NTT Communications

NTT Communications Corporation

Sustainability Report
2021

CONTENTS

We will co-create with customers and partners to deliver new value for the new normal in the wake of COVID-19 and help realize a sustainable society.

Toru Maruoka
President & CEO
NTT Communications Corporation

Our daily lives and society in general have been profoundly transformed by the COVID-19 pandemic. The rapid dissemination of diverse communication methods, workstyles and learning experiences based on remote environments has also altered the values of our customers. Under the impact of the pandemic, NTT Communications has spearheaded the transition to the new normal by mobilizing its ICT resources to powerfully promote its Flexible and Hybrid Workstyle[*1] model. As a result, our efforts have led to remarkable achievements in higher productivity and flexible workstyles. This is the key to our mission of giving back to society by applying our practices to develop future businesses.

In January 2022, NTT Communications along with NTT COMWARE will become members of the reorganized NTT DOCOMO Group, which will open up new worlds by expanding Group business across mobile services and solutions. In regard to corporate business, the NTT Communications Group will be positioned to offer a one-stop service for large enterprises as well as small and medium-sized companies. This means that our promotion of digital transformation (DX) in society and industry, based on our core strategy of Mobile First /Cloud First, will strengthen our contribution to addressing diverse social issues.

Last year, we formulated our Re-connect X medium-term business vision. As we become a member of the new DOCOMO Group, we will continue to uphold this business vision and strive to reconnect society and industry using our new fixed-mobile convergence services and solutions toward realizing a sustainable future. We will pursue even higher quality in our business of connecting things and activities to continue providing new value to society in the new normal while expanding the possibilities of DX solutions by generating added value as a new platformer with strengths in data collection, storage, analysis, and feedback. By reinforcing the ICT infrastructure and using data, we will create or recreate connections between a broad range of targets including individuals, local communities, industries, and society, which affords endless possibilities for business. In addition, we will accelerate the pace of innovation and the creation of new solutions by actively co-creating with our customers and partners.

In May 2021, NTT Communications formulated a Sustainability Policy to replace its Fundamental CSR Policy. The new policy declares our commitment to realizing the Sustainable Development Goals and the Creating Shared Value model, which are universal objectives that transcend the concept of corporate social responsibility. We will meet stakeholder expectations by deploying ICT to resolve diverse social issues while also reducing our CO_2 emissions to zero and becoming carbon neutral[*2] by fiscal 2030 to help realize our vision of a sustainable society.

*1 A flexible workstyle model that enables workers to freely choose the location and time of work and a hybrid workstyle that combines real and digital working environments.
*2 The reductions are targeted at Scope 1 (direct greenhouse gas emissions by the Company) and Scope 2 (indirect emissions associated with the use of purchased electricity, heat, or steam) emissions under the Greenhouse Gas (GHG) Protocol.

— Our Mission

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 will keep striving to create innovative, user-friendly communication methods that optimize the flow of information in our society.

— Our Core Beliefs

Take the Initiative
Inspire Each Other
Respond to Society's Needs

As digital transformation (DX) drives advances in digitization, everything will be connected as data. Together with our customers and partners, we will pursue our Re-connect X strategy to ensure that all connections are safe, secure, and flexible.

P.006 Overcoming social challenges through our business

Our Mission
Our Core Beliefs

Re-connect X

("X" refers to everything)

Smart World
Connect society to the future

Smart Data Platform
Connect data and value

ICT Transformation
Ensure safe, secure, and flexible connection

Hospital
Customer
Community
Vehicle
School
Industry and technology partner
Government
Robot
Consumers
Factory or plant
Contact Center
Employee

Re-connect
NTT Com
NTTGroup

Safety and security
Environment
Labor saving
Enhancement
Productivity
Comfort

004

Basic Policy

The NTT Communications Group aims to realize a sustainable future. As your value partner, we will take initiatives to overcome social challenges and drive the emergence of new value by creating a new way of communication that will open the door to possibilities for people and the world.

Sustainability Policy

Society
Human Resources
Environment
Governance

Society — P.021

Through the realization of a Smart World that connects society and the future, the transformation of ICT infrastructure, and the promotion of advanced innovation, we will make efforts to resolve various social challenges, strive to co-create and drive the emergence of new value, and work toward a better future that is resilient, safe, secure, and capable of sustainable development.

Environment — P.041

Through initiatives to promote the use of ICT, which contributes to reducing environmental impact and thus achieving a decarbonized society and closed-loop economy, we will work toward the realization of a green future where society is carbon neutral, resources are recycled, and biodiversity is preserved.

Human Resources — P.068

By respecting human rights, promoting diversity and inclusion, and developing human resources, we will work toward a future where highly diverse people come together and everyone is given respect, inspires one another, and is able to demonstrate their ability in response to society's needs.

Governance — P.086

Applying the high standards of our corporate ethics, we will thoroughly implement compliance and risk management, continue to reinforce information security, and enhance value chain partnerships. We will also strive to realize strong governance and the sustainable enhancement of corporate value to maintain public trust while working toward a future where co-creation leads to a sustainable society.

Advancing toward a sustainable future by continuously creating a new way of communication

CASE of *Re-connect X*

01

Workstyle reform × DX × Co-creation with customers

Applying the Flexible and Hybrid Workstyle to Promote DX Management Reform

Resolving Social Issues by Promoting Flexible and Hybrid Workstyles

NTT Communication's Workstyle Reform
- Systems and Rules
- Environment and Tools
- Three-pronged Reform
- Corporate culture and Awareness

Mobile/Cloud First

Promote flexible and hybrid workstyles through practice

Large corporate customers
Local, SME customers
- Improve productivity
- Create new value
- Reduce environmental burden

Promote DX management reform

Co-creation

- Realize health management
- Realize regional revitalization and a decentralized society
- Address environmental and energy issues

Society and regions
Industry and economy

Realize a sustainable future

Social Issue
Disparities in the Remote Work Environment

Solution
Contributing to Society by Providing a DX Solution that Addresses Management Concerns

Our Vision of Society
Making an Additional Contribution to Building a Decarbonized, Recycling-oriented Society

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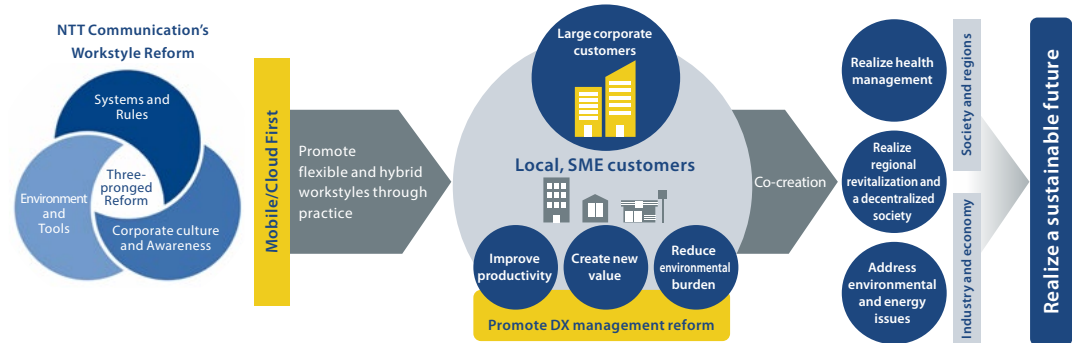In response to the COVID-19 pandemic, remote work has become established broadly, resulting in the rapid spread of DX in areas such as workstyle reform and enhancing operational efficiency, which in turn has led to a heightened awareness of DX as an indispensable element of corporate management reform. NTT Communications has been promoting its "Three-Pronged" workstyle reform, consisting of corporate culture and awareness, systems and rules, and the environment and tools, since around 2002, thereby facilitating its transition to full-scale remote work during the pandemic. However, successful examples such as this are often limited to a handful of companies and business units, and there is a need to establish working environments that match the realities of each company.

Roughly 80% of the NTT Communications workforce has been working remotely since February 2020. Riding the momentum of ongoing trends to adapt to living with COVID-19, we are striving to enable each employee to work with enthusiasm as a "remote work native" as the next stage of our workstyle reform. To that end, we have been advancing initiatives focused on the four core areas of: practicing open communication, creating flexible systems and rules, reconstructing the office as a place for new creation and collaboration, and utilizing DX and data to improve operational processes. Consequently, we were able to show results such as a tenfold increase in online conferences and higher employee satisfaction due to the introduction of a super-flextime system with no core work times. By combining the experience, know-how, and solutions we have gained along the way, we created the Flexible and Hybrid Workstyle model, which offers the freedom of choosing work hours and location as well as working on-site or remotely according to the business type and format of each customer. We have begun to contribute to society through this model. For example, our efforts include contact centers operated from homes and digitizing contact points for customers, support for remote work and safety management including the prevention of heatstroke for essential workers at construction sites, and a Remote Work Handbook provided free of charge on our website.

The Flexible and Hybrid Workstyle we are striving to establish throughout society has the potential to impact business practices even in industries, companies, and units that were considered to be incompatible with remote work and ultimately transform society and industry. By making use of the diverse data that constitutes an unavoidable aspect of reforming and expanding workstyles, we will not only facilitate DX management reform that enhances productivity and operational efficiency, as well as the creation of new businesses that utilize data, but will also alleviate the environmental burden through paperless offices and lower energy consumption for transportation and help realize a decarbonized and recycling-oriented society.

VOICE

Mitsuhiro Kihara
Vice President of Business Strategy, Business Planning, Business Solution Division

We were essentially forced to expand remote work during the COVID-19 pandemic, eventually accelerating the pace of digitization and revising workstyles premised on face-to-face interaction, use of printed materials, and personal seals. We are recommending the Flexible and Hybrid Workstyle as a further evolution of remote work that can give concrete form to data-driven management by designing new workstyles that transcend the limitations of time and place, as well as "digital first" operations and processes. NTT Communications will help overcome social and industrial issues by co-creating and practicing flexible and hybrid workstyles with our customers.

CASE of Re-connect X

02

Medical Service × AI × Safety and Security
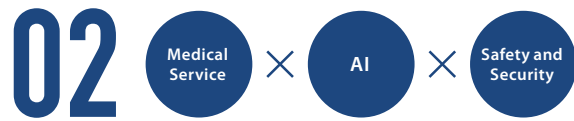
Deep Learning with Secure Computation that Ensures Safety and Security by Managing, Analyzing, and Utilizing Encrypted Medical Data

Deep Learning with Secure Computation

Chiba University

Hospitals | Partner medical institutions | Research facilities

1 Data collection

Secure sharing of data

Striving to resolve clinical and research challenges

2 Distributed data storage — #17mo07%?ijk...

Keeping data encrypted through the analysis and learning processes

3 Creation of machine learning, AI models

Compute prediction results based on data from patients with unidentified diseases
Support for disease diagnosis

4 Prediction results

Social Issue

Growing Need to Utilize Medical Data

Solution

Joint Research with Chiba University Hospital Aimed at Using Concealed Medical Data in AI Analysis

Our Vision of Society

Constructing a Platform for Safely Using Medical Data

While the level of Japanese medical technology is high by global standards, it is expected to advance even further through the power of DX. Until now, Japan has made little progress in its initiatives for sharing data on medical treatment and diseases in the form of big data and utilizing data on-site for research and diagnosis due to privacy concerns. Recently, however, the country has been confronting social issues closely connected to the future of its medical services, such as the declining birthrate and aging population, a shortage of labor, and regional disparities. Under these circumstances, the Japanese government has proposed a national policy for data-based health management initiatives, while the additional impact of the COVID-19 pandemic has heightened the need for the active use of medical big data as never before.

In October 2020, NTT Communications and Chiba University Hospital began joint research on clinical data analysis using NTT's unique technology of deep learning with secure computation. The technology can be used to store clinical data, including highly sensitive medical treatment information in encrypted form, and conduct deep learning to create AI models without decrypting the data. This opens up various possibilities for using data while ensuring confidentiality, as researchers are only able to access the results of analysis. We are currently analyzing data collected from various clinical departments including neurology, gastroenterology, and infectious diseases at multiple facilities and creating AI models to verify that our system is able to resolve issues in clinical settings.

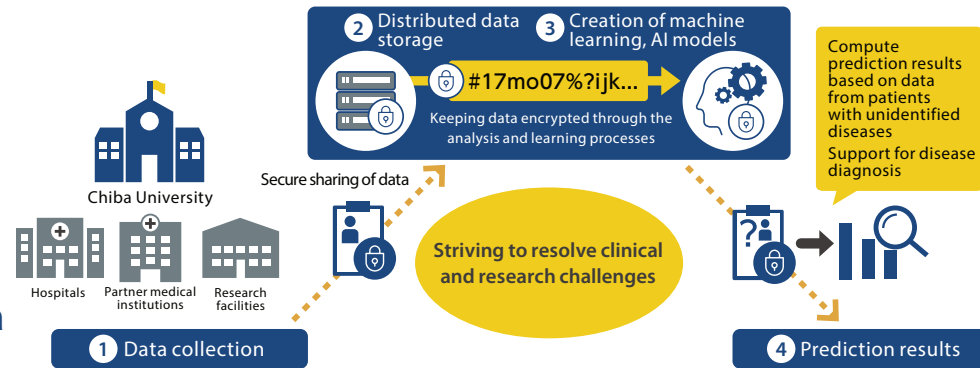For example, we can effectively create AI models and analyze data to develop tools that support the use of AI in diagnosing rare diseases, which is difficult for a single medical facility with a limited number of cases, and analyzing clinical data, as well as for joint research by multiple facilities, such as long-term observations involving patients. We will continue to pursue joint research with appropriate clinical departments to address diverse clinical and research challenges by encouraging the use of data while ensuring security.

NTT Communications is striving to provide new healthcare services by collecting and accumulating data at every stage, from prevention to treatment and patient care, and constructing a platform for safely analyzing and using that data. Furthermore, we will actively pursue collaborations with medical institutions and related companies, not only to provide innovative, advanced medical care using patient data but also to reduce the burden on medical staff and realize an enriching Smart Life for each person.

VOICE

Yoichi Sakurai
Senior Manager, Smart Healthcare, Smart World Business

The promotion of DX in clinical sites using deep learning with secure computation has the potential to overcome diverse challenges. While we must always obtain prior agreement from patients to use their data, I have been told there are many patients who readily provide their data for the advancement of medical science. I am also aware of the high expectations of clinicians. I hope to develop a genuinely useful mechanism that lives up to the expectations of my many team members.

CASE of *Re-connect X*™

03

Data Center × Environment × Customer

Halving Electricity Consumed by Air-conditioner with the World's First Cooling System Using a New Refrigerant

Conventional System (Conventional Air-conditioner)

Suspension

Cool water or refrigerant

Heat-receiving unit

Cool air | Room air-conditioner

Local air-conditioner

System Under Development

Support bracket can be installed above the ceiling board
No need for construction work to suspend units, can be installed in rooms with low ceilings

New refrigerant
Can be switched between floor or local air-conditioning

Cool air | Cool air | Cool air

Heat-receiving unit

Smaller size to facilitate retrofitting to existing racks

Social Issue

Urgent Need to Reduce Power Consumption at Data Centers

Solution

Development of a Breakthrough Cooling System that Uses a Non-CFC Refrigerant

Our Vision of Society

Providing Benefits to the Global Environment as the New Mainstream in Air-conditioning Systems

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The increasingly ubiquitous presence of ICT throughout society has led to higher power consumption at data centers that house numerous servers and network equipment. There are high hopes for significantly reducing electricity use through initiatives targeting air-conditioning, which accounts for around 30% of the power consumed by data centers. Current systems for thermal energy management based on hydrofluorocarbons (HFCs) approved for use as air-conditioning refrigerants have reached their limits. As a high-pressure gas, HFCs are associated with issues such as the cost of hiring qualified staff to manage the gas and government directives for reducing the volume of production.

NTT Communications and NEC Corporation have developed the world's first cooling system based on a new low-pressure, non-chlorofluorocarbon (CFC) refrigerant to meet the air-conditioning needs of telecommunications facilities inside data centers. The new refrigerant will not deplete the ozone layer, features fire resistance and low toxicity, and is not subject to safety regulations governing high-pressure gases. Joint trials conducted at our data centers from November 2019 to July 2020 verified that our system reduces power consumption by 50% compared to conventional cooling systems. The new system adopts local air-conditioning for each rack, as opposed to systems that cool entire floors. The racks are arranged to direct and gather exhaust heat from equipment in a single row and releases the heat outdoors using phase change technology. This is the novel concept behind our system and represents our combined expertise on thermal management systems accumulated over the years. We also ensured versatility in system construction by adopting a structure that facilitates retrofitting to existing floors and server rooms.
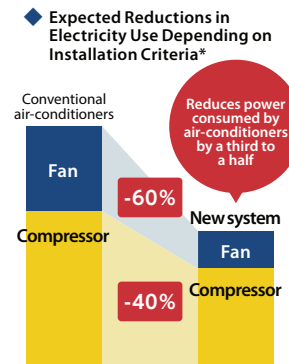
◆ **Expected Reductions in Electricity Use Depending on Installation Criteria***

Conventional air-conditioners

Reduces power consumed by air-conditioners by a third to a half

Fan

Compressor

-60%

New system

Fan

-40%

Compressor

*Results depend on installation criteria including the average annual outdoor temperature and amount of heat generation and heat removal.

We are planning to commercialize the cooling system using the new refrigerant through NEC in 2023, and considerations are being made for the secondary use of waste heat for hot water, power generation, and agriculture. We also plan to install the system in hospitals and commercial complexes that require large-scale cooling systems. Switching from a conventional air-conditioner to our system is expected to reduce annual electricity use by 55 GWh per 1,000 units, which is equivalent to about 30,000 tonnes of CO_2. Widespread use of our system is expected to significantly reduce power consumption and help alleviate the global environmental load.

VOICE

Akio Tsuzuki
Manager, Infrastructure, Infrastructure Design

We have been jointly working on this project with NEC for roughly five years toward striking a balance between addressing global warming and developing a sustainable business. The impact of this new air-conditioning system on reducing environmental load is by no means small. We will help achieve carbon neutrality through our thermal solution business, which is also relevant to our goal of accelerating the pace of DX across society.

CASE of Re-connect X

04

Environment × Customer × Local Community

SDG 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | SDG 14 LIFE BELOW WATER | SDG 17 PARTNERSHIPS FOR THE GOALS
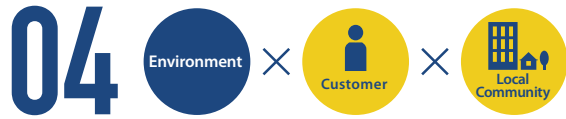
Circular Renewables Platform that Promotes the Development of a Circular Economy by Utilizing ICT

Circular Renewables Platform

Provides rating function for buyers and sellers of recyclables

Facilitates sales of recyclables between businesses

Provides information on recyclables to be discarded

Visualizes availability of recyclable resources

Companies seeking to discard recyclables

Logistics companies (logistics services for recyclables)

Recycling companies (processing services for recyclables)

Companies seeking to procure recyclable resources

Social Issue	Solution	Our Vision of Society
Urgent Need to Break Away from the Cycle of Consuming Resources Beyond Their Limits	**Constructing a Platform for Sharing Information on Recyclable Resources**	**Leading to the Transition to a Circular Economy**

In the face of worsening environmental issues such as the depletion of natural resources, climate change, and marine plastic pollution, it has been pointed out that we have reached the limits of a linear economy, in which we have been taking, making, using, and disposing of resources. The realization of a circular economy, in which we limit the input and consumption of resources and utilize finite resources through recycling, is a globally recognized initiative also linked to achieving the SDGs. However, the use of renewables—and plastics in particular—has remained at low levels in Japan due to the difficulties of assuring quality and stable procurement. There is an urgent need to resolve this so as to comply with regulations promoting the recycling of plastic resources that will come into effect in 2022.

In April 2021, NTT Communications began conducting a trial for a Circular Renewables Platform aimed at realizing a circular economy, along with Sojitz Corporation, Recotech, Co., Ltd., and Nissho Electronics Corporation. The project is based on Recotech's Material Pool System, which has been combined with our Smart Data Platform to create a mechanism enabling users to view real-time information on the volume, type, quality, and location of recyclable resources such as plastic that are being discarded by participating companies, with the goal of facilitating transactions between suppliers and buyers. The trials are taking place in various locations by enlisting partners primarily consisting of businesses seeking to discard recyclables, such as commercial facilities and their tenants, and businesses seeking to procure recyclable resources. The participants will trade recyclables and assess their quality to verify the effectiveness of the platform and to ascertain corporate needs. NTT Communications will take responsibility for developing the flow of collecting, accumulating, analyzing, and using data related to recyclables. We plan to commercialize the platform after fiscal 2022.

The real-world implementation of the Circular Renewables Platform and its wide acceptance as a business tool will lead to reducing waste and improving collection and recycling ratios, signifying major progress in the transition to a circular economy. Specifically, the platform will enable matching the needs of companies that had been discarding recyclables due to the lack of buyers with those that have not had a channel for procuring recyclables. This is expected to lead to a social system that can effectively and economically circulate massive volumes of recyclable resources with guaranteed traceability (information on origin, distribution route, materials and ingredients, and quality level).

Role of Each Company	
Sojitz	● Attract potential partners ● Take the lead in implementing a circular business model
Recotech	● Provide the Material Pool System for plotting information on recyclables onto a map ● Propose and plan verification projects using its network of waste-handling industries
Nissho Electronics	● Propose and plan platform and app-based system development
NTT Com	● Collect and accumulate data related to recyclable resources and provide the platform for analysis, and analyze collected data

VOICE

Yoichi Suzuki
Senior Manager, Smart Factory, Smart World Business Department

The use of ICT and co-creation with partners are the key elements for realizing a circular economy. We seek to construct a circular platform that encompasses the entire product life cycle, from manufacturing and sales to collection, recycling and reuse, and disposal. In doing so, we face many challenges, such as establishing the regulatory framework, optimizing logistics, raising the efficiency of sorting waste, and reducing the cost of the process. We need an initiative that brings together the skills and knowledge of industry, government, and academia. We would like to see as many companies as possible participate in this effort to construct a digital infrastructure for the circular economy.

CASE of Re-connect X

05

Accounting department × Enhanced Productivity × Environment

[8 DECENT WORK AND ECONOMIC GROWTH] [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE] [17 PARTNERSHIPS FOR THE GOALS]

Total Solution for Accounting and Invoicing that Supports the Shift to Teleworking for the Accounting Department

Seamless Accounting Operations Made Possible by NOC and NTT Com

Suppliers and other business partners — Electronic invoices

Digitization BPO

Paper invoices / PDF Invoices

NTT Communications — BConnection Digital Trade

Total Solution for Accounting and Invoicing

FUYO LEASE GROUP NOC

Invoice digitization platform — Finance and accounting BPO

1. Open
2. Scan and correct
3. Inquire about and verify any deficiencies
4. Journalizing finalized
5. Input invoice data

Customer

Verify and approve invoice content

Accounting system

Reducing Process Costs
Annual reduction effect

20 million yen per year[1,2]

[1] Assuming that 12 full-time staff processed 50,000 invoices per year.
[2] Assuming that 90% of the 50,000 invoices received per year are digitized.

Promoting Paperless Operations
CO_2 reduction effect of reducing paper use

4.5 t-CO_2 per year[1,2]

[1] Assuming a 90% reduction in the 50,000 paper invoices received per year per company.
[2] Assuming that a total of 30 companies reduced their use of paper invoices.

Social Issue — Growing Need for Digitizing Invoices

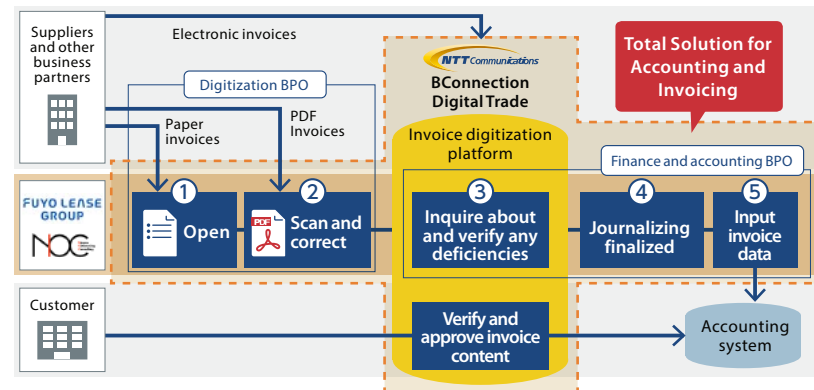**Solution** — Offering Support to Raise Operational Efficiency in Accounting Departments by Involving Business Partners

Our Vision of Society — Developing a Standard Service for Invoice Digitization Comparable to Global Business Practices

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While widespread adoption of teleworking during the pandemic has increasingly led to flexible workstyles, the hurdles against introducing teleworking have remained high for the accounting department, where many operations are not suitable for processing at home or outside the office. Handling invoices is particularly affected by the distinct business practices and procedures of a company as well as business partners, making it difficult to revise the operation without mutual cooperation. The daily operations of the accounting department, however, are expected to undergo major change following the revision of the law on preserving national tax records in electronic form, scheduled to come into effect in January 2022, and the introduction of a registration-based consumption tax invoicing system in October 2023. Along with advances in promoting paperless operations, there is a heightened need to digitize invoices, which has led to growing interest in solutions for supporting teleworking at accounting departments.

NTT Communications and NOC Outsourcing & Consulting Inc. (NOC), a member of the FUYO LEASE GROUP, have jointly launched the Total Solution for Accounting and Invoicing to support accounting departments seeking to shift to full-scale teleworking, including enhanced productivity, digitizing operations, and reducing paper-based operations. The solution offers a single package that combines BConnection Digital Trade, a cloud-based invoice digitization service provided by NTT Communications, and the BPO[1] service for accounting operations that leverages the know-how accumulated by NOC over a number of years. We support a complete transition to teleworking by handling the series of operations for the accounting department, which includes receiving, opening, and scanning paper; PDF and electronic invoices; inquiring about deficiencies in the scanned data; journalizing accounting data by accounting professionals; and inputting data to accounting systems.

The PDF delivery solution model, which is the current mainstream, allows for only one-way communication from the invoice issuer to the recipient. In contrast, BConnection Digital Trade provides a platform[2] that can be used by both the issuer and recipient and is characterized by the exchange of metadata. With invoices exchanged via the platform, users can register journalized information as well as apply for and approve requests for payment. The data can be linked to the company's own accounting system, which is expected to accelerate the pace of business process reform.

Introducing the Total Solution for Accounting and Invoicing will not only reduce paper invoices but also provide major benefits in terms of reducing process costs and work hours associated with the operation. While the global use of electronic invoices is more advanced than in Japan, future transmissions based on metadata are expected to replace PDF invoices to become the mainstream. NTT Communications will continue to improve this solution and enhance our support to realize workstyles that meet the needs of remote workers.

VOICE

Ryutaro Hirota
Manager, Application Services

There is currently a momentum for change in the area of electronic invoicing between businesses, which had been slow to spread in Japan due in part to its longstanding paper-based culture. The Total Solution for Accounting and Invoicing is a service that will promote a customer's shift to remote work. We provide a platform solution that fundamentally changes the business process. I am convinced that the introduction of this solution represents an extremely significant service for accelerating DX at our customers as well as for developing a sustainable society.

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[1] Outsourcing a part of the business process of corporate activity to a specialized firm outside the company.
[2] A standard environment that serves as the shared foundation (infrastructure) required for providing, customizing, and operating services, systems, and software.

Evolving to Be a Corporate Group to Create a Sustainable Future

We will continue rising to the challenge of creating a new way of communication as your value partner to open up new possibilities for people and the world toward realizing a sustainable future.

Over the years, the NTT Communications Group has engaged in 16 CSR Priority Activities in the four Priority Areas of contributions to society, contributions to the global environment, respect for employees, and continuous strengthening of corporate governance based on the Fundamental CSR Policy, which was revised in June 2016. In fiscal 2020, we continued to promote initiatives under this policy while also incorporating changes in the business environment.

Meanwhile, we are facing global issues and risks that are increasingly diverse, complex, and severe, and the business environment is evolving dramatically, as seen in developments related to the SDGs and ESG.

In response, the NTT Communications Group decided to revise its Fundamental CSR Policy at a meeting of the CSR Committee in June 2020. Since then, we have followed the process of identifying our materiality and held a number of discussions on revising the policy. In doing so, we examined the impact of the changing business environment and various trends in Japan and overseas; incorporated Our Mission and Our Core Beliefs, established in July 2019, into the Re-connect X business vision, established in October 2020; and determined the status of our initiatives as a member of the NTT Group while also analyzing the results and assessments of our activities up to fiscal 2020.

In May 2021, we formulated our new Sustainability Policy to address the complex and diverse issues facing society and to usher in the future by becoming a corporate group that creates a sustainable future.

Under this new policy, we will uphold Our Mission and Our Core Beliefs to pursue the Re-connect X business vision as "your value partner," with the intention of opening up endless possibilities for people and the world and consistently serving society to realize a sustainable future.

By implementing this policy, we will co-create with various stakeholders, overcome hurdles, and break through boundaries through our daily operations and business activities, and also create a new way of communication to sustainably serve society across the entire value chain. By building on these efforts, we will promote DX, GX, and SX for society as a whole, contribute to achieving the SDGs, pursue efforts to realize a sustainable future, and steadfastly enhance our corporate value.

Priority Areas in the Sustainability Policy and Our Vision for the Future

Priority Areas*	Our Vision for the Future
Society	A better future characterized by innovation, vitality, resilience, safety, and security, in which sustainable development is achieved through value creation.
Environment	An eco-friendly future characterized by carbon neutrality, resource recycling, and harmonious coexistence with nature based on the preservation of biodiversity.
Human Resources	A future rich in diversity based on mutual respect and enhancement and where everyone can shine in their own way and play a valuable role in society.
Governance	A future in which the Company is trusted for its lofty ethics and solid governance and develops a sustainable society for the future based on diverse co-creation.

*Priority areas in the Sustainability Policy, formulated in May 2021.

Under our new Sustainability Policy, we will pursue the unlimited possibilities of ICT and DX toward achieving carbon neutrality by 2030, achieve the SDGs, and realize a sustainable future full of dreams.

Tomohiro Ando
Executive Vice President

Addressing the worsening climate change situation, as well as other global issues and risks laid out by the SDGs and ESG, has become even more urgent today in order to pass on a sustainable society to the next generation and secure our future. In May 2021, the NTT Communications Group revised its Fundamental CSR Policy and formulated the new Sustainability Policy in response to trends in SDGs and ESG in Japan and overseas and subsequent changes underway in the business environment, as well as trends in cutting-edge technologies that will support a future society. The new policy is based on Our Mission and Our Core Beliefs, determined with the participation of all employees. It depends on each of us striving to realize a sustainable future by seizing the initiative to act, inspiring one another, and demonstrating our distinct abilities to meet social expectations through our daily operations, business activities, and the Re-connect X business vision. We intend to pursue this policy by focusing on these points.

Our new Sustainability Policy is composed of the four Priority Areas of society, the environment, human resources, and governance, and we have determined Our Vision of Society and 12 Sustainability Priority Activities by linking them to the SDGs. We hope to promote the Priority Activities to further demonstrate the positive impact of our business operations on society by advancing ICT and DX across the value chain while striving to minimize risk and negative impacts. By doing so, we will advance toward resolving various social issues, helping achieve the SDGs, and realizing our vision of the future of society.

