waste landfills	1 t

Offices
Greenhouse gases (power)	14,000 t-CO_2
General waste generated	703 t
Industrial waste generated	433 t
General waste landfills	13 t
Industrial waste landfills	6 t

Sales
Fuel (greenhouse gases)	0.0 t-CO_2

Reuse
In-house reuse of dismantled telecommunications equipment	106 units
Equipment and packaging	6,923 units
Collections of subscriber terminals	0 units
Amount of removed fiber-optic cable reused	1.3 km

Recycle
Recycling of coaxial cables	0.0 km
Collection of confidential documents	260 t

(Scope: NTT Communications Corporation and 12 Group companies in Japan)

Estimated of Scope 3 Emissions

In performing these calculations, we have referred to unit emission databases and other materials produced through studies by the Ministry of the Environment and other government ministries and agencies and expanded the scope of target categories. Of the 15 target categories, our calculations include 11 that are relevant.

◆ **Volumes of Scope 3 Emissions by Category**

Category	Category	Emissions (t-CO_2)
Purchased goods and services	7.9	270,934
Capital goods	15.0	517,353
Fuel and energy activities not included in Scope 1 and Scope 2	1.1	37,823
Upstream transportation and distribution	0.1	2,584
Waste generated through business activities	0.0	303
Business travel	0.2	7,673
Employee commutations	0.2	6,502
Upstream leased assets	—	Out of scope
Downstream transportation and distribution	—	Out of scope
Processing of products sold	—	Out of scope
Use of products sold	67.0	2,309,263
Disposal of products sold	2.5	86,201
Downstream leased assets	5.9	203,387
Franchise	0.1	4,627
Investments	—	Out of scope
Total	100.0	3,446,650

⟩ Environmental Accounting in Fiscal 2019

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

The environmental conservation cost in fiscal 2019 increased by approximately 450 million yen year on year to 2.25 billion yen, consisting of around 920 million yen in investments and about 1.32 billion yen in expenses. This was mainly due to a decrease in investments for environmental conservation. Meanwhile, the economic benefit derived from environmental conservation in fiscal 2019 declined by approximately 180 million yen year on year to 1.56 billion yen, mainly due to a decrease in revenue from sales of cables, metal scrap, and other items.

◆ **Environmental Conservation Costs (Categories Corresponding to Business Activities) (Millions of Yen)**

Category	Key Measures		Investment		Expenses	
			FY2018	FY2019	FY2018	FY2019
(1) Business area cost			593	850	1,064	1,206
Breakdown	Pollution prevention costs	Oil tank facility for power generator use Management of items using PCBs	142	231	80	164
	Global environmental conservation costs	Measures to reduce CO_2 Emissions resulting from electricity use	450	618	577	526
	Resource circulation costs	Waste disposal and reuse expenses	0	0	406	515
(2) Upstream/downstream costs	Measures to recover, recycle, and reuse telecommunications equipment		14	73	52	47
(3) Administration costs	Environmental conservation management activities		0	0	63	70
(4) R&D costs	Allocated portion of the NTT Group's environmental R&D costs		0	0	10	1
(5) Social activity costs	Costs of supporting volunteer participation		0	0	0	0
(6) Environmental remediation Costs			0	0	0	0
Total			607	924	1,191	1,326

◆ **Economic Benefits Associated with Environmental Conservation Activities (Real Financial Impact) (Millions of Yen)**

Category	Key Measures	FY2018	FY2019
Revenue	Revenues from sales (cables, metal scrap, etc.)	433	239
Cost reductions	Reductions in expenses as a result of measures such as those related to reducing electricity use	517	391
	Reductions in purchase cost as a result of reusing dismantled telecommunications equipment	380	400
	Decrease in postal and paper costs due to utilization of Mypage (online account page)	422	533
	Other	0	0
Total		1,753	1,565

(Scope: NTT Communications Corporation and 15 Group companies in Japan)
Tabulation and disclosure: Figures were tabulated in line with the Ministry of the Environment's Environmental Accounting Guidelines 2005 and the NTT Group Environmental Accounting Guidelines. Expenses include personnel expenses but exclude depreciation.

Environmental Management System

❯ Acquiring ISO 14001 Certification

Two companies in the NTT Communications Group had acquired ISO 14001 certification as of March 31, 2020. We have contracted outside environmental consultants to perform internal audits once a year to certified departments and companies in order to ensure the appropriate implementation of environmental management and continual improvements that will allow for a steady reduction of the environmental impact of business activities. Regular reviews and renewal examinations are undertaken by an independent certification body as well. Outstanding issues are thus identified, and remedial measures are taken swiftly. Besides our initiatives centering on reductions of office paper and electricity use and the promotion of waste recycling, we encourage the adoption of measures aimed at creating an environmentally friendly society.

◆ ISO 14001-certified Companies

Company Certified		Date
NTT Communications Corp.	Procurement Promotion and Strategy, Procurement and Billing Department	October 1999
	Solution Services Department	March 2004
NTTPC Communications, Inc.		November 2003

As of March 31, 2020

❯ Environmental Audits and Environmental Surveys

Guided by its Global Environmental Charter, the NTT Communications Group shares yearly PDCA and other reports at the Global Environmental Protection Subcommittee, an organization that comes under the CSR Committee. These reports outline details of the various activities administered by the nine working groups that drive the Group's environmental protection activities. In addition to sharing information and calling for the further development of effective initiatives, we are promoting environmental management on a Groupwide basis.

❯ Compliance with Environmental Legislation and Regulations

The NTT Communications Group is committed to ensuring legal compliance and proper risk management while liaising closely with the other NTT Group companies. All legislation, including environmental laws and regulations aimed at curtailing pollution, emissions standards, and the PRTR Law*, is fully communicated to related departments, and independent guidelines and enhanced compliance education have been established for in-house application. We were not involved in any litigation or legal violations pertaining to environment-related accidents, infringements, fines, or complaints in fiscal 2019. We will continue our Companywide efforts to prevent pollution and comply with related laws and regulations.

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

❯ Promoting Green Procurement

NTT Communications issued its Guidelines for Green Purchasing in 1999. In 2010, we brought these guidelines into compliance with the Energy-Saving Performance Guidelines enacted by the NTT Group and added the perspective of ICT-related energy-saving that the Company recognized as an important issue. We also changed the name to the Guidelines for Green Procurement. Application of these guidelines drove NTT Communications to include new factors in its set of criteria applied when selecting suppliers, such as the supplier's actions toward environmental conservation and an environmental conservation element of the procured item. Through its green procurement initiatives, NTT Communications works to improve its environmental protection activities with its suppliers and seeks to commit to further social contribution.

◆ Status of Green Procurement (1,000 Units)

	FY2015	FY2016	FY2017	FY2018	FY2019
Green procurement of goods, excluding office supplies	105	90	154	204	257
Green procurement of office supplies	20	20	22	21	24

⟩ Environmental Education Initiatives

We offer all employees environmental education with the intention of raising their awareness of environmental matters. We are also proactive in environmental awareness activities as part of our CSR efforts, extending the scope of participation to include not only employees but also their family members and our business partners.

In fiscal 2019, all-employee training sessions covered major international initiatives such as the SDGs, ESG investments, and the Global Risks Report from the World Economic Forum. Additionally, we undertook a range of environmental awareness and educational activities, including a cleanup of the areas around our offices and the seaside, promotion of the ecocap movement, and a biodiversity-related photo contest. Moreover, woodland conservation activities were carried out at NTT Com Solutions and NTT Com Marketing in a bid to deepen employee understanding of the importance of protecting the natural environment.

Realizing a Low-carbon Future

CSR Priority Activities

Our Approach

Our range of approaches to reduce CO_2 emissions includes saving energy and improving the efficiency of our facilities as well as offering services that incorporate excellent Low-carbon features and engaging in environmental contribution activities. For our environmental initiatives in relation to Company facilities, we have set targets from two viewpoints: telecommunications facilities and offices, and all of our employees are working together to reduce CO_2 emissions. Particularly, since electricity consumption accounts for more than 90% of total CO_2 emissions from business activities, we can expect great advantages as a result of saving energy and improving the energy efficiency of telecommunications equipment. We are thus making strong efforts in such respects as leading the industry in introducing cutting-edge technologies.

Primary Concept

While the advancement and spread of ICT has helped to bring about an affluent society and convenient lifestyles, the increase in power consumption from ICT-related equipment is placing enormous pressure on the environment. Against such a backdrop, SDGs 13 is urgently combating climate change. Reducing CO_2 emissions, the main cause of climate change, is a matter of utmost urgency not only for humans but also for the prosperity of all living creatures. As part of our initiative to contribute to the creation of a low carbon society, we set "Realizing a Low-carbon Future" as one of the themes for our Environmental Statement. In order to make our statement concrete, we will take on activities with a strong awareness of specific effects while continuing to strengthen our efforts from a global perspective and taking into account the expansion of our businesses' supply chains.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

In fiscal 2019, we continued our ongoing efforts to raise power efficiency per data transmission in our telecommunications businesses. Our comprehensive activities to improve power efficiency included adjusting telecommunications facility intake/exhaust directions, using humidity sensors to improve airflow, optimizing the room temperature by controlling air-conditioning, and turning off unused equipment. As a result, power efficiency increased by 4.1 times, which exceeded the target of 4.0 times. In addition, when putting our solutions on the market, those assessed as having a certain level of environmental impact reduction benefits are given the NTT Group's Environmental Solutions Label to make visible their effects. Consequently, our contribution to reducing society's CO_2 emissions was 16.5 times the volume of our own CO_2 emissions, thereby exceeding our target of 15.9 times. Going forward, we will further develop these initiatives and commit to realizing a low-carbon society.

In fiscal 2020, we will accelerate our drive to introduce electric vehicles (EVs) and renewable energy and set more ambitious targets to strengthen our efforts to reduce CO_2.

Reduction of Greenhouse Gases

Fiscal 2019 Results and Fiscal 2020 Outlook

CO₂ Emissions

FY2019 Target (new calculation method)
240,000 t-CO₂ or lower

FY2019 Result (new calculation method)
235,000 t-CO₂ or lower   YoY -2.9%
(FY2018 Result: 242,000 t-CO₂)

FY2020 Target (new calculation method)
233,000 t-CO₂
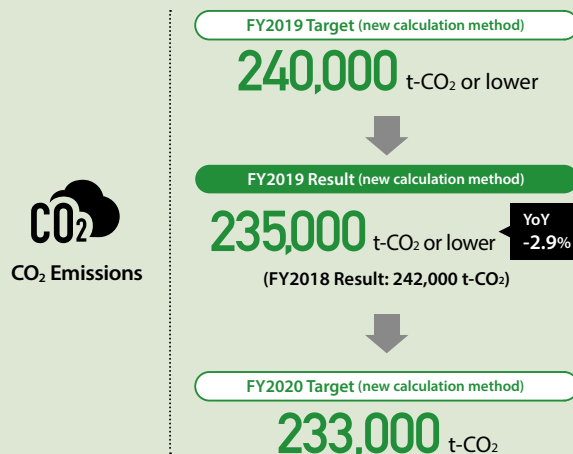
Up to fiscal 2017, we had been disclosing the combined value of emissions generated at our data centers by NTT Communications alone[1] and those generated by other data center users[2] as our own emissions, which are shown by the dotted line in the CO₂ Emissions from Business Activities graph at right. However, since it is difficult for us to monitor and assess initiatives implemented by other companies, we adopted a new calculation method in fiscal 2018 and changed the scope of management to emissions generated by the NTT Communications Group alone (new calculation method:

expressed by the solid line in the graph for CO₂ Emissions from Business Activities at right). Within this new scope, we were able to meet our CO₂ emissions target[3] for fiscal 2019, mainly by switching to an electric power company with a lower emission factor. CO₂ emissions per unit of sales were 0.3 t-CO₂/millions of yen[4].

In fiscal 2020, the NTT Communications Group will remain committed to reducing CO₂ emissions in a concerted manner through ongoing energy-saving activities, research and development of technologies, and implementing new measures including energy saving rules to achieve its target for reducing CO₂ emissions by 1% from the previous fiscal year or below. Furthermore, we intend to continue providing energy-efficient data centers and cloud services to society, having customers' servers and their peripheral equipment including air-conditioning, UPS, and lighting integrated at our data center, consequently improving the efficiency of public power consumption.

We will aggressively push forward the introduction of renewable energy toward raising its share of total power consumption to at least 30% by 2030.

[1] CO₂ emissions generated by the use of fuel and electricity by the NTT Communications Group.
[2] CO₂ emissions generated by the use of fuel and electricity by other companies (telecommunication carriers, data center operators, and others)
[3] CO₂ emissions were calculated using emission factors obtained from electric power companies.
[4] In view of the corporate divestiture that came into effect on July 1, 2019, sales were calculated for the period between July 2019 and March 2020 (794.6 billion yen).

◆ **CO₂ Emissions from Business Activities**
■ Electricity consumption*   ■ Fuel for corporate vehicles and consumption of heavy oil and gas

Old calculation method | New calculation method
(10,000 t-CO₂)

FY2017: 37.4 (1.7 / 35.7)
FY2018: 36.8 (0.8 / 36.0)
FY2018: 24.2 (0.8 / 23.4)
FY2019: 23.5 (0.8 / 22.7)
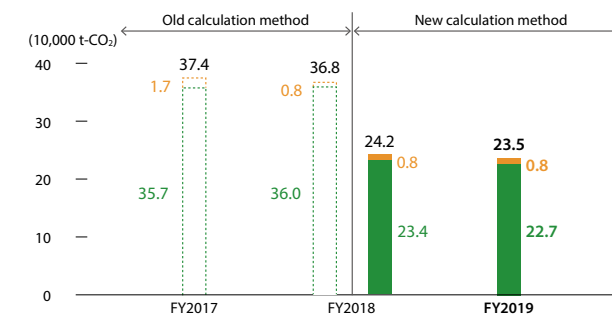
(Scope: NTT Communications Corporation and 12 Group companies in Japan)
*CO₂ emissions were calculated using emission factors obtained from electric power companies.

◆ **Other Greenhouse Gas Emissions (Converted to CO₂ Equivalents)**
(t-CO₂)   ■ CH₄ ■ N₂O ■ HFC

YoY -7.6 %

FY2017: 13.7 (4.4 / 9.1 / 0.2)
FY2018: 13.1 (5.4 / 7.2 / 0.5)
FY2019: 12.1 (5.4 / 6.4 / 0.3)
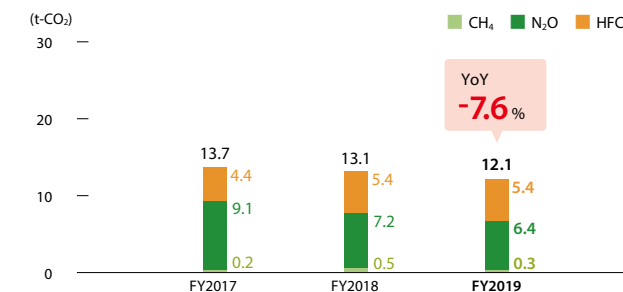
(Scope: NTT Communications Corporation and 12 Group companies in Japan)

◆ **Power Purchases (Consumption by NTT Com Group)***
(100 million kWh)

FY2018: 4.9
FY2019: 4.9
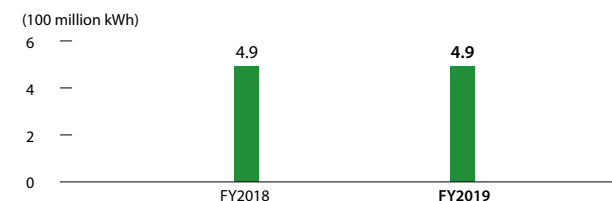
(Scope: NTT Communications Corporation and 12 Group companies in Japan)
*Calculated based on the new method adopted in fiscal 2018 that excludes power consumed by users other than the NTT Communications Group.

Initiatives Related to Telecommunications Facilities

Fiscal 2019 Results and Plans for Fiscal 2020

CO₂ Emissions

FY2019 Target (new calculation method)
219,000 t-CO₂ or lower

FY2019 Result (new calculation method)
219,000 t-CO₂ or lower
YoY -1.0%
(FY2018 Result: 221,000 t-CO₂)

FY2020 Target (new calculation method)
217,000 t-CO₂

In fiscal 2019, our CO₂ emissions decreased as a result of the augmented and expanded measures such as reducing electricity use in air-conditioning systems by making visible the power usage status of machinery and server rooms. Although there was a rise in demand for sales at data centers in Tokyo and Osaka as well as the installation of new cloud servers, we were nevertheless able to achieve our target. CO₂ emissions are rising in fiscal 2020 due to ongoing robust data center and cloud service sales. However, we intend to meet our emissions target at of a year-on-year decrease of 1% by expanding visualization of power usage, implementing newly developed technologies, improving airflow, and optimizing equipment for telecommunications services.

Building Cutting-edge Data Centers with Advanced Low-carbon Technologies

Data centers require a constant supply of electric power to operate. As an ICT company, we proactively introduce leading-edge equipment and technologies for reducing the carbon footprint of our data centers.

For example, our newly opened data center features improved cooling efficiency and lower power consumption in its air-conditioning systems owing to the deployment of an indirect external air-cooling system that applies the cooler temperatures outside the building and an air circulation method that blows air from the walls. In addition, we will install an indirect evaporative air-conditioning system for the new data center in Tokyo. This will make us the industry's first to use the system, which is expected to reduce the annual energy cost by 60% compared to a conventional air-conditioning system.