We deliver DX solutions and platforms such as the Smart World and Smart Data Platform for X that leverage cutting-edge technologies, as well as ICT infrastructures such as our new fixed-mobile convergence services and solutions. These services may hold the key to resolving complex and diverse issues faced by society today, including climate change, large-scale disasters, the declining birthrate and aging population, infectious diseases, and threats to information and cyberspace security. They could also prove to be essential for promoting DX, GX, and SX across broad areas of society, and for creating value that will support society's future. We live in a time when all areas of human activity across the world must focus on the SDGs and ESG to advance together toward a better future. The joy of serving society by connecting various areas around the world through our business activities holds significant value for our employees.

Looking ahead, the NTT Communications Group will continue to develop and deliver services and platforms that support the next generation and our vision of a future society. We will also provide solutions for social issues that are increasingly complex and diverse and pursue the endless possibilities of ICT and DX to usher in the future. Furthermore, we will make a united Group effort under our new Sustainability Policy to meet public expectations and demands by practicing CSV and CSR through our unique business activities as an ICT company. We will work with various stakeholders to co-create and drive the emergence of new value in a robust effort to promote the SDGs and ESG and to realize a sustainable future full of dreams, which consists of innovative, creative, resilient, safe, secure, eco-friendly, and vigorous local communities that co-exist with nature, where people respect and inspire each other and allow everyone to shine in their own way and play a valuable role in society.

Our Sustainability Policy and Creating a New Way of Communication

Our initiatives for creating a new way of communication involve continuously challenging the infinite possibilities that communication has in creating innovative, user-friendly communication methods that optimize the flow of information in our society across every barrier and boundary, serving as a bridge between today and the future, and open up new possibilities for people, our world, and a future that lies beyond our imagination and allows for new wealth for society and the world.

This is the NTT Communications Group's corporate mission and reason for existence, and it constitutes the core of Our Mission. These initiatives and our basic approach, together with the three Core Beliefs, represent the backbone of the NTT Communications Group's sustainability and related basic policies and also reflect the aspirations expressed in our Corporate Message and Tagline, shown at right.

Corporate Message

Connecting into Tomorrow

We will constantly mediate between today and tomorrow to continually create a desirable future while contributing to society today.

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.

1999
Established the Environmental Protection Office

2005
Set up the CSR Committee

2006
Formulated the Basic CSR Policy and Priority Areas (contributing to society, protecting the environment, and respecting our employees)

2011
Formulated the CSR Priority Activities and designated the CSR indicators

NTT Group declared support for the SDGs
2016

2016
Revised the Fundamental CSR Policy, Priority Areas, and CSR Priority Activities and expanded the priorities by explicitly adding "Continuous Strengthening of Corporate Governance" as a fourth area

2019
Formulated Our Mission and Our Core Beliefs

October 2020
Announced the Re-connect X business vision

Redefined the Sustainability Policy, Priority Areas, Priority Activities, and KPIs
May 2021

Realizing a Sustainable Future

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 Sustainability Priority Activities linked to them.

Sustainability Management

Structure for Promoting and Managing Sustainability

Sustainability Promotion Structure

The NTT Communications Group promotes CSR initiatives through the CSR Committee. Chaired by the executive vice president 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. 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. Starting in fiscal 2021, the CSR Committee will meet twice a year, while the promotion structure has been enhanced from the standpoint of strengthening Group management by calling for the attendance of the presidents of Group companies, instead of the vice presidents of planning, who had participated in the past.

The CSR Committee will also collaborate with other committees, including the Compliance Committee, Business Risk Management Committee, Human Rights Committee, and Security Committee. Under this structure, it will promote initiatives based on the new Sustainability Policy.

◆ **Sustainability Promotion Structure**

Board of Directors
↕ Instruction/Report
President (Executive Council)
↕ Instruction/Report
CSR Committee ←Collaboration→ Compliance Committee / Business Risk Management Committee / Human Rights Committee / Security Committee

Global Environmental Protection Subcommittee
Chairperson: Head of CSR and Environmental Protection

Secretariat

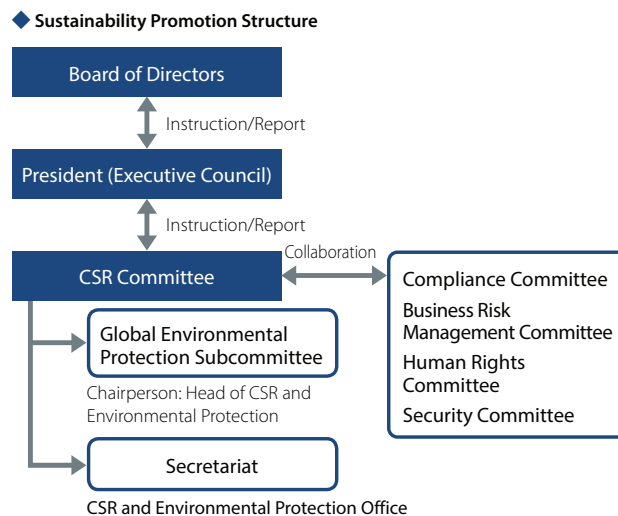CSR and Environmental Protection Office

◆ **CSR Committee Members**

Chairperson	Executive vice president in charge of CSR
Members	Heads of each organization and presidents of NTT Communications Group companies
Secretariat	CSR and Environmental Protection, Human Resources

Promoting Management

To effectively engage in CSR activities, we created and consistently applied a mechanism for verifying and evaluating the results of our activities. Specifically, we designate CSR indicators (KPIs) that serve as targets for the CSR Priority Activities for each fiscal year. We verify, evaluate, and review the level of achievement regarding each KPI as a reference point when setting the indicators for the next fiscal year. By following this PDCA cycle, we ensure the effectiveness of our CSR management for appropriately engaging in CSR activities. The CSR Committee implements these processes, which include reviewing the KPIs for each fiscal year as well as reconsidering the Fundamental CSR Policy and priority issues. Accordingly, in May 2021, the committee revised the Fundamental CSR Policy and established the Sustainability Policy. In the years ahead, the CSR Committee will adhere to this new Sustainability Policy and monitor the status of activities in the four Priority Areas of society, the environment, human resources, and governance in a timely manner and in cooperation with each organization responsible for the main initiatives. We will share the evaluation results for initiatives based on the new KPIs, the latest social trends, examples of model initiatives by other companies, and external evaluations and follow the PDCA cycle to pursue sustainability management and promote the NTT Communications Group's initiatives for effectively realizing a sustainable future.

Sustainability Management

Sustainability Priority Activities and KPIs

Review of Activities up to Fiscal 2020

With respect to the CSR Priority Activities (fiscal 2016 to fiscal 2020), we had been measuring the effectiveness of our CSR management by verifying and reviewing the level of achievement for the CSR KPIs designated for each fiscal year. In fiscal 2020, which marked the final year, we concluded that the relevant targets had essentially been achieved. In terms of management, we are aware that the key to accelerating our sustainability activities is to engage in initiatives linked to our business strategy, setting and managing quantitative targets to address each identified social issue, and executing an effective action plan. In addition, we confirmed that the CSR Committee will promote these activities Groupwide under the new Sustainability Priority Activities.
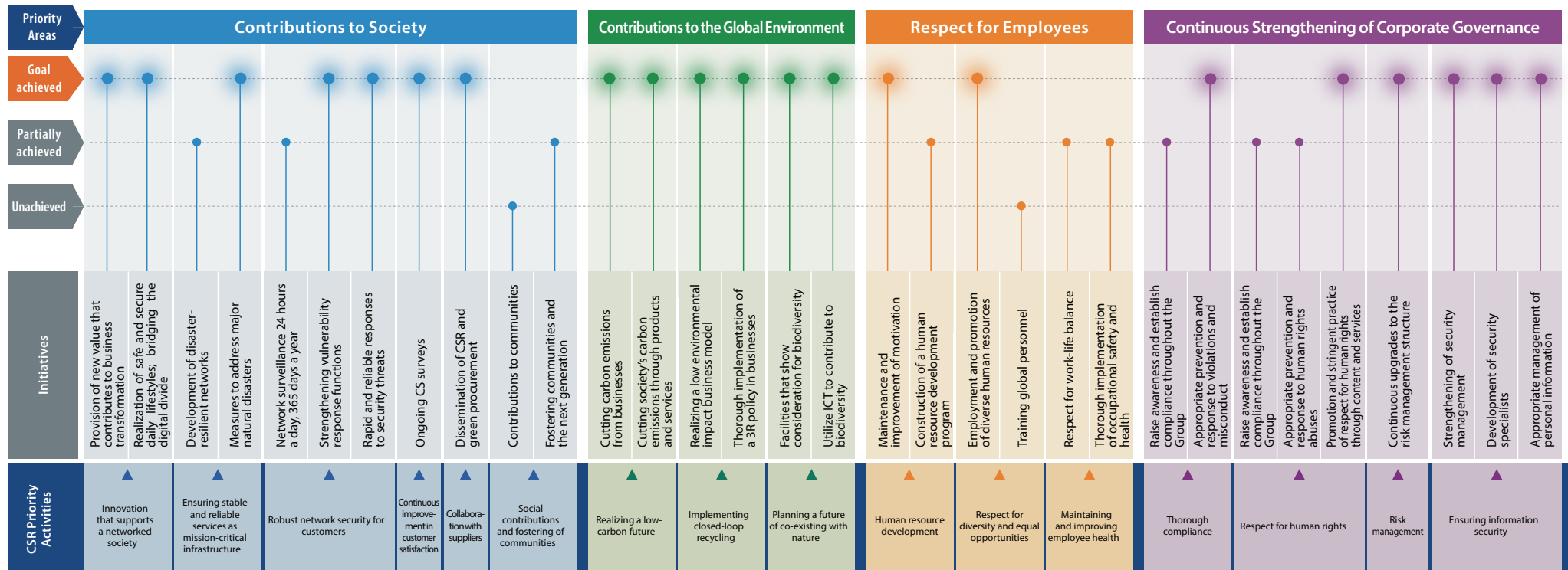
Fundamental CSR Policy (FY2016 to FY2020)

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 resolve social issues and create new value for society on a global scale through ICT.

Priority Areas

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

Goal achieved / Partially achieved / Unachieved

Initiatives

Provision of new value that contributes to business transformation / Realization of safe and secure daily lifestyles; bridging the digital divide / Development of disaster-resilient networks / Measures to address major natural disasters / Network surveillance 24 hours a day, 365 days a year / Strengthening vulnerability response functions / Rapid and reliable responses to security threats / Ongoing CS surveys / Dissemination of CSR and green procurement / Contributions to communities / Fostering communities and the next generation / Cutting carbon emissions from businesses / Cutting society's carbon emissions through products and services / Realizing a low environmental impact business model / Thorough implementation of a 3R policy in businesses / Facilities that show consideration for biodiversity / Utilize ICT to contribute to biodiversity / Maintenance and improvement of motivation / Construction of a human resource development program / Employment and promotion of diverse human resources / Training global personnel / Respect for work-life balance / Thorough implementation of occupational safety and health / Raise awareness and establish compliance throughout the Group / Appropriate prevention and response to violations and misconduct / Raise awareness and establish compliance throughout the Group / Appropriate prevention and response to human rights abuses / Promotion and stringent practice of respect for human rights through content and services / Continuous upgrades to the risk management structure / Strengthening of security management / Development of security specialists / Appropriate management of personal information

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 contributions and fostering of communities / Realizing a low-carbon future / Implementing closed-loop recycling / Planning a future of co-existing with nature / Human resource development / Respect for diversity and equal opportunities / Maintaining and improving employee health / Thorough compliance / Respect for human rights / Risk management / Ensuring information security
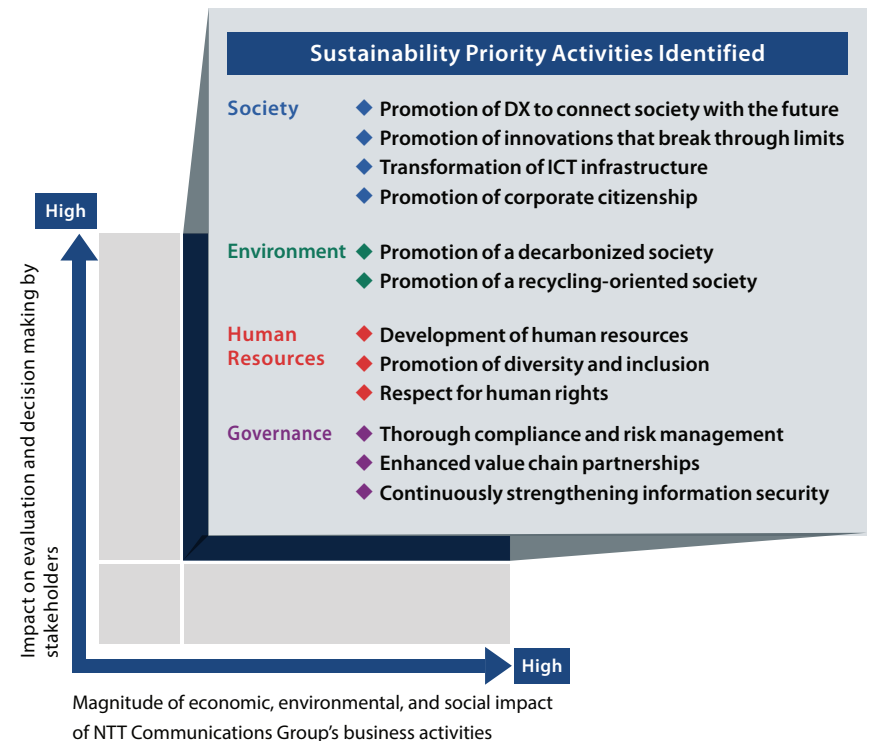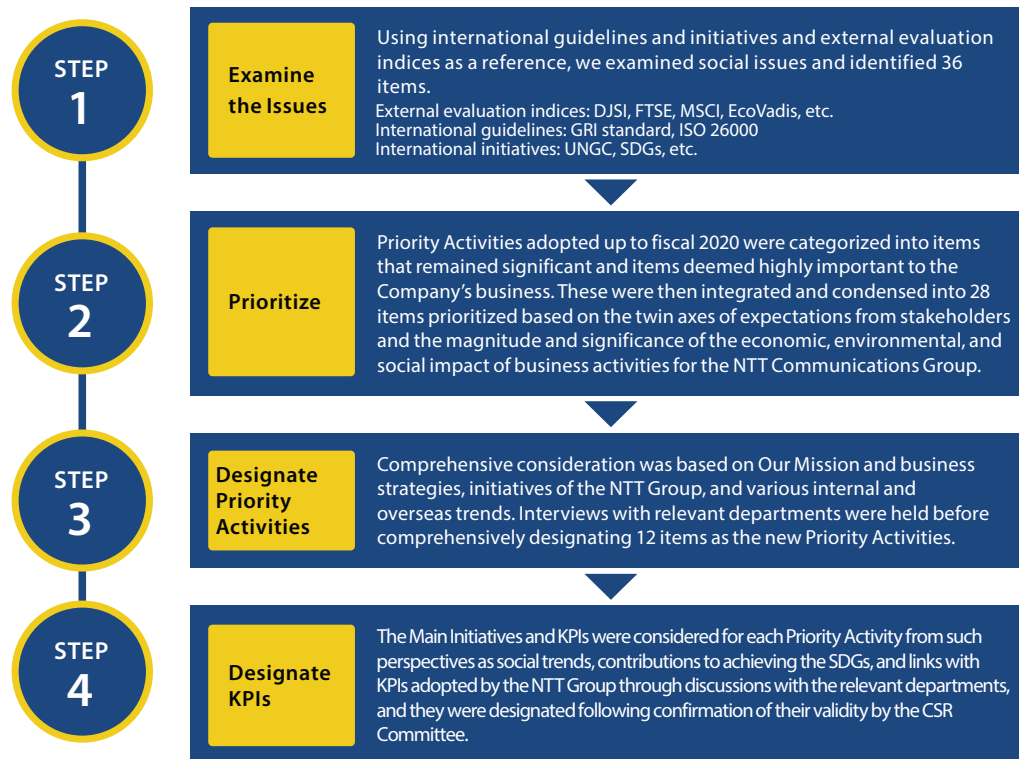
*We report on the concrete results starting with page 020.

Sustainability Management

Designation of New Sustainability Priority Activities and KPIs

To become a corporate group that creates a sustainable future, the NTT Communications Group identified its materiality based on the process outlined below to formulate its Sustainability Policy and subsequently revised its Priority Activities. In doing so, we paid due consideration to public demands and expectations for addressing climate change and other issues related to the SDGs and ESG, the NTT Group's business strategies and initiatives, and various trends in Japan and overseas. As shown in the diagram entitled Sustainability Priority Activities Identified by the Process, at bottom right, our new Priority Activities consist of 12 divided into the four Priority Areas of society, the environment, human resources, and governance. From here on, the NTT Communications Group will engage in sustainability activities that align with these Priority Activities.

Process of Identifying Materiality

STEP 1

Examine the Issues

Using international guidelines and initiatives and external evaluation indices as a reference, we examined social issues and identified 36 items.
External evaluation indices: DJSI, FTSE, MSCI, EcoVadis, etc.
International guidelines: GRI standard, ISO 26000
International initiatives: UNGC, SDGs, etc.

STEP 2

Prioritize

Priority Activities adopted up to fiscal 2020 were categorized into items that remained significant and items deemed highly important to the Company's business. These were then integrated and condensed into 28 items prioritized based on the twin axes of expectations from stakeholders and the magnitude and significance of the economic, environmental, and social impact of business activities for the NTT Communications Group.

STEP 3

Designate Priority Activities

Comprehensive consideration was based on Our Mission and business strategies, initiatives of the NTT Group, and various internal and overseas trends. Interviews with relevant departments were held before comprehensively designating 12 items as the new Priority Activities.

STEP 4

Designate KPIs

The Main Initiatives and KPIs were considered for each Priority Activity from such perspectives as social trends, contributions to achieving the SDGs, and links with KPIs adopted by the NTT Group through discussions with the relevant departments, and they were designated following confirmation of their validity by the CSR Committee.

Sustainability Priority Activities Identified

Society
- ◆ Promotion of DX to connect society with the future
- ◆ Promotion of innovations that break through limits
- ◆ Transformation of ICT infrastructure
- ◆ Promotion of corporate citizenship

Environment
- ◆ Promotion of a decarbonized society
- ◆ Promotion of a recycling-oriented society

Human Resources
- ◆ Development of human resources
- ◆ Promotion of diversity and inclusion
- ◆ Respect for human rights

Governance
- ◆ Thorough compliance and risk management
- ◆ Enhanced value chain partnerships
- ◆ Continuously strengthening information security

Impact on evaluation and decision making by stakeholders

High

High

Magnitude of economic, environmental, and social impact of NTT Communications Group's business activities

Sustainability Management

Main Initiatives and KPIs

We designated the Main Initiatives and KPIs for each Priority Activity and applied a PDCA cycle under the leadership of the responsible departments. The Main Initiatives and KPIs are discussed by the CSR Committee, convened twice a year, and revised as needed to reflect trends related to society and stakeholders. We are now preparing to reflect the level of achievement for certain KPIs in executive compensation. In addition, we will promote green electricity and initiatives for reducing power consumption toward realizing carbon neutrality* by reducing CO_2 emissions generated by our operations, such as data centers and networks, to zero by fiscal 2030.

Society

Our Vision of the Future
We envision a better future characterized by innovation, vitality, resilience, safety, and security, in which sustainable development is achieved through value creation.

Priority Activities	Main Initiatives	KPIs
Promotion of DX to connect society with the future	Promote DX in society and industry	**Qualitative** · Promote Smart World projects based on BBX strategy **Quantitative** · Number of service projects: 8
	Promote DX in workstyles and lifestyles	
	Promote DX in global business	
Promotion of innovations that break through boundaries	Generate creative innovations	**Qualitative** · Promote creative and innovative SmartX projects
	Promote innovation management	**Qualitative** · Promote unique innovations in collaboration with internal and external members
Transformation of ICT infrastructure	Enhance network infrastructures that are resilient against natural disaster, highly reliable, safe, and secure	**Qualitative** · Assess the vulnerability level of existing routes and incorporate results in an upgraded policy for nationwide DSM (dedicated service handling module) cables · Promptly secure redundancy for critical connections in the event of a disaster · Construct networks less susceptible to disruptions in the event of a disaster · Reinforce security of the internal surveillance network
	Provide advanced and robust information and cyber security	**Quantitative** · Develop security services and add a menu (2 cases)
	Provide advanced and flexible network services	**Quantitative** · Promote advanced projects including those related to edge computing, drones, and local 5G (2 projects)
Promotion of corporate citizenship	Promote social contribution activities that are beneficial to a sustainable future	**Quantitative** · Participate in activities that contribute to local communities (year-on-year increase)

Environment

Our Vision of the Future
We envision an eco-friendly future characterized by carbon neutrality, resource recycling, and harmonious coexistence with nature based on the preservation of biodiversity.

Priority Activities	Main Initiatives	KPIs
Promotion of a decarbonized society	Promote the use of green electricity	**Quantitative** · Percentage of internal renewable energy use:50% or more in FY2030
	Reduce power consumption	**Quantitative** · Reduce CO_2 emissions (down 50% in FY2030 compared to FY2018)
	Introduce electric vehicles (EVs)	**Quantitative** · Percentages of EVs in fleet: 50% by FY2024, 100% by FY2030
	Provide services that help reduce CO_2 emissions	**Quantitative** · Power efficiency in our telecommunications businesses (at least 10 times better in FY2030 than in FY2013)
	Improve energy efficiency	**Quantitative** · Contribute to reducing CO_2 emissions across society (reduce more than 10 times the emissions of the NTT Communications Group in FY2030)
Promotion of a recycling-oriented society	Thoroughly implement the 3Rs (reduce, recycle, and reuse)	**Quantitative** · Final waste disposal ratio: 1.5% or less in FY2030
	Promote the recycling of plastics	

*Reductions are targeted at Scope 1 (direct greenhouse gas emissions by the Company) and Scope 2 (indirect emissions associated with the use of purchased electricity, heat, or steam) emissions under the Greenhouse Gas Protocol.

Sustainability Management

Human Resources

Our Vision of the Future	We envision a future rich in diversity based on mutual respect and enhancement, where everyone can shine in their own way and play a role in society.

Priority Activities	Main Initiatives	KPIs
Development of human resources	· Disseminate recognition and promote a new human resource development program · Enhance skills enhancement support programs	**Quantitative** · Educational costs per person: 228,000 yen per year
Promotion of diversity and inclusion	Promote hiring, development, assignment, and equal opportunities for diverse human resources	**Quantitative** · Percentage of women in managerial positions: 10% in FY2025
		Quantitative · Percentage of men taking childcare leave: 25% in FY2025
		Quantitative · Percentage of employees with disabilities: 2.3%
	Promote work-life balance	**Quantitative** · Employee job satisfaction (higher than in previous fiscal year)
		Quantitative · Percentage of digitization of business forms: 70%
		Quantitative · Percentage of employees working from home: 70%
	Thoroughly implement occupational safety and health and health management for employees	**Quantitative** · Percentages of employees receiving special health guidance: 16.5% in FY2021, 14.5% in FY2023
		Quantitative · Percentages of special health guidance completed: 43% in FY2021, 55% in FY2023
Respect for human rights	Proactively promote activities for human rights education	**Quantitative** · Attendance of human rights training (higher than in previous fiscal year)
		Quantitative · Human rights due diligence (more than once a year)
		Quantitative · Human rights violations: 0 cases

Governance

Our Vision of the Future	We envision a future in which the Company is trusted for its lofty ethics and solid governance and develops a sustainable society for the future based on diverse co-creation.

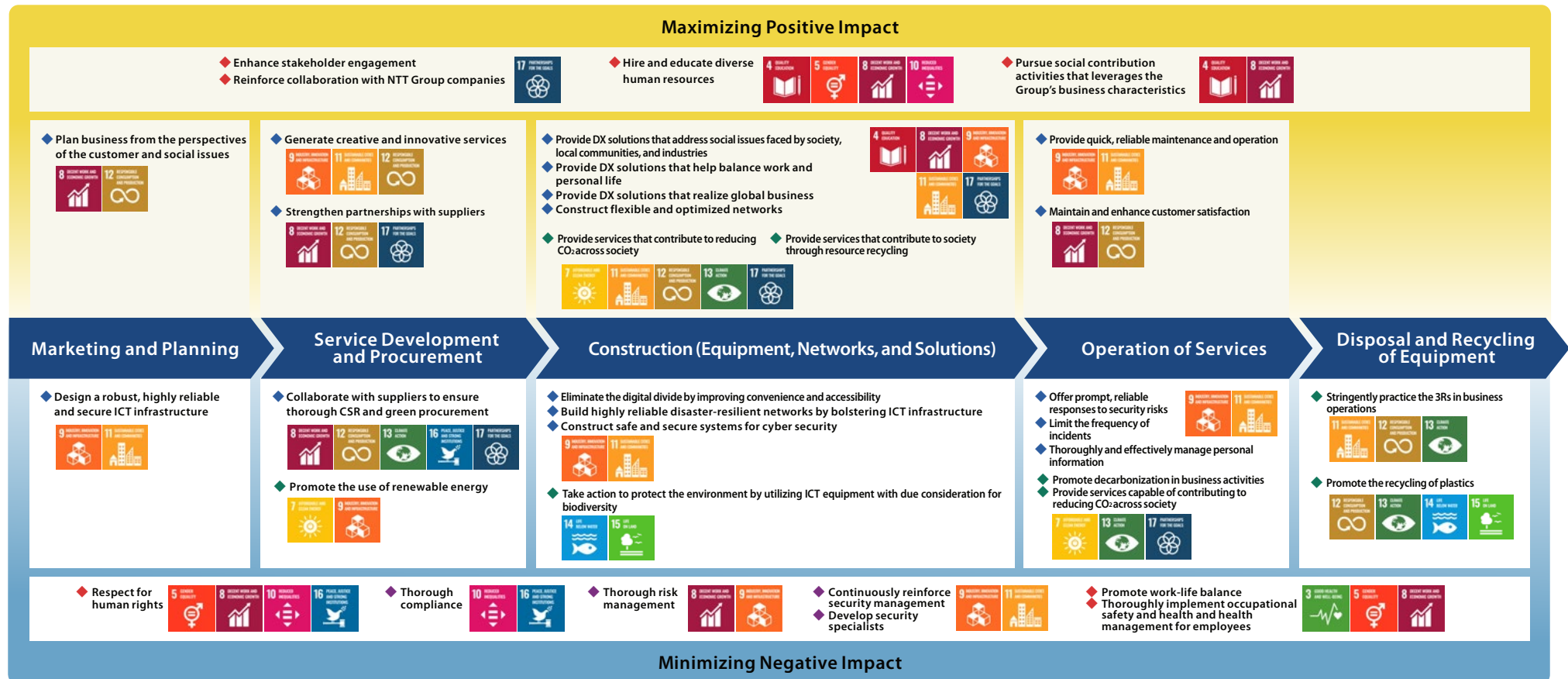| Priority Activities	Main Initiatives	KPIs
Thorough compliance and risk management	Continuously enhance initiatives on compliance	**Qualitative** · Implement compliance training and foster awareness of risk management
	Continuously upgrade the risk management structure	**Qualitative** · Promote Companywide risk management
Enhanced value chain partnerships	Collaborate with suppliers to ensure thorough CSR and green procurement	**Quantitative** · Response to CSR survey: 100% · Checks on procurement status of high-risk suppliers (100%) · Corrective response to suppliers associated with risk (100%)
	Enhance stakeholder engagement	**Qualitative** · Hold stakeholder dialogues and respond to requests
Continuously strengthen information security	Continuously reinforce security management	**Qualitative** · Conduct system audits and information security audits, implement security measures, and enhance the management structure **Quantitative** · Number of serious security incidents: 0
	Develop security specialists	**Quantitative** · Develop security specialists skilled in both information technology and operational technology (30 per year) · Number of specialists with the level 3 qualification in ODYSSEY security category, or higher: more than 200 in total in FY2024
	Appropriately manage personal information	**Quantitative** · Serious incidents of personal information leakage: 0 cases

*In principle, indicators without a target fiscal year signify single-year targets that should be attained by the end of fiscal 2021.

Sustainability Management

Initiatives for Realizing a Sustainable Future through the NTT Communications Group Value Chain

The NTT Communications Group has clearly redefined the main issues it must address by gauging the social and environmental impact of its business activities across its value chain, adhering to its new Sustainability Policy and referencing the SDGs. Toward achieving the SDGs and realizing a sustainable future, we will enhance our value chain partnerships as we implement initiatives for addressing the main issues through our business activities by reinforcing the positive impact and minimizing the risks and negative impact on society.

Four Priority Areas ◆ **Society** ◆ **Human Resources** ◆ **Environment** ◆ **Governance**

Maximizing Positive Impact

◆ Enhance stakeholder engagement
◆ Reinforce collaboration with NTT Group companies

◆ Hire and educate diverse human resources

◆ Pursue social contribution activities that leverages the Group's business characteristics

◆ Plan business from the perspectives of the customer and social issues

◆ Generate creative and innovative services
◆ Strengthen partnerships with suppliers

◆ Provide DX solutions that address social issues faced by society, local communities, and industries
◆ Provide DX solutions that help balance work and personal life
◆ Provide DX solutions that realize global business
◆ Construct flexible and optimized networks

◆ Provide services that contribute to reducing CO_2 across society
◆ Provide services that contribute to society through resource recycling

◆ Provide quick, reliable maintenance and operation

◆ Maintain and enhance customer satisfaction

Marketing and Planning ▶ **Service Development and Procurement** ▶ **Construction (Equipment, Networks, and Solutions)** ▶ **Operation of Services** ▶ **Disposal and Recycling of Equipment**

◆ Design a robust, highly reliable and secure ICT infrastructure

◆ Collaborate with suppliers to ensure thorough CSR and green procurement

◆ Promote the use of renewable energy

◆ Eliminate the digital divide by improving convenience and accessibility
◆ Build highly reliable disaster-resilient networks by bolstering ICT infrastructure
◆ Construct safe and secure systems for cyber security

◆ Take action to protect the environment by utilizing ICT equipment with due consideration for biodiversity

◆ Offer prompt, reliable responses to security risks
◆ Limit the frequency of incidents
◆ Thoroughly and effectively manage personal information
◆ Promote decarbonization in business activities
◆ Provide services capable of contributing to reducing CO_2 across society

◆ Stringently practice the 3Rs in business operations

◆ Promote the recycling of plastics

◆ Respect for human rights

◆ Thorough compliance

◆ Thorough risk management

◆ Continuously reinforce security management
◆ Develop security specialists

◆ Promote work-life balance
◆ Thoroughly implement occupational safety and health and health management for employees

Minimizing Negative Impact

Sustainability Management

Relationship with the NTT Group

Promoting CSR throughout the Entire Group

NTT Communications engages in initiatives Groupwide to address social issues as a member of the NTT Group by adhering to the NTT Group Sustainability Charter, established in November 2021 as a revision to the NTT Group CSR Charter. As part of the revision, the NTT Group set up the Sustainability Committee, chaired by the CEO to discuss the basic strategies, status of activities, and information disclosure related to sustainability to promote its initiatives. NTT Communications participates in these discussions as an operating company, and decisions made by the committee are reflected in our own activities.

Furthermore, 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 has consistently received awards at the conference since fiscal 2016. In fiscal 2021, we proactively shared and reported on initiatives and services beneficial from the perspective of CSR.