We are accelerating efforts to reduce the carbon footprint of our data centers by continuing to introduce leading-edge equipment and technologies.

Comparison to a conventional air-conditioning system	**60**% reduction per year

Ongoing Efforts to Cut Air-conditioner Power Consumption at Telecoms Facilities

In past efforts to reduce power consumed by air-conditioning, we have implemented a range of measures, including SmartDASH® an automated system that visualizes temperature zones in server rooms, detects areas that are too cold, and automatically controls air-conditioning, and Aisle Capping, a technique that physically separates the intake (low temperature) and exhaust (high temperature) air from IT equipment by placing sidewalls and ceilings around IT

equipment in the aisles between rows of server racks.

As a further step, we are moving beyond ICT-driven visualization of both temperature and power consumption to continue our work on more finely tuned air-conditioning power management. This includes calculating PUE (Power Usage Effectiveness) of each room to improve low-efficiency rooms by implementing thorough airflow improvement, temperature adjustments, and air-conditioning shutdown initiatives. To address the migration in ICT equipment from old models to highly efficient new ones, we will also seek to cut down on power consumed by ICT and air-conditioning systems through the timely discontinuation of use of the old models.

Introducing Solar Power Generation Systems that Actively Use Renewable Energy

Since 2009, NTT Communications has been engaged in power generation using solar power generation systems at its communications and data centers in Tokyo, and four system units are currently in operation. In April 2020, our Odori Building in Chuo-ku, Sapporo, became the first building in the NTT Group to use renewable energy for all of its power needs. We intend to expand the introduction of the system in the coming years.
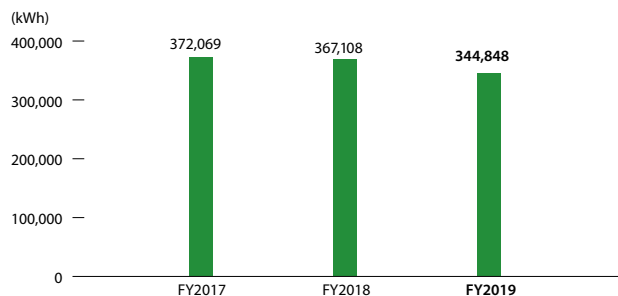
◆ NTT Communications Odori, Sapporo 4 chome building
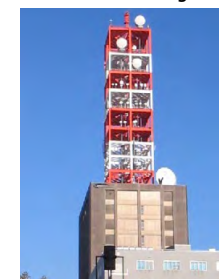
Electricity Generated by Solar Power in Fiscal 2019	Approx. **345,000** kWh

◆ **Overall Amounts of Electricity Generated by Solar Panels at Data Centers**

(kWh)

	FY2017	FY2018	FY2019
	372,069	367,108	344,848

Providing Carbon Credits to Support Tokyo's Initiative

NTT Communications donated credits earned from Tokyo's Cap and Trade system to help realize its Zero Emission Tokyo Strategy. Since the Tokyo Metropolitan Environmental Security Ordinance came into force in April 2010, we have been controlling air-conditioning temperatures and improving airflows to reduce CO_2 emissions at the 11 telecommunications and data center buildings that fall within the scope of the ordinance. We received a certificate of gratitude from the Tokyo Metropolitan Government for donating credits equivalent to 100,000 t-CO_2 (excess volume of emissions) that we obtained as a result of our efforts.

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ゼロエミッション東京の実現に向けて

Office Initiatives

Fiscal 2019 Results and Plans for Fiscal 2020

CO₂
CO_2 Emissions

FY2019 Target (new calculation method)

22,000 t-CO_2 or lower

FY2019 Result (new calculation method)

17,000 t-CO_2
(FY2018 Result: 21,000 t-CO_2)

YoY -19%

FY2020 Target (new calculation method)

16,000 t-CO_2

Drastic measures are being called for in the form of office initiatives to cut electricity use, while considerations are being made to place a limit on initiatives for communications facilities such as data centers and telecommunications buildings that require a certain amount of continuous power supply to provide their services. In fiscal 2019, we attained our target based on the new calculation method by pursuing energy-saving measures that were not as tight as those implemented in the period following the Great East Japan Earthquake. Due to additional factors, including the relocation of our head office from the Hibiya Building to the Otemachi Place Building, where energy efficiency is high, and the transfer of NTT Plala Inc.'s operations to NTT Docomo Inc., we achieved a significant year-on-year reduction of our CO_2 emissions.

In fiscal 2020, we are targeting year-on-year reductions of 3% to maintain CO_2 emissions at or below 16,000 t-CO_2. We will implement energy-saving measures that take into account comfortable working environments as well as work efficiency to address the increase in the number of employees working from home to prevent the spread of COVID-19, as well as the revised settings for energy consumption and expanded use of fat clients.

Transportation Initiatives

Fiscal 2019 Results and Plans for Fiscal 2020

NTT Communications annually audits the amount of transportation for invoices, sales promotion tools, and office waste. Also, we voluntarily seek ways to streamline transportation such as by reducing the number of required trips, the volume transported, and the transportation distance and by otherwise enhancing logistics.

In fiscal 2019, we worked to reduce the amount of paper by digitalizing sales tools and manuals as well as by expanding web-based applications. As a result, total transportation volume was 317,000 tonne-kilometers.

In fiscal 2020, we will continue our efforts to reduce transportation volume by promoting digitalization and the use of Web-based application systems.

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

Legend: ■ Invoices ■ Connection notes ■ Sales promotion tools ■ Telecommunications equipment dismantled ■ Waste ■ Other

(10,000 tonne-kilometers)

	FY2017	FY2018	FY2019
Total	36.0	38.6	31.7
Other	18.2	17.5	15.5
Waste	5.2	4.4	4.3
Telecommunications equipment dismantled	6.0	11.7	7.8
Sales promotion tools	0.4	0.1	0.3
Invoices	1.3 / 5.0	0.4 / 4.5	3.9

YoY **-17.9**%
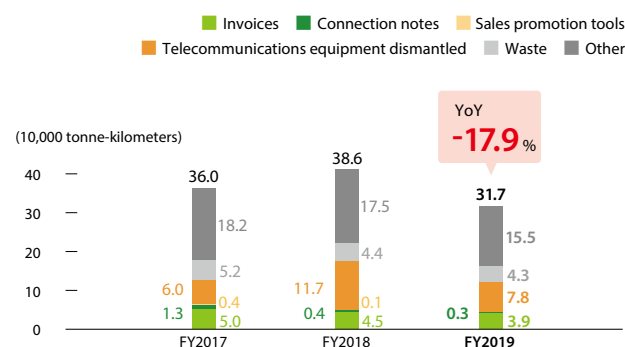
(Scope: NTT Communications Corporation)

Reducing Fuel Use by Company Vehicles

To help solve pollution problems and contribute to the realization of a low-carbon society, we have devised measures to introduce environmentally friendly vehicles and are seeking to reduce the volume of fuel used by Company vehicles across the entire Group. We are currently reviewing the number of our sales vehicles and steadily promoting eco-driving and other measures. As a result, gasoline and diesel consumption by Company vehicles in fiscal 2019 totaled 93,000 liters and 8,000 liters, respectively. The combined volume declined by 28,000 liters, or 21.7%, year on year.

In response to the NTT Group's declaration of support for the EV100 initiative in October 2018, NTT Communications plans to make EVs account for 100% of its corporate fleet by fiscal 2030. Following the preparatory phase in fiscal 2019, we will launch a full-scale effort to introduce EVs in fiscal 2020. We will strive to use environmentally friendly energy in our business activities.

◆ **Fuel Consumption by Company Vehicles**

Legend: ■ Gasoline ■ Diesel

(10,000 liters)

	FY2017	FY2018	FY2019
Total	18.3	12.9	10.1
Diesel	1.8	0.8	0.8
Gasoline	16.5	12.1	9.3

YoY **-21.7**%
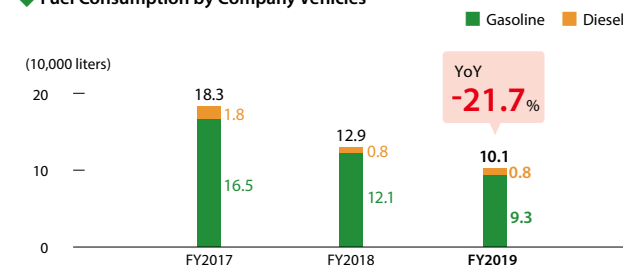
(Scope: NTT Communications Corporation and 12 Group companies in Japan)

Web > For more information on "EV100," see:
https://japan-clp.jp/en

Preventing Air Pollution and Promoting Energy Conservation through Electric Propulsion Ships

The subsea cable-laying vessels Kizuna and Subaru utilize an electric propulsion system* that optimizes the number of engines in operation in accordance with the load from the type of the subsea cable being laid and changes in the weather at sea. By controlling the number of engines in operation, we keep down the amount of heavy fuel oil A used while reducing emissions of, for example, CO_2, NOx, and SOx.

When in operation, we work to optimize fuel consumption by the most effective operating methods (including optimum route selection that takes into account the ship's speed, ocean currents, and weather conditions as well as other factors) in order to curtail the amount of CO_2 emitted based on a Ship Energy Efficiency Management Plan (SEEMP).

We are also carrying out the partial installation of LED energy-saving lighting for the ships.

*An electric propulsion system is a type of ship that turns a generator with its engines, drives motors with the electrical power obtained, and turns propellers and bow thrusters for propulsion.

◆ **Cable-laying ship Kizuna (8,598 tonnes)**

◆ **Cable-laying ship Subaru (9,557 tonnes)**

Reducing the Carbon Footprint of Society through Our Products and Services

Environmental Labeling System for Solutions

The NTT Group is exploring the idea of an Environmental Labeling System for Solutions for self-certification of environmentally friendly ICT solutions and services. To qualify, ICT solutions and services will have to achieve CO_2 reductions of at least 15%, as assessed through the objective evaluation of environmental impact reduction benefits. The entire NTT Group provides these environmentally friendly services to help reduce the environmental impact of society.

Although no service obtained the Environmental Labeling System for Solution in the NTT Communications Group in fiscal 2019, we have a cumulative total of 10 solutions registered. Looking ahead, we aim to obtain more certifications for the Environmental Labeling System for Solutions.

We will strive to use environmentally friendly energy in our business activities.

Web > For more information on the Environmental Labeling system for Solutions, see:
http://www.ntt.co.jp/kankyo/e/protect/label/index.html

Acquisition of the Eco ICT Logo

We conducted a self-assessment of our CO_2 reduction measures and submitted an application in accordance with the ICT Ecology Guidelines created by the ICT Ecology Guideline Council* and acquired the eco-ICT Mark.

The council created and published guidelines for appropriate CO_2 reduction measures to be implemented by telecommunications carriers, clearly defining the standards for procuring systems and data center services from the viewpoint of reducing power consumption. These guidelines have been subsequently revised, and version 8.2 was published in February 2020. We will continue to participate in this initiative and work to disseminate the guidelines throughout the Group on an ongoing basis.

*A council established on June 26, 2009 by five industry organizations: The Telecommunications Carriers Association, the Telecom Services Association, the Japan Internet Providers Association, the Communications and Information Network Association of Japan, and the ASP-SaaS-IoT Cloud Industry Consortium (designated nonprofit organization).

Web > For more information on the Eco ICT Logo, see:
http://www.tca.or.jp/press_release/2010/0701_400.html (Japanese Only)

> For more information on the self-assessment checklist, see:
https://www.ntt.com/about-us/csr/eco/ecoict.html (Japanese Only)

CSR Priority Activities

Implementing Closed-loop Recycling

Our Approach

As symbolized by SDG 12 "Responsible Consumption and Production," the thoroughness and extent of penetration of a recycling-oriented society continues to gain in importance as a problem shared by us all. To contribute to the realization of a recycling-oriented society, the NTT Communications Group works to improve reusing and recycling rates on a daily basis while building business models with low environmental impact. Specifically, we are working to reduce the volume of waste in the three areas of dismantled telecommunications equipment, construction waste, and office waste while also promoting reuse and recycling in various areas of our business.

Primary Concept

In order to contribute to the realization of a recycling-oriented society, we are pursuing the creation of a low environmental impact business model in addition to our daily efforts to improve the reusing and recycling rates. Specifically, we organize working groups in the three areas of dismantled telecommunications equipment, construction waste, and office waste, and we are cooperating with other NTT Group companies in the promotion of waste reduction and reuse and recycling in various areas of our business. In addition to our internal efforts, we are leveraging our knowledge, technologies, and knowhow to contribute to the creation of a recycling-oriented society.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

In fiscal 2019, the final disposal of waste from dismantled telecommunications equipment amounted to 0.2 tonnes, construction waste to 282.3 tonnes, and office waste to 22.6 tonnes. The total volume of final waste disposal increased by 86.2 tonnes, compared to the previous fiscal year, to 305.1 tonnes, while the total volume of waste generated increased by 3,429.2 tonnes to 14,579.0 tonnes due to increased construction work for disposing concrete blocks. Going forward, we will thoroughly implement the 3Rs (reduce, reuse, and recycle) in our business activities.

◆ NTT Communications Group Final Waste Disposal and Total Waste Generation
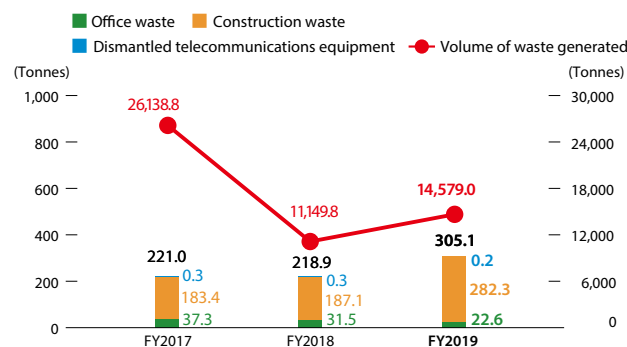
Scope: NTT Communications Corporation and 12 Group companies in Japan
Figures are adjusted retroactively to increase accuracy.

◆ Total Volume and Landfill Rate of Dismantled Telecommunications Equipment
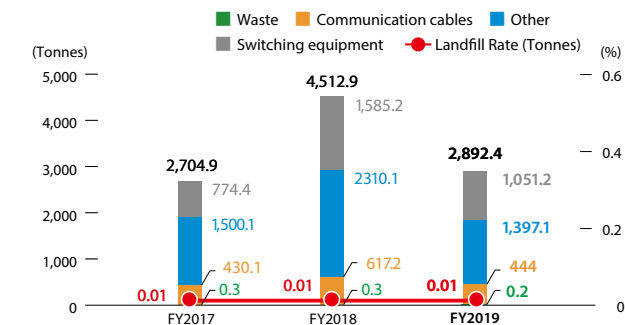
Scope: NTT Communications Corporation and 12 Group companies in Japan
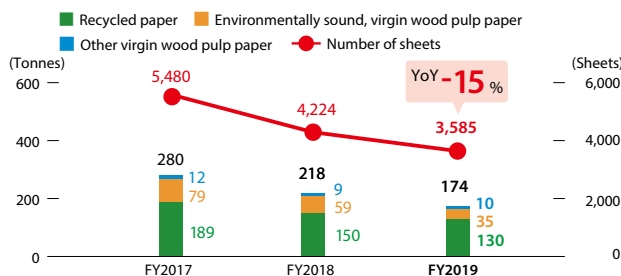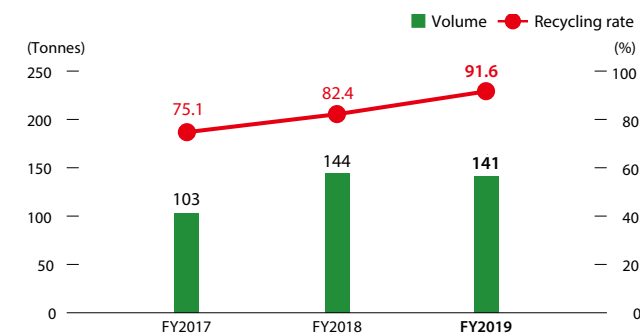Figures are adjusted retroactively to increase accuracy.

◆ Volume of Reused Fiber-optic Cable
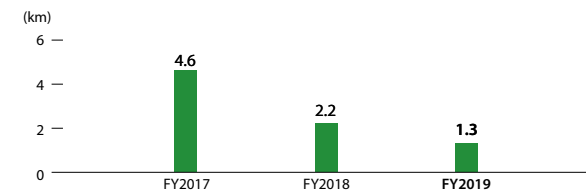
Scope: NTT Communications Corporation and 12 Group companies in Japan

◆ Construction Waste Generation and Landfill Rate
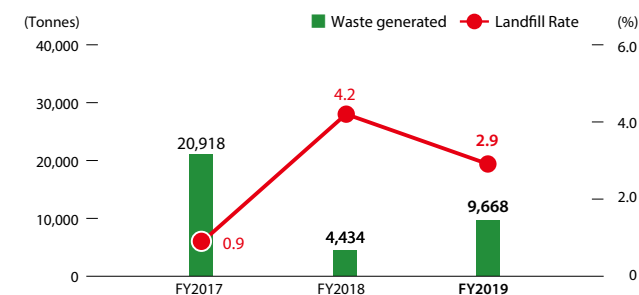
Scope: NTT Communications Corporation and 12 Group companies in Japan

Building Business Models with Low Environmental Impact

❯ Initiatives to Improve the Landfill Rate

We believe that one of our most important obligations as an ICT services provider is to create business models that emphasize recycling. We are therefore carefully selecting waste processors for data centers, telecommunications buildings, and office buildings based on their recycling rates.
In selecting waste processors, we seek to ensure proper disposal and improve the recycling rate by screening candidates based on our criteria and consigning work to businesses that meet the qualifications. As a result, the landfill rate of office waste, which was 6.1% in fiscal 2013, has been reduced to 1.1%, as of fiscal 2019.

◆ **Total Office Waste and Final Disposal Ratio**
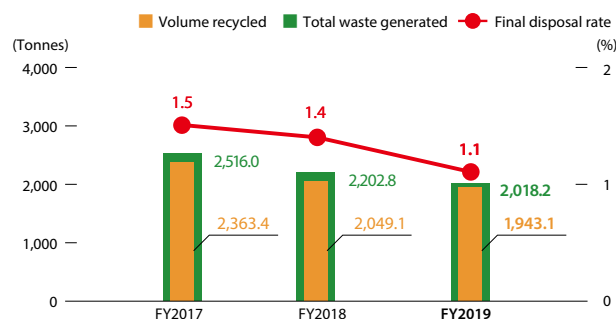
■ Volume recycled ■ Total waste generated ● Final disposal rate

(Tonnes) (%)

	FY2017	FY2018	FY2019
Final disposal rate	1.5	1.4	1.1
Total waste generated	2,516.0	2,202.8	2,018.2
Volume recycled	2,363.4	2,049.1	1,943.1

Scope: NTT Communications Corporation and 12 Group companies in Japan
Figures are adjusted retroactively to increase accuracy.

Thorough Implementation of the 3Rs in Office Buildings

❯ Reduction in Paper Use for Business Purposes

NTT Communications is working to reduce its use of all kinds of paper for business purposes, including that for printing customer billing statements. In fiscal 2007, we established a paper use indicator per full-time employee in order to reduce the use of office paper.

Specifically, we encourage reduction efforts that include curbing the use of paper and increasing the rate of double-sided printing by using printing log data from IC card multifunction printers. Initiative status data per individual and section are collected and disclosed to all employees on a monthly basis. We have been continuously promoting the digitization of operations, paperless meetings that make use of projectors and tablets, as well as remote conferences. As a result, paper consumed per full-time employee (converted to A4-size office paper) was 3,585 sheets in fiscal 2019, which was less than the previous year.

◆ **Total and Per-employee Office Paper Use**

■ Recycled paper ■ Environmentally sound, virgin wood pulp paper
■ Other virgin wood pulp paper ● Number of sheets

(Tonnes) (Sheets)

YoY **-15** %

	FY2017	FY2018	FY2019
Number of sheets	5,480	4,224	3,585
Total	280	218	174
Other virgin wood pulp paper	12	9	10
Environmentally sound, virgin wood pulp paper	79	59	35
Recycled paper	189	150	130

Scope: NTT Communications Corporation and 12 Group companies in Japan
Figures are adjusted retroactively to increase accuracy.

❯ Response to Plastics Pollution

Concern has been growing around the world over plastic waste, including the pollution of marine environments. NTT Communications upholds the implementation of closed-loop recycling as a CSR Priority and is working on reducing and promoting the recycling of plastic waste.

The recycling rate for plastic in office waste has been improving each year, and we will continue addressing the concern over plastic pollution through our business activities.

◆ **Volume of Plastic and Recycling Rate in Office Waste**

■ Volume ● Recycling rate

(Tonnes) (%)

	FY2017	FY2018	FY2019
Recycling rate	75.1	82.4	91.6
Volume	103	144	141

CSR Priority Activities

Planning a Future of Co-existing with Nature

Our Approach

We place a high priority on conservation of biodiversity throughout our business activities, from the construction of facilities to their operation and dismantling, in addition to promoting preservation activities by inspecting the progress of initiatives, finding problems, and making improvements. Moreover, we will implement multifaceted initiatives for environmental contribution activities, including participation in local conservation activities and the dissemination of information.

Development of Activities in Line with Action Guidelines

Having formulated the Biodiversity Action Plan, we have been proactively developing our approaches. There is a growing awareness on a global scale for biodiversity conservation. In the years to come, we will promote a progress check of efforts, identify issues, and promote improvements across the Group, including at overseas bases.

Primary Concept

As advocated in SDGs 14 and 15, conserving the biodiversity of life below water and on land, together with the prevention of global warming and the preservation of ecosystems, has recently developed into a major environmental challenge with regard to the creation of a sustainable society. NTT Communications has set "Planning a Future of Co-existing with Nature" as part of its environmental declaration and established a set of action guidelines with regard to biodiversity conservation in order to promote environmental preservation activities. The entire Group, including its overseas companies, will engage in activities that are in line with the Action Plan.

Biodiversity Action Plan

1. Basic Policy: in Compliance with the NTT Group Biodiversity "Approach Concept" Established by the NTT Group

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

2. Action Guidelines

- Implement actions that take into account the preservation of biodiversity in business activities.
- Contribute to the preservation of social biodiversity in business activities.
- Deepen understanding of biodiversity, promote nature conservation activities together with employees, their families, and the planet.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

We engaged in building, maintaining, and repairing facilities in compliance with the Biodiversity Action Plan as well as the concept of the environmentally friendly Green Building*, established by the NTT Group in addition to ongoing initiatives that leverage the features of ICT enterprises. NTT Resonant disseminated information and raised awareness regarding environmental issues through the "goo Green Label," where users can make a donation to environmental preservation organizations by changing their "goo" web portal to "goo Green Label."

In fiscal 2020, we will continue promoting initiatives by leveraging our capacity to serve society as an ICT enterprise.

*Environmentally friendly buildings with reduced waste emissions that make use of energy, water, and air-conditioning systems to reduce their consumption of natural resources.

Considerations for Data Center Construction

❯ Local Landscaping and Greening

We consider it is important to take into consideration for biodiversity in facility designs toward contributing to local greenery in our surroundings.

The Tokyo No. 6 Data Center, one of the largest of such facilities in Tokyo, received a subsidy from the Tokyo Metropolitan Park Association's Urban Green Fund and is working closely with the community to promote greening activities. The green spaces at the site have been separated into two zones, spring/summer and autumn/winter, and planted accordingly so that visitors can enjoy flowers there throughout the year. We seek to achieve harmony between the data center and the surrounding environment. For example, we simulated a wind environment around the building and planted evergreen trees in the southwest corner, which is exposed to wind.

◆ Spring/summer zone

◆ Autumn/winter zone

Considerations for Data Center Construction

In constructing its subsea communications cable network, NTT Communications' fundamental policy is to prevent marine pollution. We are signatories to treaties on the prevention of marine pollution and, in addition to complying with environmental legislation, undertake initiatives that place importance on coexistence with marine organisms and the fisheries industry. Group company NTT World Engineering Marine Inc., which handles the laying, burying, and maintenance of subsea cables, develops business with a strong awareness of the need to preserve marine environments.

❯ Assessing Biodiversity

NTT Communications is committed to biodiversity conservation toward realizing a future of co-existing with nature. It operates biodiversity-friendly facilities and leverages ICT to minimize the impact on ecosystems, based on an understanding of the relationship between biodiversity and our business. We also strive to pass on abundant biodiversity to future generations through actions to protect ecosystems by cable-laying ships and by assessing the potential environmental impact from the construction and dismantling of relay stations, and we collaborate with stakeholders on these activities as well.

❯ Local Landscaping and Greening

Prior to subsea cable-laying and burying work, we conduct an environmental assessment and cooperate with related government authorities and municipalities in carefully designing cable routes and drawing up construction plans. For example, in shallow sea areas we give consideration to the preservation of the marine environment such as by deciding on cable-laying routes that avoid coral reefs and other inhabited areas.

There are also cases in which minesweeping operations are undertaken on the seabed prior to laying or burying the cables. We collect debris from the seabed, including fishing nets, rope, and wire pulled out by the minesweeping operations, and we properly process this as industrial waste after returning to port.

◆ Cables laid on sand to avoid coral reefs   ◆ Debris collected from the seabed

> Measures to Preserve Ecosystems Taken on Cable-laying Ships

There are concerns that the marine organisms that infest the ballast water used to maintain the stability of vessels will destroy ecosystems after being discharged into other parts of the ocean as vessels navigate from one area to another. In order to prevent the destruction of ecosystems by ballast water, the subsea cable-laying vessels Kizuna and Subaru are equipped with ballast water treatment equipment, in accordance with the Ballast Water Management Convention* set by the International Maritime Organization (IMO), so that they discharge water that does not contain marine organisms.

Furthermore, the ballast water treatment equipment installed on both of our cable-laying vessels is an ultraviolet sterilization system, which does not use chemical substances and is thus regarded as having low environmental impact. With regard to ship paints, we use those that are in compliance with the AFS Convention (International Convention on the Control of Harmful Anti-fouling Systems on Ships), which regulates the use of anti-fouling paint containing organic tin compounds on the bottom of hulls.

*Adopted by the IMO in 2004, the convention took effect on September 8, 2017 to prevent the movement of marine organisms across habitat boundaries from affecting the marine environment.

Upon the Construction and Dismantling of Relay Stations

Wireless relay stations, the backbone of data communication networks, are often in areas rich with nature such as on hills and islands. And so we emphasize consideration for biodiversity in their operations.

As of March 31, 2020, 8 of our 42 wireless stations were in national parks or quasi-national parks. We build micro-roads if needed for the patrol and maintenance of these stations while strictly adhering to the law and our own environmental assessment standards. These assessments identify specific concerns associated with construction processes to enable the application of multifaceted approaches for preventing or minimizing impact on the ecosystem.

In addition, when dismantling a wireless station, we strive to restore the environment to its original state by paying careful attention to the presence of rare animals and plants and using local soil for restoration while also consulting local environmental organizations and residents.

Moreover, we have been offering our stations to support wildlife conservation activities. For example, every year since September 2012, the Amami Ornithologists' Club, an NPO, has convened a meeting for observing the migration of Chinese sparrow hawks on the premises of our wireless relay station in Amami City, Kagoshima Prefecture. Although wireless relay stations are typically off limits, these events are held under the observation of employees in response to a request that identified this area as particularly well suited for monitoring the ecosystem.

◆ Chinese sparrow hawk migration

Contributing to Ecosystem Conservation Using ICT

> Contributing through Products and Services

The damage to agriculture caused by wild boars and deer is becoming an increasing concern across Japan's farming and mountain communities, and traps are being set to minimize damage.

NTT PC Communications Inc. has developed "Mimawari Rakutaro" as one part of its "IOT service." This is a wildlife observation and alarm device that uses an outdoor sensor that transmits data. In this manner, the Company is contributing to countermeasures aimed at minimizing the damage caused by wildlife. Employing the communication services of NTT Docomo to transmit a message automatically to a designated mail address when a trap has been activated, the Mimawari Rakutaro device has brought about a significant reduction of the burden placed on patrols. As one version of Mimawari Rakutaro also comes equipped with a camera, the transmission of images further ensures an immediate response should a person be accidentally caught in a trap. Since first going on sale in July 2011, Mimawari Rakutaro has been used by more than 50 local governments across Japan and contributed to ecosystem conservation in woodlands. As a recent example of its use, Saga City is utilizing subsidies for a Ministry of Internal Affairs and Communications ICT project to realize more efficient countermeasures against wildlife damage.

◆ Mimawari Rakutaro

Contribution through the Provision of Information

In response to growing public expectations that the ICT business provide useful information through Internet media, we will continue to proactively use a variety of online media to communicate the importance of biodiversity and encourage a diverse range of people to engage in ecosystem conservation.

❯ "goo Green Label" Activities

The "goo Green Label" portal is an initiative for donating a portion of the profits generated through use of the site to organizations engaged in environmental protection and social activities. All users can participate in this initiative simply by changing the top design version of the "goo" web portal to "goo Green Label" and using the search engine. A total of 59 companies, including those in the NTT Group, have signed up as "Corporate Partners," a program that has been recommended for in-house use within those companies. Since its inception in August 2007, donations totaling 57.12 million yen have been made to 46 organizations, the majority of which are NPOs engaged in global environmental protection activities.

Preventing Environmental Pollution

Our Approach

We are seeking to minimize environmental risks associated with business activities, such as pollution and hazardous substance leaks, by formulating guidelines for introducing low-emission vehicles, improving equipment and operations, and bolstering management, education, and training.

Chemical substances are properly managed by our maintenance departments in accordance with the Waste Management and Public Cleansing Act, the Law Concerning Special Measures Against PCB Waste, and the Electricity Business Act, which include the assigning of managers. While conducting storage inspections on a regular basis, we maintain a robust system to ensure the rapid coordination of information among senior management and the president in the event of an earthquake or other disaster. We always keep abreast of the revisions to laws through training sessions, share information among environmental working groups, and optimize our operations in a timely manner.

◆ **Preventing Environmental Pollution at Each Business Stage**

Society

NTT Communications Group

| Green procurement | Storage and disposal in accordance with pertinent statutory requirement |

Goods → Procurement → Inventory (storage) → Disposal

Use → Removal
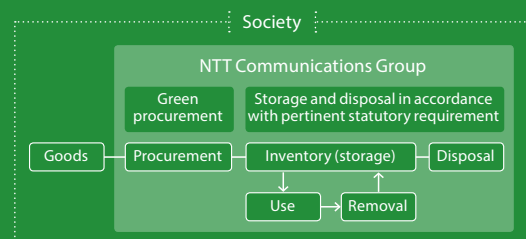
Primary Concept

The fact that various effluents and wastes are being generated from production and consumption activities and are causing a rise in environmental pollution is a social issue. As symbolized by SDG 12 "Responsible Consumption and Production," NTT Communications is reducing wastes and effluents generated from its business activities and is managing and handling hazardous substances properly to prevent environmental pollution as well as to promote the realization of a safe and secure living environment.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

In fiscal 2019, we established our policy and set a target for having electric vehicles account for 100% of the corporate fleet by fiscal 2030. In practice, we continued our initiative to review the number of vehicles owned, introduced low-emission vehicles, and promoted eco-driving. As a result, we succeeded in reducing the number of cars by about 7% year on year and CO_2 emissions by 21.7%. These initiatives led to a remarkable achievement in reducing NOx emissions.

With regard to PCBs, we have disposed of low-concentration PCBs as planned.

Initiatives to Address Environmental Pollutants

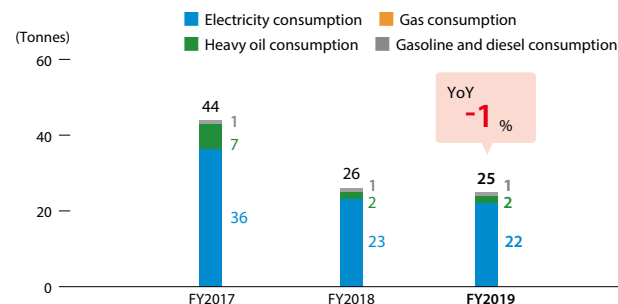### Preventing Air Pollution

Our business activities produce NOx and SOx emissions, which cause air pollution. 65% of the NOx emissions are attributable to the use of gasoline and diesel in our operational vehicles, while the remaining 35% are emitted as a result of electric power generation at communications buildings and other facilities. Most SOx (86%) is emitted during the generation of electricity that we use. In fiscal 2019, NOx and SOx emissions were 194 tonnes (a year-on-year decrease of 14%) and 25 tonnes (a year-on-year decrease of 1%), respectively, as a result of a decline in electricity use. We will continue to promote eco-driving and review our vehicle fleet numbers while making efforts to reduce electricity use in our operations toward contributing to the mitigation of global warming and prevention of air pollution.

◆ **NOx Emissions**

- ■ Electricity consumption
- ■ Gas consumption
- ■ Heavy oil consumption
- ■ Gasoline and diesel consumption

(Tonnes)

YoY **-14** %

	FY2017	FY2018	FY2019
Total	279	226	194
Gasoline and diesel	200	155	125
Heavy oil	7	2	2
Gas	1	1	
Electricity	73	68	65
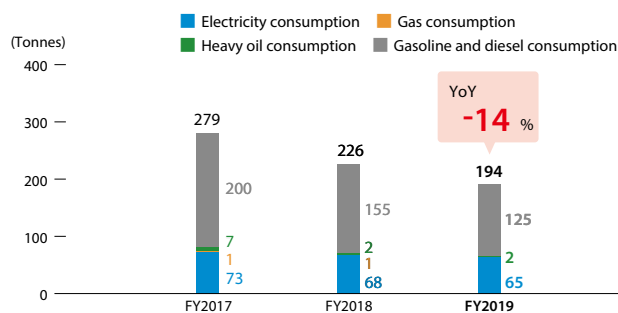
(Scope: NTT Communications Corporation and 12 Group companies in Japan)

◆ **SOx Emissions**

- ■ Electricity consumption
- ■ Gas consumption
- ■ Heavy oil consumption
- ■ Gasoline and diesel consumption

(Tonnes)

YoY **-1** %

	FY2017	FY2018	FY2019
Total	44	26	25
Gasoline and diesel	1	1	1
Heavy oil	7	2	2
Electricity	36	23	22

(Scope: NTT Communications Corporation and 12 Group companies in Japan)

Controlling Ozone-depleting Substances

We dispose of ozone-depleting substances in an appropriate manner. The volume of specified halons used in our fire extinguishing equipment in fiscal 2019 was approximately 143 tonnes, roughly the same as in the previous fiscal year. Meanwhile, the volume of specified chlorofluorocarbons (CFCs) used in our air-conditioning equipment in fiscal 2019 fell by around 25 tonnes from the preceding fiscal year, to approximately 258 tonnes.