🌐 For more information on the NTT Group Sustainability Charter, refer to the following link.
https://group.ntt/en/newsrelease/2021/11/10/211110d.html

◆ 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)

· Japan Climate Initiative (JCI)
· 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)
· Security Promotion Council (SPREAD)

Outside Advice for Management

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. In fiscal 2020, we invited Kazuo Tase, President and CEO of SDG Partners Inc., to take part in a dialogue with our CSR Committee chairperson. 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.

🌐 For details on dialogues involving management and outside experts, refer to the following link.
https://www.ntt.com/en/about-us/csr/dialog/dialog_2020.html

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

New information and communications technologies (ICT) arise every day, and the paradigm of economic activities continues to evolve.

As a leader in social and industrial digital transformation (DX), the NTT Communications Group handles its work every day with an emphasis on helping to resolve social issues by providing a highly reliable and high-quality communications infrastructure and delivering cutting-edge technologies to customers and society in general.

In addition, we constantly seek ways to contribute to society through the utilization of ICT. By developing multifaceted activities with these aspects as the pillars of our efforts, we are contributing to a better future while prospering along with various communities.

Society
Contributions to Society

NTT Communications formulated it business vision Re-connect X with an eye on the future during and after the COVID-19 pandemic. The vision shows a sustainable future in which the Company will safely, securely, and flexibly connect everything, including consumers, businesses, and society, and use the data obtained from that connectivity to address a number of social issues. To realize this vision, we have been focusing on providing creative solutions based on the Smart Data Platform, a next-generation data utilization platform, and reinforcing the resilience of our ICT infrastructure in response to a remote-based decentralized society. A series of our initiatives were tested on the significant occasion of the Tokyo 2020 Olympic and Paralympic Games, and I believe that we were able to fulfill our great responsibility by providing the world's highest level of telecommunications services.

In line with the revision of the Fundamental Sustainability Policy in May 2021, we reviewed our sustainability priority activities based on the new priority area of society. While maintaining the major direction of resolving social issues through ICT, priority activities also emphasize the promotion of DX in society as a whole to realize a Smart World and calls for pursuing innovation that breaks through limitations by realizing the IOWN concept. As a member of the new DOCOMO Group, we will continue to expand our potential to contribute to a sustainable future while developing open innovation in and outside the Company.

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

Hidemune Sugahara
Senior Executive Vice President

< 021 >

Fiscal 2020 Activity Results

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 following five out of six areas of the Sustainability Priority Activities: innovation that supports a networked society, ensuring stable and reliable services as mission-critical infrastructure, robust network security for customers, collaboration with suppliers, and social contributions and fostering of communities.

With the increase in teleworking during the COVID-19 pandemic, the volume of Internet communications increased, and we expanded the functions of our OCN service to improve its convenience, such as by promoting IPoE to make communications more comfortable. In addition, to ensure the success of the Tokyo 2020 Olympic and Paralympic Games, we worked to improve our disaster response and information transmission capabilities. Moreover, the Shining Arcs corporate rugby team engaged in various initiatives for addressing social issues, such as by organizing rugby classes at elementary and junior-high schools and participating in classes promoting the Tokyo 2020 Olympic and Paralympic Games in the LEAD TO THE OCEAN to protect marine resources for a better future.

◆ Fiscal 2020 Activity Results and Fiscal 2021 Targets

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

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

| 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 | 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 | ● Implemented a combined proposal to promote DX for customers by combining Things Cloud®, an IoT-PF, and Wasabi, a Smart Data Platform
● Promoted the expansion of the Things Partner® Program by conducting online events as well as discussions on sector-specific areas for applying IoT during the coronavirus pandemic | ● Expanded participation in the Things Partner® Program to 41 companies (as of March 2021)
● In FY2020, two companies advanced from "Ready" to "Connected," resulting in a total of 30 Ready companies and 11 Connected companies
● Disseminated information to partners through two online events and worked to create new value offerings
● Things Cloud® won the 2020 Japan IoT Service Provider of the Year award at the 2020 Frost & Sullivan Asia Pacific Best Practices Awards
● Vehicle Manager® won the Screening Committee Award in the IoT category at the 14th ASPIC IoT/AI/Cloud Awards 2020 and received external recognition for our corporate efforts | ★★★ | ● | ● | Domestic Group |

*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

| Initiatives | Medium-term Targets (Form We Want to Take in Five Years) | Fiscal 2020 | | | | Boundary | | |
		Targets	Specific Activities	Quantitative Results	Assessment	Within the Organization	Outside the Organization	Scope
Realization of safe and secure daily lifestyles; bridging the digital divide	Bridge the digital divide, develop accessibility-enhanced services for individual users and a framework for delivering them	• Launch new services for improving OCN and continuously implement functional enhancements • Continue to implement support measures to respond to changes in network usage due to the COVID-19 pandemic	• Free 10 GB of OCN Mobile One data capacity for U25 customers: April 2020 • Customer support such as the extended deadline for bill payment in response to the spread of COVID-19 (a collaboration among NTT Group companies): From April 2020 • Standardized IPoE connection (v4overv6) function for the OCN fiber-optic service: Since June 2020 • 3-month free trial of Amazon Music Unlimited and a monthly discount of 100 yen for OCN users (eligible for packet count free): From July 2020 • Provided the OCN Mobile ONE voice-enabled SIM with the OCN unlimited call option and 1,000 yen per month campaign for up to 12 months: Since February 2021 • Reduced packet loss during congestion and improved QoE by upgrading the mobile traffic control system: Since March 2021 • Promoted center DX for customers (Chatbot, Web, IVR, remote work) to improve the sophistication and efficiency of customer support, and promoted BCP to continue customer support even during the suspension of center functions: Year-round	7 activities	★★★ ★	●	●	Domestic Group

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)	Targets	Specific Activities	Quantitative Results	Assessment	Within the Organization	Outside the Organization	Scope

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)	• Flood prevention and seismic reinforcement
		  - Start work on flood prevention: 5 buildings
		  - Start work on seismic reinforcement and removal: 1 building
			• Flood prevention and seismic reinforcement
			  - Started work on flood prevention: 5 buildings
			  - Started work on seismic reinforcement and removal: 2 buildings
				• Flood prevention and seismic reinforcement
				  - Started work on flood prevention: 5 buildings
				  - Started work on seismic reinforcement and removal: 2 buildings
					★★★	●		Domestic Group

		• Improve the reliability of power receiving equipment and engines
		→Decide on new buildings
		  - Upgrade power receiving equipment at 6 buildings
		  - Upgrade 9 engines
			• 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	• Improved the reliability of power receiving equipment and engines
				  - Power receiving equipment: discussed and approved upgrades for 6 buildings at a decision making meeting
				  - Engines: discussed and approved upgrades for 5 engines at a decision making meeting
					★			

		• Communication routes: allocate materials for relieving route interruptions	• Communication routes: In anticipation of the long-term disconnection of NTT Com fiber cables that occurred during the July 2020 torrential rains, we decided in March 2021 to purchase spare materials that could be used for a WDM detour and delivered it in August 2021		★★			
		• Transmission equipment: create BCPs to flexibly procure materials and bases for allocating alternative equipment	• Transmission equipment → In addition to allocating path detour alternative materials, the path materials inventory (3 months) to respond to demand was organized (June 2020) to use them flexibly → BCPs for bases (Kanto and Kansai) for allocating alternative equipment for WDM path detour materials and intra-station optical cables were created (June 2020)		★★★			
		• Internal surveillance network: reinforce security (introduce system for detecting abnormal transmissions)	• Internal surveillance network: Completed the installation of the abnormal transmission detection system (NDR) (March 2020) and started operations (April 1, 2021)		★★★			
		• Formulate a maintenance grand design: Assess vulnerability level of existing routes and incorporate results in an upgrade policy for nationwide DSM (dedicated service handling module) cables	• Formulated a maintenance grand design: Assessed vulnerability nationwide. As a result, determined that more detailed information was necessary and therefore input detailed local data in disaster-hit Kyushu. Decided that since it would be difficult for people to conduct a nationwide assessment, considered building a system for assessing vulnerability.	• Formulated a maintenance grand design: Selected 180,000 records as evaluation targets and 56 parameters as evaluation items	★			

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 2020			Assessment	Scope of Activities (Boundary)		
		Targets	Specific Activities	Quantitative Results		Within the Organization	Outside the Organization	Scope
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, and enhancing disaster preparedness exercises by using a blind drill format (not made known to participants) ● Gathering disaster 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 ● Confirm 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)	● Conducted a Groupwide disaster prevention drill to reconfirm the process of basic actions to be taken for a hypothetical earthquake in the Nankai Trough and confirmed a new operational process by the Disaster Response Headquarters in a remote environment during the coronavirus pandemic when teleworking or home standby has become the basic practice (October 2020) ● Based on the assumption that the Tokyo 2020 Olympic and Paralympic Games would be held during the coronavirus pandemic, we built an information communication system in a remote environment and conducted a Groupwide breakdown exercise to establish and master the flow of coordination between the Olympic Operation Team (in-house) and the Disaster Response Headquarters (in-house) in the event of a large-scale natural disaster (March 2021) ● Collaborated with the government's verification team for natural disasters, including typhoons No. 15 and No. 19 in 2019; identified, compiled, and implemented improvements based on various standpoints and perspectives (March 2020) **http://www.bousai.go.jp/kaigirep/r1typhoon/index.html (in Japanese)**	● Newly organized the concept of where to set up the Disaster Response Headquarters and how to gather employees during the spread of infections; developed a recovery response process in a remote environment. Confirmed the effectiveness of the process through responses to large-scale disasters that occurred during FY2020 and a Groupwide disaster drill. ● Confirmed improvements in our disaster response capabilities and information transmission speed through a review of actual cases of natural disasters and the strengthening of cooperation between the internal operating team for the Tokyo 2020 Olympic and Paralympic Games and the Disaster Response Headquarters through exercises and drills	★ ★★ ★	●		Domestic Group

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 2020			Assessment	Scope of Activities (Boundary)		
		Targets	Specific Activities	Quantitative Results		Within the Organization	Outside the Organization	Scope
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	● 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 network monitoring and associated operation systems to prepare for an outbreak of disease such as COVID-19	● Managed long-term malfunctions on a monthly basis and took action to analyze their causes and prevent recurrent malfunctions ● Built remote network monitoring and associated operation systems as planned to prepare for the spread of COVID-19 and achieved maintenance and improvement of the quality of service and operations with a minimum number of personnel	Number of long-term malfunctions exceeding 1 hour for each service: - DNW: 814 lines/month - CL: 12 incidents/year - A&C: 8 incidents/year - Voice: 20 incidents/year	★ ★	●	●	Domestic Group

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 2020 | | | Assessment | Scope of Activities (Boundary) | | |
		Targets	Specific Activities	Quantitative Results		Within the Organization	Outside the Organization	Scope
Strengthening vulnerability response functions	Develop measures for both domestic and overseas Group companies to strengthen their vulnerability response functions	Integrate vulnerability assessment with system audits and apply throughout the Company	● Conducted information security audits and system audits for NTT Com Group companies ● Conducted agile audits in collaboration with the Legal Affairs and Internal Auditing (Internal Auditing)	● Conducted and followed up on information security audits and system audits within the NTT Communications' organization (Digital Transformation, Application Services, West Japan Sales Division, etc.) and NTT Communications' Group companies (NTTCom Online Marketing Solutions Corporation , NTT Com Solutions Corporation , PHONE APPLI Inc. , NTT Smart Trade Inc.)	★★★	●		Domestic Group
Rapid and reliable responses to security threats	Continuously enhance and strengthen services that contribute to safe and secure corporate and national information systems	Expand security measures for cloud gateways, end points, and IoT/OT to strengthen the ICT environment based on the zero trust model and workstyle reform	● As for cloud gateways, began offering Cloud Diagnosis Solution (CASB), a service designed to reduce shadow IT, insider fraud, and information leakage by using the cloud. Also started providing Cloud Gateway Security (Email) and Cloud Gateway Security (Proxy) to reduce threats through advanced analysis of email and proxy logs. ● For endpoints, began offering CrowdStrike, which supports Mac, Linux, and Windows ● For IoT/OT, started offering OT Security (SilentDefense) and OT Security (Guardian), which provide 24-hour monitoring of mission-critical factory networks by SOC	● Number of new services: 6 - Services in the cloud gateway field: 3 - Service in the end point field: 1 - Services in the IoT/OT field: 2	★★★	●	●	Domestic Group

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

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Within the Organization	Outside the Organization	Scope
Ongoing CS surveys	Continuous improvements in customer satisfaction level scores	● 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 pandemic in FY2020, raise customer satisfaction by grasping their needs and issues and working on sales activities and service improvements	● Added a question asking respondents to compare their level of satisfaction over successive years to measure the effectiveness of actions taken in FY2020 (PDCA) ● Newly added LoBs and small and medium-sized customers to targeted individuals to understand the needs of a wide range of customers ● Conducted a new interview survey with CXOs ● Conducted multiple correlation analyses to clarify items for improvement that have a high impact on customer satisfaction ● Formulated action plans based on survey results; plans are being implemented at each relevant organization ● Prepared questions on the trend of customer efforts to promote DX and reviewed the IT environment in the "new normal" era to understand customer needs in a timely manner	● LoB respondents: an increase of 177 from FY2020 ● Small and medium-sized corporate respondents (new): 122 ● CXO customer interviews (new): 34 ● Extracted improvement items with a high impact on customer loyalty: Approx. 100 items ● Prepared a simple white paper summarizing the intentions of DX promotion in the "new normal" era	★★★	●	●	Domestic Group

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 2020				Scope of Activities (Boundary)		
		Targets	Specific Activities	Quantitative Results	Assessment	Within the Organization	Outside the Organization	Scope

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

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Within	Outside	Scope
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	● Continued to conduct the annual supplier survey on promoting CSR procurement ● Shared the basic approach for procuring environmentally friendly parts and products and requirements for suppliers ● Regarding human rights due diligence, we asked the entire value chain to comply with the NTT Guidelines for CSR in Supply Chain and held direct dialogue with key suppliers	● 19 companies ● Conducted individual briefings on: - Reduction of plastic packaging: 2 companies - Paper reduction (electronic contracts): 50 companies	★★★	●	●	The Company only

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

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Within	Outside	Scope
Contributions to communities	Promoting social contribution activities in a variety of fields according to the social contribution principles, such as sustainability, efficiency, due diligence, global perspective, and skills	● 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 due to the spread of COVID-19	● To prevent the spread of COVID-19, cancelled a cleanup activity around the head office, which had been conducted in previous years ● Held sales events by delivery. Other bases and Group companies also held their own sales events.	● Sales events by delivery: Held twice in total in February and March, with gross sales of 124,500 yen. Employees of other locations who were unable to participate in the events in the head office building were able to purchase products. (Three orders were made from outside the Kanto region.)	★	●	●	Domestic Group
Fostering communities and the next generation	Developing a strategic social contribution framework that leverages the Group's business characteristics to support communities and foster the next generation	● 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 rooted in the local community by contributing to the region *Reconsider schedule of events due to the spread of COVID-19	● Participated in the LTO (LEADS TO THE OCEAN Following the Sea Project), co-sponsored by the NPO Umisakura and The Nippon Foundation since 2015. https://www.ntt.com/rugby/news/2020/200807.html (Japanese only) ● Held the online event "Let's learn about Tonga" with JICA https://www.ntt.com/rugby/news/2020/200522.html (Japanese only) ● Held a 1TRY × 1TOY event to give the number of tries × toys for nursery school children in Urayasu City in December 2020 https://www.ntt.com/rugby/news/2020/201201_03.html (Japanese only) ● Cooperated in project activities to support the independence of children in long-term care https://www.ntt.com/rugby/news/2020/210129.html (Japanese only) ● Started an initiative in support of the #WidenTheCircle OfThanks project advocated by the Ministry of Health, Labor and Welfare https://www.ntt.com/rugby/news/2020/210331.html (Japanese only) ● Organized classes educating on the Tokyo 2020 Olympic and Paralympic Games (since 2018) ● Held Family Day and a beach cleanup (every year)	● 1st event: 4 times between October 24 and November 21 ● JICA online event https://www.ntt.com/rugby/news/2020/200611.html (Japanese only) ● Three gifts for three tries at the three practice games starting on December 5 (one was cancelled due to opponent circumstances) ● Together with the Urayasu City-based soccer team Briobecca Urayasu, agreed with the philosophy of Being ALIVE Japan, a non-profit organization, and started supporting activities for children in long-term care and to cooperate in public relations. Held the first event online on January 31. ● Posted on social media with the hashtag #WidenTheCircleOfThanks ● Suginami Ward Amanuma Elementary School (November 5), Itabashi Ward Dai-hichi Elementary School (November 12), Oshima Town Tsubaki Elementary School (December 21), Oshima Town Dai-ichi Junior High School (December 22) ● Cancelled Family Day and a beach cleanup to prevent the spread of COVID-19	★★	●	●	Domestic Group

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 Sustainability Priority Activity of 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 Sustainability Priority Activity is closely connected to our growth strategies.

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 and, at the same time, to connect the world by implementing CSR that leverages our business characteristics and strengths.

Main Achievements in Fiscal 2020 and Goals for the Coming Years

In fiscal 2020, we further expanded the Things Partner® Program, which promotes the spread of IoT, and the number of participating companies consequently increased to 41. We will contribute to realizing a Smart World by creating new areas for applying IoT through this program, which offers one-stop support for everything from consideration of IoT introduction to design, maintenance, and operations. In addition, we enhanced the Smart Data Platform, which provides a one-stop service for data collection, storage, analysis, and return, to include functions anticipating a post-COVID world, such as a system that allows remote access to Flexible InterConnect.

Moreover, with the rapid expansion of remote work during the coronavirus pandemic, we will continue supporting measures in response to changes in network usage, such as adding services to make the use of OCN more comfortable, while also promoting the provision of services that utilize innovative technologies to help 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 one of the key factors for achieving DX. Through our Smart Data Platform (SDPF)*, which enables customers to make full use of data, we will encourage our customers to promote DX in order to resolve social issues and achieve sustainable growth, which in turn will lead to generating new value through DX.

*Smart Data Platform: A one-stop service that integrates and organizes corporate data dispersed in the cloud or on-premise into a secure environment on a single platform and provides all the functions required for customers' data-based businesses.

For more information on the Smart Data Platform, see:

https://www.ntt.com/business/sdpf/

(Japanese only)

Promoting Digital Transformation to Create Value through the Use of IoT

NTT Communications is actively promoting value creation and business co-creation through innovation with customers based on the concept of design and use of IoT.

In fiscal 2020, to continue to provide customers with valuable IoT solutions combined with Smart Data Platform services, we made value proposals for their business operation challenges and expand the capabilities of the Things Partner® Program.

The number of participating companies in the Things Partner® Program increased to 41 as of March 2021 through online events and discussions on sector-specific areas for applying IoT during the coronavirus pandemic. Things Cloud® won the 2020 Japan IoT Service Provider of the Year award at the 2020 Frost & Sullivan Asia Pacific Best Practices Awards, and Vehicle Manager® won the Screening Committee Award in the IoT category at the 14th ASPIC IoT/AI/Cloud Awards 2020, and we received other external recognition as well.

In fiscal 2021, we launched a new 5G/IoT Task Force to deepen collaboration with networks such as IoT Connect Mobile® and local 5G. IoT Connect Mobile® Type S released a closed connectivity feature from mobile networks to various clouds such as Things Cloud® via Flexible InterConnect.

In order to accelerate customer businesses, Things Cloud® will also provide streaming functions that can execute real-time, high-performance processing, and its functions will be expanded to realize data-driven DX through IoT.

Providing Services that Enable Secure Access to Internal Systems

The "new normal" social environment, where remote work has become common, requires an environment that allows secure access from anywhere to internal business systems and SaaS[*1] scattered across on-premises[*2] and public clouds[*3].

In April 2021, NTT Communications launched Flexible Remote Access, a remote access service that allows employees to connect to these resources from anywhere. The service enables secure access through various security and authentication functions and prevents intrusion into the Company network from external sources.

Going forward, we will add access functions from mobile devices to create an ICT environment that allows customers to access the necessary resources safely and securely from anywhere and according to their needs.

*1 Software as a Service: Software or a software platform that is provided in the cloud and can be used as a service with necessary functions in the required quantities
*2 On-premise: In-house operation of information systems such as servers
*3 Public cloud: An open form of cloud computing environment that is provided to an unspecified number of companies or individuals

◆ **Remote Access and Security Infrastructure**
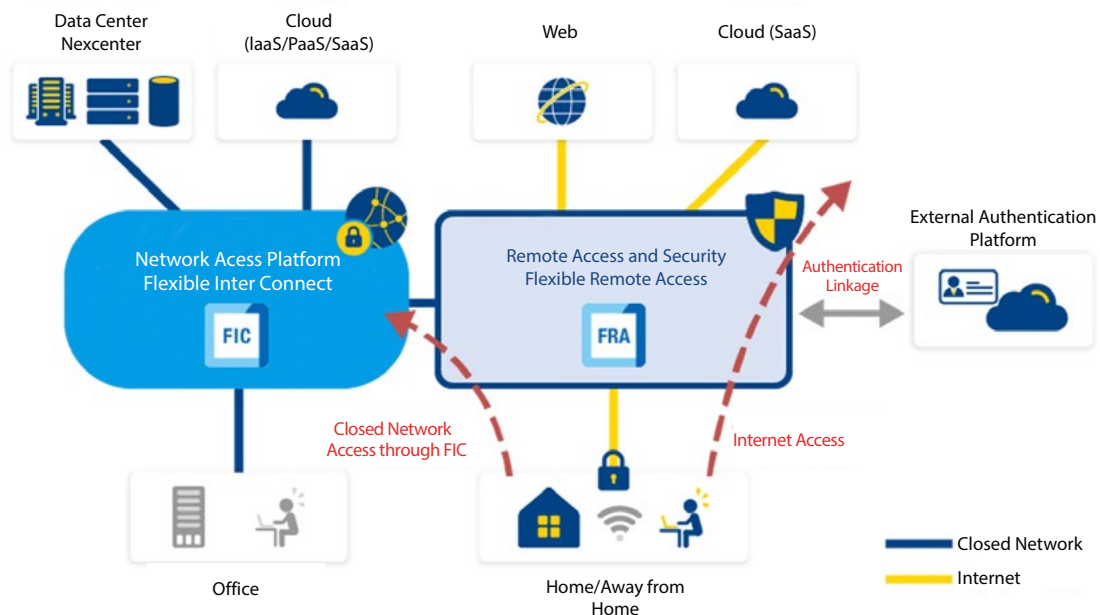
Providing the Benefits of ICT to All

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 communications 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.

NTT Communications is promoting universal design* to provide products and services easy to use by all customers, regardless of age, gender, or physical abilities.

In fiscal 2020, the AI chatbot COTOHA Chat & FAQ® , which uses a unique semantic search engine to read the intent of questions and provide highly accurate answers, was made compatible with the universal design.

*Products and services, including functional enhancements, that can be used by the elderly, children, people with disabilities, and foreign visitors to Japan who experience language barriers.

🌐 For more information on COTOHA Chat & FAQ®, see:
https://www.ntt.com/business/services/application/ai/cotoha-cf.html
(Japanese only)

CSR Priority Activities

Ensuring Stable and Reliable Services as Mission-Critical Infrastructure

Our Approach

In tandem with the evolution of IoT 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 and maintenance systems that underpin advanced ICT societies, we have set the ensuring of stable and reliable services as 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 Sustainability Priority Activity of 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 and Environmental Protection Promotion and 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 disaster-affected telecommunications equipment and services as soon as possible.

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 2020 and Goals for the Coming Years

All CSR activities based on the Sustainability Priority Activity of 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.

In fiscal 2020, with the Tokyo 2020 Olympic and Paralympic Games* coming up in the following fiscal year, we repeatedly conducted exercises simulating the occurrence of incidents during the large-scale event to confirm the effectiveness of countermeasures and improvements (KAIZEN) we have implemented so far.

In addition, in preparation for a large-scale event in the midst of the COVID-19 pandemic, we improved the information coordination flow and environment in response to headquarters to support event management in remote environments.

We were able to either achieve or nearly achieve each initial target. In fiscal 2021, 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 works under the three basic guidelines for disaster prevention measures to maintain mission-critical communications and swiftly restore disrupted communication services.

In July 2020, the torrential rain of July 2020 caused extensive damage in Kumamoto Prefecture and other parts of Kyushu, the Chubu region, and other places in Japan. Multiple backbone relay cables between Kumamoto and Kagoshima and between Gifu and Toyama were damaged due to collapsed roads and bridges caused by the torrential rain. In the Kumamoto area, in particular where a prolonged disaster was expected due to flooding of the Kuma River, we built a new relay transmission line that largely bypassed the affected area within ten days of the outset of 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.

🌐 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 natural 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 SDPF Cloud/Server service (former 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.

◆「Onboard equipment and disaster recovery support on Kizuna

CSR Priority Activities
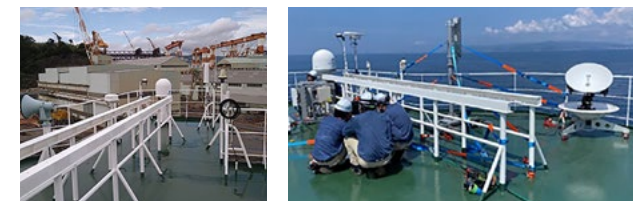
Robust Network Security for Customers

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, to make them more robust while enhancing their vulnerability response functions with regard to unknown threats. We regard these issues as Sustainability Priority Activities and are working to further strengthen and promote the system of our initiatives.

Primary Concept

Regarding the Sustainability Priority Activity of 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 and Environmental Protection Promotion 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 Sustainability 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 customers 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 to improving our capabilities to respond to security issues.

Main Achievements in Fiscal 2020 and Goals for the Coming Years

CSR activities based on the Sustainability Priority Activity of 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, strengthened vulnerability response functions, and the provision of developing rapid and reliable responses to security threats.

In fiscal 2020, the shift to the zero trust[1] era accelerated with the rapid transition to remote work during the COVID pandemic. In response to the shift to cloudification in customer ICT environments.

Specifically, we worked to provide services that meet customer expectations for safety by enhancing security services function in response to the shift to ICT environments in which customers use SaaS[2] cloud service, in addition to Cloud GW Security Mail, which strengthens the security of customer cloud-based email services.

We will continue to strengthen security by promoting advanced and robust information as well as cyber security services in fiscal 2021.

*1 A concept underlying security measures based on the premise that trust is not given to anything (zero)
*2 Software as a Service: Software provided in the cloud

Around-the-clock Efforts to Protect Customer ICT Systems

Providing Stable Enterprise System, Network Surveillance, and Operating Services

The Management Solutions Center (Sapporo) 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, but it is also responsible for customer inquiries, malfunction rectifications, and BCP management support.

ICT systems and operation centers as the core of their stable operation 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 wide-area disaster or pandemic, making it suitable to stand in for any of the operation centers in the Tokyo area.

The center adopted an IT Service Management System (ITSMS), which is based on ITIL®*, and worked to establish it in order to enhance service quality, increase added value for customers, and boost their satisfaction levels while improving efficiency and productivity. As a result, the center acquired ISO 20000 certification, the international standard for ITSMS, in December 2009.

Customer systems are undergoing major changes in terms of the technology and content of operations as they have been configured using cloud and other services. The center will keep pace with these changes and continue providing high-quality, effective continuous operation services at a low cost to further increase customer satisfaction.

*U.K.-formulated systematic 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. We have been addressing cyber threats for about 20 years and have expanded our services by providing security operation services for enterprises through our Security Operation Center (SOC) and globally through the comprehensive security risk management service WideAngle for ten years. Over the course of these periods, experts from all fields of security have protected customer ICT environments from increasingly sophisticated cyber-attacks.

In fiscal 2020, the shift to the zero-trust era was accelerated mainly by the rapid transition to remote work due to the COVID pandemic. In response to the shift to cloudification in customer ICT environments, we provided Cloud GW Security Mail, which strengthens the security of cloud-based email services, and expanded the functions of the Cloud Diagnostics Solution (CASB) and Cloud GW Security to enhance security in response to the increased use of SaaS due to cloudification and teleworking. We will continue to contribute to our customers' DX by providing solutions that enable them to safely use data and create new value.

Countering Malware, a Growing Social Problem

In February 2016, NTT Communications became the first internet service provider (ISP) in Japan to provide free of charge the Malware Unauthorized Communication Blocking Service, which blocks communications to unauthorized access destinations (C&C servers*). Since then, the list of unauthorized access destinations has been constantly updated to provide a safe and secure network.

*Servers managed by a malicious third party that issues remote commands to infected terminals

CSR Priority Activities

Continuous Improvement in Customer Satisfaction

Our Approach

Our business encompasses a wide range of areas, from IT infrastructure such as communications networks and data center services to cloud computing including various application services, as well as solutions to help customers overcome challenges.

We are also working to provide new added value to communities and industries through the collection, storage, analysis, and utilization of data.

Listening carefully to the opinions of our diverse customers and developing and strengthening systems to flexibly apply their opinions is a key responsibility that directly leads to ongoing improvement of customer satisfaction. It also guides us in our efforts to create a sustainable society by making innovation happen through co-creation with our customers.

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 and revamp 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, the Corporate Planning and the sales, service, and operation organizations together conduct Companywide customer satisfaction surveys on a regular basis. By analyzing survey results, understanding customer needs and areas for improvement in our services, as well as thoroughly implementing measures to address issues, we are continuously improving customer satisfaction every day to provide services that satisfy our customers and to remain a trusted partner.

Main Achievements in Fiscal 2020 and Goals for the Coming Years

We are engaged in multifaceted activities with a primary focus on continuous customer satisfaction surveys. In fiscal 2020, we revised the methodology of our Voice of Customer (VOC) survey. In the relational survey, which focuses on customer needs, requests, and expectations, we increased the number of CXO[1] and LoB[2] department personnel to be surveyed so as to gain a better understanding of customer business strategies and issues.

In response to survey results, we identified priority issues from the customer perspective and reviewed the process for quickly improving these issues.

In fiscal 2021, we will conduct a survey to understand customer needs and issues in the "new normal" era and figure out what customers, who are addressing social issues such as decarbonization and the circular economy, want from ICT providers in order to improve our sales activities and service development.

[1] Chief × Officer, a generic term for a person responsible for corporate operations and functions
[2] Line of Business, a generic term for line departments directly linked to corporate performance

Ongoing Customer Satisfaction Surveys

Efforts to Incorporate Feedback from Corporate Customers

In order 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 are working diligently to make improvements.

In fiscal 2020, we conducted the VOC survey to understand the trends and issues in DX initiatives during the "new normal" era, in addition to the level of overall satisfaction with NTT Communications as well as its service and sales activities. We also significantly increased the number of CXOs by several dozen and LoB department staff by several hundred as survey targets. Our in-depth interviews, in particular with CXOs, enabled us to accurately grasp customer business strategies and trends.

Looking ahead, we will continue to pay close attention to what our customers have to say as we strive to make permanent improvements to ensure 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 establishing a meticulous customer support system 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.

Improvements Based on OCN Customer Feedback

We have set up the dedicated OCN Customer Feedback website and are working to improve our OCN service to further raise the quality of the service.

The website receives numerous comments and requests from customers about the OCN service, and we incorporate them to constantly improve and enhance the quality of the service.

The website will continue to help enrich and improve our service so that we can propose a comfortable Internet experience to customers as well as to enhance the OCN service based on customer feedback.

To post on OCN Customer Feedback, see:
https://support.ntt.com/common/inquiry/detail/pid22000004xs
(Japanese Only)

In fiscal 2020, we improved and delivered the following services based on comments received through OCN Customer Feedback.

Customer Feedback

I want to pay less for OCN Mobile One.