◆ **Volume of Specified Halons Used in Fire-extinguishing Equipment**

(Tonnes)

	FY2017	FY2018	FY2019
	143	143	143
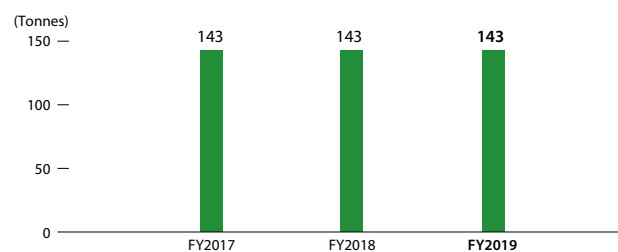
(Scope: NTT Communications Corporation and 12 Group companies in Japan)

◆ **Volume of Specified CFCs Used in Air-conditioning Systems**

- ■ CFC
- ■ HCFC
- ■ HFC

(Tonnes)

YoY **-25** tonnes

	FY2017	FY2018	FY2019
Total	278	283	258
HFC	264	270	254
HCFC	14	13	4
CFC	0	0	0
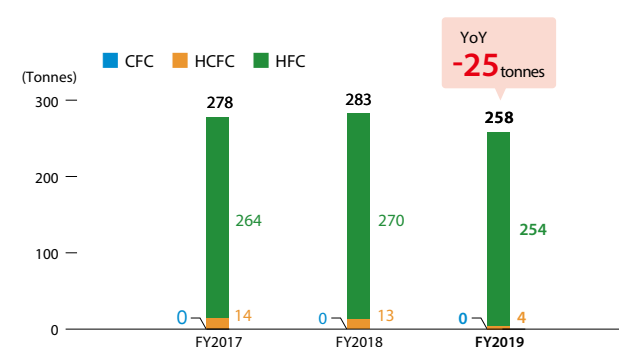
(Scope: NTT Communications Corporation and 12 Group companies in Japan)

Addressing Asbestos Concerns

Asbestos remediation for buildings and offices involved the implementation of airborne asbestos surveys of buildings for which asbestos had been spray-applied in order to confirm that levels did not exceed statutory limits, revised in September 2006. In fiscal 2019, we conducted a survey targeting four buildings and confirmed that airborne emissions were below the statutory limit at all of the buildings subject to legal compliance. At one building, we began removing asbestos from parts of the structure where it could be done quickly, and we intend to complete the work in stages. We will also continue appropriate measures, such as the removal, containment, or enclosure of asbestos in buildings where it is present, in compliance with manuals issued by the Japan Construction Occupational Safety and Health Association and local authorities.

◆ Asbestos Emissions (Unit: t)

	FY2017	FY2018	FY2019
Asbestos Emissions	0	0	0

(Scope: NTT Communications Corporation and 12 Group companies in Japan)

Storage and Management of PCB

NTT Communications appropriately manages devices that contain polychlorinated biphenyl (PCB). Such devices were used in the past as insulators for electrical facilities. As a policy for PCB storage, we have established a set of guidelines prescribing early detoxification treatment as well as methods for ascertaining conditions and management when the use of equipment containing PCBs is to be continued.
In fiscal 2019, we completed the detoxification process for high-concentration PCBs in electric ballasts that had been

stored in Hyogo and Hiroshima prefectures.

◆ Number of Transformers Stored

	FY2017	FY2018	FY2019
Number of Transformers	0	0	0

Scope: NTT Communications Corporation

◆ Number of Capacitors Stored

		FY2017	FY2018	FY2019
Number of Capacitors Stored	High-voltage capacitors	0	0	0
	Low-voltage capacitors	0	0	0

Scope: NTT Communications Corporation

◆ Number of Electric Ballasts Stored

	FY2017	FY2018	FY2019
Number of Electric Ballasts Stored	1,480	1,488	123

Scope: NTT Communications Corporation

Chemical Substance Management in Anticipation of Emergencies

Against a backdrop of natural disasters occurring frequently on a global scale, there is a growing public concern over the management systems for environmental pollutants in times of emergency. As an owner and operator of IT infrastructure, we have been thorough in establishing storage and management systems while also bearing in mind the possible occurrence of unlikely events. In the management of PCBs in particular, we have implemented a management system while taking into account factors such as earthquakes, fires, flood controls, lightning

protection, puncture resistance, ventilation, and security. By carrying out periodic inspections, we are constantly confirming that such substances are properly managed. Moreover, we maintain a system for quickly confirming the secure storage of chemical substances and reliably ensuring operational readiness in the event of major earthquakes and other disasters in order to prevent damage when one strikes as well as in the occurrence of secondary disasters.

◆ PCB storage location

◆ Storage of PCBs

Cases of Major Leakage

There were no incidents involving major leakages in the NTT Communications Group in fiscal 2019.

Transport, Import, and Export of Toxic Waste

Under a disposal plan based on our policy of detoxifying PCBs at the earliest date, we processed waste stored in Kyushu and Hokkaido in fiscal 2014 and in Tokyo in fiscal 2016, and the remaining waste stored in Osaka was detoxified in fiscal 2019.

People

Respect for Employees

# Undertaking business with respect to employees while enabling them to succeed

Employees drive the operations of a company as partners who grow with it as they pursue their own happiness and personal development. To grow with its employees, the NTT Communications Group has been implementing advanced initiatives for human resource development, which correspond to the globalization of its businesses.

Management that draws strength from diversity has recently been gaining attention around the world. In this context, we have sought to go beyond maintaining employee wellbeing to emphasize actions for turning diversity into a competitive edge. And we have taken on the challenges of multifaceted programs that promote women's careers and workstyle reforms as well as the global exchange of personnel.

CSR Priority Activities

◆ **Human Resource Development**
◆ **Respect for Diversity and Equal Opportunities**
◆ **Maintaining and Improving Employee Health**

Targeted SDGs

5 GENDER EQUALITY

8 DECENT WORK AND ECONOMIC GROWTH
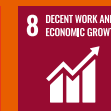
CSR Priority Activities

Human Resource Development
P.59

Respect for Diversity and Equal Opportunities
P.63

Maintaining and Improving Employee Health
P.66

Fiscal 2019 Activity Results and Fiscal 2020 Targets

Actions Implemented in Line with CSR KPIs

In fiscal 2019, we almost achieved the targets for the priority areas of human resource development, respect for diversity and equal opportunities, and maintaining and improving employee health. The favorable assessments were particularly due to innovative initiatives focused on diversity, which included maintaining and enhancing career development, implementing measures that led to an improvement in the employee satisfaction survey results, supporting the development of women's careers, and organizing various seminars for employees.

In fiscal 2020, we will seek to create work styles geared to the "new normal" lifestyle while also taking on the challenge of becoming a corporate group that respects diversity and enables employees to grow alongside the Company by launching a new program for human resource development.

◆ **Fiscal 2019 Activity Results and Fiscal 2020 Targets**

| Initiatives | Medium-term Targets (Form We Want to Take in Five Years) | Fiscal 2019 Activity Results | | | | Fiscal 2020 Targets | Boundary | |
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization

CSR Priority Activities | Human Resource Development   Relevant SDGs ▶ **5** **8**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within the Organization	Outside the Organization
Maintenance and improvement of motivation	To consistently maintain and improve motivation among NTT Communications Group employees	• Construct a mechanism for identifying and analyzing issues over a shorter timespan to provide even greater motivation for diverse employees • Pursue measures for revitalizing the organization	• Conducted an employee satisfaction survey targeting employees and contract workers of the NTT Communications Group • Implemented action plans to continuously maintain and improve employee motivation based on the results of the employee satisfaction survey	• Action plans led to an improvement in the responses to employee satisfaction survey (positive responses: 60.0%, up 1.4 points year on year)	★★★	Review and analyze employee satisfaction survey responses to identify issues and develop and implement action plans to continuously maintain and improve employee motivation	●	
Building a career development program	Environmental enhancements for improving Company-wide skills in new business fields	Training time per person: more than 19 hours	Reinforced efforts for increasing the number of talented employees capable of major contributions, such as setting up new communities and organizing lectures and workshops by top engineers in the industry and conducted OJT by dispatching outside for talented employees.	Training time per person: more than 18 hours	★★	Training time per person: more than 18 hours	●	

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assessment		Within the Organization	Outside the Organization

CSR Priority Activities | Respect for Diversity and Equal Opportunities   Relevant SDGs ▶ **5** **8**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within	Outside
Employment and promotion of diverse human resources	• Foster female employees and support measures to improve the percentage of women in managerial positions • Further promotion of hiring persons with disabilities	• Continue to enhance career development for diverse employees by offering support for building networks among female employees, developing careers, and balancing childcare and nursing duties with work • As part of promoting diverse human resources and to raise the percentage of employees with disabilities to 2.3% by the end of fiscal 2020, promote the hiring of people with disabilities; maintain the ratio at 2.2% or higher	• Each organization took the initiative to offer opportunities for presenting role models for new female employees through panel discussions involving senior female employees and group discussions • Held seminars on the desirable qualities and skills of a leader for female employees one step away from managerial positions, with the aim of improving the percentage of women in these positions • Held a dialogue between personnel managers of other companies and the head of NTT Communications' Human Resources Department to offer advice on designing careers and communicating with supervisors for employees aspiring to become managers and those returning to work from childcare leave • RAINBOW CROSSING: Introduced NTT Communications' initiatives on women's career development, hiring of people with disabilities, and LGBT issues at a diversity hiring event • Held seminars for employees returning from childcare leave to support balancing child raising and careers • Held seminars for employees providing nursing care to support balancing nursing care and careers • Opened a helpdesk in collaboration with clinical psychologists for persons with mental disabilities • Offered opportunities for practical training prior to employment for persons with disabilities	• Seminars on developing women's careers and exchanges with other companies held by each organization • Raised the percentage of women in managerial positions from 6.1% to 6.7% through measures for career enhancement for female employees • The dialogue with the head of human resources was published on the corporate website, where employees, both female and male, posted comments such as: "given responsible tasks raises motivation," "this was a good opportunity to reflect on how to communicate with subordinates," and "it was gratifying to see that attention was being given to the feelings of employees returning from maternity leave" • NTT Communications' RAINBOW CROSSING exhibit attracted twice the number of students compared to the previous year; one student expressed the hope of joining the Company • Over 90% of employees who participated in seminars aimed at balancing child raising and careers found them "helpful" or "useful" • NTT Communications hired 28 persons with mental disabilities in the past 3 years and achieved the statutory requirement on a nonconsolidated basis	★★★	• Continue to enhance career development for diverse employees by offering support for building networks among female employees, developing careers, and balancing childcare and nursing duties with work • Consistently implement activities by organizations and Group companies in Japan while also seeking broader exchanges outside the Company to expand initiatives not only for developing women's careers but also for promoting diversity in general • As part of promoting diverse human resources and to raise the percentage of employees with disabilities to 2.3%, promote the hiring of people with disabilities; maintain the ratio at 2.2% or higher	●	
Training global personnel	In every country and at every level, provide flexible and appealing workplaces based on business demands	We will strive to second 30 employees. As for accepting employees, we will continue to give consideration in view of the ongoing reorganization of the NTT Communications Group for achieving further growth in global operations.	As destinations for secondment, created more posts that contribute to developing human resources in areas essential to future business, such as managed services and security. As for accepting employees, we will continue to give consideration in view of the ongoing reorganization of the NTT Communications Group for achieving further growth in global operations.	Seconded 32 employees on a nonconsolidated basis	★★★	We will strive to second 30 employees. As for accepting employees, we will continue to give consideration in view of the ongoing reorganization of the NTT Communications Group for achieving further growth in global operations. The timing of dispatches will be determined as we observe the COVID-19 situation.	●	

CSR Priority Activities | Maintaining and Improving Employee Health   Relevant SDGs ▶ **5** **8**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within	Outside
Respect for work-life balance	Creation of more satisfying workplaces and improvements in employee work-life balance	Further improve productivity, including the promotion of digital transformation (DX), by accelerating work style reform based on the integration of systems, tools, and awareness	**Systems and Rules** • Created systems for new work styles to address the "new normal" • Legal compliance (observed mandatory 5-day annual leave for employees) **Environment and Tools** • Continued holding DX liaison meetings • Expanded the use of smart devices and chatbots **Awareness** • Promoted work styles with an emphasis on working from home • Conducted employee pulse surveys and held a DX Summit	• Reduced annual total work hours by 19 hours year on year • Due in part to measures for preventing COVID-19 infections, over 80% of employees were engaged in remote work on a daily basis as of March 2020; about 150,000 remote conferences took place monthly, which is 10 times more than in past years	★★	• Further improve productivity, including the promotion of DX, by accelerating work style reform based on the integration of systems, tools, and awareness • Explore new work styles in the wake of COVID-19 by drawing on the experience of handling the pandemic	●	
Thorough implementation of occupational safety and health	Maintenance of healthy and comfortable workplace environments	Health checkup rate: 100%	Mandated health checkups for employees and thoroughly promoted attendance	Health checkup rate: 99.7%	★★	Health checkup rate: 100%	●	

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

Human Resource Development

CSR Priority Activities

Our Approach

A company that invests in human resource development and building sustainable, mutually beneficial relationships with its employees is the foundation for achieving SDG 8 "Decent Work and Economic Growth." These are important management issues. Our goal is to develop our employees so that they become capable of independently operating our businesses. To that end, we have positioned our Professional Human Resource Development Program as the main pillar of our human resource development policy and encourage all Group companies to take advantage of it. Under the program, we first define the ideal employees and visualize the required skillsets. We then assess each individual's skills and identify current gaps. Finally, we take these into consideration when assigning duties and reviewing training needs. This virtuous cycle supports continuous growth, and the implementation rate for our Professional Human Resource Development Program reached virtually 100% in fiscal 2010 and remains steady.

To boost competitiveness by accelerating digital transformation, we are currently promoting measures to develop personnel capable of driving digital transformation. Firm in our belief that practical experience is the most effective kind, we will also focus on cultivating specialists that align with our medium-term growth strategies.

Primary Concept

In view of the rapidly changing business environment and customer needs, NTT Communications has defined its ideal employees as professionals with practical technical abilities and skills for their respective responsibilities backed by their pride and experience. They are also capable of making decisions independently and taking action as members of the team that maximizes added value. We have launched a Professional Human Resource Development Program from the perspective of actively developing professionals with qualities such as competence and interpersonal skills, in addition to extensive knowledge and experience in their areas of expertise. Our multiple revisions for raising the program effectiveness have given us a satisfactory result, with more than 70% of employees obtaining certification above the milestone level.

However, in the midst of dramatic changes in the business environment and markets, additional considerations have become clear. First, we need a mechanism for ensuring that our categories and definitions for specialized fields consistently correspond with our business strategy and the market. Second, we need a curriculum for producing results that are directly linked to our businesses. We will therefore transform our human resource development program to continuously generate the personnel required for our business strategies, with closer links to our operations and clearly defined responsibilities for nurturing human resources, so that both the company and its employees can continue to grow.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

As we believe that the Group's sustainable growth depends on providing workplaces that increase every employee's motivation, we support self-driven career development over the lifetime of each employee and for maintaining and improving employability.

The "ODYSSEY" new employee development program, launched in April 2020, sets a Talent Profile that defines who would be able to execute our business strategies in a changing business environment. Employees are supported in their efforts to meet the criteria for the designated levels of skills. We have also enhanced our initiatives for employees seeking to raise their level of expertise under the Career Development Plan (CDP). A skill check is implemented as needed to select the right training from a broad range of options. As of April 2019, we provide approximately 1,300 courses for skills enhancement, skills enhancement support, and personal development support. In the coming years, we plan to offer more options to address the digitization of our operations.

◆ **Talent Profile of Ideal Employees**

Solutions, Services	• Intellectual property specialists • Facility engineers • IT infrastructure engineer for site reliability engineering (SRE) • Front-end engineers • Field service engineers • Service managers • Delivery managers • Data analysts • Business translators • IT architects • Billing managers • Business planners • Marketing researchers • Sales enablers • Consulting sales specialists	• Information security specialists • Network infrastructure engineers • Server-side engineers • Operation managers • Quality managers • Project managers • Data scientists • Data engineers • CX designers • Solution architects • Service planners • Business producers • CIDO advisors • Inside sales specialists • IoT engineers
Corporate	• Corporate planning • Auditing • Publicity • Procurement • Finance	

Systems for Human Resource Development and Evaluation

Education and Training Systems

We provide a range of training programs designed to improve employee skills and encourage appropriate career paths.

The new employee training program covers not only NTT Communications Group strategies and systems but also business conduct and attitudes. This helps to deepen employee understanding of the value and importance of always seeing and acting from the customer's perspective. All employees gain hands-on experience in accordance with the career development plans they formulated and choose suitable training courses in consultation with their supervisors.

In addition, to reinforce our software development capabilities and firmly establish modern product development methods, we invited three external technical advisors to speak in fall 2019. We have been developing our skills through wide-ranging support, from regular study groups to technical assistance for individual projects and support for organizational reform. Each advisor offers superior technical guidance and advice backed by ample knowledge and experience, providing valuable, useful input for employees. In fiscal 2019, the average training cost was 120,000 yen for an average of 18 hours per employee.

Global Human Resource Development Program

NTT Communications has implemented an overseas secondment program to develop globally competitive human resources. The program's scope was expanded in fiscal 2011 to include younger employees. Under the program, employees are sent overseas for one year to undergo on-the-job training and acquire global communications skills through first-hand experience. In fiscal 2019, we sent 32 employees overseas through the program.