Improvement example
We reviewed the price while maintaining the quality of the service to make it more affordable.
https://www.ntt.com/personal/services/mobile/one.html
(Japanese Only)

Customer Feedback

I want to play games, telework, and watch videos more comfortably.

Improvement example
We launched the IPoE Advance, which has less lag and is resistant to delays, as an optional service that can be added on to OCN Hikari.
https://www.ntt.com/personal/services/internet/hikari/ipoeadvance.html
(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. 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.

🌐 For more information on Guidelines for CSR in Supply Chain, see:

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

Primary Concept

Maintaining a focus on value creation through business, we need 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 collaboration with each organization under the supervision of the Procurement & Billing.

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

Procurement Policies

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.

Category	Details
Human Rights, Labor	•Prohibition of forced labor and child labor •Respect for the right to organize and conduct collective bargaining
Health and Safety	•Workplace safety measures •Measures targeting occupational injury and illnesses
Environment	•Management of hazardous chemicals •Effective use of resources and energy
Fair Trade and Ethics	•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
Business Continuity	•Business continuity management system •Preparedness for the risk of supply disruptions

Main Achievements in Fiscal 2020 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 assessments 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 2021, 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, measures, 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 suppliers designated by Nippon Telegraph and Telephone Corporation (NTT), our parent company, from among 135 major suppliers to the NTT Group with the intention of confirming the management status of the Guidelines for CSR in Supply Chain. After the compiled results are analyzed, we consider means of improvement for dealing with high risk concerns. In fiscal 2020, we received responses from all 19 companies. As a result, we found no high-risk issues. Looking ahead, we will continue to work with our suppliers to promote CSR procurement.

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.
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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 suppliers. 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, 2021, a total of 109 employees have been certified (Grade A: 40, Grade B: 69), 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 regarding human rights violations.

For more information on the NTT Communications Modern Slavery Statement, see:
https://www.ntt.com/en/about-us/csr/modernslavery

For more on human rights efforts in the value chain, see Continuous Strengthening of Corporate Governance.
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Response to Conflict Minerals

The NTT Communications Group will conduct procurement activities in accordance with the NTT Group's Response to Conflict Minerals. The response to conflict minerals by major suppliers is confirmed in the questionnaire survey to check the operational status of the Guidelines for CSR in Supply Chain.

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 registered 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 in 2021 as a result. Our stance on the environment in particular was highly evaluated for setting quantitative targets for multiple related issues. We will continue to work to improve our CSR performance in the areas of the environment, fair labor and human rights, ethics, and sustainable procurement.

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 diverse communities grouped by region, generation, and so forth. We will broaden the scope of our social contribution activities with an emphasis on developing such various communities.

◆ Social Action Principles

Sustainability	We conduct lean but sustainable 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 Communities

The NTT Communications Group promotes activities to serve local 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 2020, 990 employees participated in 56 social contribution activities, some of which were cancelled or reduced due to the spread of COVID-19.

On the other hand, we implemented new initiatives such as One School, which allows teachers and staff to use the videos of classes and printed materials provided by local governments and schools nationwide on the cloud-based education platform Manabi (Learning) Pocket so that children and students can learn from home free of charge. As a result, our total expenditure on social contribution activities was 1,146,145,500 yen.

◆ Social Contribution Activities in Fiscal 2020

	Number of Projects	Number of Participants	Activity Expenditure (Yen)
Preservation of the Natural Environment	17	577	2,191,600
Social Welfare	24	249	1,593,800
Promotion of Education and Culture	11	142	1,141,356,800
Regional Development and Exchange	4	22	1,003,300
Total	56	990	1,146,145,500

Cleanup Activities

NTT Communications has participated in cleanup campaigns in Tokyo's Chiyoda Ward since 2008. Although the campaigns were cancelled in fiscal 2020 to prevent the spread of COVID-19, we will continue our cleanup activities.

Moreover, players from the Shining Arcs corporate rugby team have been leading cleanup activities mainly in Urayasu City, Chiba Prefecture, where they are headquartered. Since fiscal 2020, the team has been involved in a variety of 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.

In fiscal 2020, we conducted four activities with the people of Urayasu City. We will continue to work with them to expand these activities.

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.

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. Since we had already built and operated a platform that enables home-based staff across the country to work and operate remotely during normal times, we were able to continue our business while maintaining operational efficiency and service quality even during the COVID-19 pandemic.

In addition, we have been participating 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, Tokyo Metropolitan Government, and relevant organizations. In fiscal 2021, we also worked as a supporting organization to provide telework know-how and solutions.

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.

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. In addition to these efforts, including those overseas, we are

working with local education bureaus and NPOs to provide learning opportunities through the power of ICT to children in the Philippines who have been unable to attend school for various reasons. In fiscal 2020, when schools were closed due to COVID-19, we worked to provide and reuse 296 terminals no longer in use within the Company to provide the necessary terminals for online classes. In line with SDG 4, "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all," we will continue our efforts to deploy ICT for local students to maintain access to learning and create opportunities to participate in classes.

◆ **Major Social Contribution Activities at Group Companies in Fiscal 2020**

Company Name	Activity
NTT Com Solutions	While the activity for preserving the Shiroi natural woodlands in the Hiratsuka Area of Shiroi City, Chiba Prefecture was cancelled due to the COVID-19 pandemic, its preparation cost was covered.
NTT Com Engineering	Collection of used books (donation to the international NGO Room to Read for the amount of books sold by the Company and its employees)
NTT Com Solutions	Support through donation of emergency stockpiles as relief supplies to food banks for those facing hunger overseas
NTT Com Marketing	
NTT BizLink, Inc.	Live streaming for parents, other relatives, and current students who had not been able to attend their graduation ceremonies due to the COVID pandemic
NTT Communications Group	Actions for clearing obstacles to learning
	Participation in the activities of the paddy future support team to plant rice
	A project to support the independence of children who need long-term care, through sports to help them fully experience years as children

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.

    As part of these initiatives, we formulated the ShiningArcs Youth Development Plan to envision the future, develop the youths, and provide a new way of engaging in sports. This plan targets elementary and junior high school students and addresses such issues as visualization of performance using ICT, provision of programs to develop not only athletic expertise but also diverse abilities, support for the performance of female athletes, and provision and maintenance of a playing environment for junior high school students, which has been a concern in the rugby world. Since there are few rugby competitions with rankings for elementary school students, we host the Shining Arcs Cup to boost the level of competitiveness.

    Going forward, 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 (2019)**

Participation in the LEAD TO THE OCEAN

NTT Communications has supported LTO (LEADS TO THE OCEAN), a project co-hosted by the NPO Umisakura and Nippon Foundation since 2015, as a first initiative in the Japanese rugby world and is participating with the hope of helping to improve the marine environment through the power of sports.

    Urayasu City, home to the NTT Communications rugby team, Shining Arcs, has enjoyed, since ancient times, abundant marine resources such as seaweed and clams and has evolved through its history with the sea. To protect these blessed marine resources and pass them on to the future with the rugby spirit of "One For ALL, ALL for One," our rugby team will continue to work together with the community to reduce trash from the city and rivers and protect the precious ocean for the future.

    In fiscal 2021, we continued to conduct the deleteC and 1TRY × 1TOY activities that provide preschool children with a toy for each try. We also worked on new sustainability activities, such as a local co-creation project using the alter-ego robot OriHime and support for children with disabilities.

Achieving Carbon Neutrality for a Green and Sustainable Future

The public's expectations and the responsibilities of ICT companies for activities to protect the global environmental protection are growing. We have been promoting a multifaceted approach with a focus on realizing a low-carbon society, promoting closed-loop recycling, and preserving biodiversity and have established and announced the Environmental Statement and Eco Strategy 2030.

In March 2021, we reviewed the Eco Strategy 2030 to respond to rapidly changing global and social conditions and set specific goals and initiatives for decarbonization. In addition to reducing the environmental impact of our own business activities, we will contribute to reducing the environmental impact of society as a whole while aiming to achieve both solutions to environmental problems and economic development.

Environment

Contributions to the Global Environment

Moving toward the transition to a decarbonized and recycling-oriented society, which is a matter of global concern, the NTT Communications Group has set forth its Environmental Statement and Eco Strategy 2030. It has also been working to reduce environmental impact by improving the efficiency of all of society through ICT solutions and by lowering its own carbon emissions. As a leading ICT company, we place a heavy burden on the global environment by providing ICT infrastructure services based in telecommunications buildings, data centers, and other facilities that consume large amounts of power due in part to growing public demand. Actively developing and introducing advanced technologies to reduce our environmental impact not only contributes to the sustainability of society but also enhances our own sustainability. In fiscal 2021, as an urgent measure to address the rapid advance of climate change, we will more intensively promote environmental initiatives by adding specific targets to our Eco Strategy 2030, such as the renewable energy usage rate, reduced CO_2 emissions, transitioning the Company fleet in Japan to EVs, and reviewing our environmental management system in order to make our own CO_2 emissions from data centers, networks, and other facilities carbon neutral by fiscal 2030. In recent years, we have accelerated our efforts to reduce our environmental impact by actively collaborating in R&D with a diverse range of industries. We will continue to fulfill our responsibilities as an ICT company by systematically and proactively engaging in every step along the way, from implementation of basic measures to the adoption of advanced technologies, toward realizing a green future.

*Targeted GHG Protocol: Scope 1 (direct emissions of greenhouse gases from our own sources) and Scope 2 (indirect emissions from the use of electricity, heat, and steam supplied by other companies)

Masami Okada
Head of Infrastructure Design

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Fiscal 2020 Activity Results

Actions Implemented in Line with CSR KPIs

In line with the three underpinning themes of fiscal 2020: 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 continued our measures to reduce power consumption and introduced renewable energy (including virtually renewable energy by using non-fossil fuel certificates), which helped us to reduce CO_2 emissions. We also made significant progress in the digitization of paper documents as part of our efforts to move into the era of remote work and continued to promote the 3Rs (reduce, reuse, and recycle), thereby improving the landfill rate. In fiscal 2021, we will continue pursuing various measures with a focus on activities that include reducing electricity consumption, introducing renewable energy, 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 2020 Activity Results**

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

CSR Priority Activities | Realizing a Low-carbon Future

Relevant SDGs ▶ **7** **13**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Within	Outside	Scope
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 2020 target: 4.5 times higher) ● Implement the following energy management measures to further reduce electricity use ● CO_2 emissions: 233 kt-CO_2 (CO_2 emission factor: 0.454 kg-CO_2/kWh) - Telecommunications facility: 217 kt-CO_2 - Offices: 16 kt-CO_2	● Introduction of renewable energy (including virtually renewable energy by using non-fossil fuel certificates) ● Power saving and decarbonization of telecommunications buildings (including data centers) - 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 ● Reduction of power consumption in offices - Setting the office attendance rate target (30% or less; achieved about 20%)	● Introduction of renewable energy (including virtually renewable energy by using non-fossil fuel certificates): 0.4 billion kWh (percentage of power used: 8.4%) ● Power efficiency: Increased by 6.3 times compared to fiscal 2013 ● CO_2 emissions: 192 t-CO_2 (CO_2 emission factor: 0.415 kg-CO_2/kWh) - Telecommunications facilities (including data centers): 176 kt-CO_2 - Offices: 15 kt-CO_2	★★★★	●		Group companies in Japan
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 2020 target is 15.3 times more)	Maintain and promote the sales of Environmental Solutions Label-certified services capable of contributing to reducing CO_2 in society	Result: 18.3 times more	★★★★	●	●	Group companies in Japan

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 2020				Scope of Activities (Boundary)		
		Targets	Specific Activities	Quantitative Results	Assessment	Within the Organization	Outside the Organization	Scope

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

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Within	Outside	Scope
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 PCBs, asbestos, and other hazardous substances ● Effective use of water resources	—	★★★	●		Group companies in Japan
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 - Reduced use of plastic and promotion of recycling ● 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 ● Reduced paper consumption and plastic emissions by establishing remote work	Landfill rate: 1.6%	★★★	●		Group companies in Japan

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	Within	Outside	Scope
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	—	★★★	●		Group companies in Japan
Utilize ICT to contribute to biodiversity	Utilize ICT to contribute and respond to biodiversity	Utilize ICT to contribute and respond to biodiversity	● Expansion of Mimawari Rakutaro to 50 local governments nationwide ● Information dissemination and educational activities through the goo Green Label	—	★★★	●	●	Group companies in Japan

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 NTT Communications Group Global Environmental Charter and Eco Strategy 2030, 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.

In fiscal 2021, we plan to review the NTT Group's Environment and Energy Vision and Sustainability Charter and strengthen the NTT Group Global Environmental Charter to further accelerate our decarbonization efforts and contribute to the global environment. We will also update the NTT Communications Group Global Environmental Charter to better meet public expectations as a leading company.

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

While closely monitoring global environmental trends, we reviewed the environmental activities of the NTT Communications Group in November 2016 and established the NTT Communications Group Environmental Statement and Eco Strategy 2030. In fiscal 2020, we revised the Eco Strategy 2030 in response to increasing corporate roles and responsibilities regarding global climate change.

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

We are dedicated to global environmental management for a future in which people and the planet remain in harmony, and 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.

Note: The NTT Communications Group Environmental Statement will be updated based on revisions made to the NTT Group Global Environmental Charter.

Eco Strategy 2030

Under Eco Strategy 2030, we have set out specific initiatives[1] to help realize the three futures outlined in the Environmental Statement. In fiscal 2020, following the declaration of the NTT Group's Environment and Energy Vision in May 2020, we also added specific targets for our renewable energy usage rate, reducing CO_2 emissions, and converting our corporate fleet in Japan to EVs as a countermeasure to rapidly changing climate conditions.

We intend to achieve carbon neutrality (virtually zero emissions)[2] by fiscal 2030 through measures such as increasing our rate of renewable energy use to 50% or more.

Three Futures We Are Targeting		Initiative	
	Realizing a Low-carbon Future	Rate of renewable energy use in the Company[3]	We will increase the rate of renewable energy use in the NTT Communications Group to 50% or more.
		Reducing CO_2 emissions from the Company (Scopes 1 and 2)	We will reduce CO_2 emissions in the NTT Communications Group by 50% compared to fiscal 2018[4].
		Reducing CO_2 emissions from the supply chain (Scope 3)	We will reduce CO_2 emissions from the supply chain by 15% compared to fiscal 2018.
		Conversion rate of our corporate fleet to EVs in Japan (%)	We will make EVs account for 100%[5] of our corporate fleet used in Japan.
		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.
		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.

Note: The NTT Communications Group Eco Strategy 2030 will be updated based on revisions made to the NTT Group's Global Environment and Energy Vision.

[1] Quantitative targets for fiscal 2030
[2] Targeted GHG Protocol: Scope 1 (direct emissions of greenhouse gases from our own sources) and Scope 2 (indirect emissions from the use of electricity, heat, and steam supplied by other companies)
[3] Including the amount used by other companies at the data centers
[4] Equivalent to 1.5℃ SBT
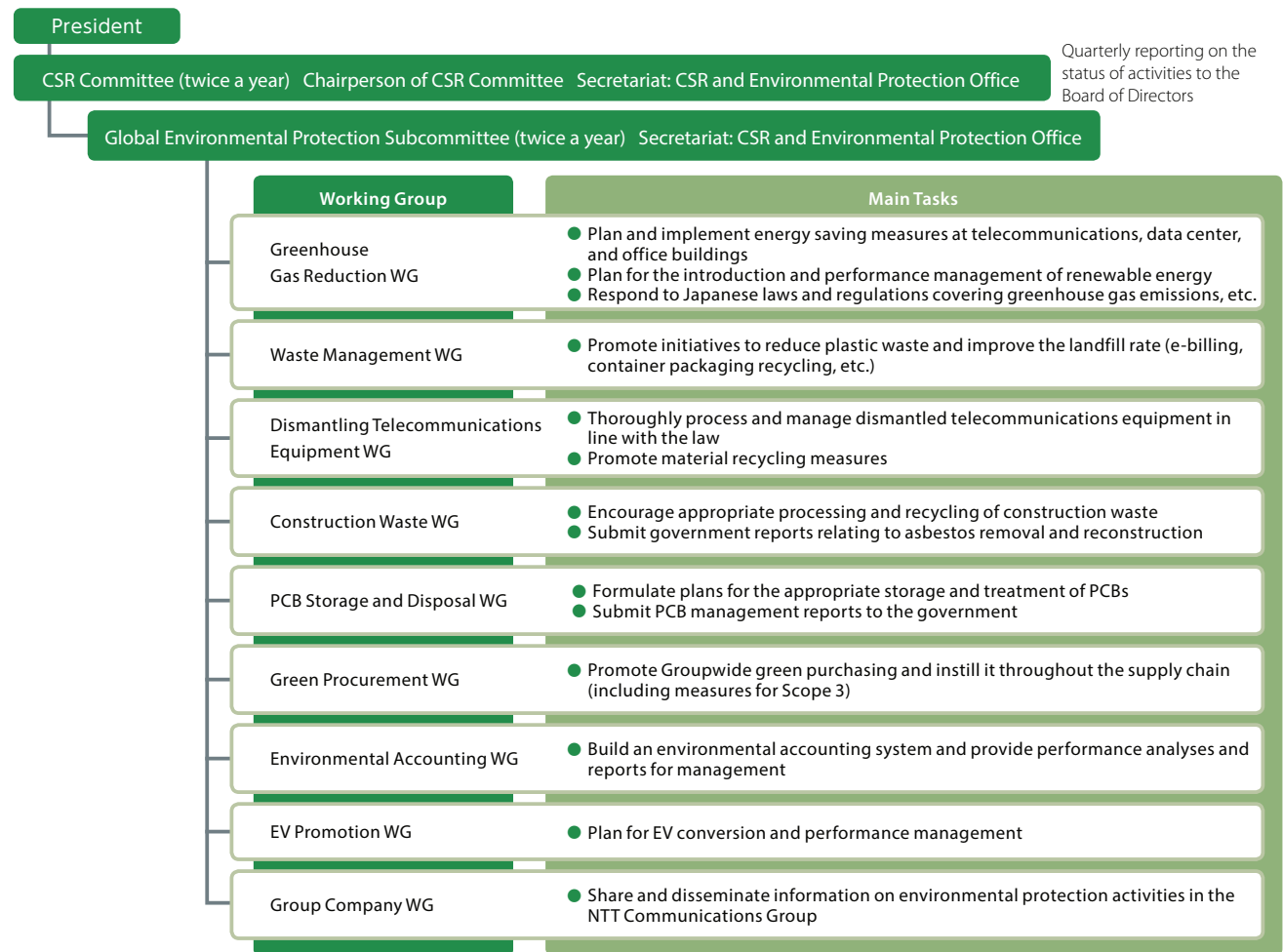[5] 50% by fiscal 2024 (to begin with)

Environmental Management

Promotion Framework for Reducing Environmental Impact

In order to continuously promote environmental protection initiatives in a Groupwide effort, we have established the Global Environmental Protection Subcommittee within the CSR Committee, headed by the managing executive officer in charge of CSR, and also formed working groups for each related issue. The Global Environmental Protection Subcommittee formulates an overall plan that encompasses a wide range of issues, including the reduction of greenhouse gas emissions and waste, shares information on the results of actions taken, and promotes the horizontal deployment of various initiatives.

In fiscal 2020, we reviewed our environmental management structure in line with new targets added to our Eco Vision 2030, which includes the introduction of renewable energy, reduced greenhouse gas (CO_2) emissions, and having EVs account for 100% of our corporate fleet in Japan, and we have worked Groupwide to engage in environmental protection activities and initiatives toward achieving them.
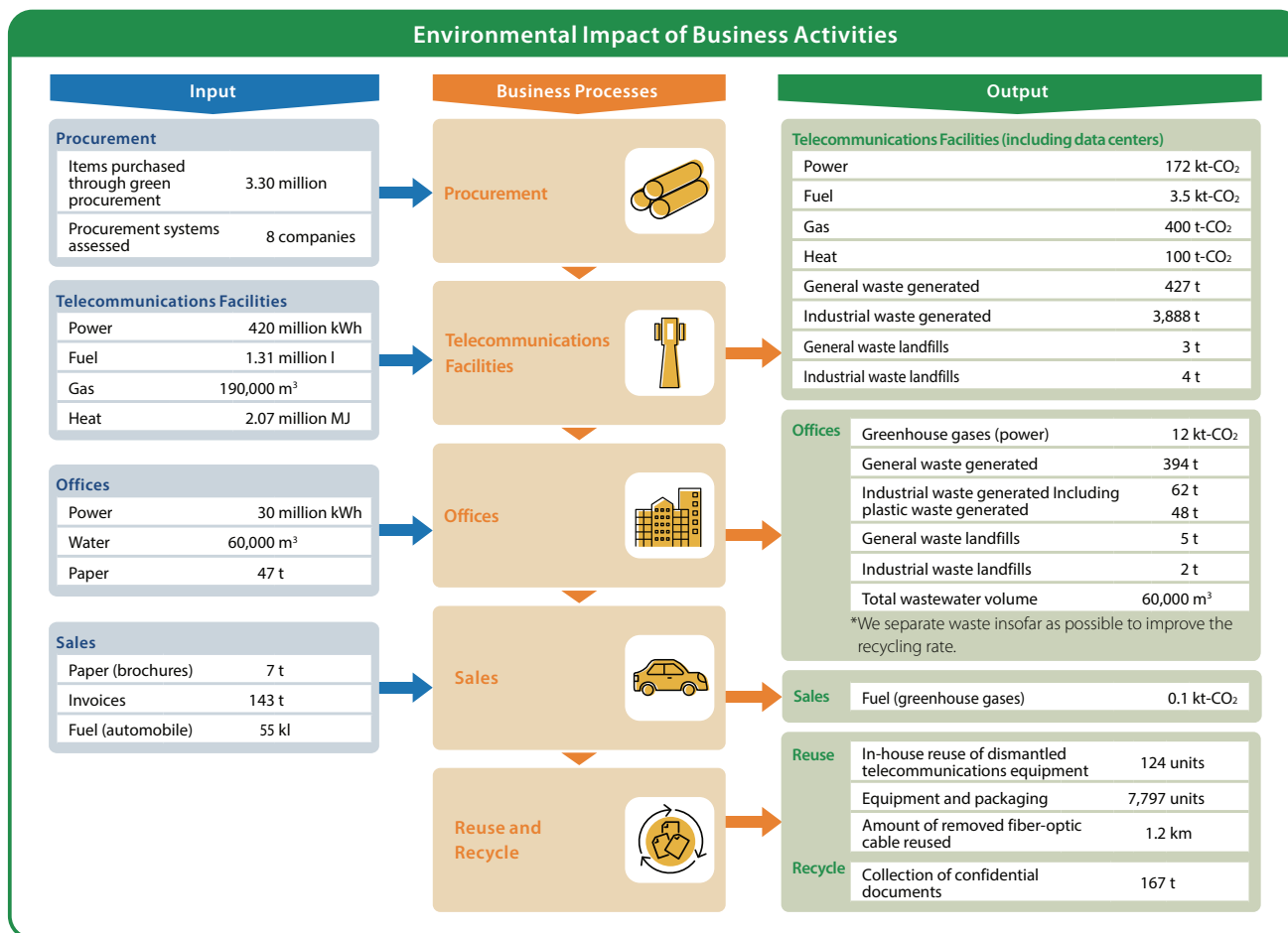
◆ **Environmental Protection Framework**

President

CSR Committee (twice a year)　Chairperson of CSR Committee　Secretariat: CSR and Environmental Protection Office

Quarterly reporting on the status of activities to the Board of Directors

Global Environmental Protection Subcommittee (twice a year)　Secretariat: CSR and Environmental Protection Office

Working Group	Main Tasks
Greenhouse Gas Reduction WG	● Plan and implement energy saving measures at telecommunications, data center, and office buildings ● Plan for the introduction and performance management of renewable energy ● Respond to Japanese laws and regulations covering greenhouse gas emissions, etc.
Waste Management WG	● Promote initiatives to reduce plastic waste and improve the landfill rate (e-billing, container packaging recycling, etc.)
Dismantling Telecommunications Equipment WG	● Thoroughly process and manage dismantled telecommunications equipment in line with the law ● Promote material recycling measures
Construction Waste WG	● Encourage appropriate processing and recycling of construction waste ● Submit government reports relating to asbestos removal and reconstruction
PCB Storage and Disposal WG	● Formulate plans for the appropriate storage and treatment of PCBs ● Submit PCB management reports to the government
Green Procurement WG	● Promote Groupwide green purchasing and instill it throughout the supply chain (including measures for Scope 3)
Environmental Accounting WG	● Build an environmental accounting system and provide performance analyses and reports for management
EV Promotion WG	● Plan for EV conversion and performance management
Group Company WG	● Share and disseminate information on environmental protection activities in the NTT Communications Group

(As of March 31, 2021)

Environmental Impact of Business Activities

Fiscal 2020 Material Flow

Environmental Impact of Business Activities

Input	Business Processes	Output

Procurement

Items purchased through green procurement	3.30 million
Procurement systems assessed	8 companies

→ Procurement

Telecommunications Facilities

Power	420 million kWh
Fuel	1.31 million l
Gas	$190,000 \text{ m}^3$
Heat	2.07 million MJ

→ Telecommunications Facilities

Offices

Power	30 million kWh
Water	$60,000 \text{ m}^3$
Paper	47 t

→ Offices

Sales

Paper (brochures)	7 t
Invoices	143 t
Fuel (automobile)	55 kl

→ Sales

Reuse and Recycle

Telecommunications Facilities (including data centers)

Power	172 kt-CO_2
Fuel	3.5 kt-CO_2
Gas	400 t-CO_2
Heat	100 t-CO_2
General waste generated	427 t
Industrial waste generated	3,888 t
General waste landfills	3 t
Industrial waste landfills	4 t

Offices

Greenhouse gases (power)	12 kt-CO_2
General waste generated	394 t
Industrial waste generated Including plastic waste generated	62 t / 48 t
General waste landfills	5 t
Industrial waste landfills	2 t
Total wastewater volume	$60,000 \text{ m}^3$

*We separate waste insofar as possible to improve the recycling rate.

Sales

Fuel (greenhouse gases)	0.1 kt-CO_2

Reuse

In-house reuse of dismantled telecommunications equipment	124 units
Equipment and packaging	7,797 units
Amount of removed fiber-optic cable reused	1.2 km

Recycle

Collection of confidential documents	167 t

(Scope: NTT Communications Corporation and 15 Group companies)

Calculation of CO₂ Emissions

For Scope 3, we calculated 10 relevant categories out of 15 target categories by referring to unit emission databases and other materials produced through studies by the Ministry of the Environment and other government ministries and agencies.

◆ **CO₂ Emissions by Scope and Category**

Category	Composition Ratio (%)	CO_2 Emissions (kt-CO_2)
Scope1 (direct emissions of greenhouse gases from our own sources, such as fuel combustion)		7
Scope2 (indirect emissions from the use of electricity, heat, and steam supplied by other companies)		187
Scope3 (indirect emissions other than Scopes 1 and 2, such as emissions by others related to our activities)	100	3,809
Category 1 (purchased goods and services)	23.3	889
Category 2 (capital goods)	8.5	324
Category 3 (fuel and energy activities not included in Scopes 1 or 2)	1.0	37
Category 4 (upstream transportation and distribution)	0.2	8
Category 5 (waste generated through business activities)	0.0	0
Category 6 (business travel)	0.2	8
Category 7 (employee commutations)	0.2	7
Category 8 (upstream leased assets)	–	–
Category 9 (downstream transportation and distribution)	–	–
Category 10 (processing of products sold)	–	–
Category 11 (use of products sold)	59.0	2,246
Category 12 (disposal of products sold)	2.2	84
Category 13 (downstream leased assets)	5.4	207
Category 14 (franchise)	–	–
Category 15 (investments)	–	–

Note: Scope 1 includes CO₂-equivalent emissions of greenhouse gases other than CO₂ (CFC substitutes, etc.) (Scope: NTT Communications Corporation and 15 Group companies)

Environmental Accounting in Fiscal 2020

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 2020 increased by approximately 130 million yen year on year to 2.39 billion yen, consisting of around 900 million yen in investments and about 1.49 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 2020 increased by approximately 120 million yen year on year to 1.68 billion yen, mainly due to reduced power charges resulting from energy saving measures and an increase 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 FY2019	Investment FY2020	Expenses FY2019	Expenses FY2020
(1) Business area cost				850	862	1,219	1,302
	Breakdown	Pollution prevention costs	Oil tank facility for power generator use Management of items using PCBs	231	289	164	145
		Global environmental conservation costs	Measures to reduce CO$_2$ Emissions resulting from electricity use	618	573	526	612
		Resource circulation costs	Waste disposal and reuse expense	0	0	529	545
(2) Upstream/downstream costs		Measures to recover, recycle, and reuse telecommunications equipment		73	42	47	45
(3) Administration costs		Environmental conservation management activities		0	0	73	117
(4) R&D costs		Allocated portion of the NTT Group's environmental R&D costs		0	0	1	23
(5) Social activity costs		Costs of supporting volunteer participation		0	0	2	2
(6) Environmental remediation Costs				0	0	0	0
Total				924	904	1,342	1,488

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

Category	Key Measures	FY2019	FY2020
Revenue	Revenues from sales (cables, metal scrap, etc.)	239	315
Cost reductions	Reductions in expenses as a result of measures such as those related to reducing electricity use	391	490
	Reductions in purchase cost as a result of reusing dismantled telecommunications equipment	400	441
	Decrease in postal and paper costs due to increased use of Mypage (online account page)	533	433
	Others	0	0
Total		1,565	1,681

Period: April 1 to March 31 of each year
Scope: NTT Communications Corporation and 15 Group companies
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 have acquired ISO 14001 certification as of March 31, 2021. We have contracted outside environmental consultants to perform annual internal audits of the certified companies and departments 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.

◆ **Companies Certified under ISO 14001**

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

*As of July 1, 2021

Percentage of employees of target organizations to total employees: 23%

Environmental Management

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 2020.

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

One of the pillars of the NTT Group's medium-term management strategy is the promotion of ESG management, and the NTT Group Environment and Energy Vision was formulated in May 2020 as part of this strategy. In October of that year, the NTT Group was approved by the SBT initiative and revised the NTT Group Green Procurement Guidelines in April 2021 based on the same vision and the external environment. In line with this revision, NTT Communications has also revised its guidelines.

In the revised Guidelines for Green Procurement, NTT Communications clearly specifies factors in our 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. The guidelines also include a request for cooperation from our suppliers in reducing CO_2 emissions and state we will procure preferentially from suppliers taking action to reduce greenhouse gas emissions.

Through our efforts for green procurement (procuring products taking into account their impact on the environment) under the guidelines, we will work to improve our environmental protection activities with our suppliers and seek to commit to further social contribution.

◆ **Status of Green Procurement (10,000 Units)**

	FY2016	FY2017	FY2018	FY2019	FY2020
Green procurement of goods, excluding office supplies	90	154	204	257	330
Green procurement of office supplies	20	22	21	24	33

Sharing of Green Procurement Policies

NTT Communications holds individual briefing meetings with suppliers to mutually share our basic approach and requirements for them with regard to the procurement of environmentally sound parts and products. In fiscal 2020, we briefed 52 suppliers on our policy, of which 50 were informed about paper reduction and electronic contracting and 2 about the plastic packaging reduction initiative.

We will continue to closely communicate with our suppliers and work together to promote green procurement.

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 2020, we conducted CSR training targeted for all employees (93.8% of them attended) as well as lectures on the topic of "SDGs and Business Activities" to learn about domestic and international social trends such as the SDGs, ESG investment, decarbonization efforts, and global risks.