Internal Job Posting System

We have implemented an internal job posting system to expand the possibility of transfers from the employee's standpoint and to provide personnel with a wide range of challenging opportunities. The system is extensively used by employees of all ages, with job postings from within the NTT Communications Group and NTT Group.

> Focus for Human Resource Development
>
> • Global business
> • Cloud-related services
> • Security-related services
> • Upper layer-type services
> • Human resources capable of bolstering Group companies toward the maximization of total Group power

In fiscal 2019, approximately 125 employees were assigned to departments of their choice within the NTT Communications Group and NTT Group. We will continue to use the internal job posting system actively in order to facilitate career advancement and revitalize the organization while also creating job postings in specific focus areas associated with achieving our business vision.

◆ **System of Human Resource Development Measures**

Regular employees	Managers

New employees upon joining

New employee training

Ideal employees Professionals

Internal perspectives — Knowledge Experience Frontline and interpersonal skills — External perspectives

Check — Skills assessment (internal and external standards)

Recognition of gaps between actual and ideal

Do — Training ▶ Training in support of practice — Action

Practical experience (in current posting and after relocation) — Acquisition of practical skills and accumulation of experience

Plan — Career development plan formulation

Around 800 courses to refine skills (including in-house training) Communications training

> Personnel Evaluation

NTT Communications intends to motivate employees to take on new challenges and perform at their highest level. While we value fairness and transparency, we have also implemented promotion and compensation systems based on results and performance. These systems vitally depend on the accurate assessment of the employee's willingness and courage to engage in rapid transformation with top priority on the customer's perspective as well as their level of

performance against their goals. We therefore pay attention to the execution of tasks and take action to maintain rational processes. For example, we encourage each employee to take ownership of creating their own goals and reviewing progress against these goals, and we also create opportunities for employees to discuss their performance with their superiors at least twice a year. In addition, to increase the fairness of evaluation for employees in managerial positions, we conduct 360-degree feedback, in which their supervisors, colleagues, and subordinates all provide feedback.

Maintaining and Improving Motivation

> Ongoing Employee Satisfaction Surveys

We have been conducting employee satisfaction surveys since fiscal 2011 and implementing measures to address issues identified in the results to improve employee job satisfaction and productivity. In fiscal 2014, we started using the Great Place To Work®* Institute's indexes as benchmarks, which help us to recognize our strengths and weakness objectively as we seek to improve employee satisfaction.

*A specialized institution in research and analysis relating to job satisfaction that is active in more than 60 countries. It publishes a list of companies and organizations recognized as having attained a certain level using influential media.

◆ Outline of Survey

- Period conducted: November to December 2019
- Survey targets: NTT Communications Group employees, contract workers, etc., in Japan
- Number of respondents: 14,206 (response rate: 83%)

◆ Employee Data

		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Number of employees*1	Non-consolidated	6,450	6,350	6,250	6,150	5,500
	Male	5,500	5,350	5,250	5,150	4,600
	Female	950	1,000	1,000	1,000	900
	Consolidated	21,650	21,550	22,050	23,300	11,500
Percentage of women in managerial positions (%)*2		4.7	4.8	5.4	6.1	6.7
Turnover rate (%)*3		2.7	3.4	3.2	4.1	3.6
New employees (foreign nationals)*4		195(22)	201(34)	203(16)	237(10)	203(7)
	Male	148(8)	128(14)	136(9)	163(7)	137(4)
	Female	47(14)	73(20)	67(7)	74(3)	66(3)
Rehiring rate (%)*4		50	43	45	57	57
Ratio of employees with disabilities (%)*5	Non-consolidated	2.0	2.1	2.2	2.2	2.4
	Non-consolidated and domestic Group companies*6	1.9	2.0	2.2	2.1	2.3

*1 As of March 31 for each fiscal year.
*2 As of March 31 for each fiscal year. Scope: NTT Communications Corporation, including seconded employees.
*3 As of March 31 for each fiscal year. Scope: NTT Communications Corporation, excluding seconded employees.
*4 As of April 1 for each fiscal year. Scope: NTT Communications Corporation.
*5 As of June 1 of the following year for each fiscal year.
*6 NTT Communications Corporation and 9 domestic Group companies.

Enhancing Employee Motivation through the New Business Creation Contest (DigiCom)

To expand its future horizons, the NTT Communications Group actively invites employees to submit ideas for new businesses and services. As part of this effort, the DigiCom contest for new business creation was launched in 2016 to develop new ideas for the next pillar of NTT Com's business. The sixth DigiCom contest was held in 2020.

In fiscal 2020, 383 employees from 80 teams entered the contest, and 72 teams took part in an online presentation of ideas for new businesses during the three-day qualifying round in July. The top 13 teams offered a broad range of ideas, from a business for locating lost cats to a space business using satellite data. From here on, we will conduct user interviews to hone these ideas toward commercialization.

All educational programs and events related to DigiCom were held online in fiscal 2020 due to the COVID-19 pandemic. This, however, did not hinder active discussions using online conferencing and live chat tools.

The contest represents an opportunity to nurture a

challenging mindset and corporate culture as well for discovering and developing talent. We will continue pursuing initiatives that go beyond developing new businesses and services to include maintaining and raising employee motivation.

Labor-management Relations

We value active dialogue based upon independent and responsible labor-management relations. Any issues related to employment, working conditions, or other operational management matters are vigorously discussed toward reaching mutual understanding before taking any action toward remediation.

◆ **DigiCom**

CSR Priority Activities

Respect for Diversity and Equal Opportunities

Our Approach

The NTT Communications Group focuses on creating workplaces that allow personnel with diverse backgrounds to work to the best of their ability, regardless of gender, sexual orientation or sexual identity, age, birthplace, nationality, or disability. We established the Diversity Promotion Office in April 2008, and our diversity-related initiatives have mainly focused on supporting career development for women and hiring people with disabilities as well as work style reforms and establishing a shared understanding of diversity in the workplace. The general public has demonstrated particular interest in promoting active roles for women. For example, in Japan more advanced measures are being implemented through public-private partnerships based on the Act of Promotion of Women's Participation and Advancement in the Workplace. On a global scale, corporations are expected to lead by example to achieve SDG 5 "Gender Equality." To this end, we are taking steps to advance in this area as well.

Diversity promotion is thus positioned as being essential for the sustainable development of business. In order for diversity to take root, top management shares diversity messages in and outside of the Group.

Primary Concept

To respond to diversifying customer needs, the NTT Communications Group is striving to create a work environment that encourages employees with different personalities and backgrounds to work together. This maximizes their abilities as they deliberate over values and generate ideas that open up new business opportunities. Therefore, we are actively promoting and disseminating diversity across the organization.

❯ Diversity Promotion

Promotion of Diversity Fundamental Policy

- Foster a corporate culture that leverages employee diversity to achieve targets stated in management strategies
- Continue to create environments that allow employees to perform at their full potential to develop human resources who further their own transformation and creativity

◆ Diversity and Inclusion Trends

Main Achievements in Fiscal 2019 and Goals for the Coming Years

In fiscal 2019, we did not limit ourselves simply to boosting the percentage of women in managerial positions. We recognize that in a few years the employee population at the veteran tier will increase. In addition, we need to face up to the reforms of businesses and the challenge of new growth fields in the next few years. We also need a new work style suitable for employees who are rehired after retirement age. To address all these challenges, we have been building tailor-made careers for veteran employees to provide new challenges and opportunities for fully exercising their expertise, allowing them to keep working at a high level of motivation.

In addition, to further promote the diversification of our global human resources, we are continuing to hire students from overseas and conducting employee exchanges with overseas Group companies.

Principal External Evaluations

Employment, Training, and Promotion of Diverse Human Resources

❯ Promoting Women's Participation and Advancement

To increase opportunities for engaging diverse human resources, the NTT Communications Group supports employees at various stages of their career development. In line with the NTT Group's declaration to double the number of female managers in its organization, the Company also has set a goal of increasing its percentage of women in managerial positions to 7.0% by the end of fiscal 2020 (compared to 6.7% at the end of fiscal 2019). To achieve this, it is actively hiring female employees. As a result of supporting career development efforts that lead to more women in managerial positions and continuously implementing policies and measures that support female employees with young children, we received the highest order of certification for "Eruboshi" in May 2016 from the Minister of Health, Labour and Welfare based on the Act of Promotion of Women's Participation and Advancement in the Workplace*[1] as well as Platinum Kurumin certification in October 2017 based on the Act on Advancement of Measures to Support Raising Next-Generation Children*[2].

In fiscal 2019, we sought to support women's career development by organizing seminars and training on the promotion of women's participation and advancement. We also convened a dialogue between the head of the Human Resources Department and human resource managers of other companies and then conveyed their insights internally and externally.

*[1] In light of the rapidly decreasing population and anticipated labor shortages, this act was established to promote women's participation in the workplace. It is intended to create an environment in which women can choose how they work, demonstrate their abilities, and succeed in their professional lives. Large companies with more than 300 employees are obligated to draw up action plans to encourage the active participation of female employees.

*[2] This act was established to drive measures to support raising the next generation of children. Its initiatives are not all government led, and large companies with more than 100 employees are obligated to draw up action plans to support employees raising young children.

❯ Employing Persons with Disabilities

Under the concept of normalization, when employing persons with disabilities NTT Communications confirms their desires in relation to type of work and working environment so that everyone can make the most of their skills. It also gives due consideration to their suitability in certain roles and when determining their job descriptions. Moreover, the Company hires persons with mental disabilities by leveraging a trial program for hiring people with disabilities. As of June 1, 2020, the NTT Communication Group's rate of employees with disabilities is 2.27% at the Group level. We also hire at the new graduate level as well as mid-career level through employment agencies. In addition, we have retention programs to ensure these employees stay with the Company. Employees are positioned and actively contributing in various parts of our organization including sales and engineering.

❯ Alternative Career Designs

NTT Communications has established a continued employment system that allows employees reaching the mandatory retirement age of 60 to continue working, if they wish, until they reach 65. We recognize that in the next few years we will need to address reforms in our businesses and take on challenges in new growth fields. In addition, we will need a new work style suitable for employees who have been rehired after their mandatory retirement age. Therefore, we are building tailor-made careers for seasoned employees to provide them with new challenges and opportunities toward fully exercising their expertise and thereby allowing them to keep working with a high level of motivation.

❯ Home-based Contact Center Operations and Home Visit Support Operations Provide Employment Opportunities for Human Resources Nationwide

NTT Com CHEO provides contact center and home visit support operations for corporate customers by employing independent contractors around Japan who handle these operations by teleworking from their homes. In order to provide employment opportunities across Japan, we are actively pursuing the digital transformation of training and task management. We are building systems and operational flows in which the entire onboarding cycle, from new applications to the selection process, training, and ultimately starting the job, can take place over the Internet. By offering positions that can be handled from home, the Company is providing flexible work styles and opportunities for those who cannot commit to working full time due to transfers, childbirth, childcare, nursing care, and other reasons.

NTT Com CHEO's home-based contact center operates at a very high standard in terms of service level, service quality, and customer satisfaction. It has passed the audit for the COPC© Customer Experience Standard certification, an international standard for contact center operations, and became the first work-from-home contact center in the Asia-Pacific region to obtain certification.

Moving forward, we will continue to focus on initiatives that encourage the adoption of teleworking and in turn create a society in which everyone with motivation and the ability to work is able to do so.

Initiatives for LGBT Issues

We are actively raising awareness of LGBT and other sexual minorities across our organization and implementing policies to support them. To create an inclusive working environment based on an accurate understanding of those who identify as LGBT, we have included these topics in our standard human rights training curriculum, which targets all full-time and temporary employees. In fiscal 2019, we participated as a member of the NTT Group in Tokyo Rainbow Pride 2019, which aims to educate the public on protecting the human rights and other rights of people who identify as LGBT and raising their status in society. We also took part in the RAINBOW CROSSING TOKYO career development forum, which focuses on diversity including LGBT concerns, and organized a get-together for those who have declared themselves as allies across the NTT Group.

Since fiscal 2018, we have been developing an environment in which individuals who identify as LGBT can engage in their work with a sense of security, through measures such as distributing stickers to those who declare themselves as allies to confirm their support publicly. We also set up a helpdesk where employees can discuss their sexual orientation, sexual identity, and other related matters. Furthermore, life-event-related benefits, such as special leave, condolence, and congratulation money are applied to same-sex partners. These efforts have been recognized by the nonprofit organization "work with Pride," which evaluates corporate efforts to foster inclusiveness. In fiscal 2019, we were awarded the Gold rating, the highest in its PRIDE Index, for the fourth consecutive year since receiving the rating for the first time in fiscal 2016.

◆ PRIDE Index

CSR Priority Activities

Maintaining and Improving Employee Health

Our Approach

The concept of "decent work" as declared by the International Labour Organization (ILO) at the 1999 International Labour Conference has been widely adopted by many global corporations, with the goal of implementing human resources and occupational safety and health initiatives to ensure that employees find satisfaction and human dignity in their work. In addition, spurred on by SDG 8 "Decent Work and Economic Growth," there has been a greater public expectation for building a framework in which people can lead healthy, satisfying lives that include working. Thoroughly implementing occupational safety and health policies is clearly a key to establishing work environments in which employees can perform to the best of their abilities. However, we have always believed that another factor is just as important: ensuring that the work environment is and remains a place that allows employees to lead healthy and satisfying working lives. We therefore value both respect for work-life balance and the thorough implementation of occupational health and safety practices. These provide the pillars for our actions directed toward maintaining and improving employee wellbeing.

Primary Concept

The Work-Life Committee at NTT Communications, established to create more satisfying workplaces and help employees improve their work-life balance, is the core organization for advancing Groupwide initiatives in this area. The committee, comprised of management and employee representatives, continually strives to implement a range of measures for realizing work styles that are more efficient and productive while also ensuring that duties are carried out effectively and thoroughly.

In fiscal 2019, we sought to promote and establish our remote working systems, including flextime and teleworking, which had been introduced across the Group in fiscal 2017. With particular respect to remote working, we accelerated the pace of employee use of the system by actively participating in the Telework Days national campaign, spearheaded by Japan's Ministry of Internal Affairs and Communication to promote teleworking as part of the government's work style reforms. We also developed initiatives to raise awareness of efforts to encourage leaving work at standard times by such measures as designating promotional months, early planning of annual leaves, and periodic distribution of e-mail newsletters that highlight efforts for improving work efficiency and communications.

Main Achievements in Fiscal 2019 and Goals for the Coming Years

Due primarily to the efforts of the Work-Life Committee, we achieved some success in fiscal 2019, including a reduction in the total annual work hours per employee, from 1,904 to 1,885, year on year.

As for our "thorough implementation of occupational safety and health" pillar, we focused on reducing the number of workplace accidents. We endeavored to raise awareness of workplace accidents and promoted preventive measures. The four workplace accidents reported this year were essentially at the same level as last year (five incidents). Combined with a health checkup rate of 99.7%, we can report having come close to meeting our goal for this year. Going forward, we will continue with our efforts to maintain and improve employee health across all our workplaces.

Work-life Balance

Supporting the Balance between Career and Child Raising/Nursing Care

NTT Communications is committed to implementing the Measures to Support Next-Generation Childcare, which emphasize the importance of the healthy upbringing of children, who will lead the next generation. We have formulated a General Business Action Plan to strengthen an overall environment that offers a variety of working arrangements to all employees, including those not raising children. We are steadfastly making progress toward achieving the targets outlined in this plan.

We are engaged in action plans based on the Act on Advancement of Measures to Support Raising Next-Generation Children[1], and as a result we were designated as a certified business operator by the Tokyo Bureau of the Ministry of Health, Labour and Welfare in fiscal 2008, 2011, 2015, and 2017. We are currently working on our Fifth Action Plan (April 1, 2017 through March 31, 2022) and enhancing our work environments so they become places where every employee can excel with a sense of personal satisfaction and diverse work styles are mutually accepted and understood. These efforts have been externally recognized, and as a result we received Platinum Kurumin certification in October 2017.

In May 2016, NTT Communications received the Class 3 (highest class until the regulatory revision in 2019) certification among the certifications granted by the Minister of Health, Labour and Welfare and based on the Act of Promotion of Women's Participation and Advancement in the Workplace[2]. This certification is granted to corporations that demonstrate outstanding efforts in promoting women's participation in the workplace. We received it due to a variety of efforts and achievements, including the implementation of policies that enable women to continue working after childbirth, initiatives supporting a sound work-life balance, career development support for women, a high female hiring rate, an extensive range of career path options, and the active promotion of women into managerial positions.

*1 This act was established to encourage actions to support raising the next generation of children. Its initiatives are not completely led by the government; companies with more than 100 employees are obligated to draw up action plans that support employees who are raising young children. Certified companies are entitled to use the Kurumin and Platinum Kurumin logos.
*2 In light of a rapidly decreasing population and anticipated shortages in the working population, this act was established to promote women's participation in the workplace. It is intended to create an environment in which women can choose how they work, demonstrate their abilities, and succeed in their working lives. Companies with more than 100 employees are obligated to draw up action plans that promote the active participation of their female employees. Certified companies are entitled to use the Eruboshi logo.

◆ New Kurumin logo

◆ Eruboshi logo

◆ **Number of Employees Who Took Maternity, Childcare, or Nursing-care Leave in Fiscal 2019**

		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Maternity Leave		76	74	84	63	55
Childcare Leave		154	152	89	173	122
	Female	150	141	84	161	111
	Male	4	11	5	12	11
Nursing-care Leave		5	3	4	4	8
	Female	2	2	2	3	5
	Male	3	1	2	1	3

Scope: NTT Communications Corporation

Promotion of Work Style Reform

We respect the diverse values and lifestyles of individuals and believe that having a lifestyle that produces a sense of satisfaction will also lead to feeling satisfied at work. Therefore, we are driving our work style reform to support employee satisfaction and growth, boost the productivity and creativity of our company, and provide greater value to our customers, with a focus on three areas: policies and rules, environment and tools, and awareness and culture.

For policies and rules, we sought to introduce flexible systems that cater to individual circumstances and operations. These include the abolition of rules limiting eligibility for teleworking, which is intended to support balancing work and family needs, and remote working, which enables the effective use of time. We also shared examples of employees using these and the flextime system.

In the environment and tools area, we rolled out secure computers throughout the Company in addition to thin clients and BYOD (bring your own device)* that had been introduced in fiscal 2018 to enable speedy startup of computers and realize a working environment using fat terminals that are unaffected by the network environment. Looking ahead, we will continue to pursue automation and higher efficiency based on digital transformation (DX).

For the area of awareness and culture, we are disseminating information intended to encourage employees to take long annual leaves and days off in between holidays and also sharing best practices with all staff. Moreover, in an effort to raise awareness and reform our corporate culture, we encourage management level reforms in which managers lead in taking inventory of operations toward improving or eliminating specific steps.

*A policy under which employees are permitted to use their personal mobile devices at work.

› Promotion of Diverse Work Styles and Increasing Productivity

We have been focusing on work style reforms since fiscal 2011, including the establishment of smart device environments that support an efficient and productive work style unrestricted by time or space. We leverage these environments to promote greater efficiency as well as paperless meetings. As a result, we obtained certification under the Top Hundred Telework Pioneers, established in April 2016 by the Ministry of Internal Affairs and Communications. In 2017, the number of employees working from home surged as we relaxed rules that had limited eligibility to employees involved in childcare or nursing care to now include all employees, thus spreading flexible work styles. Also, the abolition of limited reasons for applying for teleworking and promotion of remote offices led to a decrease in total work hours. In recognition of our overall efforts, we received the award of excellence in the practical application category of the Telework Promotion Awards in February 2019.

Increasing the productivity of our business operations will lead to improving the balance between work and life for our employees, and we want to cultivate a work culture in which they can perform and maintain their health. We have been driving our work style reform toward that goal. In diversifying our global workforce, we are continuing to recruit foreign national students and conduct resource exchange programs with our overseas Group companies as well as similar activities. In July 2019, we participated as a special supporting corporation for Telework Day, a campaign led by local businesses and government bodies such as the Ministry of Health, Labour and Welfare, the Ministry of Land, Infrastructure and Transport, and the Cabinet Office. This activity was part of a social movement related to work style reform, with the intention of alleviating commuter traffic congestion. Altogether, about 6,350 employees worked from home during the event.

› Cafeteria Plan

NTT Communications offers various benefits to its employees at different points of their careers, based on their needs and lifestyles. Specifically, we have implemented the Cafeteria Plan system, which allows employees to choose from 15 wide-ranging benefit options that match their respective lifestyles within the limit of points assigned to them in advance. And we provide 21 benefits that can be chosen regardless of points. These include a package of general benefits that also apply to employees' families in areas such as healthcare, childcare, and nursing care. For example, employees can choose from four major physical fitness clubs and use the facilities for 500 yen (plus tax) per session.

Over the past few years, we revised the options to emphasize maintaining and improving health. In fiscal 2019, we extended the age-based options for when employees are eligible for a complete medical checkup from age 40 only to every five years from ages 30 to 60. We also created a new program of complete medical checkups for senior employees at ages 62 and 64 and added options such as a brain scan. We plan to offer more options in future so as to provide a system that overall is even more beneficial to employees.

› Encouraging Employees to Take Various Leaves

As part of its work-life balance initiatives, NTT Communications encourages employees to take their entitled leaves. We strive to establish work environments that support them by raising awareness of entitled leaves and encouraging them to schedule their leaves to coincide with long national holidays. In fiscal 2019, 16.3 paid leave days were used per person, on average. We are also promoting the use of our Life Plan Leave system, which entitles employees to a certain number of leave days for the purpose of lifecycle-related downtime, nursing of family members, volunteer activities, recurrent training, and childcare.

Thorough Occupational Safety and Health Management

Safety and Health Committees, established for each of the buildings in which we operate, take the lead in implementing Groupwide safety and health measures. We are focused on a wide range of issues, including workplace hygiene, prevention of workplace accidents, and reduction of long working hours.

In fiscal 2019, we undertook a number of activities based on those issues, including on-site workplace inspections and campaigns for a 100% health checkup rate, both of which were executed at each building.

◆ **Number of Workplace Accidents (Occupational Accidents)**

FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
6	3	4	5	4

Scope: NTT Communications on a non-consolidated basis (excluding a rugby team of the Symbol Team activities)

Health Management

❯ Improving Employee Health

As well as ensuring the safety of our work environments, we are committed to creating places where employees can lead healthy and fulfilling work lives. A number of actions have been implemented to achieve that goal.

Recently we have emphasized certain measures for maintaining physical health. In fiscal 2019, we sought to raise employee awareness and improve lifestyle habits by organizing the Com-Walk campaign to encourage walking and offering weight loss seminars by personal fitness trainers. With regard to managing mental health in each workplace, 95 employees took the "mental health keeper" training course, bringing the total number of those certified to 3,129 in fiscal 2019.

For staff in their first to third years, we offer one-on-one counseling on an ongoing basis as well as other types of support. (403 panticipants in fiscal 2019) Other measures for further expanding our support include setting up consultation desks, both inside and outside the organization, and counseling programs for employees being sent on overseas assignments.

These efforts resulted in our being recognized in March 2020 for the second consecutive year as an outstanding enterprise under the "White 500" Recognition for Excellence in Health and Productivity Management by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi. We will continue to implement measures across all Group companies in Japan toward maintaining healthy and comfortable work environments and further strengthening the capability of those providing mental health care at each workplace.

◆ **Health and Productivity Management Certification logo**

Management

Continuous Strengthening of Corporate Governance

Remaining Trustworthy and Mission-oriented

Society expects companies to fulfill a wide range of responsibilities, from providing new value through products and services to maintaining a corporate culture of integrity and fairness. As a leading global ICT company, the NTT Communications Group remains faithful to its corporate mission, core beliefs, and policies in order to ensure each and every employee takes action with a sense of responsibility. Toward establishing an efficient, legally compliant, and ethical management foundation, we have established corporate governance and compliance systems throughout the Group.

CSR Priority Activities

◆ **Thorough Compliance**
◆ **Respect for Human Rights**
◆ **Risk Management**
◆ **Ensuring Information Security**

Targeted SDGs

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE   10 REDUCED INEQUALITIES   11 SUSTAINABLE CITIES AND COMMUNITIES   16 PEACE, JUSTICE AND STRONG INSTITUTIONS

CSR Priority Activities

Thorough Compliance **P.77**

Respect for Human Rights **P.79**

Risk Management **P.81**

Ensuring Information Security **P.83**

Fiscal 2019 Activity Results and Fiscal 2020 Targets

Actions Implemented in Line with CSR KPIs

To address changes in the business environment and public expectations, including the needs arising from the advance of ICT throughout society and supply chain management, we designated thorough compliance, respect for human rights, risk management, and ensuring information security as our CSR Priority Activities. All of our employees personally strive to fulfill our new corporate mission and put our core beliefs into practice to ensure the sustainability of business operations.

This has enabled us to meet, for the most part, our goals in fiscal 2019. With particular respect to risk management, we reviewed the documents defining risks in terms of the restructuring of our organization and business and also guided Group companies in this area. To ensure information security, we revised our guidelines for protecting customer information for the EU region in accordance with the newly enacted regulations on protecting this data.

We intend to incorporate the results into developing our initiatives further in fiscal 2020 on a Groupwide basis.

◆ **Fiscal 2019 Activity Results and Fiscal 2020 Targets**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assess-ment		Within the Organization	Outside the Organization

CSR Priority Activities | Thorough Compliance   Relevant SDGs ▶ **10** **16**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Fiscal 2020 Targets	Within	Outside
Raise awareness and establish compliance throughout the Group	Becoming a company that practices corporate ethics, including compliance with laws, social norms, and internal rules	• Bolster the compliance promotion framework through such measures as updating rules and processes according to the current state of applications and addressing diversity • Visualize compliance initiatives • Continue to organize job level-based training for senior executives, full-time employees, and temporary employees • Thoroughly establish risk-based auditing in line with international standards on internal audits and conduct well-balanced audits through focused investment of auditing resources in high-risk areas • Strengthen preventive auditing by effectively use data analytics commensurate with our standing as a DX Enabler	• Emphasized communication with whistleblowers, regardless of whether or not their identity is known, to address dissatisfaction (cultivate a sense of satisfaction) • Standardized the investigation process by reviewing the flow of addressing reports • Reviewed the agreement format to stringently enforce confidentiality to protect targeted individuals (persons identified in the report and other individuals involved in the matter) • Held job level-based training for new employees, the NTT Com Group in Japan, newly appointed directors, and all employees • Used a risk map to conduct audits based on themes selected through discussions with management; conducted focused audits by selecting target organizations and subsidiaries in accordance with each theme • Began continuous risk monitoring based on CAAT (Computer Assisted Audit Techniques); visualized the issues in each organization with a focus on labor compliance and proper use of expenses, and shared the results with each organization	• Conducted focused audits at 6 organizations on controlling technology exports and 4 organizations and 2 companies on fraudulent contracts • Expanded the scope of monitoring to areas that could not be addressed by the scope of past audits, such as employees of partner companies approving the duty roster by proxy (one organization) and duplicate applications related to credit card payments of travel expenses (71 cases at NTT Com)	★★★	• Enhance quality in line with Japan's revised Whistleblower Protection Act, such as by shortening the investigation period after verifying the whistleblowing process, including confidentiality and investigation of reported content • Promote collaboration with auditors from the standpoint of implementing Company-wide risk management, including corporate ethics • Formulate and execute audit plans that reflect changes in the business structure associated with NTT Com's organizational restructuring • Concentrate auditing resources in high-risk areas by stringently practicing risk-based auditing • Establish preventive auditing	●	
Appropriate prevention and response to violations and misconduct	• Maintaining and operating points of contact that consulters and whistleblowers can safely contact as needed • Ensuring thorough protection for individuals who report incidents	• Strengthen functions for following up on individuals who report incidents and individuals targeted in reports to make regular improvements • Pursue open and highly interactive initiatives to raise the reliability of points of contact for internal reporting so that employees and others can consult with a sense of security • Consider developing a platform (system) for operating points of contact for internal reporting • Consider obtaining the whistleblowing compliance management system certification	• Planned and held trials for management review training and planned full-scale training • Followed up on whistleblowers by conducting a corporate ethics survey to confirm how the contact point is being evaluated and to seek responses on other related issues • Posted disciplinary action cases on the knowledge management portal, to be shared with Group companies in Japan	• Conducted a trial for the management review training targeting 7 members of the Compliance Committee secretariat and the Human Rights Education Department of the Human Resource Department • Conducted a corporate ethics survey targeting employees of NTT Com's 26 organizations and 15 Group companies in Japan as well as employees of partner companies (received approximately 15,000 responses)	★★★	• Implement training and education centered on measures for preventing workplace harassment (collaboration between the Human Rights Education Department of the Human Resource Department and the Compliance Committee secretariat) • Strengthen efforts to raise awareness by conveying messages from top management and visualizing initiatives on compliance (open and two-way effort)	●	●

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

CSR Priority Activities | Respect for Human Rights   Relevant SDGs ▶ **10** **16**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assess-ment		Within the Organization	Outside the Organization
Raise awareness and establish compliance throughout the Group	Understand issues related to human rights awareness at NTT Communications and domestic Group companies as well as overseas Group companies to strengthen initiatives for raising human rights awareness as a global enterprise	• Strengthened and reconsidered human rights due diligence by reviewing and implementing action plans for overseas affiliates, based on the results of their human rights due diligence in fiscal 2018, and by sharing the plan among relevant affiliates • Conducted a human rights management survey targeting affiliates in Japan	• Following the reorganization of the NTT Group in fiscal 2019, in which overseas affiliates became Group members of the NTT holding company, the responsibility of conducting human rights due diligence for the relevant overseas affiliates was transferred to the Shareholding Association • Conducted a human rights management survey targeting affiliates in Japan (from January 2020)	Conducted a human rights management survey with the participation of affiliates in Japan	★★	Analyze results of the human rights management survey targeting affiliates in Japan and identify issues	●	
Appropriate prevention and response to human rights abuses	Create a Companywide consultation and reporting mechanism capable of preventing and appropriately responding to human rights abuses	Continue to operate and disseminate information on contact points that can effectively and sufficiently respond to consultations and report on diverse issues	• Raised awareness of the NTT Group Harassment Hotline set up in fiscal 2018 by covering the issue as a separate topic in the All-Employee Human Rights Education Training sessions; also continued sending information on other contact points via the monthly e-mail to all employees • Set up a link to contact points for consultation and whistleblowing on the homepage of the knowledge management portal for access by all employees	Included a question about the functions of the contact points in the exam given during the All-Employee Human Rights Education Training, and 95% of respondents answered correctly	★★	Continue to operate contact points under remote working conditions to respond effectively and sufficiently to consultations and reports on diverse issues and communicate this information to employees	●	●
Promotion and stringent practice of respect for human rights through content and services	• Contribute to raising human rights awareness in society by utilizing ICT • Thoroughly eliminate elements from content and services that appear to encourage human rights abuses	Protect children's human rights by maintaining access restrictions for goo, and OCN services based on a list of child pornography website addresses provided by the ICSA	Protect children's human rights by maintaining access restrictions for goo, and OCN services based on a list of child pornography website addresses provided by the ICSA	• Number of queries received by the Human Rights Education Department: 0 • Number of access-restricted domains: 20 • goo: 300 child pornography website addresses added to the restricted access list per week	★★★	Protect children's human rights by maintaining access restrictions for goo and OCN services based on a list of child pornography website addresses provided by the ICSA	●	●

CSR Priority Activities | Risk Management   Relevant SDGs ▶ **9**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Targets	Specific Activities	Quantitative Results	Assess-ment	Fiscal 2020 Targets	Within the Organization	Outside the Organization
Continuous upgrades to risk management structure	• Business risks - Develop domestic and overseas management structures that enable us to consistently respond in the appropriate way to environmental and social risk elements such as climate change and scarcity of resources, in addition to economic risk elements • Crisis risks - Develop BCP measures for promptly responding to pandemics and natural disasters	• Business risks: in light of global business reorganization, review and revise documents defining risks, with regard to risk management activities, and also upgrade risk scenarios • Crisis risks: consider and implement measures for priority risks designated by the Business Risk Management Committee	• In light of the global business reorganization, the Business Risk Management Committee reviewed the documents defining risks; major risks anticipated with respect to the global reorganization did not materialize, allowing it to go forward as planned • Meanwhile, with respect to business reorganization, focus remained on priority risks and equivalent management in light of the expanded scope of consumer service operations consigned to NTT Resonant, in addition to NTT Com's business restructuring, as well as the impact of the COVID-19 pandemic	In addition to considering the risks associated with our global restructuring, we conducted a "caravan" to grasp the risk management situation at each of the 12 Group companies in Japan, and we instructed each company to manage their own risks independently while developing closer collaboration across the Group	★★	• Address the COVID-19 pandemic by rapidly implementing practical risk management, including the review and revision of documents defining risks, based on experience and with due consideration to "new normal" lifestyles • In doing so, the Business Risk Management Committee will meet twice a year, and a Business Risk Management Subcommittee will meet every month to quickly reflect the results of deliberations on risk management, improve the efficiency of sharing information, and maximize the effects	●	●

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

CSR Priority Activities | Ensuring Information Security

Relevant SDGs ▶ 9 11

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2019 Activity Results				Fiscal 2020 Targets	Boundary	
		Targets	Specific Activities	Quantitative Results	Assess-ment		Within the Organization	Outside the Organization
Strengthening of Security Management	Deploy various measures to strengthen security management based on collaboration with domestic Group companies as well as overseas Group companies	• Conduct system audits and information security audits for all corporate organizations in collaboration with the Legal and Internal Audit Department and System Department - Conduct Companywide security training to raise awareness and limit occurrences of security incidents (attendance: 100%)	• Conduct Companywide security training to raise awareness and limit occurrences of security incidents (attendance: 100%) • Conduct system audits and information security audits internally and on Group companies	• Conduct Companywide security training to raise awareness and limit occurrences of security incidents (attendance: 100%) - Conducted paper audits and onsite audits in combination and provided feedback on audit results to all the target organizations	★★★	• Conduct Companywide security training to raise awareness and limit occurrences of security incidents (attendance: 100%) • Continue conducting and developing system audits and information security audits	●	●
Development of Security Specialists	• Develop security training to raise individual skills required for responding to security issues as ICT professionals • Fiscal 2020 target: more than 2,400 people (advanced level: several people; intermediate level: 1,900; elementary level: 500 people)	Develop personnel who provide support to stationary daily operations (expand the scope and raise skill levels from no skills to the elementary level and from the elementary level to the intermediate level), develop personnel to support major events in 2020 and personnel capable of creating new businesses after the events	• Expanded the scope of activities by organizing NTT Communications CTF contests and concurrent study sessions • Held focused and unified employee training for major events in 2020 under the Center of Excellence (CoE) framework	Number of personnel who qualified in fiscal 2019 Advanced level: 3 new; 8 renewals Intermediary level: 0 new Elementary level: 215 new	★★★	Develop personnel who provide support to stationary daily operations (expand the scope and raise skill levels from no skills to the elementary level and from the elementary level to the intermediate level), develop personnel to support major events in 2021 and personnel (consultants, auditors, and others) capable of creating new businesses after the events	●	
Appropriate Management of Personal Information	Maintain a sharp sense of awareness concerning the importance of customer information and consistently develop advanced mechanisms based on cutting-edge technologies to prevent information leakage	Update internal rules and keep current with revisions in Japan's Personal Information Protection Law as well as trends in personal information protection regulations in other countries	• Conducted a conformity audit between the Personal Information Protection Management System (PMS) and the Japanese Industrial Standards (JIS Q) • Publicly commented on moves toward revising Japan's Personal Information Protection Law	• Revised the guidelines on protection of customer information for the EU region in accordance with the establishment of the Supplementary Rules under the Act on the Protection of Personal Information for the Handling of Personal Data Transferred from the EU based on an Adequacy Decision . • Revised the privacy policy to achieve consistency with the flow of customer service	★★★	• Prepare and respond to an upgrade application for the PrivacyMark • Respond to the revision of Japan's Personal Information Protection Law (follow parliamentary deliberations on the revision, consider policies in response to the content of revisions, implement individual responses)	●	●

Achievement levels based on self-assessment ★★★: Target achieved   ★★: Target almost achieved   ★: Target only partially achieved

Continuous Strengthening of Corporate Governance

Our Foundational Mission and Core Beliefs

Business Activities under Our Mission and Core Beliefs

The NTT Communications Group took the opportunity of its 20th anniversary in 2019 to establish its mission, "Creating communication methods that open up new possibilities for people and our world," and its core beliefs, "Take the initiative," "Inspire Each Other," and "Respond to Society's Needs."