We are working to raise employee awareness by posting monthly reports on how much electricity and paper is used and how much waste is generated in each office.

In addition, we held an SDG photo contest as an extension of the biodiversity-related photo contest that had been held until fiscal 2019, with the goal of providing employees and their families with an opportunity to think about the SDGs and helping them relate the SDGs to their own lives so that they can take action. The contest received approximately 200 entries.

We have also been conducting 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 woodland conservation efforts (NTT Com Solutions and NTT Com Marketing). In light of the COVID-19 pandemic, however, we decided to temporarily suspend these activities in fiscal 2020. We will continue to explore the possibility of resuming activities to raise employee awareness in fiscal 2021.

◆ **During a lecture**

Lecturer: Kazuo Tase, President and CEO, SDG Partners, Inc.

◆ **SDGs Photo Contest President's Award given for "Freezing Spring"**
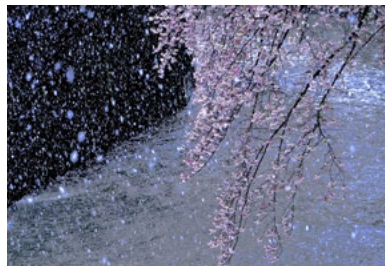
Hiroshi Seo
NTT Limited Japan (seconded)
Related SDGs: 13 take urgent action to combat climate change and its impacts

CSR Priority Activities

Realizing a Low-carbon Future

Our Approaches

We are taking a variety of approaches to reduce CO_2 emissions, an urgent issue for achieving the SDGs and a sustainable future. These include saving energy and improving the efficiency of our facilities, introducing renewable energy (including virtually renewable energy by using non-fossil fuel certificates), offering services that incorporate excellent low-carbon features, and engaging in environmental contribution activities. For our environmental initiatives in relation to our facilities, we have set targets from the two viewpoints of 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. In this context, SDG 13 urges taking action to combat climate change and its impacts and reducing CO_2 emissions, the main cause of climate change and is a matter of utmost urgency not only for humans but also for the prosperity of all living things. 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 fiscal 2021, we will continue to update the NTT Communications Group's Environmental Statement and Eco Vision 2030 to better meet public expectations as a leading company and further accelerate our decarbonization efforts and protect the global environment.

Main Achievements in Fiscal 2020 and Goals for the Coming Years

In fiscal 2020, we continued our 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 6.3 times, which exceeded the target of 4.5. 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 18.3 times the volume of our own CO_2 emissions, thereby exceeding our target of 15.3. Going forward, we will continue these efforts and strengthen the development of services and solutions that contribute to the realization of a decarbonized society.

In fiscal 2021, we will accelerate our efforts to introduce renewable energy (including virtually renewable energy by using non-fossil fuel certificates) and EVs and make the necessary updates to our Eco Vision 2030, based on the revisions to the NTT Group Environment and Energy Vision, to achieve carbon neutrality* by fiscal 2030.

*Targeted GHG Protocol: Scope 1 (direct emissions of greenhouse gases from our own sources) and Scope 2 (indirect emissions from the use of electricity, heat, and steam supplied by other companies)

Reduction of Greenhouse Gases

Fiscal 2020 Results

CO2 Emissions

FY2020 Target

233 kt-CO2 or lower → **FY2020 Result** **192** kt-CO2 **YoY −18.6%**

(FY2019 result: 235 kt-CO2)

We were able to meet our CO2 emissions target* for fiscal 2020, mainly by introducing renewable energy (including virtually renewable energy by using non-fossil fuel certificates), while further striving to save energy in telecommunications buildings such as data centers and promoting remote work, which resulted in a decrease in power consumption in offices. The CO2 emissions per unit of sales were 0.18 t-CO2 per millions of yen.

In fiscal 2021, the NTT Communications Group will work together to expand the introduction of renewable energy, continue its ongoing energy saving activities, and utilize R&D technologies and new measures to reduce CO2 emissions by 20% from the previous fiscal year. Through these efforts, we plan to become carbon neutral by fiscal 2030, with virtually zero CO2 emissions generated by our data centers, networks, and other facilities.

Furthermore, we intend to continue providing energy-efficient data centers and cloud services to society, having customer servers and their peripheral equipment, including air-conditioning, UPS, and lighting, integrated at our data centers, consequently improving the efficiency of public power consumption.

*CO2 emissions were calculated using emission factors obtained from electric power companies.

◆ **CO2 Emissions from Business Activities**

(kt-CO2)

- Electricity consumption*
- Fuel for corporate vehicles and consumption of heavy oil and gas

	FY2018	FY2019	FY2020
Total	242	235	192
Fuel	8	8	7
Electricity	234	227	185
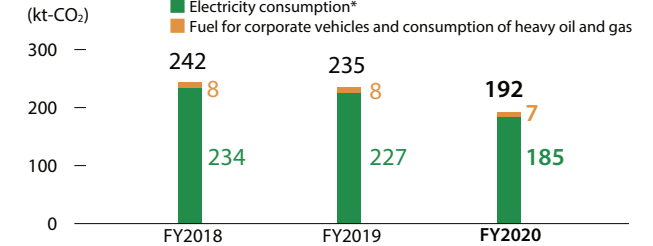
(Scope: NTT Communications Corporation and 15 Group companies)
*CO2 emissions were calculated using emission factors obtained from electric power companies.

◆ **Other Greenhouse Gas Emissions (Converted to CO2 Equivalents)**

(t-CO2)

CH4 N2O HFC

Increase was mainly due to the replacement of air-conditioning units with energy saving models.

	FY2018	FY2019	FY2020
Total	928	1,011	3,088
HFC	804	883	2,992
CH4	77	83	63
N2O	47	45	33
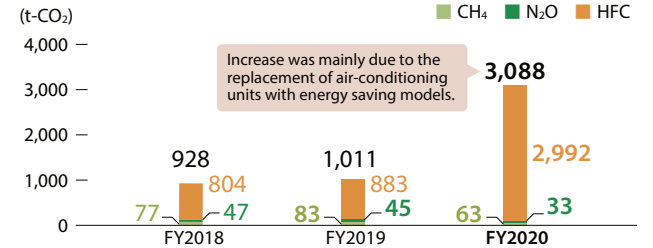
(Scope: NTT Communications Corporation and 15 Group companies)
Emissions from Company vehicles, telecommunications buildings (including data centers), and offices Figures retroactively adjusted to reflect changes in the scope of calculation.

◆ **Power Consumption (Scope 2)**

(100 million kWh)

FY2018	FY2019	FY2020
4.9	4.9	4.5
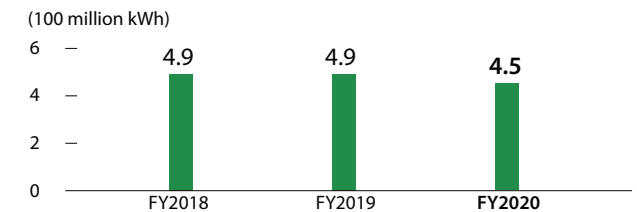
(Scope: NTT Communications Corporation and 15 Group companies)

Expanding the Use of Renewable Energy

Following our Odori Building in Chuo-ku, Sapporo, which became the NTT Group's first building to be powered with 100% renewable energy (including virtually renewable energy by using non-fossil fuel certificates) in April 2020, we remained committed and achieved a 100% renewable energy rate in 9 of our 89 telecommunications buildings.

In fiscal 2021, we will expand the use of renewable energy by greening an additional 22 buildings.

◆ **NTT Communications Odori, Sapporo 4 Chome Building**

◆ **Rate of Renewable Energy Introduced (including virtually renewable energy by using non-fossil fuel certificates)**
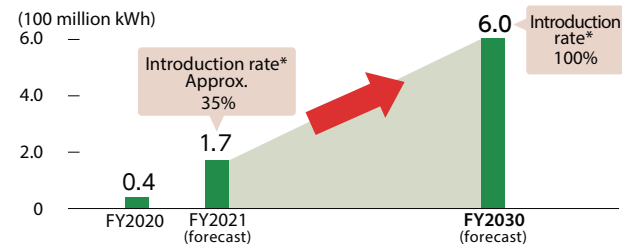
(Scope: NTT Communications Corporation and 15 Group companies)
*Targeted GHG Protocol: Indirect emissions from the use of electricity supplied by other companies in Scope 2.

Evaluation by Public Organizations

In fiscal 2020, NTT Communications was evaluated as "S" class, the highest rank, as an outstanding energy saving business that achieved its targets, under the business operator classification system implemented by the Agency for Natural Resources and Energy based on the Act on Rationalizing Energy Use (Energy Conservation Act).

Other evaluations include: "S" (Otemachi Place, Granpark Tower, and Shiodome Building), "AAA" (Akihabara UDX), and "A" (Sumitomo Fudosan Kachidoki Building) ratings from the Tokyo Metropolitan Government for our global warming countermeasure plans for five specified tenant buildings*, and an "AA" (energy derived carbon dioxide) rating from Nagano Prefecture for a report on the implementation of global warming countermeasures at the Ishido Building (Nagano City).

*Specified tenant buildings: Those occupied by businesses that use at least 6 million kWh of electricity per year or lease at least 5,000 m2 of floor space.

Initiatives Related to Telecommunications Facilities (Including Data Centers)

FY2020 Results

CO_2 Emissions

FY2020 Target

217 kt-CO_2 or lower

FY2020 Result

176 kt-CO_2 YoY −19.3%

(FY2019 Result: 219 kt-CO_2)
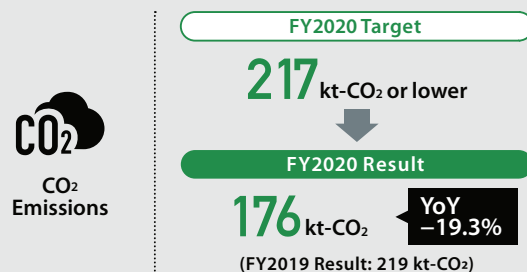
In fiscal 2020, our CO_2 emissions decreased as a result of the augmented and expanded measures such as reducing electricity use in air-conditioning systems by making visible the power usage status of machinery and server rooms. Although there was a rise in demand for sales at data centers in Tokyo and Osaka as well as the installation of new cloud servers, we were nevertheless able to achieve our target.

CO_2 emissions are rising in fiscal 2021 due to ongoing robust data center and cloud service sales. However, we intend to meet our emissions target at a year-on-year reduction of 20% 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 relatively new data centers are equipped with 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 have installed an indirect evaporative air-conditioning system for the new data center in Tokyo. This made 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.

In addition to the air-conditioning system, we are working toward decarbonization by adopting a fire extinguishing system that does not affect the ozone layer, by using nitrogen gas, an alternative halon gas, and by introducing a solar power generation system and automatic motion sensor lighting 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

Start Providing Renewable Energy to Data Centers

With the expansion of the digital society, demand for power in data centers is increasing year by year. The issue is that while it is possible to improve the energy consumption efficiency of data centers, it is not possible to eliminate power consumption itself.

NTT Communications has started using renewable energy in the data centers it opened in Tokyo in fiscal 2020. These are capable of supplying power to the racks in the server room upon customer request, and we also offer Green Power Certificates to verify the use of green power.

Going forward, we will expand our efforts to spread the use of renewable energy not only inside the Company but with our customers.

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.

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

（kWh）

	FY2018	FY2019	FY2020
	367,108	344,848	359,542
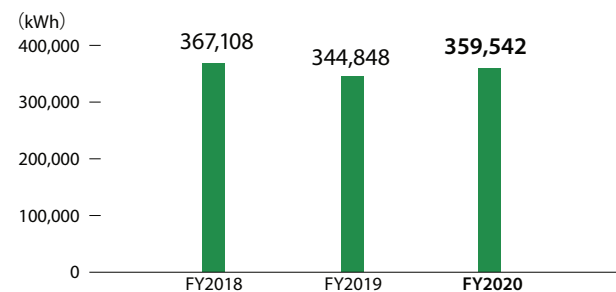
Electricity Generated by Solar Power in Fiscal 2020 — Approx. **360,000** kWh

Office Initiatives

Fiscal 2020 Results

CO₂ Emissions

CO_2

FY2020 Target

16 kt-CO_2 or lower

FY2020 Result

15 kt-CO_2 YoY −10%

(FY2019 Result: 17 kt-CO_2)

In fiscal 2020, we successfully expanded and established remote work options for our employees in response to social demands brought on by the COVID-19 pandemic, as we had been working to improve our remote work environment as a Companywide initiative. As a result, power consumption in our offices was lower than we had initially expected, and significantly helped to achieve our

CO_2 emissions reduction target.

In fiscal 2021, as one of our initiatives for growing remote work needs , we will adopt a free seating system and consolidate offices in the Tokyo metropolitan area, assuming that the maximum office attendance rate will be 30%.

We will work to convert electricity used in offices to renewable energy sources, just as Otemachi Place achieved zero emissions for all electricity used in September 2021, and set a target for reducing CO_2 emissions by 8% compared to fiscal 2020.

◆ **CO₂ Emissions from Offices**

(10,000 t-CO_2)

	FY2018	FY2019	FY2020
	2.1	1.7	1.5

Relocation of the head office and transfer of NTT Plala to the NTT DOCOMO Group

Expansion and establishment of remote work
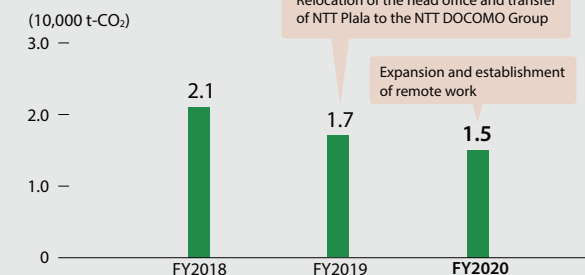
(Scope: NTT Communications Corporation and 15 Group companies)

Transportation Initiatives

Fiscal 2020 Results

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, volume, and distance required for transport and by otherwise enhancing logistics.

In fiscal 2020, 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 254,000 tkm. In fiscal 2021, 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**

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

(10,000 tkm)

	FY2018	FY2019	FY2020
Total	38.6	31.7	25.4
Other	17.5	15.5	9.2
Waste	4.4	4.3	2.2
Telecom. equipment dismantled	11.7	7.8	9.6
Sales promotion tools	0.1	—	—
Connection notes	0.4	0.3	0.2
Invoices	4.5	3.9	4.1

YoY **-19.9**%
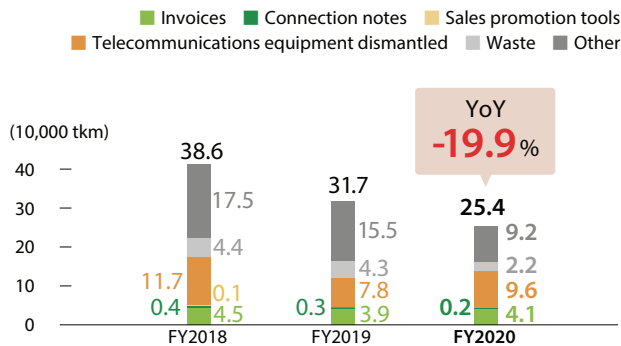
(Scope: NTT Communications Corporation)

Reducing Fuel Use by Company Vehicles

To help solve pollution problems and contribute to the realization of a low-carbon society, we are working to have EVs account for 100% of our corporate fleet by fiscal 2030 under the EV100 initiative declared by the NTT Group in October 2018. We are also reviewing the number of our sales vehicles and steadily promoting eco-driving and other measures to reduce the volume of fuel used by Company vehicles across the entire Group.

In fiscal 2020, we made full-scale efforts to introduce EVs, replacing 31 vehicles with EVs and scrapping 68 vehicles with the expansion of remote sales. As a result, gasoline and diesel consumption by Company vehicles in fiscal 2020 totaled 50,000 liters and 7,000 liters, respectively. The combined volume declined by 44,000 liters, or 43.6%, year on year.

◆ **Fuel Consumption by Company Vehicles**

■ Gasoline ■ Diesel

(kt)

	FY2018	FY2019	FY2020
Total	129	101	57
Diesel	8	8	7
Gasoline	121	93	50

YoY **-43.6**%
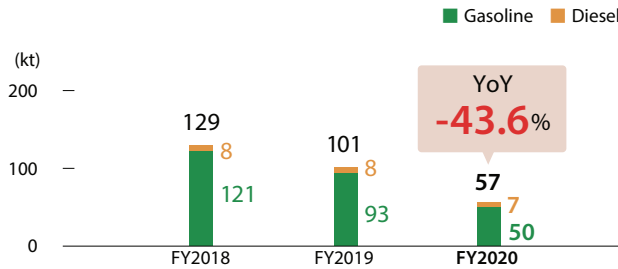
(Scope: NTT Communications Corporation and 15 Group companies)

🌐 For more information on EV100, see:
https://japan-clp.jp/climate/reoh

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 2020, 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.

Certified Solutions (Excerpt)	CO₂ Reduction Effect
Nexcenter	43%
Enterprise Cloud	74%
Arcstar IP Voice	30%
Arcstar Universal One Mobiles	24%

For more information on the Environmental Labeling System for Solutions, see:

https://group.ntt/en/environment/protect/lowcarbon/label/

■ Nexcenter, a Data Center that Combines Energy Efficiency and Performance

NTT Communications' data center (DC) service, the Nexcenter, offers leading-edge quality.

The Nexcenter proved to be capable of operating nonstop, 24 hours a day, 365 days a year, with full disaster countermeasures and of reducing CO_2 emissions associated with maintenance, operation, and the use of ICT equipment in a DC by 43% per year compared to a conventional DC with a rotary UPS*, water-cooled air-conditioning, and outdoor air-cooling systems.

*Integrated emergency power generator and UPS (uninterruptible power supply). In the event of a blackout or other power failure, power can be switched to a battery-equipped UPS to provide power until the emergency system is activated.

◆ **Nexcenter's CO₂ Emissions per Year**
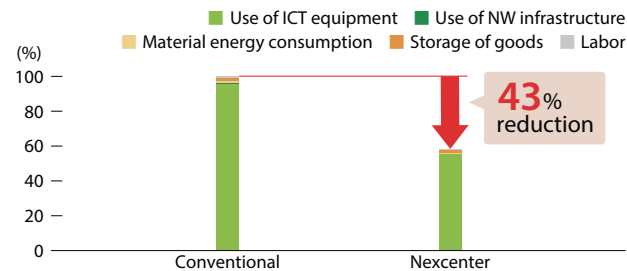
Note: Emissions are from Company vehicles, telecommunications buildings (including data centers), and offices. Figures retroactively adjusted to reflect changes in the scope of calculation.

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 (updated to version 9 in March 2021). 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).

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)

Implementing Closed-loop Recycling

CSR Priority Activities

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 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 2020 and Goals for the Coming Years

In fiscal 2020, the final disposal of waste from dismantled telecommunications equipment amounted to 3.1 tonnes, construction waste to 287.7 tonnes, and office waste to 10.5 tonnes. The total volume of final waste disposal decreased by 3.9 tonnes, compared to the previous fiscal year, to 301.3 tonnes, while the total volume of waste generated increased by 4,876.8 tonnes to 19,455.8 tonnes due to increased construction work for disposing concrete blocks. Going forward, we will thoroughly implement the 3Rs in our business activities.

◆ NTT Communications Group Final Waste Disposal and Total Waste Generation
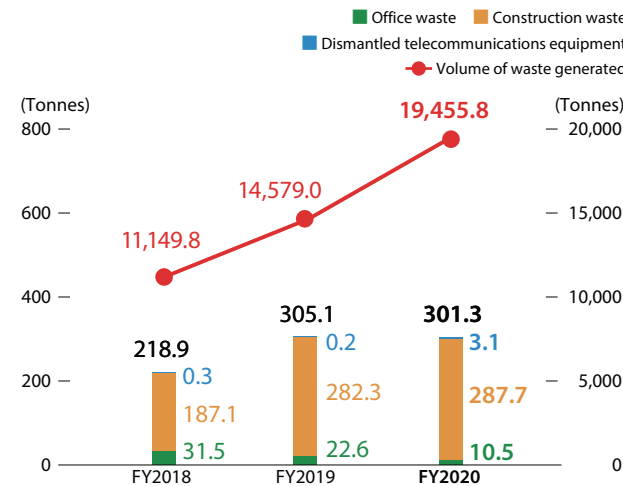
(Scope: NTT Communications Corporation and 15 Group companies)
Figures retroactively adjusted to improve accuracy.

◆ Total Volume and Landfill Rate of Dismantled Telecommunications Equipment
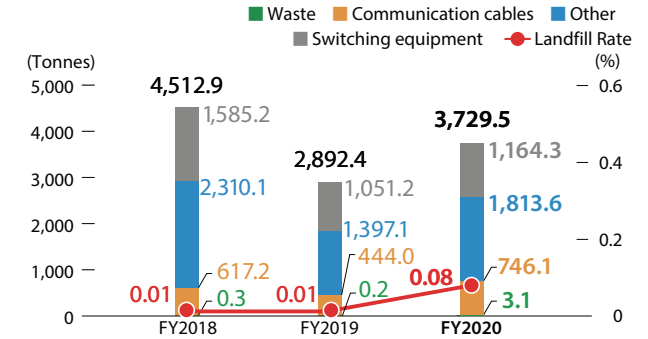
(Scope: NTT Communications Corporation and 15 Group companies)
Figures retroactively adjusted to improve accuracy.

◆ Volume of Reused Fiber-optic Cable
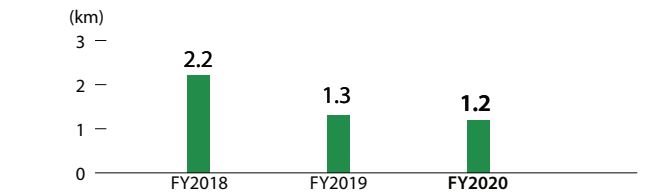
(Scope: NTT Communications Corporation and 15 Group companies)

◆ Construction Waste Generation and Landfill Rate
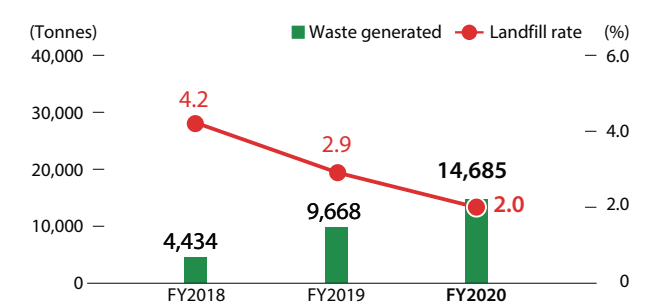
(Scope: NTT Communications Corporation and 15 Group companies)

Building Business Models with Low Environmental Impact

Effectively Using Water Resources

Water resources are indispensable for the survival of all living things, including humans, but the increasing world population and economic development have led to concerns over water shortages and pollution. We are striving to use water resources more effectively by recycling and reusing air-conditioning and cooling water in our data centers and switching to water-saving toilets in our major office buildings. We are also developing a water demand prediction system, as part of a social infrastructure that utilizes ICT, to contribute to addressing social issues related to water resources.

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 1.0%, as of fiscal 2020.

◆ Total Office Waste and Final Disposal Ratio

Volume recycled ■ Total waste generated
—●— Final disposal rate

(Tonnes) (%)

	FY2018	FY2019	FY2020
Final disposal rate	1.4	1.1	1.0
Total waste generated	2,202.8	2,018.2	1,041.3
Volume recycled	2,049.1	1,943.1	995.9
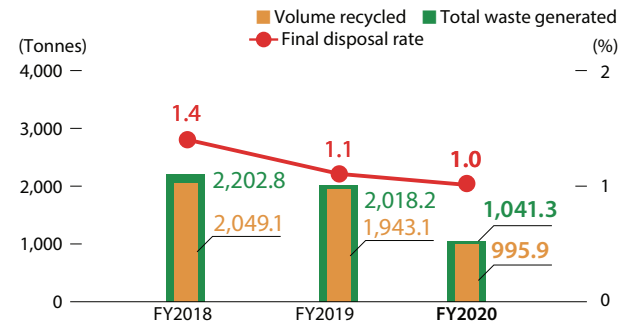
(Scope: NTT Communications Corporation and 15 Group companies)

Promoting the Reuse of Fixed Assets

From the perspective of promoting the efficient operation and reuse of fixed assets across the Company, including small assets and equipment, we are matching organizations that need assets with those that do not. Thanks in part to this effort, in fiscal 2020 we reused 124 items of dismantled equipment, 7,897 units of equipment and packages overall, and 1.2 km of removed optical cable. In fiscal 2021, we will continue to promote the reuse of fixed assets and strive to reduce the amount of waste we generate.

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. Since then, we have been working to raise awareness among employees through various efforts such as curbing the use of paper and increasing the rate of double-sided printing by using printing log data from IC card multifunction printers, and collecting the initiative status data per individual and section and disclosing it to all employees on a monthly basis.

In fiscal 2020, we made significant progress in digitizing paper documents as part of our remote work initiative, resulting in 951 sheets of paper used per full-time employee (converted to A4-size office paper), a substantial decrease from fiscal 2019 (3,585 sheets).

◆ Total and Per-employee Office Paper Use*
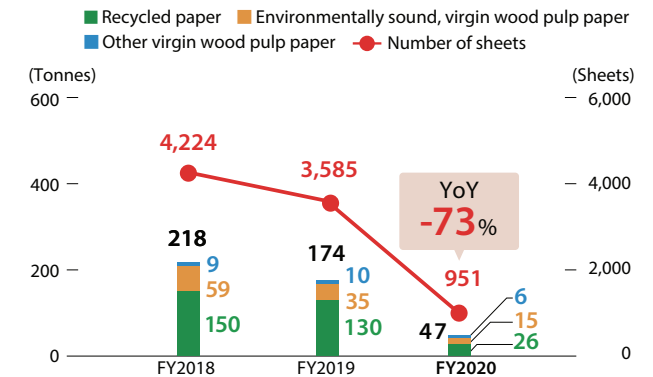
■ Recycled paper ■ Environmentally sound, virgin wood pulp paper
■ Other virgin wood pulp paper —●— Number of sheets

(Tonnes) (Sheets)

	FY2018	FY2019	FY2020
Number of sheets	4,224	3,585	951
Total	218	174	47
Other virgin wood pulp paper	9	10	6
Environmentally sound, virgin wood pulp paper	59	35	15
Recycled paper	150	130	26

YoY -73%

(Scope: NTT Communications Corporation and 15 Group companies)
Figures retroactively adjusted to improve 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.

In fiscal 2020, the rate of plastic recycling in offices essentially remained flat, but the amount of plastic generated decreased significantly due in part to the expansion and establishment of remote work. We will continue addressing the concern over plastic pollution through our business activities.

◆ **Volume of Plastic Waste and Office Recycling Rate**
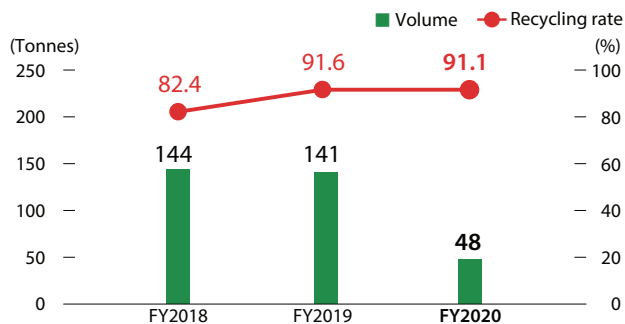
■ Volume ●— Recycling rate

(Scope: NTT Communications Corporation and 15 Group companies)

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. Under these guidelines, 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
- 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 2020 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 2021, 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.

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.

Considerations for Building Construction

Biodiversity-conscious Guidelines

When constructing new buildings such as data centers, we strive to understand the historical, social, geographical, and biological environment characteristics of the building site and its surrounding areas in accordance with the NTT Group's Green Design Guidelines for Buildings, and we reflect that understanding into our designs insofar as possible.

Along with these considerations, we ensure that construction is completed with consideration for minimal noise and vibration and with attention to community beautification during the work. Furthermore, our outdoor air-conditioning units and emergency power generators are designed to generate exhaust heat and noise levels that do not adversely affect the community.

For more information on the NTT Group's Green Design Guidelines for Buildings, see:

https://group.ntt/jp/design/   (Japanese only)

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.

At the Tokyo No. 6 Data Center, one of the largest of such facilities in Tokyo, we have been working closely with the community to promote greening activities by applying a subsidy from the Tokyo Metropolitan Park Association's Urban Green Fund. The green spaces at the site have been divided 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**

Laying Subsea Cables

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.

Considerations for the Impact of Laying Subsea Cables

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, we duly consider shallow areas for preserving marine environments and generally exclude coral reefs and other inhabited areas when designing cable routes, insofar as possible, or transplanting them outside the cable-laying area.

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.

Considerations for 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, so we emphasize consideration for biodiversity in their operations.

As of March 31, 2021, 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

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. For example, 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 58.79 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 leaks of hazardous substances, 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
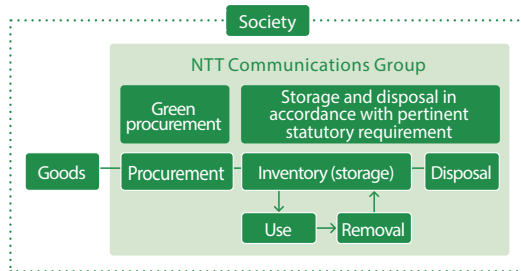
Primary Concept

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 2020 and Goals for the Coming Years

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 reviewed the number of sales vehicles owned and promoted eco-driving to reduce the fuel consumption of Company vehicles across the Group.

In fiscal 2020, we focused on the full-scale introduction of EVs, and with the expansion of remote sales activities, we succeeded in reducing the number of vehicles by 26% year on year and CO_2 emissions by 44%. We will continue to review the number of vehicles owned and promote the use of EVs.

Initiatives to Address Environmental Pollutants

Preventing Air Pollution

Our business activities produce NOx and SOx emissions, which cause air pollution. Among NOx emissions, 55% are attributable to the use of gasoline and diesel in our operational vehicles, while the remaining 45% are emitted as a result of electric power generation at communications buildings and other facilities. Most SOx (89%) is emitted during the generation of electricity that we use.
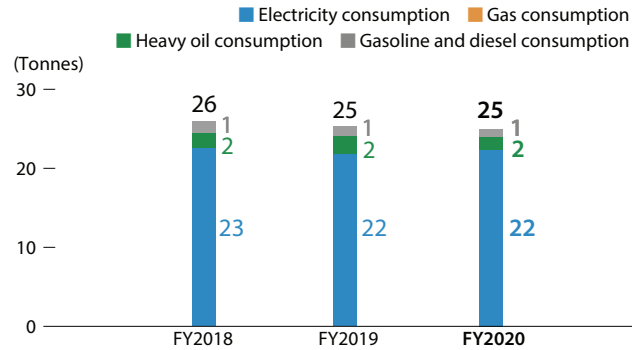
In fiscal 2020, NOx and SOx emissions were 156 tonnes (a year-on-year decrease of 20%) and 25 tonnes (a year-on-year decrease of 1%), respectively, as a result of a decline in the operation of commercial vehicles. We will continue to review our vehicle fleet numbers and promote the use of EVs toward 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
-20%

	FY2018	FY2019	FY2020
Total	226	194	156
Gasoline and diesel	155	125	86
Heavy oil	2	2	2
Gas	1		
Electricity	68	65	67
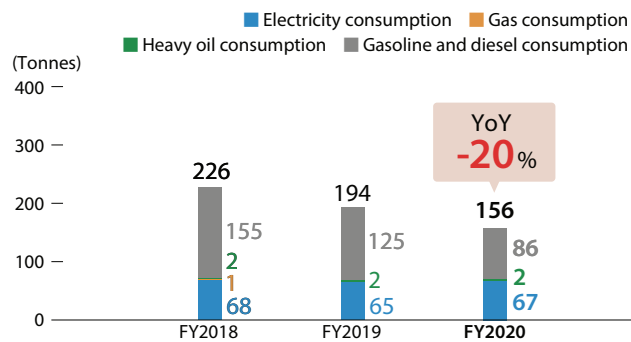
(Scope: NTT Communications Corporation and 15 Group companies)

◆ **SOx Emissions**

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

(Tonnes)

	FY2018	FY2019	FY2020
Total	26	25	25
Gasoline and diesel	1	1	1
Heavy oil	2	2	2
Electricity	23	22	22

(Scope: NTT Communications Corporation and 15 Group companies)

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 2020 was approximately 143 tonnes, unchanged from the previous fiscal year.