Our mission expresses the purpose of our business while also reflecting our stance of generating innovative businesses to realize a world in which the inherent strengths and qualities of individuals, organizations, and societies are demonstrated to maximum effect. Our core beliefs embody the values that all of us should uphold in meeting our mission, with the underlying intention of creating value that exceeds society's expectations by exercising individual initiative.

These represent the cornerstone for management and individual employees as all of us think and act at our own initiative to accomplish our mission of creating innovative and unprecedented communication methods and new value for the future.

We will advance toward achieving our goals by sharing and broadly establishing our mission and core beliefs, which are the result of a united effort drawing upon repeated discussions by employees, the president, and members of management. In our relationship with stakeholders, we may at times become uncertain as to what constitutes the right decision or action. Whenever this concern arises, we will return to our mission and core beliefs in order to determine the right action as a company serving society. Through these actions, we will strive to become a trusted company that satisfies the needs of customers and society.

We believe that maintaining our business activities based on our mission and core beliefs in a lawful, fair, and ethical manner contributes to meeting the SDGs, particularly goal 10 "Reduced Inequalities" and goal 16 "Peace, Justice and Strong Institutions."

Web > For more information on our mission and core beliefs, see:
https://www.ntt.com/en/about-us/we-areinnovative/vision.html(Japanese Only)

Our Approach and Results of Stakeholder Engagement

Our dialogues with stakeholders provide invaluable opportunities for listening to their opinions and incorporating these into our business. We strive to maintain close contact with stakeholders by flexibly creating diverse opportunities for dialogue, from periodic events to discussions on specific topics. Through these activities, we will continue to engage with stakeholders to reflect their opinions in our business.

◆ Dialogue with Stakeholders and Major Topics

Stakeholders		Opportunities for Engagement	Main Purposes
Customers	We gather feedback through such means as customer satisfaction (CS) surveys and take steps to improve satisfaction levels.	• Voice of Customer (VOC) Survey, CS surveys • Exchange of opinions at the NTT Communications Forum • Exchange of opinions based on daily interaction with Customers	• Improve the quality of products and services • Explore new products and services • Continuously enhance customer service
Business Partners	We constantly exchange opinions to raise customer satisfaction and establish CSR throughout the supply chain.	• Arcstar Carrier Forum (ACF) • Customer Council • Partner Summit • Surveys, daily exchange of opinions	• Improve the quality of products and services • Explore new products and services • Ensure fair business practices • Ensure green procurement and respect for human rights
Society at Large	We create opportunities for engaging with diverse stakeholders in society to understand the issues and current status.	• Dialogue with stakeholders • Exchange of opinions with NPOs, NGOs • Social contribution activities • Environmental protection activities	• Contribute to the development of a sustainable society • Participate in social contribution and community activities • Seek harmony with local communities • Fulfill responsibility as a corporate citizen
Employees	We consistently incorporate employees' opinions to ensure effective employment and sustain employee motivation.	• Comments from the president during dialogue meetings and lectures • Feedback collected through the corporate intranet and helpline • KAIZEN Support Line • Employee satisfaction surveys	• Broadly establish the corporate vision and philosophy • Ensure decent work • Create customer value and seek self-development • Realize value in work

❯ Guidelines for Diverse Business Activities

Society has entrusted us with diverse responsibilities to fulfill through our operations, from developing products and services that solve social issues to protecting the environment and fostering a corporate culture that respects fairness and diversity. We encourage strict adherence to various guidelines in our corporate activities in order to continue fulfilling our social mission in each of our CSR Priority Areas.

◆ **Examples of Policies and Guidelines for CSR Priority Areas and Priority Activities**

CSR Priority Areas and Priority Activities		Policies and Guidelines	Page in Report
Contributions to Society	Ensuring Stable and Reliable Services as Mission-critical Infrastructure	NTT Communications Three Disaster Policy Fundamentals to Address Disasters	20
	Robust Network Security for Customers	NTT Communications Security Declaration	22
	Continuous Improvement in Customer Satisfaction	Our Mindset	24
	Collaboration with Suppliers	Basic Policy on Procurement	26
	Social Contributions and Fostering of Communities	Social Action Principles	28
Contributions to the Global Environment	Basic Philosophy and Vision	NTT Communications Group Global Environmental Charter	34
		Environmental Statement	
		Eco Strategy 2030	35
	Preserving Biodiversity	Biodiversity Action Plan	47
Respect for Employees	Nurturing Human Resources	Talent Profile of Ideal Employees	59
	Respect for Diversity and Equal Opportunities	Promotion of Diversity Fundamental Policy	63
Continuous Strengthening of Corporate Governance	Respect for Human Rights	Basic Policy on Human Rights Education	79
	Internal Controls	Basic Approach for Maintaining an Internal Control System	81
	Ensuring Information Security	NTT Communications Security Declaration	83

Governance

Corporate Governance

❯ Corporate Governance Structure

NTT Communications has adopted a governance structure based on a system of Board of Directors and Board of Corporate Auditors to bolster its governance functions. The Board of Directors comprises 18 members and is chaired by the president. In principle, it meets once a month to make key management decisions in compliance with laws and regulations, the Articles of Incorporation, and the Board of Directors' rules.

The Board of Corporate Auditors comprises three auditors. In addition to attending important meetings such as those of the Board of Directors, they hold meetings of the Board of Corporate Auditors to audit the execution of directors' duties with an emphasis on confirming the legality and

appropriateness of management decisions. A dedicated organization and staff facilitate efficient audit operations. The corporate auditors seek to strengthen the audit structure by periodically sharing information on audit plans and results with accounting firms and relevant parties to maintain close cooperation.

We also set up an Internal Audit Department within the head office to conduct annual internal audits by selecting audit items based on the results of risk assessment to minimize or prevent management risks and boost corporate value.

❯ Appointing Directors

Directors are appointed with the expectation that they will utilize their extensive knowledge and insight in their respective fields.

◆ **Corporate Governance Structure**
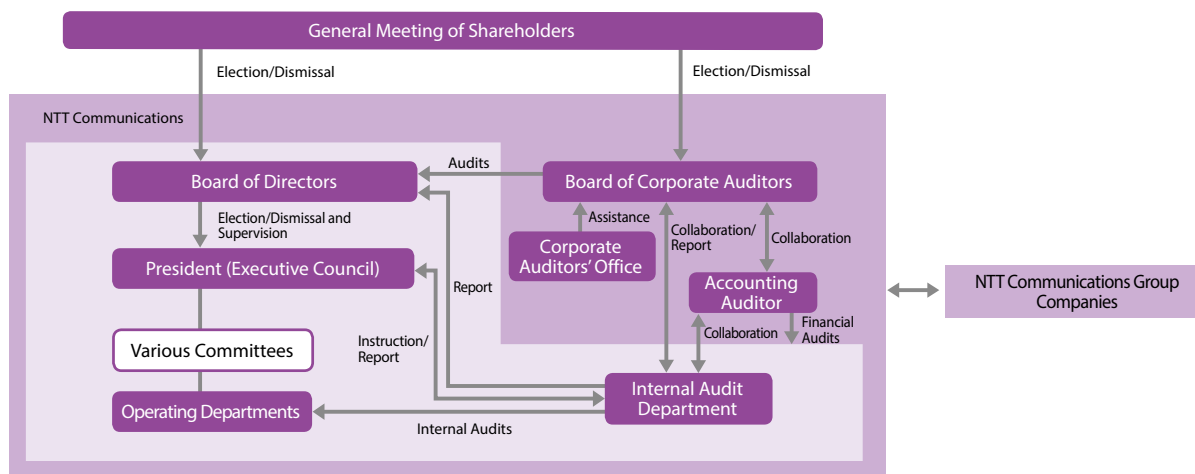
◆ **Composition of Board Directors and Auditors (as of July 1, 2020)**

Directors	Name	Main Responsibilities and Roles
President & CEO	Toru Maruoka	
Senior Executive Vice President	Hidemune Sugahara	Head of Platform Service Division In charge of Technology & Innovation Information Security Digital Transformation Promotion Special Assignment
Senior Executive Vice President	Hiroki Kuriyama	Head of Business Solution Division Corporate Global Business 2020 Project
Executive Vice President	Tomohiro Ando	CSR
Senior Vice Presidents	Shuichi Sasakura	Head of Data Platform Services, Platform Service Division
	Hiromasa Takaoka	Head of Managed & Security Services, Platform Service Division
	Junichi Kudo	Head of Application Services, Platform Service Division
	Mamoru Watanabe	Head of Infrastructure Design, Platform Service Division
	Hidetaka Nishikawa	Head of Business Planning, Business Solution Division Head of Tokyo 2020 Taskforce
	Toshio Kanai	Head of Corporate Planning
	Katsushige Kojima	Head of Fourth Business Solutions, Business Solution Division
	Shuji Inaba	Head of Innovation Center
	Masayuki Oikawa	Head of Innovation Center
	Sachiko Oonishi	Head of Third Business Solutions, Business Solution Division
	Yoshiyuki Kobayashi	Head of Second Business Solutions, Business Solution Division
	Hiraku Otsuchi	Head of Solution Services, Business Solution Division
	Satoshi Daimon	Head of Sales & Marketing, Platform Service Division
	Takashi Ohira	
Corporate Auditors	Kazuhiko Aramoto	
	Sakuo Sakamoto	
	Ikuo Izutsu	

Thorough Compliance

CSR Priority Activities

Compliance Promotion Framework

In view of the growing awareness of compliance, the NTT Communications Group goes well beyond merely adhering to laws and ordinances. We engage in our daily operations in accordance with high standards of corporate ethics to retain the trust of all stakeholders, including customers, business partners, shareholders, and society as a whole.

We have established a system to promote compliance with the Compliance Committee, chaired by the director in charge of compliance, and compliance promotion leaders and staff are assigned in each unit. With the ongoing globalization of the Group's business, compliance risks have become increasingly complex in nature. In response, we formulated Global Compliance Regulations in July 2015 as a common compliance policy for Group companies in Japan and overseas. We have been promoting compliance management across the Group through disseminating top management messages, training employees, and conducting internal audits to confirm and improve ongoing initiatives at each Group company.

Looking ahead, even as we respond to the evolving business environment, management and all Group employees will engage in ethical business practices and seek to strengthen the Group's compliance system worldwide.

Web > For more information on the NTT Group Corporate Ethics Charter, see:
http://www.ntt.co.jp/csr_e/governance/compliance.html

Initiatives for Preventing Corruption

To prevent corruption, including bribery and bid-rigging, NTT Communications adheres to the National Public Service Ethics Code and formulates and operates guidelines and manuals for preventing bribery of foreign public officials. To clarify the appropriate measures, we have in place against bribery, we abolished our guidelines on preventing bribery of foreign officials in August 2017 and formulated anti-bribery guidelines as well as detailed rules under the Global Compliance Regulations. We also formulated similar guidelines for Group companies to prevent corruption throughout the Group. In addition, prevention of corruption has been incorporated into reference materials used in our compliance training to remind employees of the associated risks.

Appropriate Advertising

Telecommunication services such as the Internet and mobile phones represent lifelines for our customers. Moreover, these areas are undergoing rapid technological innovation in which the content, providers, and contracts related to services used by customers are becoming increasingly sophisticated, diverse, and complex. For this reason, we must provide customers with appropriate information and produce advertisements that are readily understood.

To earn customer trust, NTT Communications adheres to the Voluntary Standards and Guidelines on Advertisement of Telecom Services, established by the Telecom Services Promotion Conference*, so that customers can safely choose and use our services.

We also strive to convey proper, easily understood information to customers by adhering to our internal Rules on Advertising and following the basic principles of complying with the Act against Unjustifiable Premiums and Misleading Presentations as well as associated laws, regulations, and guidelines. In concrete terms, we have established operational procedures to ensure compliance with prevailing laws and regulations, which includes setting up a screening system for advertising and designating leaders in each department who conduct voluntary screening. The Legal and Internal Audit Department is responsible for screening specific types of advertisements. In February 2019, we sought to address the diversification in contemporary advertising media and methods by revising the Specific Screening Method for Advertising in an effort to ensure appropriate implementation.

In addition to complying with the Act against Unjustifiable Premiums and Misleading Presentations and other relevant laws, we will further strive to reassure customers about the accuracy of our advertising when they choose NTT Communications' services.

*A council consisting of four telecommunications industry groups: the Telecommunications Carriers Association, Telecom Services Association, Japan Internet Providers Association, and Japan Cable and Telecommunications Association.

Awareness-raising Programs and Training for Thorough Compliance

To ensure thorough legal compliance and fair business activities, companies are required to implement awareness and training programs for employees and directors on an ongoing basis. The NTT Communications Group provides annual compliance training to all employees and directors.

In fiscal 2019, we offered training on various topics, including information leakage and harassment, to understand the mental mechanism of fraudulent behavior such as motivation and justification. We also conduct surveys on corporate ethics targeting all Group employees as well as internal awareness programs by inviting entries for compliance slogans, and we regularly provide information via the internal website.

We view the surveys as particularly important because they allow us to gain a detailed understanding of employee views and attitudes over time. In response to the survey results in fiscal 2019, we organized topic-oriented training for discouraging the use of certain words and actions that could lead to harassment. In addition, we improve various initiatives as needed in order to further raise compliance awareness across the entire Group.

In light of the increasing importance of supply chain compliance, including enforcing legal compliance among subcontractors, we use subcontracting agreements as a means of ensuring adherence to our guidelines while also consistently striving to raise awareness among Group companies and subcontractors.

Consultation Hotline

We established the NTT Communications Group Hotline, which is accessible to all employees across the Group.

Additionally, the NTT Group operates an external contact point for consultation and reporting, staffed by lawyers, to foster an open corporate culture.

In fiscal 2019, a total of 87 incidents related to the NTT Communications Group were reported through these two channels in Japan. The Compliance Office responded appropriately to the reports after investigating the facts and implemented the necessary actions to prevent recurrence.

Web For more information on the external contact point for the NTT Group Corporate Ethics Helpline, see:

http://www.ntt.co.jp/csr_e/pdf/Help-Line.pdf

CSR Priority Activities

Respect for Human Rights

Promoting Human Rights Education

To create a rich corporate culture founded on respect for human rights, we laid out our Basic Policy on Human Rights Education to raise employee awareness. Also, we set up the Human Rights Education Promotion Committee to firmly establish a corporate constitution that does not tolerate discrimination of any kind as well as to promote awareness of the issues. Guided by the NTT Group Human Rights Charter, established in 2014, the committee reports on human rights education activities and plans related to measures.

Basic Policy on Human Rights Education

As a company that develops business on a global basis, NTT Communications places the utmost importance on solving human rights issues, including discrimination, as a part of its efforts to build a rich corporate culture that respects human rights. As we strive to maintain a corporate constitution that does not tolerate any form of discrimination, we are working to find solutions to human rights and discrimination issues through every facet of our day-to-day business activities.
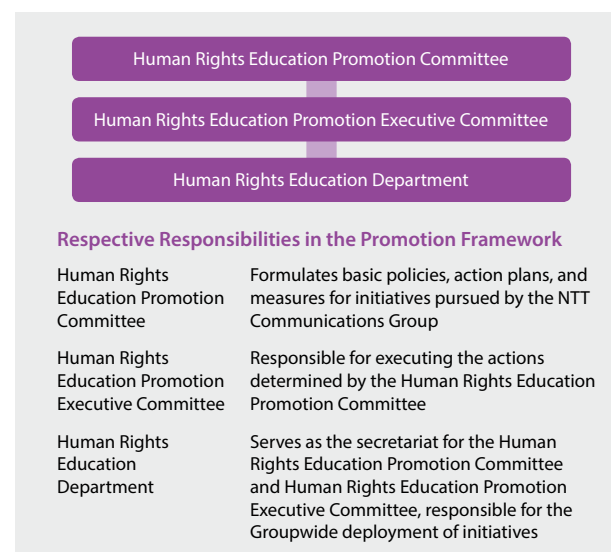
Web > For more information on the NTT Group Human Rights Charter, see:
https://www.ntt.co.jp/csr_e/communication/team-ntt/02.html

Corporate Constitution that Respects Human Rights

Placing the utmost importance on human rights, we seek to establish a corporate constitution that does not tolerate any form of discrimination and is intended to establish bright and vibrant workplaces. Our approach to preventing workplace harassment is based on the Rules for Preventing Harassment, established in May 2020 in accordance with the NTT Communications Group's Basic Policy on Human Rights Education. In conjunction with the establishment of these rules, we organized a seminar on anger management, which was attended by around 200 people, including staff in charge of human rights education at all Group companies as well as full-time and temporary employees who had signed up voluntarily.