Meanwhile, the volume of specified chlorofluorocarbons (CFCs) used in our air-conditioning equipment in fiscal 2020 fell by around 5 tonnes from the preceding fiscal year to approximately 253 tonnes.

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

(Tonnes)

	FY2018	FY2019	FY2020
	143	143	143
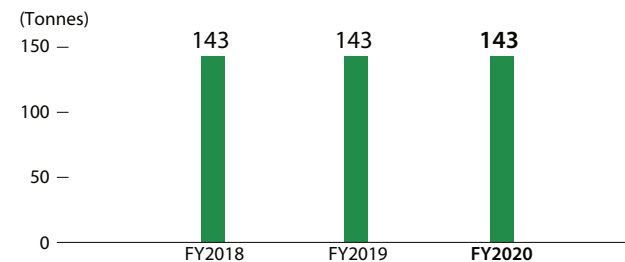
(Scope: NTT Communications Corporation and 15 Group companies)

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

- CFC
- HCFC
- HFC

YoY
-5 tonnes

(Tonnes)

	FY2018	FY2019	FY2020
Total	283	258	253
HFC	270	254	250
CFC	0	0	0
HCFC	13	4	3
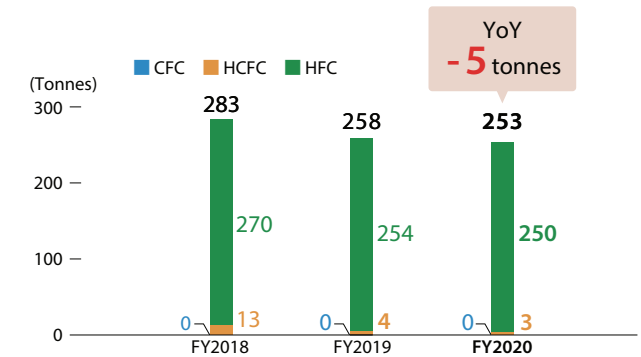
(Scope: NTT Communications Corporation and 15 Group companies)

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, as 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. We are currently removing asbestos from a building where it is possible. Looking ahead, we will 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.

Storage and Management of PCBs

NTT Communications appropriately manages devices that contain polychlorinated biphenyls (PCBs). Such devices were used in the past as insulators for electrical facilities. As a policy for PCB storage, we have established a set of guidelines prescribing early detoxification treatment as well as methods for ascertaining conditions and management when the use of equipment containing PCBs is to be continued.

In fiscal 2020, we conducted a survey to uncover electrical equipment that may contain PCBs. We plan to continue detoxifying any newly discovered equipment containing PCBs in the coming fiscal years.

◆ **Number of Transformers Stored**

	FY2018	FY2019	FY2020
Number of Transformers	0	0	6

(Scope: NTT Communications Corporation and 15 Group companies)

◆ **Number of Capacitors Stored**

		FY2018	FY2019	FY2020
Number of Capacitors Stored	High-voltage capacitors	0	0	0
	Low-voltage capacitors	0	0	2

(Scope: NTT Communications Corporation and 15 Group companies)

◆ **Number of Electric Ballasts Stored**

	FY2018	FY2019	FY2020
Number of Electric Ballasts Stored	1,488	123	363

(Scope: NTT Communications Corporation and 15 Group companies)

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**
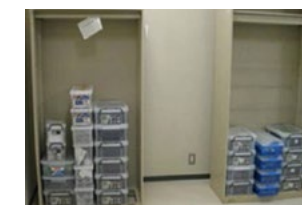
Cases of Major Leakage

There were no incidents involving major leakages in the NTT Communications Group in fiscal 2020.

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.

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 to ensure their well-being.

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 expansion of diverse forms of employment.

Respect for Employees

People

The source of competitiveness of NTT Communications is the power of its people. We aim to create an appealing environment that makes our excellent human resources want to continue working. Under "A fulfilling life makes a fulfilling work", we have pursued workstyle reforms that focus on three areas of policies and regulations, environment and tools, and awareness and culture. We believe that we must take the lead in achieving these reforms as we strive to become a leading company in social and industrial DX.

The spread of the COVID-19 pandemic has accelerated the workstyle reforms we have been promoting. Since the advancing pandemic sparked growing concern, we have been preparing the environment and tools necessary for all employees to work remotely, including temporary employees. Since the first emergency declaration was issued, more than 80% of our employees have been working remotely. Particularly noteworthy is that combining remote work with a flextime system without core hours has dramatically increased the flexibility of our workstyles, resulting in the highest level of employee satisfaction in the past five years. The increased flexibility in work location and hours has also made it easier for employees to balance their work and childcare needs. Moreover, it has increased the number of female employees returning to full-time work, leading to greater respect for the diversity of employees and more opportunities for them to play active roles.

We will continue to take on the challenge of ensuring the well-being of all our employees by further evolving our expertise in remote work into more flexible and hybrid workstyles*, including the realization of a work-in-life approach whereby work and home are close together. We hope our efforts will become a driving force to change the world and lead to a sustainable future.

*Two workstyle options: A flexible workstyle that allows employees to freely choose where and when to work, and a hybrid workstyle that combines real and digital work

Kyoko Yamamoto
Senior Vice President,
Human Resources

Fiscal 2020 Activity Results

Actions Implemented in Line with CSR KPIs

In fiscal 2020, we essentially achieved our targets to become a corporate group in which diversity is respected and where both employees and the Company can grow together by launching new human resource development programs under the theme of creating workstyles geared toward the "new normal." In particular, we received favorable assessments for our efforts to improve the employee satisfaction survey results through the implementation of the onboarding process in a remote environment, promotion of one-on-one meetings, and implementation of various advanced initiatives focused on diversity, supporting the development of women's careers, and organizing various seminars for employees.

In fiscal 2021, we will continue to pursue flexible and hybrid workstyles for the "new normal," respect diversity, and take on the challenge of being a corporate group where employees and the Company grow together.

◆ **Fiscal 2020 Activity Results**

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

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

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Within	Outside	Scope
Maintenance and improvement of motivation	To consistently maintain and improve motivation among NTT Communications Group employees	Review and analyze employee satisfaction survey responses to identify issues and develop and implement action plans to continuously maintain and improve employee motivation	● In December 2020, we conducted the FY2020 Survey on the Views of NTT Communications Group Employees on Workstyles, targeting the NTT Communications Group. We added questions on systems related to workstyle reforms and communication during COVID-19 while considering the impact of environmental changes on employee engagement. ● The survey results were shared with executive management and each organization's point of contact and also released to the entire Company via an online journal.	● Positive overall response rate of 64.9% (up 5.0 points year-on-year), with the highest ratings in all 7 categories compared to the previous year as well as over the past 4 years ● Among the 7 categories, "a sense of togetherness" showed the largest increase from the previous year ● "Productivity," which previously had a positive response rating of less than 50%, exceeded 50% this time ● Overall positive response rating has traditionally tended to be higher for males than for females, but for the first time, the ratings were equal ● As for areas that were strengthened or improved, the ratings increased for the promotion of workstyle reforms (development of systems and tools), realization of productive workstyles, fostering of a comfortable working environment for employees, and a rewarding company to work for	★★ ★★ ★	●		Group companies in Japan
Building a new human resources development program	To create a situation where each employee works with a goal in mind and where each, as well as each organization, can continue to grow as a team	● Promote a new human resources development program aimed at creating a virtuous cycle of growth for employees and the Company ● Training time per person: more than 18 hours	● Abolished the existing certification system for professional human resources development programs and shifted our focus to self-growth as the objective of the development programs, promoting reflection on growth through self-reflection and review of skills and career ● Established a Center of Excellence (CoE) organization to drive new business areas, such as data utilization and design, and began developing training programs and providing technical support to contribute to human resource development across the entire Company	● Were able to flexibly revise or eliminate common indicators (our unique talent profiles and skill definitions) in line with changes in business trends ● With the need to strengthen diverse human resource categories across a wide range of business domains, were able to conduct detailed training in response to business trends by transferring the main training body for job skill development to CoE organizations and business units ● Training hours per person: 13* ● Training cost per person: 114,000 yen per year	★ ★	●		Group companies in Japan

*This is the result of the number of cancellations of Group training sessions due to the impact of the COVID-19 pandemic. We are providing an alternative by expanding the online training options.

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 2020			Assessment	Scope of Activities (Boundary)		
		Targets	Specific Activities	Quantitative Results		Within the Organization	Outside the Organization	Scope

CSR Priority Activities | Respect for Diversity and Equal Opportunities Relevant SDGs

Relevant SDGs ▶ **5** **8**

| 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 ● 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 | ● Offered opportunities for presenting role models for new female employees through panel discussions involving senior female employees and group discussions ● To increase the percentage of women in managerial positions, we held a training program for prospective female employees so they could acquire the skills necessary to become leaders and to develop a concrete vision for their careers and the requisite mindset for serving as managers ● At a diversity hiring event (RAINBOW CROSSING), we introduced NTT Communications' initiatives on diversity in general, women's career development, and LGBT issues ● Held a maternity leave seminar for all female employees who will be taking maternity leave, their partners, and employees who are interested in diverse workstyles (pre-moms and pre-dads) ● Promoted the active employment of people with physical disabilities by using remote work | ● Held a panel discussion for young female employees, during which they were able to network through conversations with senior role models about diverse workstyles and career development through life events. All participants responded in a questionnaire that the event was meaningful. ● Percentage of female managers increased from 6.7% to 7.2% through career enhancement measures for female employees ● Number of participants in the NTT Communications booth at the RAINBOW CROSSING MEET UP, held online due to the COVID-19 pandemic, increased 1.6 times over the previous year, drawing interest in diverse workstyles ● All employees who participated in the seminar on childcare leave (prospective parents) felt it was meaningful to hear about the experiences of senior employees and to gain a better understanding of the system during leave and the evaluation system (100% positive responses to the questionnaire) ● Achieved 2.41% employment of people with disabilities, above the legally mandated rate of 2.3% | ★ ★ ★ | ● | | Group companies in Japan |
| 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. The timing of dispatches will be determined as we observe the COVID-19 situation. | Despite having planned the overseas trainee program and completed the recruitment and initial selection process, the program was suspended due to the spread of the COVID-19. | Due to the spread of the COVID-19, no new trainees were dispatched overseas. In January 2021, we restarted the application process and dispatched approximately 20 new employees for FY2021 | ★ | ● | | Group companies in Japan |

CSR Priority Activities | Maintaining and Improving Employee Health Relevant SDGs

Relevant SDGs ▶ **5** **8**

| Respect for work-life balance | Creation of more satisfying workplaces and improvements in employee work-life balance | ● Further improve productivity, including the promotion of DX, by accelerating workstyle reform based on the integration of systems, tools, and awareness ● Explore new workstyles in the wake of COVID-19 by drawing on the experience of handling the pandemic | Awareness and culture: Monthly distribution of WL (work-life) news Creation and use of the Remote Work Handbook Implementation of the Remote Work Native Challenge Systems: Elimination of core hours in the flextime system Elimination of restrictions on the number of times remote work systems can be used Tools: Promotion of paperless systems and discontinuing the use of personal seals Streamlining and simplifying work slip registration | ● Achieved a remote work rate of at least 70% throughout the year ● Received favorable results from the ES survey and various questionnaires (life enrichment, etc.) ● Average total working hours per employee increased (FY2019: 1,885 hours » FY2020: 1,980 hours) ● Average number of annual leave days taken per employee decreased (FY2019: 17.2 days » FY2020: 14.6 days) | ★ ★ | ● | | Group companies in Japan |
| 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: 99.5% | ★ ★ | ● | | Group companies in Japan |

*This is the result of the number of cancellations of Group training sessions due to the impact of the COVID-19 pandemic. We are providing an alternative by expanding the online training options.

CSR Priority Activities

Human Resource Development

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 basic policy is to promote human resource development from the perspective of achieving growth for both employees and the business, thereby creating a virtuous cycle of mutual growth. We believe this will lead to greater engagement.

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

NTT Communications believes that people are the source of competitiveness and wants to continue to be a company where each and every employee can make the most of his or her abilities and wants to continue working here. With this vision, we focus on human resource development by assigning a training officer to each business organization, in addition to the Human Resources of the entire Company.

To increase the competitiveness of the Company as a whole, by uncovering the capabilities of employees and maximizing their performance as well as increasing the market value of each individual, we are promoting a new human resource development program called ODYSSEY. The program uses talent profiles and skills as common indicators to achieve a virtuous cycle of growth in which both the individual and the organization continue to develop dynamically. In a fast-paced and rapidly changing business environment, we also need to be able to adapt to change, continue to enhance our skills and capabilities, take charge of our own employability, and keep improving ourselves. The ODYSSEY program defines the types of human resources (talent profiles) that are truly necessary for our business while taking into account market trends.

We believe that participants can become highly valuable to the business and the market by acquiring the necessary skills to demonstrate these talents.

We also believe that employees will be motivated to further improve their skills by regularly reflecting on and reviewing their skills, such as when a project comes to a close, when they are transferred, or during one-on-one meetings, which will give them a sense of continuous growth.

The platform of the ODYSSEY program is always open, meaning that employees can share their skills, strengths, and experiences with each other to inspire and learn together as well as obtain career tips. New communities and collaborations are also more likely to emerge as employees connect with each other.

Through these horizontal and vertical connections that transcend organizations and companies, we are also promoting initiatives to help employees learn together and improve their skills.

◆ **Human Resources Development Program**
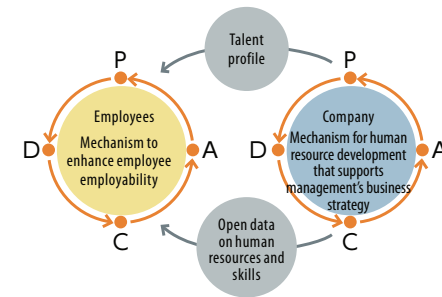
Expected Benefits from the Company's Perspective
Life-long autonomous career development and maintenance and improvement of each employee's employability

Expected Benefits from the Company's Perspective
Developing human resources who can keep up with and adapt to changes in the business environment and contribute to the business

Three Concepts	
1. Talent	By visualizing the skills of employees and the image of human resources needed in each business field through common indicators (talent profiles and skills), employees can set clear goals for improving their skills, and the Company can efficiently take action with limited resources.
2. Open	By disclosing the skills and past experiences of other individuals, employees can learn from and be inspired by, and also gain opportunities for growth through, collaboration and community building.
3. Active	By using common indicators for assigning work, offering jobs, and recruiting internally, employees are encouraged to grow on their own through self-reflection while gaining opportunities to take on challenges and achieve growth based on their results.

Main Achievements in Fiscal 2020 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 new employee development program, ODYSSEY, 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 2021, we provide approximately 1,300 courses for skills enhancement, skills enhancement support, and personal development support.

As we restructure our business strategies and business models to respond to changes in the internal and external environment, we plan to expand our service options to strategically fill human resource gaps through training (skill shifting), from a medium- to long-term perspective, by positioning areas with particularly large human resource gaps as opportunities for enhancement.

◆ **Talent Profile of Ideal Employees**

		Talent Profiles
Sales consulting	01	Consulting sales specialists
	02	Inside sales specialists
	03	Sales enablers
	04	CIDO advisors
	05	Customer managers
	06	Solution consultants
Business development and marketing	07	Marketing researchers
	08	Business producers
	09	Business planners
	10	Product managers (formerly service planners)
Design	11	Business designers
	12	UX designers
	13	UI designers
	14	Design researchers
Engineering and project management	15	Solution architects
	16	IT architects
	21	Delivery managers
	22	Project managers
	47	Construction management engineers
	23	Service managers
	24	Front-end engineers
	22	Project managers
	25	Server-side engineers
	26	IT infrastructure engineers
	27	IoT engineers
	28	Network infrastructure engineers
	29	Facility engineers
	48	AI researchers
	49	Visual communication engineers

		Talent Profiles
Data application	17	Business translators
	18	Data engineers
	19	Data analysts
	20	Data scientists
Security	30	Security managers
	31	Security operators
	32	Security engineers
Service operations	33	Quality managers
	34	Operation managers
	35	Field service engineers
	36	Data center operators
Staff	37	Billing managers
	38	Intellectual property specialists
	46	Risk and crisis managers
	39	Procurement
	40	Legal affairs
	41	Audit
	42	Finance
	43	General affairs and human resources
	44	Public relations
	45	Corporate planning

Systems for Human Resource Development and Evaluation

Education and Training Systems

We provide a range of training programs designed to support employee skill development 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. With the ODYSSEY program, we are creating a system that enables employees to become aware of and improve their employability by applying a plan-do-check-act (PDCA) cycle in their daily work, starting with CDP, as well as by disclosing their skills and collaborating with each other through mutual learning.

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 2020, the average training cost was 80,000 yen for an average of 13 hours per employee. Due to the impact of COVID-19, training participation declined from the previous fiscal year; however, we plan to increase the number of training opportunities by expanding our online training options.

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 2020, we were unable to send any employees due to the impact of COVID-19, but we resumed the application process in January 2021 and are currently in preparation to send approximately 20 new employees.

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.

In parallel with the internal job posting systems of the NTT Group as a whole, we developed JobBoard, a unique recruitment system within the NTT Communications Group which offers more employees opportunities to move into the positions of their choice.

In fiscal 2020, approximately 22 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.

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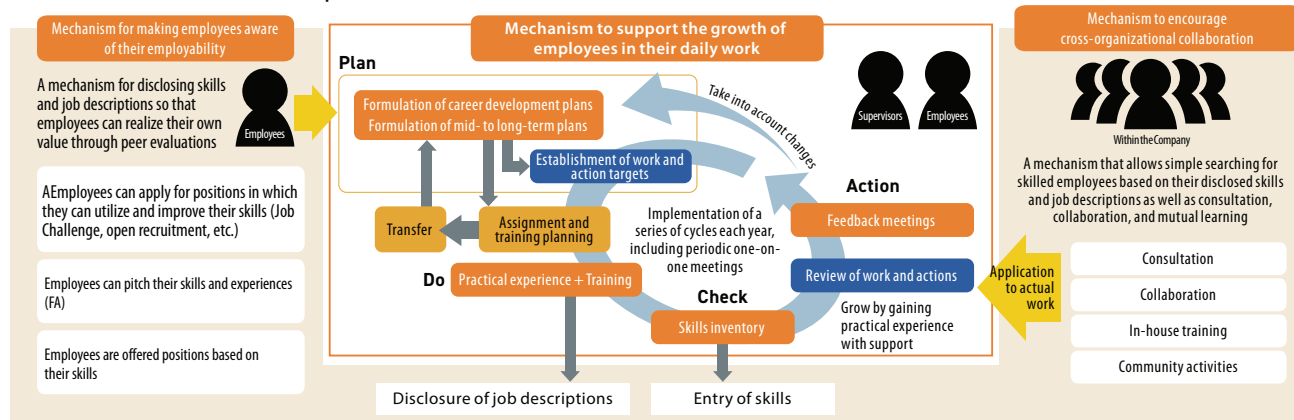
Focus for Human Resource Development
- Global business
- Cloud-related services
- Security-related services
- Upper layer-type services
- Human resources capable of bolstering Group companies toward the maximization of total Group power

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.

◆ **Employee Data**

			FY2016	FY2017	FY2018	FY2019	FY2020
Number of employee[1]	Non-consolidated		6,363	6,261	6,142	5,523	5,533
		Male	5,363	5,256	5,122	4,590	4,552
		Female	1,000	1,005	1,020	933	981
	Consolidated		21,574	22,055	23,337	11,494	11,602
Ratio of basic salary and remuneration per employee by gender[2]	Managerial positions	Base salary	—	—	—	—	1:1.02
		Total remuneration	—	—	—	—	1:1.03
	General positions	Base salary	—	—	—	—	1:1.17
		Total remuneration	—	—	—	—	1:1.17
Percentage of women in managerial positions (%)*			4.8	5.4	6.1	6.7	7.2
Turnover rate (%)[4]			3.4	3.2	4.1	3.6	2.4
New employees (foreign nationals)[5]			201 (34)	203 (16)	237 (10)	203 (7)	203 (5)
	Male		128 (14)	136 (9)	163 (7)	137 (4)	137 (2)
	Female		73 (20)	67 (7)	74 (3)	66 (3)	66 (3)
Number of mid-career hires			34	19	60	50	76
Percentage of mid-career hires among new hires(%)			17	9	24	17	27
Number of rehires[5]			43	45	57	57	47
Ratio of employees with disabilities (%)[6]	Non-consolidated		2.1	2.2	2.2	2.4	2.4
	Non-consolidated and domestic Group companies[7]		2.0	2.2	2.1	2.3	2.3

*1 As of March 31 for each fiscal year
*2 Same salary structure applied to both male and female employees; differences are due to age structure, grade structure, etc., and the ratio is female to male
*3 As of March 31 for each fiscal year, scope: NTT Communications Corporation, including seconded employees
*4 As of March 31 for each fiscal year, scope: NTT Communications Corporation, excluding seconded employees
*5 As of April 1 for each fiscal year, scope: NTT Communications Corporation
*6 As of June 1 of the following year for each fiscal year
*7 NTT Communications Corporation and 9 domestic Group companies

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: December 2020

Survey targets: NTT Communications Group employees, contract workers, etc., in Japan

Number of respondents: 13,461 (response rate: 89%)

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 seventh DigiCom contest was held in 2021.

In fiscal 2021, 64 teams and 220 participants entered the contest, and based on facts gathered during user interviews, they verified the hypotheses of their own business ideas. The teams that made it through the qualifying round in November presented their business ideas to the Company at Demoday in January 2022.

Even after the contest ended, the teams continued to pursue the commercialization of their ideas, and one that made it through the 2020 DigiCom qualifying round, which focused on the challenges of live streaming in the music industry, proposed a live video delivery platform service. In collaboration with Smart vLive, a low-latency live delivery platform service developed by the Application Services, we achieved the successful launch of the service by inviting 2,000 people to a live music delivery demonstration event in July 2021.

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.

◆ **DigiCom**

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.

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. In addition, we value a corporate culture where employees with different backgrounds respect each other and share their diverse values. These efforts are our priority activities in line with SDG 5, "Gender equality," and SDG 8, "Decent job and economic growth."

In recent years, we have been working to create an environment that allows employees to experience diverse workstyles by promoting the use of ICT. Promoting diversity is essential for the sustainable development of our business, and we will continue our efforts to ensure that our employees enjoy fulfilling personal and work lives.

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 2020 and Goals for the Coming Years

In fiscal 2020, 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 workstyle 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. Going forward, we will remain committed to promoting these initiatives.

Priority Initiatives Going Forward

- Encouraging male employees to take childcare leaves
- Further promoting the active roles of women
- Exploring workstyles that allow employees to choose where to work
- Appointing women to managerial positions by taking advantage of diversity

Principal External Evaluations

Employment, Training, and Promotion of Diverse Human Resources

Promoting Women's Participation and Advancement

In line with the NTT Group's declaration to double the number of female managers in its organization, the NTT Communications Group supports employees at various stages of their career development and actively recruits female employees to increase opportunities for engaging diverse human resources. As a result of supporting career development and active roles of female employees that lead to more women in managerial positions and continuously implementing measures that support female employees facing life events unique to women, as well as systems and measures that support 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 2020, we successfully achieved our target of increasing the ratio of female managers to 7.0% (actual: 7.2%). In March 2021, we formulated an action plan for the period up to 2025 based on the Act on Promotion of Women's Participation and Advancement in the Workplace, and we will continue to promote the active participation of women by expanding opportunities for their further advancement and presenting a variety of role models while aiming to achieve a 15% ratio of female managers by 2025.

In fiscal 2020, we continued to hold seminars and training programs for young employees and leaders. We also used

NewsPicks and external lectures by the senior vice president of Human Resources to inform employees about the possibility of further advancement of women through a new remote workstyle to help change and foster employee awareness.

[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. From April 1, 2022, companies with 101 or more 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.
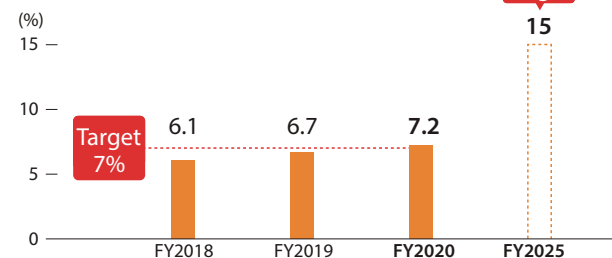
For more information about NewsPicks, see:

https://newspicks.com/movie-series/84?movieId=1336
(Japanese only)

◆ **Ratio of Female Managers**

(Scope: Employees seconded to NTT Communications Corporation and 15 NTT Group companies)

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.

As of June 1, 2021, the NTT Communication Group's rate of employees with disabilities is 2.41% 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 offers a variety of employment options to meet the career aspirations of its employees, including those who wish to pursue careers in a wide range of fields and those who wish to make use of their specialized skills.

Membership-type employment is a form of employment for those who wish to gain work experience and improve their expertise in a wide range of business fields and job categories, and it is based on a conventional, Japanese-style lifetime employment. On the other hand, job-type employment is for those who wish to focus mainly on increasing their expertise in a specific field and, in principle, their job content stays unchanged (no personnel transfer), and such employees are referred to as specialists at the Company.

In addition, we have already introduced a continued employment system that allows employees reaching the mandatory retirement age of 60 to continue working, if they wish, until they reach 65. Our employment system is designed to meet the needs of different workstyles, including not only alternative work days and short working hours but also workstyles that allow employees to make the most of the skills they have cultivated prior to retirement to achieve the same high level of performance as before.

In April 2021, we introduced a system that allows employees to continue to work beyond the age of 65 and up to the age

of 70, as long as their work is required by the Company. Along with these systems that support the career aspirations of the working-age population, we are promoting initiatives to build tailor-made careers for seasoned employees to enhance their willingness to take on challenges by providing them with opportunities to play active roles, and we ensure them that they can continue to demonstrate high levels of performance and maintain their 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 by employing independent contractors around Japan who handle these operations by teleworking from their homes. The NTT Com CHEO's home-based contact center operates at a very high standard in terms of service level and customer satisfaction. In 2018, it 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. As a group of professionals in the call center business, many of its employees have been certified as a COPC CSP Implementation Leader from the perspective of human resource development.

The active promotion of DX has made it possible to conduct all processes from hiring to training and business management from home, thereby providing flexible employment opportunities to those unable to work full-time for reasons such as moving, childbirth, childcare, or nursing care. As a result, we were able to make a smooth transition while maintaining operational efficiency and service quality even during the COVID-19 pandemic. 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.

For more information on NTT Com CHEO's initiatives on telework, see:
https://www.nttcheo.com/corporate/telework/   (Japanese only)

Initiatives for LGBT Issues

We are actively raising awareness of LGBTQ 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 LGBTQ, we have included these topics in our standard human rights training curriculum, which targets all full-time and temporary employees. We also took part in the RAINBOW CROSSING TOKYO career development forum, which focuses on diversity including LGBTQ concerns, and organized a get-together for those who have declared themselves as allies across the NTT Group.

While face-to-face interaction among employees is decreasing due to the COVID-19 pandemic, we have been developing an environment in which individuals who identify as LGBTQ can engage in their work with a sense of security, through measures such as distributing a virtual background that can be used in remote meetings 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, most of our life-event-related benefits, such as special leave, condolence, and congratulation money are also 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 2020, we were awarded the Gold rating, the highest in its PRIDE Index, for the fifth consecutive year since receiving the rating for the first time in fiscal 2016.

◆ **Virtual background distributed to allies**

◆ **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

To create more satisfying workplaces and help employees improve their work-life balance, our Work-Life Committee, comprised of management and employee representatives, serves as the core organization continually striving to implement a range of measures for realizing workstyles that are more efficient and productive while also ensuring that duties are carried out in an effective and thorough manner. In October 2020, we abolished core hours (10:00 A.M. to 3:00 P.M.) under the flextime system to further ease work hour restrictions. In addition, we introduced the Remote Work Allowance System to promote the use and establishment of remote work, including telecommuting, and succeeded in having approximately 80% of our employees work remotely on average, thereby greatly reducing the physical and mental burden of commuting.

We have also designated a special month for encouraging employees to spend more quality time in their private lives to ensure proper work management, reduce working hours (overtime), and promote the planned use of paid leave, and we periodically distribute email newsletters that highlight efforts for improving work efficiency and communications.

Main Achievements in Fiscal 2020 and Goals for the Coming Years

The total number of work hours increased from 1,885 hours per employee in fiscal 2019 to 1,980 hours in fiscal 2020. Due in part to the transition from a commuting-oriented workstyle to a remote workstyle, we cannot make a simple comparison, but we recognize that the increase in total working hours is still an issue. We will further study the ideal form of remote work to reduce the total number of work hours.

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, resulting in one incident, which was lower than the previous year (four incidents). Combined with a health checkup rate of 99.5%, 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.

◆ **Main Changes in the Work Environment**

	Conventional	As of October 2021
Remote work system	Up to 8 days in a month	No limit on the number of days
Flextime system	Core hours (10:00 A.M. to 3:00 P.M.)	No core hours
Remote work allowance	None	Newly established (200 yen × number of days worked remotely)
Commuting expense system	Commuter fare payment	Payment of actual expenses (one-way transportation expenses based on route × number of times actually commuted)
Minimum work hours per day	4 hours	3 hours (between 7:00 A.M. and 10:00 P.M., not necessarily consecutive)
Split work schedule	Yes	Yes

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 workstyles are mutually accepted and understood. These efforts have been externally recognized, and as a result we received Platinum Kurumin certification in October 2017.

In fiscal 2020, we continued to hold new parent preparation seminars and received from all participants responses indicating that the seminars had benefited them. Also, in fiscal 2021, we continued to conduct seminars for employees returning to work and created communities for employees on leave. At these various seminars, we introduced diverse workstyles and presented role models to all interested employees to support their career development through life events.

*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.