◆ **NTT Communications Group Framework for Promoting Human Rights Education**

Human Rights Education Promotion Committee

Human Rights Education Promotion Executive Committee

Human Rights Education Department

Respective Responsibilities in the Promotion Framework

Human Rights Education Promotion Committee	Formulates basic policies, action plans, and measures for initiatives pursued by the NTT Communications Group
Human Rights Education Promotion Executive Committee	Responsible for executing the actions determined by the Human Rights Education Promotion Committee
Human Rights Education Department	Serves as the secretariat for the Human Rights Education Promotion Committee and Human Rights Education Promotion Executive Committee, responsible for the Groupwide deployment of initiatives

Human Rights Due Diligence

To identify any negative impact our business activities may have on human rights, we exercise due diligence by conducting a potential impact assessment of risks using various related data as well as a potential impact assessment based on interviews with stakeholders in regard to the results of the first assessment.
More specifically, we use the human rights management surveys conducted by the NTT Group to grasp priority issues, designate priority themes, and plan and implement action plans that address the designated human rights concerns.

Measures for Raising Human Rights Awareness

Companies have recently been subject to growing public demand for creating human rights protection frameworks that are closely aligned with the nature of each business. The NTT Communications Group is a global ICT provider, and a diverse array of full-time and temporary employees participate in our business operations. Accordingly, we promote respect for human rights with due consideration for diversity.
We have made it mandatory for all full-time and temporary employees of the NTT Communications Group to attend the All-Employee Human Rights Education Training sessions, designed to foster a heightened sense of awareness in each and every employee.
We began the training session with a detailed explanation of measures implemented in June 2020 to prevent harassment in the workplace and introduced actual Company-related cases as well as human rights issues such as discrimination. In the area of corporate activity and human rights, we highlighted our efforts to address the SDGs and the UK Modern Slavery Act of 2015. We seek to ensure that employees remain conscious of these concerns in their daily operations by cultivating a broad understanding of harassment and intercultural communication, encouraging them to frequently review the NTT Group Human Rights Charter and NTT Communications Group's Basic Policy on Human Rights Education, and widely disseminating information on our multiple contact points for consultation.
For new employee training for fiscal 2019, we implemented a program on LGBT issues based on the All-Employee Human Rights Education Training from the previous fiscal year, to provide an opportunity for employees to think for themselves. In addition to training, we invite entries on human rights and

compliance slogans as an opportunity for each employee to consider the importance of this public concern.

In fiscal 2019, we received 9,174 entries from 4,174 people, comprising full-time and temporary employees at all Group companies, including overseas subsidiaries, and members of employees' families.

We will continue to engage in various educational measures and foster respect for diversity and acceptance of differences toward creating brighter, more vibrant workplaces.

◆ Contact Points for Human Rights Issues

The NTT Communications Group has set up internal and external contact points for employees to consult on issues that arise in the workplace. We also disseminate information through training sessions and email newsletters to raise awareness of the contact points among full-time and temporary employees.

We had been providing a monthly opportunity for employees to personally consult a counsellor in the workplace. However, due to the COVID-19 pandemic, we switched to a Web-based remote interview, which proved to be more convenient. The contact points are absolutely committed to confidentiality and protecting the rights of individuals who seek consultation.

Respect for Human Rights in Content and Services

Internationally, companies are required not only to do their utmost to avoid infringing on human rights but also to take action from the standpoint of preventing complicity, which includes ensuring that any information they release does not contain any elements possibly encouraging violations and that no business partner responsible for providing services is or has been involved with an offender. Accordingly, we are making an industry-wide effort to eliminate violence and pornography by blocking the Internet access of our individual customers to websites containing such content. Moreover, we conduct procurement practices with due consideration for CSR when selecting suppliers.

Web > For more information on initiatives against child pornography, see:

https://www.ocn.ne.jp/info/announce/2011/04/21_1. html?_ga=2.90582362.1582685654.1509433276– 864394619.1509433276 (Japanese Only)

Contributing to the Welfare of Children

> Industry-wide Countermeasures against Child Pornography

Blocking child pornography on the Internet is an important issue that must be addressed, not only to protect the human rights of children but also to prevent children from falling victim to human rights abuses and to ensure the provision of a safe Internet environment. In particular, since the Japanese government launched a national campaign against child pornography in 2010, an ongoing private-public initiative has established a proactive system that includes the voluntary blocking of access to child pornography websites by Internet service providers. Under these circumstances, the NTT Communications Group joined other ISPs, search engine service providers, filtering service providers, and related businesses to form the Internet Content Safety Association (ICSA). The ICSA has been effectively compiling and managing information for forcibly blocking access to child pornography images and providing member companies with the list of addresses for websites that publish child pornography.

Specifically, the NTT Communications Group's goo and OCN services restrict access based on child pornography website address lists provided by the ICSA. Individual ISPs have begun blocking child pornography images based on these lists as well. In response, NTT Resonant has implemented measures on the search engines it offers.

Risk Management

CSR Priority Activities

Business Risk Management

We established the Business Risk Management Committee, chaired by the senior executive president and consisting of the heads of each organization, to develop a system and mechanisms for more effectively responding to major business risks that may affect our corporate management.

The risks were categorized into 25 items as of March 31, 2020, and we have identified and addressed three as material risks for fiscal 2019. We adopted a mechanism in which the management status of material risks is monitored through audits, sorted our risk-related operations, and boosted efficiency. Every year, we ask each organization to identify the risks and review and revise their policies and measures for addressing risks. Furthermore, we ask the heads of each organization, including directors, for a self-evaluation on the status of organizational risk management, confirmation that no risks have been overlooked, and operational audits of the status of each organization's measures against risk. We have extended these activities to principal Group companies in Japan to promote risk management throughout the Group.

In the event that a material risk occurs, we will set up a Disaster (Accident)/Risk Response Headquarters, headed by the president or senior executive president, as needed in order to provide the structure for gathering accurate information and making effective decisions. Thereafter the Disaster Response Headquarters will take the lead in addressing the situation on the ground.

Crisis Management

Since the Great East Japan Earthquake, we have seen growing public interest in crisis management for times of emergency, such as large-scale natural disasters. With a renewed awareness of our mission as a company responsible for maintaining social infrastructure through communication, we have strengthened our management structure to accelerate our response to contingencies and have sought to instill that awareness in all departments by ensuring strict adherence to manuals and organizing drills. Particularly since fiscal 2013, we have laid out an operational plan to prepare against a pandemic in compliance with the Act on Special Measures for Preparedness and Response against Pandemic Influenza and New Infectious Diseases, and we are currently formulating a related concrete business continuity plan. In response to the COVID-19 pandemic, we have taken the following measures.

- Set up a Disaster Response Headquarters headed by the president
- Established our operational policy based on guidelines published by the Telecommunications Carriers Association and other entities
- In line with our responsibilities as a designated public institution, we sought to secure telecommunications through operations such as monitoring networks, repairing equipment, and opening communication lines. We also sought to protect people's lives and health by taking appropriate actions against infection.

Furthermore, to comply with Japan's Disaster Countermeasures Basic Act and Act on Measures for Protecting Japanese Nationals in Armed Attack and Other Situations, we have established and publicly disclosed our Operational Plan for Disaster Prevention and Operational Plan for the Protection of Japanese Nationals in order to fulfill our responsibility as a designated public institution.

Web > For more information on NTT Communications' initiatives against disaster, see:
https://www.ntt.com/about-us/cs/saitai.html(Japanese Only)

Internal Controls

In accordance with the new Companies Act, enacted in May 2006 and revised in May 2015, we have drawn up basic policies for establishing a system of internal controls for the entire NTT Group. Concurrently, as a member of the NTT Communications Group, the Board of Directors resolved to implement the measures necessary for the system.
We are also working to reinforce and upgrade internal controls over financial reporting in line with the requirements of the Financial Instruments and Exchange Act, enacted in June 2006.

Basic Approach for Maintaining an Internal Control System

1. In maintaining a system of internal controls for complying with laws and regulations, managing any risk from losses and carrying out proper and efficient business operations, NTT Communications takes a variety of measures to prevent and minimize loss.
2. NTT Communications has established the Legal and Internal Audit Department to maintain and assess effectiveness with regard to operational status of the above system of internal controls. As a monitoring organization, the department is responsible for regular audits and special audits of high-risk areas common to the NTT Group, in keeping with the standardized auditing criteria of NTT. The necessary improvements are made following assessments of system effectiveness.
3. NTT Communications will cooperate with NTT and take appropriate measures to ensure the reliability of its system of internal controls for financial reporting under Japan's Financial Instruments and Exchange Law.
4. The president is responsible for ensuring the development and implementation of the system of internal controls.
5. We will take all necessary steps to comply with NTT's Basic Policies Concerning the Maintenance of Internal Control Systems.

Internal Audits

At NTT Communications, Internal Auditing takes the lead in conducting internal audits of internal organizations and Group companies, with an emphasis on business risks. Through the audits, we seek to reduce and prevent the manifestation of management risks while also proposing operational improvements to enhance the corporate value of the entire NTT Communications Group.

In fiscal 2019, we began continuous risk monitoring with CAAT* and organized various training events to develop the data analysis skills of internal auditors while also doubling the number of certified internal auditors. Furthermore, we will accelerate and intensify our drive to reform our internal auditing functions to bolster risk control and operational efficiency.

*Computer-assisted audit techniques that utilize big data

CSR Priority Activities

Ensuring Information Security

Basic Policy

The NTT Communications Security Declaration has been our basic policy for conducting business based on our belief that adhering to strict security management standards will lead to improving security and delivering benefit to our customers.

NTT Communications Security Declaration

Our most important mission, in addition to protecting information that is vital to our customers and providing services they know are safe, is contributing to an enhancement of our customers' security system. We regard security as our top priority in providing services to our customers, and we pledge to work with them to achieve an optimum security system. We will do our utmost to ensure security in all phases of the value chain from technology and service development to establishment and operation. Furthermore, as ICT professionals, each one of us will raise our capabilities to respond to security-related issues.

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

Protection of Customer Information and Personal Information

We operate in strict compliance with laws and regulations as well as the Ministry of Internal Affairs and Communications' guidelines relating to the protection of personal information. When subcontracting the handling of customer personal information, we select subcontractors that meet the standards for handling this information.

In 2002, we obtained the Information Security Management Systems (ISMS) certification[*1], primarily for our corporate sales and maintenance divisions, and the PrivacyMark certification[*2] in 2004. Furthermore, to comply with the General Data Protection Regulation, enacted in the European Union in May 2018, we revised internal rules, confirmed the conditions for providing service, established Standard Data Protection Clauses, and organized training for all executives, employees, and staff of partner companies.

We continue to protect our customers' information and personal data so they can use our services without concern.

[*1] A screening and certification system for assessing whether an information security management system conforms to JIS Q 27001 (ISO/IEC 27001) standards.
[*2] A registered trademark granted for use by companies that have been certified by the Japan Information Processing Development Corporation as having established a system for appropriately protecting personal information in compliance with Japanese Industrial Standard JIS Q 15001 requirements for personal information management systems.

Web ＞ For more information on our policy concerning the handling of personal information, see:
https://www.ntt.com/en/about-us/hp/privacy.html

Raising Workplace Awareness and Providing Thorough Training

Having positioned "Ensuring Information Security" as a key focus of our CSR Priority Area in which we seek continuous strengthening of corporate governance, we have consistently pursued our initiatives by setting CSR KPIs. These encompass a wide range of activities such as strengthening the reliability of our information handling processes, obtaining and maintaining ISMS certification, and conducting security surveys. Additionally, we provide training for employees in order to raise workplace awareness as a critical responsibility for an ICT enterprise.

As an entity working to sustain a safe and secure networked society, NTT Communications will accelerate the pace of its ongoing initiatives, including those at overseas Group companies.

◆ **Information Security Training Attendance**

| Type of Training		FY2017	FY2018	FY2019
Information security training (total)		13,050	15,055	11,641
	Companywide security training and assessment of understanding	12,928	14,941	11,527
	Training for managers and leaders in charge of implementing security management	122	114	114

Information Security Management Structure

We have established common benchmarks on information security management for our operations in Japan and overseas, based on the requirements of ISO/IEC 27001, the international standard for ISMS. Also, we are enhancing the Group's information security governance through ongoing management activities aimed at raising the standard of our initiatives, centered on regular monitoring of compliance and corrective action.

Specifically, the Security Management Office under the Chief Security Officer does the following.

1. Formulates rules and standards and educates all employees to raise their awareness
2. Draws up and implements Companywide information security policies
3. Monitors compliance with information security regulations and takes any necessary corrective action
4. Ensures a unified response to information security incidents

In fiscal 2019, we implemented major initiatives, led by the information security department (NTT Com-SIRT). We addressed software vulnerabilities and continued to apply the WideAngle comprehensive risk-management service to IT systems throughout the Company to reduce security risks. We also sought to enhance the level of our security risk management through initiatives that included the implementation of centralized management over Companywide IT systems using the platform for distributing information on vulnerability assessments.

◆ **Security Management Framework**
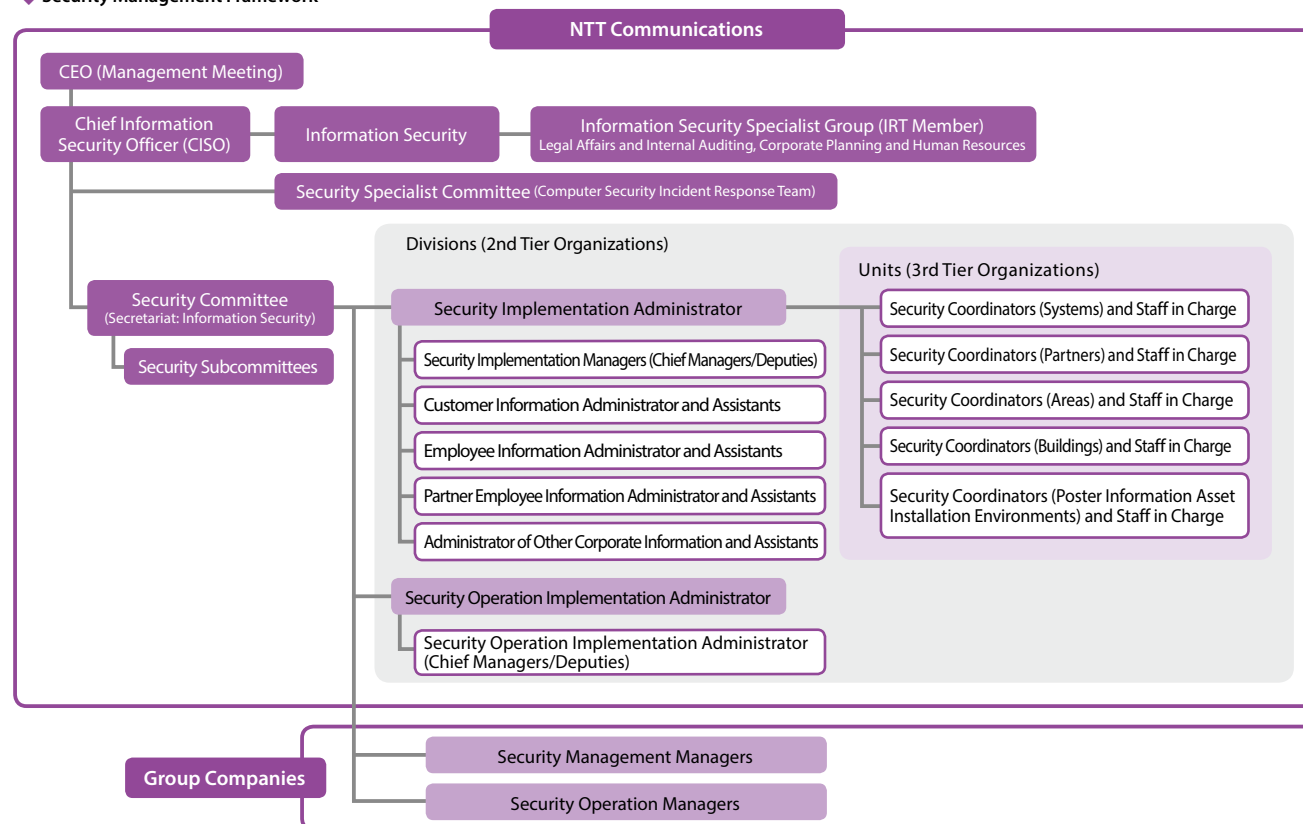
Third-party Assessment and Certifications

As of March 2020, eight companies in Japan have obtained external ISMS certification for their information security management systems.

Eight companies that primarily handle personal information entrusted by customers have obtained PrivacyMark accreditation in recognition of their systems for protecting personal information.