◆ **Platinum Kurumin logo**

◆ **Eruboshi logo**

◆ **Tomonin logo**

仕事と介護の両立支援

◆ **Changes in the Number of Employees Who Took Maternity, Childcare, or Nursing-care Leave in Fiscal 2020**

		FY2016	FY2017	FY2018	FY2019	FY2020
Maternity leave (persons)		74	84	63	55	54
Childcare leave (persons)		152	89	173	121	98
	Female	141	84	161	111	92
	Male	11	5	12	11	6
Total number of reinstated employees from childcare leave (persons)		77	64	82	70	77
	Female	67	58	72	61	60
	Male	10	6	10	9	17
Total number of employees who were still with the Company as of 12 months after reinstatement from childcare leave[1] (persons)		74	64	78	67	74
	Female	65	58	68	59	58
	Male	9	6	10	8	16
Reinstatement rate[2] (%) and retention rate[3] (%) of employees after childcare leave						
Reinstatement rate	Female	100.0	100.0	96.0	96.8	96.8
	Male	100.0	100.0	90.9	100.0	100.0
Retention rate	Female	97.0	100.0	94.4	96.7	96.7
	Male	90.0	100.0	100.0	88.9	94.1
Nursing care leave (persons)		3	4	4	8	8
	Female	2	2	3	5	4
	Male	1	2	1	3	4
Average number of paid leave days taken (days)		17.5	17.4	17.7	16.2	14.0
Average paid leave acquisition rate (%)		88	87	89	81	70
Resignation without reinstatement (persons)		0	0	4	2	2
	Female	0	0	3	2	2
	Male	0	0	1	0	0

*1 Number of reinstated employees after childcare leave in fiscal 2019 that were still with the Company 12 months later

*2 (Number of reinstated employees in fiscal 2020 ÷ (Number of reinstated employees in fiscal 2020 + Number of employees who resigned without reinstatement from childcare leave in fiscal 2020))

*3 (Number of employees who were still with the Company as of 12 months after reinstatement from childcare leave in fiscal 2019 ÷ Number of reinstated employees from childcare leave in fiscal 2019)

Promotion of Workstyle Reform

In line with our principles of taking the initiative in taking actions, mutual enhancement, and meeting the needs of society, NTT Communications has been organizing and promoting workstyle reforms focused on three areas: policies and rules, environment and tools, and awareness and culture.
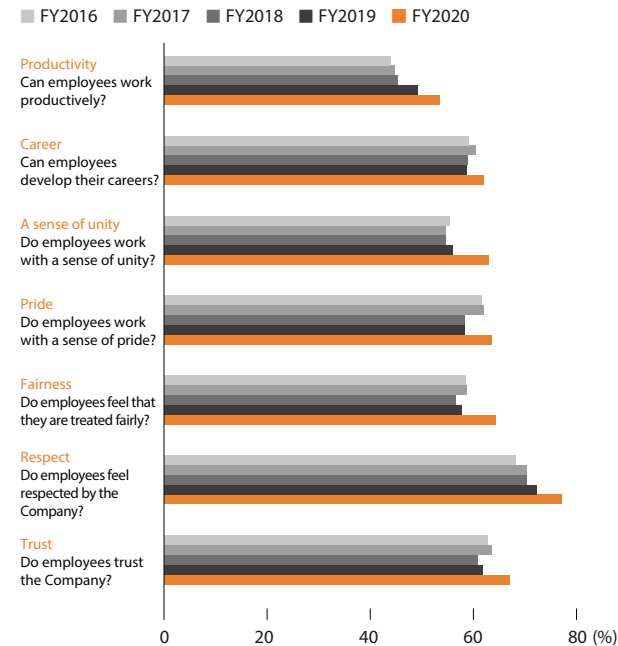
◆ Three Key Areas of Reform

Policies and rules

Three Key Areas of Reform

Environment and tools

Awareness and culture
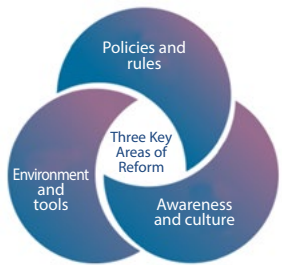
Since the pilot introduction of remote work in 2002, we have promoted reform using ICT and data, as evidenced by the participation of 6,350 employees in Telework Days from 2018 to 2019. As the pandemic started to accelerate in February 2020, we were quick to make the decision to shift to Companywide remote work. From that year to the present, we have maintained a remote work rate of 80%.

Remote work rate | **80**% (as of October 2021)

Through our transition to remote work, we have reaffirmed our goal of offering each and every employee the opportunity to choose a workstyle that allows them to fully demonstrate their capabilities and continued our reform to address issues and situations that have newly emerged amidst the accelerating pace of changes. As a result, we achieved a record high level of employee satisfaction in fiscal 2020.

◆ ES Survey Results

FY2016 ▪ FY2017 ▪ FY2018 ▪ FY2019 ▪ FY2020

Productivity
Can employees work productively?

Career
Can employees develop their careers?

A sense of unity
Do employees work with a sense of unity?

Pride
Do employees work with a sense of pride?

Fairness
Do employees feel that they are treated fairly?

Respect
Do employees feel respected by the Company?

Trust
Do employees trust the Company?

0   20   40   60   80 (%)

Response rate (15,200 respondents) | **89**% (as of December 2020)

■ Policies and Rules

We are working 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 share examples of employees using these and the flextime system.

Through these efforts, we have created an environment in which employees facing a variety of challenges, including childcare and nursing care, can continue to play active roles, resulting in an approximately two-fold increase in the number of employees returning to full-time work from working shorter hours. In the fiscal 2020 employee satisfaction (ES) survey, the percentage of female employees who responded positively was at the same level as male employees. Some respondents also stated that the remote work and flextime systems made it easier for them to return to full-time work after childcare leave or working shorter hours.

We will continue to support our employees facing the difficulty of balancing childcare and work by helping them to make better use of the systems and reduce commuting time through remote work.

21 employees

11 employees

FY2019   FY2020

Number of employees who returned to work full-time | Nearly a two-fold increase
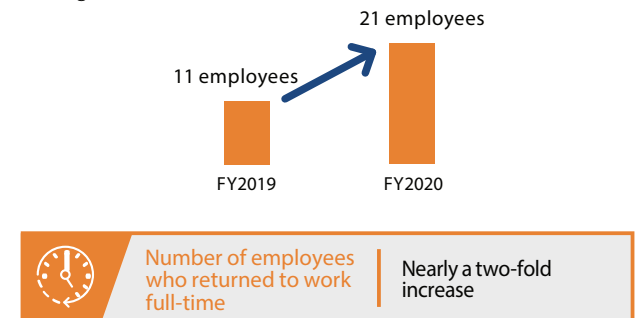
■ Environment and Tools

Although we asked all of our employees to work from home during the pandemic as a general rule, there were still certain situations that required them to come to the office, such as to fill out paper applications and sign contracts. This was an issue that needed to be addressed in order to promote a new way of working. To create a new workstyle tailored to the "new normal," we reviewed our entire business process, including digitization and moving online.

As there were fewer opportunities for employees to communicate with each other outside of meetings, we released NeWork, a communication tool that allows for simple consultation and chatting. This tool has made communication more active even in a remote environment. In addition, we produced and released outside the Company the Remote Work Handbook, which summarizes tips[1] and manners for remote work, and the Onboarding Handbook, which summarizes tips for a series of acceptance processes for newly appointed employees or those who have returned from long leaves of absence to quickly become established as members of the organization and team and become effective working members.

In addition, we rolled out secure computers throughout the Company in addition to thin clients[2] and BYOD[3] 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. Introducing Companywide application software has eliminated the need to install servers for each organization, thereby reducing the workload of the Information Systems. About 98% of employees expressed positive opinions about secure computers, and the Information System Department has begun to take on new challenges including data utilization. Looking ahead, we will continue to pursue automation and higher efficiency through DX.

*1 Ideas and techniques for operating computers and software
*2 Specialized terminals without storage media that are used in virtual desktop environments
*3 Bring Your Own Device: A policy under which employees are permitted to use their personal mobile devices at work

◆ **Image of the New Work Environment**

Before   Previous Office ICT Environment
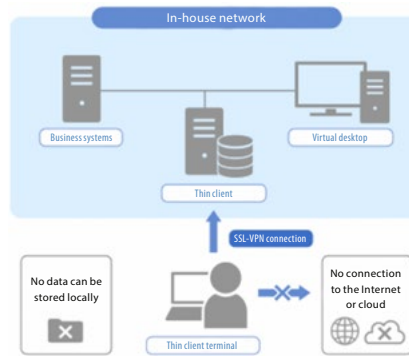
After   Office ICT Environment with Secure Computers
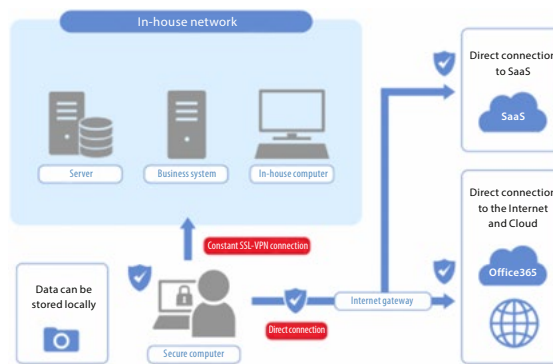
■ Raising Awareness and Corporate Culture

While we have created an environment for remote work, we have taken both top-down and bottom-up approaches, recognizing that necessity of creating a culture and atmosphere where employees do not feel alienated or anxious given the situation where they are unable to easily see how each other is doing.

As part of the top-down approach, executives took the initiative in working from home, such as by holding executive meetings remotely, and top management itself promoted the workstyle reform. In addition, the senior vice president of Human Resources devised an open communication style, such as 5mins HR, a video presentation giving a brief explanation of HR initiatives and the HR system to the entire Company.

In terms of the bottom-up approach, we conducted one-on-one meetings to ensure that there were no inconsistencies in information sharing or communication among employees and make sure they were on the same page. We supported employee growth and provided physical and mental health care to help them achieve their full potential while fostering a sense of trust between the Company and employees.

As a result of these efforts, despite the general tendency to feel alienated and anxious when working in a remote work environment, in the fiscal 2020 ES survey, the percentage of employees who responded positively to the question of whether they were working with a sense of unity increased by 7 points (63.2%) compared to the previous year, the largest increase in the survey. We will continue our efforts to further implement these initiatives.

> ✓ Percentage of employees who confirmed they were working with a sense of unity   **56.2% ➡ 63.2 %**

(largest increase in the FY2020 ES survey)

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 18 wide-ranging benefit options that match their respective lifestyles within the limit of points assigned to them in advance. And we provide 23 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. These options are used by more than 80% of the employees.

In the last few years, we have been reviewing the options to focus on health maintenance and promotion and established the M3 Patient Support Program (M3PSP)* in fiscal 2020 to recommend the most suitable medical treatment for employees and their families from the perspective of further enhancing support for the early treatment of illness and early recovery.

We plan to offer more options in future so as to provide a system that overall is even more beneficial to employees.

*A service to provide medical information to employees using AskDoctors, one of the largest physician consultation sites in Japan

Encouraging Employees to Take Various Leaves

As part of our work-life balance initiatives, we encourage 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 2020, 14.6 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.

◆ **Support for Employee Leave**

	Main Support
Support for maternity and childcare	We support employees expecting or raising children to balance work and family life through the following systems and measures. • Maternity leave (6 weeks before and 8 weeks after the date of birth) • Childcare leave (until the child turns 3) • Shorter work hours for childcare (choose from 4, 5, or 6 hours per day until the child reaches the third grade of elementary school) • Restrictions on overtime and late-night work • Issuance of discount coupons for childcare services
Support for nursing care	We support employees caring for a family member to balance work and family life through the following systems and measures: • Short-term leave system for nursing care • Nursing care leave (up to 1 year and 6 months) • Shorter work hours for nursing care (choose from 4, 5, or 6 hours per day) • Restrictions on overtime and late-night work • Issuance of discount coupons for nursing care services
Support for continued employment	• Employees are entitled to a certain period of leave when they are injured or become ill. • They can also take sick leave after the period of sick leave has elapsed, depending on their condition and based on the approval of their medical doctor (maximum period of sick leave: 3 years).
Support for balancing work and family life in case of illness	• Employees are entitled to a certain period of leave when they are injured or become ill. • They can also take sick leave after the period of sick leave has elapsed, depending on their condition and based on the approval of their medical doctor (maximum period of sick leave: 3 years).
Support for LGBTQ and other sexual minority employees	Some of the systems related to life events (special leave, congratulatory and condolence payments, etc.) are available to same-sex partners.
Others	We offer leave systems to meet a variety of needs, including volunteer activities and recurrent learning. • Life plan leave (5 days granted for every 5 years of service, which can be set aside as part of annual leave)

Thorough Occupational Safety and Health Management

NTT Communications has a safety and health management system in place at each of its business sites. A health manager, safety manager, and industrial physician are assigned to offices that have 50 or more workers on a regular basis, and a general health and safety supervisor is assigned additionally to offices that have 100 or more workers on a regular basis.

At offices with 50 or more workers, we have set up a Health and Safety Committee. The committee strives to achieve a 100% health checkup implementation rate and implements measures to ensure a healthier workplace environment, prevent occupational accidents, and reduce long working hours. In fiscal 2020, we particularly discussed preventive measures against COVID-19 and measures to address new issues arising in the remote work environment and deployed these measures in each building.

We are also promoting and deploying safety measures aimed at eliminating personal injury accidents so that employees engaged in network facility construction work can perform their duties safely. We hold safety meetings to discuss safety measures on a regular basis, share cautionary points for different situations, and distribute safety video content to improve safety management and safety awareness among construction workers, including those at our suppliers.

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

FY2016	FY2017	FY2018	FY2019	FY2020
3	4	5	4	1

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 2020, we sought to raise employee awareness and improve lifestyle habits by organizing the Com-Walk campaign for all employees, which was very popular last year, and the Health Challenge campaign to encourage employees to improve their eating habits by using a meal app (COM-Meal). We also developed a program that allows those with lifestyle-related diseases to receive the necessary health guidance online. As a result of these efforts, the percentage of employees receiving the health guidance increased from about 50% in fiscal 2019 to about 80% in fiscal 2020. We will continue to encourage employees to receive health checkups to achieve a 100% checkup rate.

◆ **Health Challenge 2020 Featuring Com-Walk and Com-Meal Campaigns**

Exercise × Diet

Com-Walk2020   Com-Meal2020

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 (427 participants in fiscal 2020). Other measures for further expanding our support include setting up consultation desks, both in and outside the organization, and counseling programs for employees being sent on overseas assignments.

These efforts resulted in our being recognized in March 2021 for the third 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 Health Management Certification logo**

Measures for Mental Health

We have established several consultation services both in and outside the Company to help employees with various types of mental health issues. Employees seeking advice on mental and physical health can consult with their organization's physician or public health nurse, while those who wish to seek advice on a wide range of matters, including private issues such as childcare and nursing care, can contact the Mental Condition Support Desk, staffed by clinical psychologists and other specialists. In addition, we conduct group analysis of the results of the annual stress check for each workplace and hold three-way discussions among labor (union), management (Company), and health (health management center) on issues and future measures that can be applied to improve the workplace.

In fiscal 2020, we conducted the mental keeper training course for 139 employees (total number of certified employees: 3,235) to further enhance line care in the workplace. At the same time, we conducted a pulse survey every month to ensure that we are not missing any signs of changes in employees even in a remote work environment and to facilitate smooth communication between superiors and subordinates, leading to appropriate line care and other support.

◆ **Types of Consultation Services**

	Work-related concerns, communication issues with superiors, colleagues, etc.	Personal issues, health problems, marriage, childbirth, childcare, education, second career, nursing care, etc.	Human rights and harassment
Line care: Supervisors (senior managers and directors), trainers, and organizational managers	○	○	○
Care by health staff	○	○	—
Mental Condition Support Desk (EAP)	○	○	○
Face-to-face counseling by professional counselors	○	○	○
M3PSP* (AskDoctors option)	—	○	—
Human Rights Office	—	—	○
Harassment Hotline	—	—	○

*A service providing medical information to employees using AskDoctors, one of the largest physician consultation sites in Japan

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. NTT Communications is upholding its new business vision Reconnect X as a strategy for creating a sustainable future by re-connecting everything. To achieve sustainable corporate growth and continuously contribute to realizing a sustainable future, we are committed to practicing efficient governance and solid compliance across the Group. In particular, as advances in the remote world have heightened the importance of ensuring information security as a social concern, we have been actively preventing problems and providing countermeasures. We will remain faithful to our corporate mission, core beliefs, and policies in order to ensure each and every employee takes action with a sense of responsibility and strive to establish corporate governance and compliance systems throughout the Group to construct an efficient, legally compliant, and ethical management foundation.

CSR Priority Activities

094 **Thorough Compliance**

097 **Respect for Human Rights**

100 **Risk Management**

102 **Ensuring Information Security**

Management

Continuous Strengthening of Corporate Governance

Due in part to the impact of the COVID-19 pandemic, digital transformation (DX) using advanced technologies such as AI, IoT, and 5G has accelerated across society. We are creating innovative and unprecedented communication methods by providing various solutions that promote the DX initiatives of customers under our Reconnect X business vision. To realize this vision, the foundation that connects the NTT Communications Group and its customers must be built upon trust as the key universal element. To remain a trusted corporate group in this so-called "new normal" era, we will always place compliance at the foundation of our operations.

To ensure that all employees engage in business activities with high ethical standards under a solid governance structure, we will thoroughly comply with laws, regulations, social norms, and internal rules while continuously enhancing our risk management structure, to which we have also added considerations for handling risks. Ensuring information security remains a vital aspect of our business activities, and we are aware of the need to consistently reinforce initiatives that include proper information management and the development of security specialists. Moreover, we believe that only by extending these initiatives across our value chain can we earn recognition as a fully trustworthy partner.

Up to the present and into the future, we will endeavor to realize solid governance and enhance corporate value as we continue to advance as a company that has earned the public's trust.

Hiroki Kuriyama
Senior Executive Vice President

Fiscal 2020 Activity Results

Actions Implemented in Line with KPIs

In view of changes in the business environment and social expectations, such as the dissemination of ICT throughout society and the need to address supply chain management, we have designated thorough compliance, respect for human rights, risk management, and ensuring information security as our Sustainability Priority Activities, put to action by each employee based on our mission, core beliefs, and business vision and with the intention of remaining a trusted corporate group.

As a result, we were able more or less to attain our targets in all areas in fiscal 2020. In terms of thorough compliance, we enhanced 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. We intend to incorporate the results into developing our initiatives further in fiscal 2021 on a Groupwide basis.

◆ **Fiscal 2020 Activity Results**

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

CSR Priority Activities | Thorough Compliance   Relevant SDGs ▶ **5** **10** **16**

Initiatives	Medium-term Targets	Targets	Specific Activities	Quantitative Results	Assessment	Within	Outside	Scope
Raise awareness and establish compliance throughout the Group	Becoming a company that practices corporate ethics, including compliance with laws, social norms, and internal rules	● Implement training and education centered on measures for preventing workplace harassment (collaboration between the Human Rights of the Human Resources 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)	● Implemented Companywide compliance training ● Organized seminars on anger management ● Formulated the Rules for Preventing Harassment ● Conducted a corporate ethics survey ● Published messages from top management (message from the chairperson of the Compliance Committee) in the online journal	● Attendance of Companywide compliance seminars at NTT Com (96.8%) ● Response to the corporate ethics survey at NTT Com (85.8%) ● Auditing of subsidiaries: paper audits were conducted for the first time at 9 of 14 subsidiaries, and an auditing method was established for the "new normal," such as identifying the auditing trail of trade based on BOX	★★	●		Group in Japan and overseas
		● 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	● Created a risk map that reflects changes in the business structure associated with NTT Com's organizational restructuring to conduct audits based on themes selected through discussions with management. Selected subsidiaries for either paper audits or onsite audits in accordance with changes in risks that occurred in the relevant fiscal year ● Shared the analysis results of continuous risk monitoring based on CAAT with all Group organizations by visualizing the results in a dash board format to establish preventive auditing. Also changed the frequency of information sharing from bi-annual to quarterly to provide information in a timelier manner.	● Sharing analysis results with each division: expanded from 37 to 157 staff, centered on the heads of planning and personnel in charge of each division ● Frequency of information sharing: changed from bi-annual to quarterly	★★★★	●		
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	● Enhanced 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 ● Promoted collaboration with auditors from the standpoint of implementing Companywide risk management, including corporate ethics	● Conducted direct interviews using Web conferencing (shortened the investigation period) ● Introduced an investigation process conducted by a third party (lawyers) to ensure objective external accountability ● Provided auditors with a report on the status of whistleblowing and exchanged views monthly	● Shortened the investigation period from 4 to 2 months (9 weeks) ● Investigation by lawyers: 4 cases (unpublished) ● Reports to auditors and exchange of views (12 times, monthly)	★★★★	●		Group in Japan and overseas

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

CSR Priority Activities | Respect for Human Rights

Relevant SDGs ▶ **5** **10** **16**

Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2020			Assessment	Scope of Activities (Boundary)		
		Targets	Specific Activities	Quantitative Results		Within the Organization	Outside the Organization	Scope
Raise awareness and establish compliance throughout the Group	Understand issues related to human rights awareness at NTT Communications and domestic affiliates to strengthen initiatives for raising human rights awareness as a global enterprise	Analyze results of the human rights management survey targeting affiliates in Japan and identify issues	Analyzed results of the survey targeting affiliates in Japan and identified priority human rights issues. These issues were shared with domestic affiliates and will be used as important reference in the planned revision of the NTT Group Human Rights Charter in fiscal 2021. Human rights due diligence will be conducted throughout and after fiscal 2021 pending revisions in the Human Rights Charter.	● Human rights management survey targeting affiliates in Japan has already been conducted ● Identified priority human rights issues for NTT Com and its supply chain	★★	●		Group companies in Japan
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 contact points under remote working conditions to respond effectively and sufficiently to consultations and reports on diverse issues and communicate this information to employees	● Maintained efforts to raise awareness of contact points for consultation and whistleblowing in general by incorporating them into Companywide training and monthly messaging to all employees ● Reconfirmed policies on conducting rapid and appropriate investigation of the facts in accordance with compulsory measures for preventing harassment in the workplace ● Changed part of the consultation and whistleblowing process from one-on-one meetings to Web meetings in response to COVID-19 ● Contact points for consultation and whistleblowing are accessible through a link at the top page of the internal information portal for all employees	Test question concerning the functions of the contact points were answered correctly by 97% of the participants in Companywide training	★★	●	●	Group companies in Japan
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 Internet Content Safety Association (ICSA)	Human Resources: 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 ICSA	Human Resources: No inquiries were received by the Human Rights Education Department	★★★	●	●	Group companies in Japan
			Data Platform Services: Protect children's human rights by maintaining access restrictions for OCN service based on a list of child pornography website addresses provided by ICSA	Data Platform Services: Number of limited-access domains was approx. 20	★★★	●	●	
			NTT Resonant: 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 ICSA	NTT Resonant: ● OCN: Approx. 34 limited-access sites ● goo: Registering 250 addresses publishing child pornography per week	★★★		●	

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 2020			Assessment	Scope of Activities (Boundary)		
		Targets	Specific Activities	Quantitative Results		Within the Organization	Outside the Organization	Scope

CSR Priority Activities | Risk Management   Relevant SDGs ▶ 9

| 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 | ● 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 | ● Reformatted documents defining risks into an action plan based on experience (November 2020). The documents will be continuously revised as needed.
● Held Business Risk Management Committee and Subcommittee meetings to address specific targets and reflect relevant points to risk management in a timely manner
● Reported to the Executive Council on a quarterly basis about efforts for efficiently communicating and widely establishing information with maximum effectiveness, and launched a BRM portal | ● Held Business Risk Management Committee meetings (twice)
● Submitted quarterly report on risk management to the Executive Council (4 times)
● Held Business Risk Management Subcommittee meetings (10)
● Number of areas that were newly reinforced at the origin of risk based on above discussions: 11 themes | ★★★ | ● | ● | Group companies in Japan |

CSR Activities | Ensuring Information Security   Relevant SDGs ▶ 9 11

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 Companywide security training to raise awareness and limit occurrences of security incidents (attendance: 100%) ● Continue conducting and developing system audits and information security audits	● Organized and conducted Companywide security training to raise awareness and measured the level of understanding ● Organized and implemented training for managers and leaders in charge of implementing security management	● Attendance of Companywide security training: 16,291 employees (100%) ● Attendance at training for managers and leaders in charge of implementing security management: 158	★★★	●	●	Group companies in Japan
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: 500; elementary level: 1,900 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 2021 and personnel (consultants, auditors, and others) capable of creating new businesses after the events	● Implemented a system for seconding mainly new employees to Group companies with systematic and practical human resource development curriculums, and have subsequently been applying their knowledge to security-related projects in each organization ● Dispatched employees to development programs at companies outside the Group to foster core human resources for the future ● Held various internal events such as Capture The Flag (CTF) and discovered numerous leadership candidates; expanded the internal community to over 250 members	● NTT Group security specialist accreditation program ● Advanced level: 13 (1) ● Intermediary level: 788 (10) ● Elementary level: 3,953 (345) ● (Figures in brackets indicate employees accredited in fiscal 2020.)	★★★	●		Group companies in Japan
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	● 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)	● Prepared for paper screening and on-site screening for a PrivacyMark upgrade ● Monitored developments such as details of the revision and related guidelines in response to the 2020 revision of Japan's Personal Information Protection Law that took effect on April 1, 2022 and revised internal operating rules accordingly. In particular, we worked with the information security department on creating a mechanism for ensuring thorough adherence to rules on the appropriate disposal of confidential information such as personal data.	● Passed the upgrade screening for the PrivacyMark (November 2020)	★★★	●		Group in Japan and overseas

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

Continuous Strengthening of Corporate Governance

Our Foundational Mission, Core Beliefs, and Business Vision

Business Activities under Our Mission, Core Beliefs, and Business Vision

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 about the decisions and actions that meet their needs. 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.

In addition, the NTT Communications Group is upholding its new medium-term business vision of Re-connect X to fulfill its corporate mission in the "new normal" society that has been forced to undergo rapid change due to the spread of the COVID-19 pandemic.

As a general variable, "X" can signify anything. Together with our customers and partners, we will strive to help bring about a sustainable future by safely and securely connecting and re-connecting everything, and by collecting, storing and analyzing data, and providing feedback.

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

🌐 For more information on our mission, core beliefs, and business vision, see:

https://www.ntt.com/about-us/we-are-innovative/vision.html?link_id=ostp_mdd_about

(Japanese only)

🌐 For more information on Re-connect X, see:
https://www.ntt.com/en/about-us/re-connectx.html

■ Specific Activities for Companywide Engagement

To put into practice our mission and core beliefs, each employee must develop a deep understanding that facilitates taking action.

NTT Communications has produced and disseminated various tools across the Group. These include the Story Book, which explains our mission and core beliefs through stories and how they came to be established, and we printed cards bearing our mission and core beliefs in an easy-to-carry format. The tools are also distributed to new employees and staff who have been relocated to the NTT Communications Group.

We also organize workshops for creating personal action plans by linking individual values with our mission and core beliefs so that new employees can apply our mission and core beliefs to their jobs.

At the same time, we focus on sharing initiatives aligned with our mission and core beliefs across the Group. Articles that explain business policies formulated around our mission and related workplace efforts, including how they are connected to our mission and core beliefs, are broadly disseminated across the Group via our Web-based internal newsletter.

Moreover, we launched the KURUMAZA.exe forum to encourage direct interaction between executives and employees. These have been held five times to date, as needed. We are promoting Groupwide activities by fostering a deeper understanding of management policies and business activities in line with our mission and core beliefs through information sharing and a frank exchange of views.

◆ **Story Book, distributed to new employees and other staff**
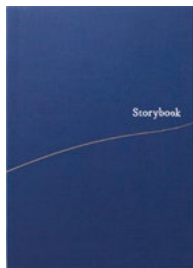
◆ **KURUMAZA.exe session**

Our Approach to Stakeholder Engagement

Our stakeholder relationships are extremely important for the NTT Communications Group in maintaining sustainable business operations. As part of our efforts to disclose information on sustainability, we have categorized our stakeholder engagement from the perspectives of required information, information that should be shared, and communication media. In addition to this report, we will engage with our stakeholders through our website, various events, and surveys.

◆ **NTT Communications Stakeholders**
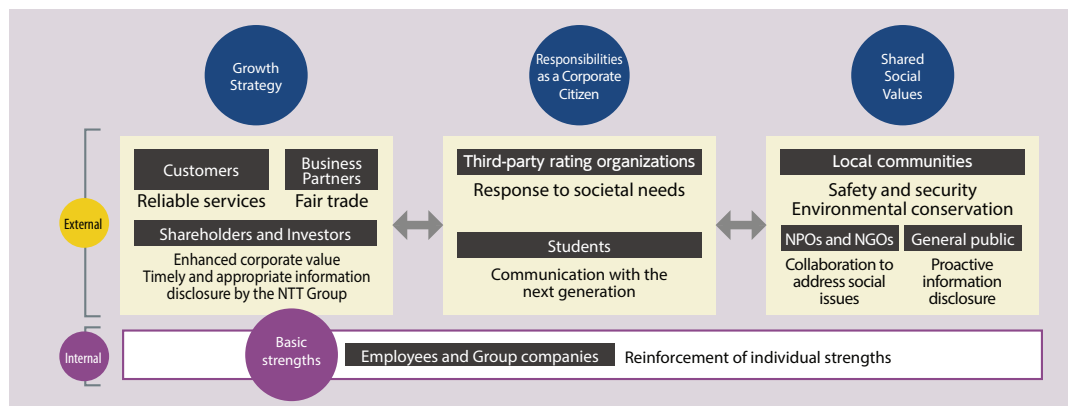
◆ **Dialogue with Stakeholders and Major Topics**

Stakeholder		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.	• 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 executives during dialogue meetings and lectures • e-learning programs and questionnaires • Feedback collected through the corporate intranet and helpline • KAIZEN Support Line • Employee satisfaction surveys	• Broadly establish the corporate vision and philosophy • Broadly establish the Sustainability Policy • Create customer value and seek self-development • Realize value in work
Third-party Rating Organizations	We meet the public need for information disclosure and cooperate with various surveys concerning the SDGs to develop a broad understanding of the status of our initiatives.	• Participation in surveys conducted by research institutions in Japan and overseas • Publication of the Sustainability Report and information disclosure via the corporate website	• Report on the status of various initiatives for social issues, human resources, the environment, and corporate governance

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 Sustainability Priority Areas.

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

Sustainability 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	030
	Robust Network Security for Customers	NTT Communications Security Declaration	032
	Collaboration with Suppliers	Procurement Policies	036
	Social Contributions and Fostering of Communities	Social Action Principles	038
Contributions to the Global Environment	Basic Philosophy and Vision	NTT Communications Group Global Environmental Charter	044
		Environmental Statement	
		Eco Strategy 2030	045
	Preserving Biodiversity	Biodiversity Action Plan	061
Respect for Employees	Nurturing Human Resources	Talent Profile of Ideal Employees	072
	Respect for Diversity and Equal Opportunities	Promotion of Diversity Fundamental Policy	076
Continuous Strengthening of Corporate Governance	Respect for Human Rights	Basic Policy on Human Rights Education	097
	Internal Controls	Basic Approach for Maintaining an Internal Control System	101
	Ensuring Information Security	NTT Communications Security Declaration	102

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 and has recently assigned outside directors to bolster its governance functions. The board comprises six 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.

We have set up an Internal Audit Department at 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. 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 conduct their audits in close cooperation with accounting firms and the Internal Audit Department by periodically sharing information on audit plans and results.

◆ **Corporate Governance Structure**
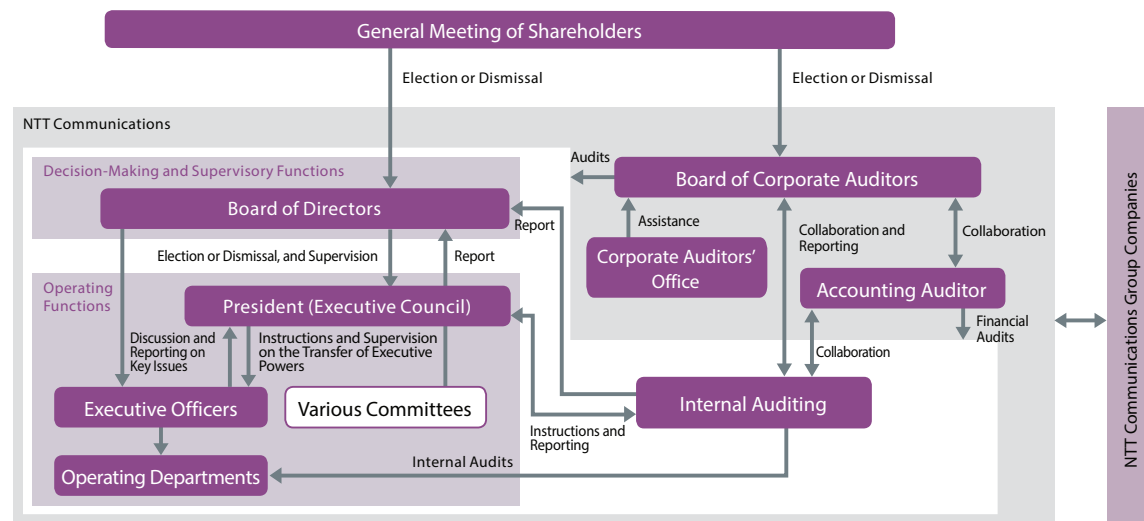
Appointing Directors

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

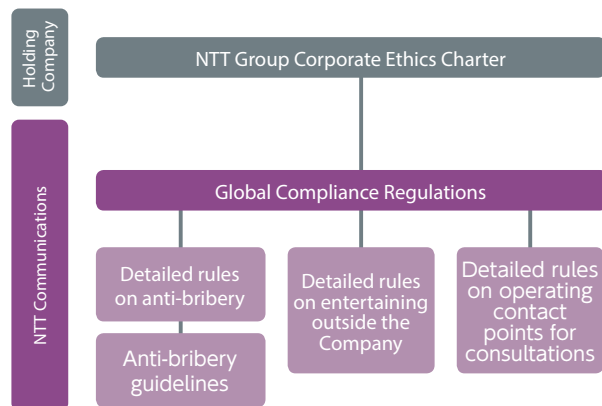◆ **Composition of Board Directors and Auditors (as of December 1, 2021)**

Directors	Name	Main Responsibilities and Roles
President & CEO	Toru Maruoka	
Senior Executive Vice President	Hidemune Sugahara	Executive Vice President of Platform Service Division In charge of Technology & Innovation, Information Security, and Digital Transformation
Senior Executive Vice President	Hiroki Kuriyama	Executive Vice President of Business Solution Division Senior Vice President of Smart World Business, Business Solution Division In charge of Corporate and Global Business
Senior Vice Presidents	Toshio Kanai	Senior Vice President of Corporate Planning
Senior Vice Presidents (Part-time)	Masaaki Shintaku	
	Takashi Ohira	
Corporate Auditors	Kazuhiko Aramoto	
	Sakuo Sakamoto	
	Ikuo Izutsu	

Thorough Compliance

Compliance Promotion Framework

The NTT Communications Group acts in accordance with the NTT Group Corporate Ethics Charter, established by its parent company Nippon Telegraph and Telephone Corporation and applied throughout the NTT Group. To address compliance issues in Japan and overseas that have become increasingly complex in nature, NTT Communications will not only adhere to laws and ordinances but will also engage in its daily operations with high ethical standards as a corporate group that retains the trust of all stakeholders, including customers, business partners, shareholders, and society as a whole.

◆ **Framework of Important Internal Rules on Corporate Ethics**

- Holding Company
  - NTT Group Corporate Ethics Charter
- NTT Communications
  - Global Compliance Regulations
    - Detailed rules on anti-bribery
      - Anti-bribery guidelines
    - Detailed rules on entertaining outside the Company
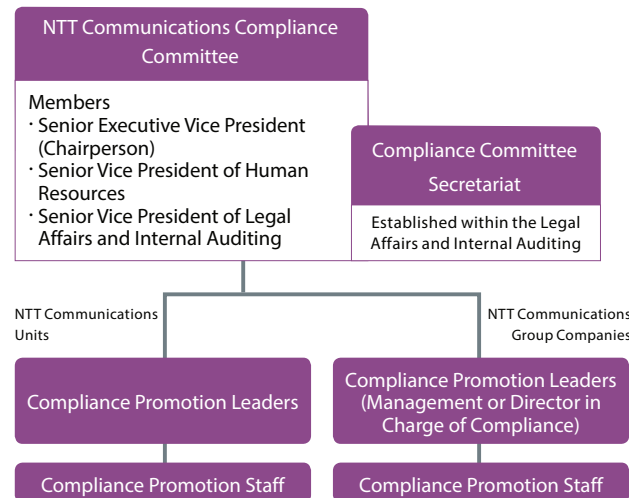   - Detailed rules on operating contact points for consultations

We have specifically established the Global Compliance Regulations as a standard compliance policy for the NTT Communications Group. We promote compliance under a framework comprising the Compliance Committee, chaired by a senior executive vice president, with compliance promotion leaders and staff assigned to each unit and Group company. At the same time, we consistently promote compliance management across the NTT Communications Group by disseminating top management messages, training employees, operating points of contact for internal reporting, and conducting internal audits to confirm and improve ongoing initiatives at each Group company.

The Compliance Committee consists of the heads of each unit of NTT Communications and presidents of each Group company and meets regularly every six months as a forum for sharing the status of reporting at internal points of contact and holding discussions on measures for establishing corporate ethics. The committee reports on the content of its discussions for each fiscal year to the Executive Council and Board of Directors of NTT Communications.

◆ **Compliance Promotion Framework**

- NTT Communications Compliance Committee
  - Members
    - · Senior Executive Vice President (Chairperson)
    - · Senior Vice President of Human Resources
    - · Senior Vice President of Legal Affairs and Internal Auditing
  - Compliance Committee Secretariat
    - Established within the Legal Affairs and Internal Auditing
- NTT Communications Units
  - Compliance Promotion Leaders
    - Compliance Promotion Staff
- NTT Communications Group Companies
  - Compliance Promotion Leaders (Management or Director in Charge of Compliance)
    - Compliance Promotion Staff

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.

For more information on the NTT Group Corporate Ethics Charter, see:
https://group.ntt/en/csr/governance/compliance.html

Awareness-raising Programs and Training for Thorough Compliance

To ensure thorough legal compliance and fair business activities, companies are required to implement ongoing awareness and training programs for employees and directors. The NTT Communications Group is actively pursuing internal awareness-raising activities through various programs including compliance training, and by conducting employee awareness surveys on corporate ethics, inviting entries for compliance slogans, and regularly providing information via the internal website. Every year, we provide compliance training for all employees and directors. In fiscal 2020, we covered basic themes related to legal compliance in Japan and overseas, such as anti-monopoly laws and the prevention of bribery, including overseas cases. We also organized additional training on specific themes such as the appropriate use of social media and execution of tasks under remote work conditions, from the standpoint of addressing reputational risk in view of the changing business environment resulting from the COVID-19 pandemic. Attendance for the NTT Communications Group as a whole was 93.1%.

Meanwhile, we offered training on proper self-management for preventing harassment in order to address the business environment and needs of employees identified in the

annual employee awareness survey on corporate ethics while taking into consideration the pandemic. As a result, 86% of attendees indicated that they had gained a deeper insight on harassment.

In light of the increasing importance of supply chain compliance, including enforcing legal compliance among subcontractors, we include a clause seeking compliance with guidelines such as our Guidelines for CSR in Supply Chain in our subcontracting agreements as part of an ongoing effort to ensure compliance across the supply chain.

For more information on our procurement activities, see:
https://www.ntt.com/en/about-us/procurement.html

Initiatives for Preventing Corruption

To ensure compliance with the prevailing laws and regulations in Japan and overseas on preventing corruption, including bribery and bid-rigging, NTT Communications adheres to the Anti-Bribery Handbook compiled by its parent company Nippon Telegraph and Telephone Corporation, as well as its own internal rules, to prevent corruption.

We have stipulated detailed rules against bribery as well as prevention guidelines under the Global Compliance Regulations to clearly demonstrate we have proper measures in place to combat this concern, and we are determined to stringently address specific acts of bribery such as facilitation payments. As part of our Groupwide effort to prevent corruption, we follow procedures in various countries with regard to prior approval in cases where providing benefits to public officials are tolerated under law and confirm the eligibility of agents hired to execute our operations. We also include prevention of corruption as a topic in our compliance training in an ongoing effort to raise awareness.

In August 2021, we established rules on entertaining outside the Company under the Global Compliance Regulations and began applying them to practical situations to ensure that employees of NTT Communications Group companies will engage in highly ethical conduct when entertaining outside stakeholders, including public officials. Through these rules, we seek to ensure fairness in operating our business and earn shareholder trust.

Appropriate Advertising

Telecommunication services such as the Internet and smartphones 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 and diverse. For this reason, we must provide customers with appropriate information and produce advertisements that are readily understood.

We ensure our advertising is conducted ethically 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 addition, we practice established operational procedures, including an accountability system related to advertisements and a screening system for advertising, to convey appropriate and easy-to-understand information to customers. To earn customer trust, NTT Communications also 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.

In fiscal 2021, we worked to improve the appropriateness of our advertising in response to a heightened awareness of respecting human rights and diversity, by reviewing expressions that require due consideration and publishing them internally. 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.

Initiatives on AI Ethics

Accompanying the rapid progress in technology, AI has spread through incorporation into products and service functions, while concrete applications of AI are being promoted in various areas. On the other hand, ethical concerns over AI-based evaluation and judgment, such as the potential for discrimination and prejudice, have also materialized. In view of our pursuit of businesses such as SmartWorld and B2B2X, we formulated and began implementing the NTT Communications Group Basic Policy on AI in April 2021 with the objective of ensuring sound and reliable use of AI founded on an understanding of its possibilities and its inherent risks.

For more information on the NTT
Communications Group Basic Policy on AI

https://www.ntt.com/about-us/cs/principle.html   (Japanese only)

Consultation Hotline

The NTT Group has established a common external contact point for consultation and reporting operated by a law firm for all Group companies. The Group has also set up its own hotline for reporting and consulting on compliance issues and a contact point for consulting on human rights issues. We are fostering an open corporate culture by creating an environment that encourages employees to seek consultation and by swiftly and appropriately responding to their concerns and reports.

In fiscal 2020, a total of 64* incidents related to the NTT Communications Group (36 related to harassment, 34 to dissatisfaction in the workplace, 9 to labor, and 11 others) were reported through the channels described above. The

Compliance Office responded appropriately to the reports after investigating the facts and implemented the necessary actions to prevent recurrence.

The contact points are being operated in accordance with internal rules such as the Global Compliance Regulations, which stipulate the ability to submit reports anonymously, the necessary measures that will be implemented to ensure that whistleblowers are not treated unfairly as a result of filing a report, and that those involved in an investigation will be bound by confidentiality with regard to information contained in the report.

*The total figure does not add up because a single report may include several incidents.

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

https://group.ntt/en/csr/governance/pdf/Help-Line.pdf

CSR Priority Activities

Respect for Human Rights

Promoting Human Rights Education

The NTT Group recognizes that respect for human rights is an important corporate social responsibility and strives to correctly understand and acknowledge the laws and regulations of each country and region and their cultures, religions, values. We aim to realize a safe, secure, and prosperous, sustainable society by fulfilling this responsibility. To that end, we have established the new NTT Group Human Rights Policy by incorporating our existing Human Rights Charter into the NTT Group Global Sustainability Charter.

Under the policy, we respect the Universal Declaration of Human Rights and other internationally recognized human rights in all our corporate activities. We strive to ensure that we are not directly or indirectly involved in discrimination or other human rights violations. In the unlikely event of any negative impact on human rights, we take appropriate action. When negative impacts on human rights by business partners are directly related to NTT Group's relationships, products or services, NTT Group requires these partners to respect human rights and not violate them. To fulfill this responsibility, we respect all stakeholders' human rights. We review and improve business operations and other aspects as necessary from the perspective of respecting human rights and reflect this in our business activities to establish a corporate structure that respects human rights.

NTT Communications has been promoting human rights education by establishing its own Basic Policy on Human Rights Education in accordance with the principles of the NTT Group Policy so as to create a rich corporate culture founded on respect for human rights and resolve human rights issues. In addition, 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.

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.

🌐 For more information on the NTT Group Human Rights Policy, see:
https://group.ntt/en/newsrelease/2021/11/10/211110c.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.

We have also implemented measures for preventing workplace harassment 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.

◆ **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:
Consists of the chairperson (senior executive vice president), heads of each unit, and presidents of each Group company. Formulates basic policies, action plans, and measures for initiatives pursued by the NTT Communications Group and reports on activities.

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. Also submits an agenda and reports on key human rights issues to the Executive Council.

Human Rights Due Diligence

Based on the United Nations Guiding Principles on Business and Human Rights, we will use the human rights due diligence process to identify, prevent, mitigate, and correct human rights issues on a global scale, and strive to raise awareness of human rights and improve human rights management throughout the Group. In addition, due diligence will be conducted throughout the entire value chain, and we require that our suppliers make an effort to comply with the separately established NTT Guidelines for CSR in Supply Chain. Direct dialogue will be the basis of our efforts, especially with important suppliers.

Measures for Raising Human Rights Awareness

Human Rights Education Training

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.

A diverse array of full-time and temporary employees participates in NTT Communications' business operations. Accordingly, we promote respect for human rights with due consideration for diversity. Every year, we organize Human Rights Education Training sessions for all full-time and temporary employees of the NTT Communications Group with the aim of preventing all forms of discrimination by fostering a heightened sense of awareness in each and every employee. In fiscal 2020, we sought to develop a broad understanding of harassment, the diverse nature of human rights, and the relationship between corporate activity and human rights. We also seek to raise awareness and deepen understanding of human rights among employees and others by encouraging them to frequently review the NTT Group Human Rights Charter (revised in 2021 into the Human Rights Policy) and the NTT Communications Group's Basic Policy on Human Rights Education, and by widely disseminating information on our multiple contact points for consultation.

During these training sessions, we assess the level of understanding and also conduct surveys on potential human rights issues in the workplace, the nature of such issues, and the use of contact points for consultation, and we also gather comments. The results are reported to the Human Rights Education Promotion Committee and are used to consider, implement, and evaluate our efforts to promote human rights education.

◆ Overview of Human Rights Education Training in Fiscal 2020

	Overview
Major topics	**Diverse Nature of Human Rights** • Measures for preventing harassment in the workplace • Examples of internal consultation cases • Discrimination, persons with disabilities, and their human rights • Persons who identify as LGBTQ, other minorities, and their human rights **Corporate Activity and Human Rights** • Relationship between the UN Guiding Principles on Business and Human Rights and the SDGs • Response to the UK Modern Slavery Act 2015 • Human rights due diligence at the NTT Group
Target	Full-time and temporary employees of the NTT Communications Group
Attendance	15,672

◆ Attendance of Human Rights Education Training (Unit: %)

	FY2016	FY2017	FY2018	FY2019	FY2020
Attendance	91	90	88	89	87

Scope: NTT Communications Group

Providing Various Training Programs

Following the establishment of our Rules for Preventing Harassment, we organized training sessions in fiscal 2020 that were dedicated to preventing harassment. We produced a manual explaining the rules in detail and made it available for the attendees to download once they had completed their training so they can always refer to the rules during their work. Apart from the program, we held a training session on anger management by inviting applicants from across the Group.

For our startup training, we implemented a program for creating worker-friendly environments based on the content of our annual All-Employee Human Rights Education Training sessions. The program covered topics such as preventing all forms of discrimination and harassment as well as relationship between business and human rights and the SDGs while providing an opportunity for employees to consider LGBTQ issues.

◆ Training Program Topics and Attendance

	Target	Attendance
Training for Preventing Harassment	Full-time and temporary employees of the NTT Communications Group	15,568
Anger Management Training	Staff in charge of human rights education at all units including Group companies as well as full-time and temporary employees who had signed up voluntarily	Approx. 200
Startup Training	New employees at NTT Communications	203

Human Rights and Compliance Slogans

In addition to our various training programs, 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 2020, we received 7,378 entries from 3,980 people, comprising full-time and temporary employees at all Group companies. The best slogans were chosen by online voting across the Group. The grand prize and special prize from the chairperson of the Human Rights Education Promotion Committee were presented, and the results announced, on the Group portal site.

Looking ahead, 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**

NTT Communications has set up internal and external contact points for all full-time and temporary employees as well as the staff of business partners to consult on issues and concerns related to human rights and harassment. The Human Rights Education Department and counseling system for workplace issues serve as internal contact points, and we provide external contact points through a law firm and the Consultation Hotline. The contact points are absolutely committed to confidentiality and protecting the rights of individuals who seek consultation.

These contact points appropriately respond for the purpose of resolving issues and alleviating concerns while taking due care to protect the privacy of individuals seeking consultation and the interests of the whistleblower. In particular, the external contact points offer consultation with counsellors at specialized institutions outside the Company.

We enhanced the convenience of the counseling system for workplace issues by expert outside counselors by switching the contact method from visits and one-on-one meetings to Web-based remote interviews in 2020 in the wake of the increasing number of COVID-19 infections.

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.

🌐 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.

CSR Priority Activities

Risk Management

Business Risk Management

The basic elements of risk management are defined in the Risk Management Rules we established to achieve sustainable corporate growth by anticipating and preventing the occurrence of potential risks that exist in and around our business and by minimizing any loss in the event they materialize. As a system and mechanism for effectively addressing major risks that may affect our business management, we set up the Business Risk Management Committee, chaired by the senior executive president, to construct and implement a PDCA cycle for risk management.

The heads of units and presidents of Group companies comprising the Business Risk Management Committee meet twice a year to address the changing business environment by defining risks that require action, identifying material risks, and discussing issues such as initiatives for promoting risk management. In fiscal 2020, the committee identified 26 risk items by focusing on the current status of internal and external risks as well as their impact and scope. The risk items were also assessed according to their assumed frequency of occurrence and impact. As a result, the COVID-19 pandemic and information security were identified and addressed as material risks.

Each risk item, including material risks, is handled by a Business Risk Management Subcommittee consisting of the relevant units that meet each month to implement a practical PDCA cycle for risk management by examining and analyzing the occurrence of risks and discussing countermeasures. The subcommittee presents a quarterly report on the status of its response to the Executive Council. Operational audits are conducted to confirm the status of each unit's measures against risk, and similar activities are extended to principal Group companies in Japan to promote risk management throughout the Group.

To address social trends, which are becoming increasingly complex, and to make better use of data, in fiscal 2021 we redefined the risks into 29 categories. We also added environmental issues as a new material risk based on the need to accelerate the shift to decarbonization management in corporate economic activities, and we are reinforcing our risk management efforts.

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. 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.
In July 2021, we established the Supply Chain BCP Guidelines to strengthen business continuity across the entire supply chain. We are working to ensure stable procurement with the cooperation of our suppliers.
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.

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 plans to achieve its goal of implementing audits that benefit management by taking 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 2020, we actively practiced risk-based auditing focused on specific themes and simultaneously implemented continuous risk monitoring with CAAT[1], Analysis results were disclosed in visual format via the corporate intranet to encourage self-driven improvement in an environment that enables each internal organization to review data down to the personal level. We also maintained our efforts to foster internal auditors, and five of them have recently obtained qualification from the Institute of Internal Auditors – Japan as certified internal auditors. In fiscal 2021, we will enhance our risk control by establishing an auditing cycle for supporting flexible responses to emerging business-related risks. We will also work on raising operational efficiency by introducing new auditing methods such as agile auditing[2].

*1 Computer-assisted audit techniques that utilize big data
*2 Agile auditing is a method that places greater focus on risk and by which audits are conducted within a short period so that advice and reporting can be provided on a near-real-time basis.

◆ **Practical Reforms in Auditing Functions at NTT Communications**

CSR Priority Activities
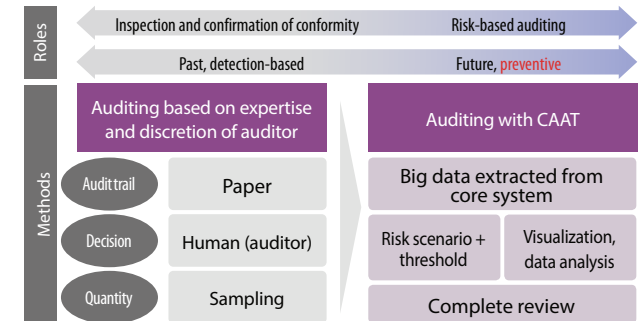
Ensuring Information Security

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 protect customer personal information in compliance with the relevant laws and regulations as well as guidelines published by the Ministry of Internal Affairs and Communications, operating under an effective system of information management to stringently implement our Customer Information Protection Rules, which define the basic elements of protecting customer information and personal data. When subcontracting the handling of customer personal information, we select subcontractors that meet the required standards.

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 fiscal 2020, we implemented security measures in terms of technology and management and in response to an incident involving unauthorized access to the SSL-VPN. Given the passing of Japan's revised Personal Information Protection Law in June 2020, we began considering revision of our internal rules and reinforced implementation in tandem with initiatives being pursued by the Security Committee. 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.

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 Sustainability Priority Area in which we seek continuous strengthening of corporate governance, we have consistently pursued our initiatives by setting 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.

In fiscal 2020, we bolstered our training program partly in response to a cybersecurity incident. As a result, attendance significantly increased.

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 Group companies.

◆ **Information Security Training Attendance**

| Type of Training	FY2017	FY2018	FY2019	FY2020
Information security training (total)	13,050	15,055	11,641	16,449
Companywide security training and assessment of understanding	12,928	14,941	11,527	16,291
Training for managers and leaders in charge of implementing security management	122	114	114	158

Information Security Management Structure

We set common targets on information security management for our operations in Japan and overseas, based on the requirements of ISO/IEC 27001. Specifically, we implement the following measures under the leadership of the chief information security officer (CISO): formulate rules and standards and educate all employees to raise their awareness, draw up and implement Companywide information security policies, monitor compliance with information security regulations and take any necessary corrective action, and ensure a unified response to information security incidents.

In fiscal 2020, we shifted CSIRT operations to remote work in advance under the impact of the pandemic, and we also expanded its scope in terms of maintenance and service infrastructure networks to bolster the security measures of the NTT Communications Group as a whole by developing a seamless framework across information and operational technologies. We began dispatching staff to the Tokyo Olympic and Paralympic Games in 2019 and experienced a security incident involving unauthorized access to the SSL-VPN in 2020 as we were handling network operations over the period of the games. In response, we thoroughly investigated the causes and took action to prevent a recurrence, which included moving up a vulnerability assessment to an earlier stage of development, documenting management based on the level of confidentiality, reviewing the remote access environment, introducing User and Entity Behavior Analytics, and identifying vulnerabilities by a Red Team (ethical hackers). We achieved the objectives of our plan for developing advanced security specialists by jointly operating a remote training program with N.F. Laboratories, Inc.

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

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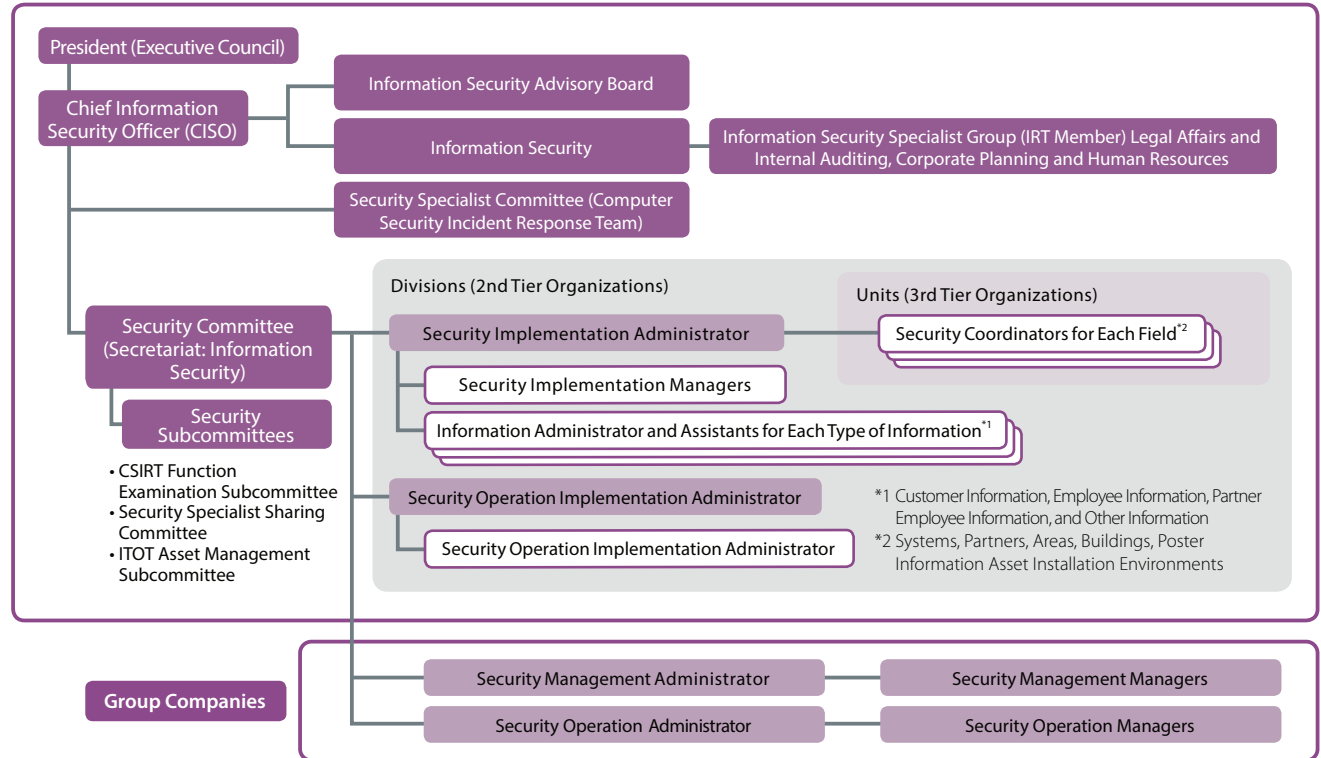
Third-party Assessment and Certifications

As of March 2021, 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.

Corporate Overview (as of March 31, 2021)

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)	1,070.4 billion yen
Operating* Incom(IFRS)	137.3 billion yen
Number of Employees	5,533 (NTT Communications Group: 11,602)
Business	Long-distance telecommunications operations in Japan, international telecommunications business, solutions business, and related business

*Actual results for FY2020 (figures for the NTT Com Group that reflect the integration of global operations).

Group Companies (as of November 1, 2021)

- NTT Com Engineering Corporation
- NTT Com Online Marketing 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.
- codeTakt Inc.
- PHONE APPLI Inc.

International Recognition

- Certified "Silver" in the CSR audit conducted by EcoVadis based in France.
- Received five awards, including the Overall Grand Prize in the Data Center Category and Support Operations ASP SaaS Category, in the 14th ASPIC IoT, AI, Cloud Awards 2020, held in November 2020.
- NTT won the Smart City Project of the Year and the Wholesale Operator of the Year in the Asia Communication Awards 2020, held in December 2020.

Business Domains

Centered on our service infrastructure comprising the cloud, network, and data centers, we harness ICT related to our proprietary AI, applications, and security to deliver the best cutting-edge solutions and services that correspond with our customers' businesses and the changing times.

At the same time, we are driving DX at NTT Communications and realizing our Re-connect X business vision toward creating a sustainable society.

◆ **NTT Communication Business Domains**
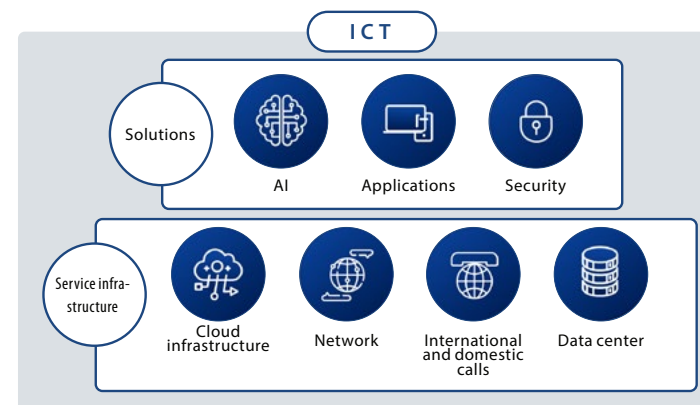
◆ **Initiatives for the Re-connect Business Vision**
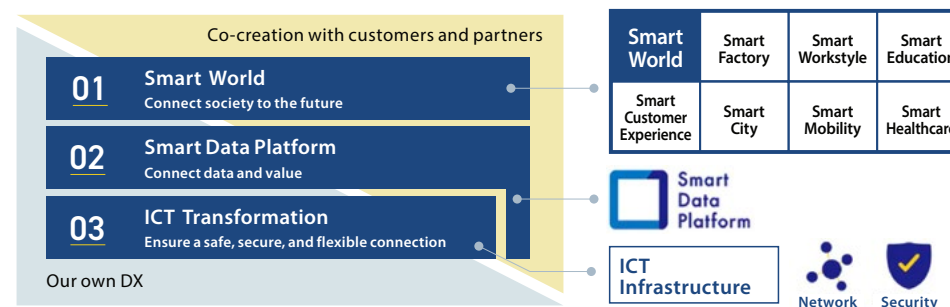
For more information on Re-connect X, please see:
https://www.ntt.com/en/about-us/re-connectx.html

Editorial Policy

About this Edition

As stakeholder expectations and requirements become increasingly diverse and complex, NTT Communications is consistently pursuing initiatives for sustainability. We will introduce readers to the series of future visions illustrated with concrete examples at the core of our stance to continuously provide solutions for social problems.

We present the future direction of NTT Communications and examples of solutions addressing social issues based on our Re-connect X medium-term business vision in the first half of the report, followed by the results of our priority activities in fiscal 2020.

◆ Scope of the Report

This report covers the activities of NTT Communications Corporation and its Group companies*, unless otherwise indicated.

*13 Group companies (as of November 1, 2021) as well as NTT Com Solutions Corporation and X-LISTING Co., Ltd.

◆ Period Covered

Fiscal 2020: April 1, 2020 to March 31, 2021
(Also contains information on activities conducted before or after this timeframe)

◆ Issue Date Information

This report: December 2021
Previous report: October 2020; next report scheduled for December 2022)

◆ Reference Guidelines

GRI Sustainability Reporting Standards 2016/2018/2019/2020
Ministry of the Environment "Environmental Reporting Guidelines 2018"
Ministry of the Environment "Environmental Accounting Guidelines 2005"
ISO 26000: 2010 Guidelines on Social Responsibility

◆ Inquiries:

CSR and Environmental Protection, Human Resources, NTT Communications Corporation

Reporting Media

Sustainability Website

We provide information on the NTT Communications Group's sustainability activities.

The site serves as a platform for information about sustainability while also supplementing the Sustainability Report. Information is periodically updated.

For our Sustainability Site, please click here:
https://www.ntt.com/en/about-us/csr.html

Sustainability Report

Published annually since fiscal 2003 as a tool for conveying and developing a systematic understanding of the NTT Communications Group's approach to sustainability.

Starting with this edition, we have combined the Expanded Version and Highlight Version and have also changed the document's title to the Sustainability Report.

To download the Sustainability Report and view previous reports, please click here:
https://www.ntt.com/en/about-us/csr/pdf/download.html