NTT Communications Corporation CSR Report 2019

Expanded Version

Society

Contributions to Society

Our businesses have come to play diverse roles as information and communications technology (ICT) continues to deepen its penetration into social infrastructures. Under our Fundamental CSR Policy, we are working on improvements in technologies and on ensuring information security while providing stable, highly reliable ICT services worldwide. Furthermore, through the provision of new business models, CSR activities, and other means, we are contributing to the creation of a society in which all kinds of people can participate. Since fiscal 2011, we have been incorporating all of these efforts into the CSR targets (medium-term targets) of the CSR Priority Activity "Contributions to Society" and have pursued continuous improvements. In fiscal 2018, we were able to achieve solid results for each CSR Priority Activity based on new medium-term targets that reflect the changing times. In fiscal 2019, we will continue to strengthen our PDCA system while seeking further progress in our initiatives toward a prosperous future.

Our Ambition

A society where everyone is connected through ICT

◆ A society unrestricted by time, distance or language
◆ A society with always secure and fast networks

Targeted SDGs

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

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
p. 16	p. 18	p. 21	p. 23	p. 25	p. 28

Fiscal 2018 Activity Results and Fiscal 2019 Targets

NTT Communications Corporation CSR Report 2019

Expanded Version

Actions Implemented in Line with CSR KPIs

We have been pursuing the sustainable development of society by providing stable and highly reliable services while also offering secure environments for communication with robust disaster countermeasures and information security. As a result of these efforts, we were able to attain our targets in the six areas of the CSR Priority Activities: "Innovation that Supports a Networked Society," "Ensuring Stable and Reliable Services as Mission-critical Infrastructure," "Robust Network Security for Customers," "Continuous Improvement in Customer Satisfaction," "Collaboration with Suppliers," and "Social Contributions and Fostering of Communities." However, there remains some room for improvement in our activities for reducing the number of long-term malfunctions in our services. Looking ahead, we will continuously strengthen our response to enhance quality by accumulating analysis results in collaboration with relevant partners.

◆ **Fiscal 2018 Activity Results and Fiscal 2019 Targets**

CSR Priority Activities	Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2018 Targets	Fiscal 2018 Activity Results			Fiscal 2019 Targets	Scope	SDGs
				Specific Activities	Quantitative Results	Self-assessment		Activities	
Innovation that Supports a Networked Society	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 the digitalization of companies by offering end-to-end IoT solutions that meet individual needs	• Created three solutions: Things Cloud for Logistics, for Place, and for Maintenance • Launched the Things Partner™ program and constructed an ecosystem for co-creation to provide end-to-end IoT solutions	• Created and promoted the three solutions by analyzing the needs and market potential of each business sector using feedback we received through sales support activities • Expanded areas for applying IoT through collaboration with 13 corporate partners under the Things Partner™ program (as of March 27, 2019)	★★★	Create new areas for applying IoT by strengthening the three solutions from the perspective of providing a full-stack, full-lifecycle service and by expanding the co-creative ecosystem through the Things Partner™ program	Within/outside the organization	9 11
	Realization of safe and secure daily lifestyles; bridging the digital divide	Bridge the digital divide inside and outside Japan, develop accessibility-enhanced services for individual users and a framework for delivering them	Launch new services for improving OCN and continuously implement functional enhancements	• Launched the large-capacity, high-speed Internet access service OCN v6 Alpha for individual users, which is suitable for large-volume video viewing (announced by press release in Japanese on June 27, 2018) • Began offering the MUSIC count-free service for OCN Mobile ONE at no additional charge, the first such move in the industry (July 20, 2018)	2 activities	★★★	Launch new services for improving OCN and continuously implement functional enhancements	Within/outside the organization	

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

NTT Communications Corporation CSR Report 2019

Expanded Version

Contents

Message from the President & CEO

Company Information

NTT Communications CSR

Contributions to Society

Contributions to the Global Environment

Respect for Human Resources

Continuous Strengthening of Corporate Governance

Contributions to Society | Fiscal 2018 Activity Results and Fiscal 2019 Targets

CSR Priority Activities	Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2018 Targets	Fiscal 2018 Activity Results — Specific Activities	Fiscal 2018 Activity Results — Quantitative Results	Self-assessment	Fiscal 2019 Targets	Scope — Activities	SDGs
Ensuring Stable and Reliable Services as Mission-critical Infrastructure	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 - Flood prevention: Project decision and start of construction at Shirahige and Sakae, Nagoya; consider plans for Akita and Aomori - Seismic reinforcement: rupture and start of construction at Tenjinminami; consider plans for the Otemachi head office • Improve the reliability of power receiving equipment and engines (upgrades to power receiving equipment at 16 buildings and 6 engines) • Improve the reliability of submarine cables (JUPITER and ASE-Indonesia cables) • Improve the reliability of landing stations - Minami Boso Landing Station (began construction), strengthen building security	• Improved the reliability of power receiving equipment and engines » Upgrades to power receiving equipment and engines discussed in a decision making meeting, construction work started • Improved the reliability of landing stations • Strengthened building security measures (2018 trial for detecting suspicious persons) • JUPITER cable under construction (to be completed in March 2020)	• Flood prevention and seismic reinforcement - Flood prevention work completed: Shirahige (April 2018 to July 2019); Nagoya (April 2018 to February 2019) - Flood prevention plan considered for Akita and Aomori - Seismic reinforcement completed: Fukuoka Tenjinminami (April 2018 to March 2019) • Improved the reliability of power receiving equipment and engines » Upgrades for 11 out of 16 planned buildings discussed and approved at a decision making meeting • Upgraded power receiving equipment: 3 buildings • Upgraded engines: 4 buildings • Upgraded power receiving equipment and engines: 4 buildings Note: Upgrades to 5 buildings to be considered in FY2020 or later due to adjustments in future building plans » Started construction of 10 out of 11 buildings approved for upgrades	★★	• Consider construction projects Flood prevention: Odori, Sapporo, etc. Fire alarm receiver: Tsu, Mie, etc. Elevator: Jicchaku, etc. Plumbing: Utsunomiya, etc. Environmental maintenance: Hitotsubashi Upgrade power receiving equipment: Sainen, Kanazawa, Odori, Sapporo, etc. Repair smoke exhaust device: Sakae, Nagoya, etc. Building removal: Nakano-koji Building, Saga Underground leakage: Aomori, etc. Air conditioner conversion: Yamashita, Yokohama, etc. • Improve the reliability of power receiving equipment and engines » Decide on new buildings and start construction • Upgrade power receiving equipment at 16 buildings • Upgrade 12 engines • Improve the reliability of landing stations • Strengthen building security and other measures (Introduction of a suspicious person detector)	Within the organization	9 11
	Measures to address major natural disasters	• Continuous strengthening of the planned response for hypothetical earthquakes in the Nankai Trough and directly under the Tokyo metropolitan area, conducting blind drill themes (drill format not made known to participants) • Gathering disaster relief information for liaising with government and municipal bodies and making reporting processes faster and more operationally entrenched • Enhance liaison within the NTT Communications Group	• Migrate to the new Disaster Response Headquarters environment following the relocation of the head office to Otemachi • Reconfirm basic action process and confirm operational process for new Disaster Response Headquarters to prepare for an earthquake directly under Tokyo • Conduct an emergency assembly drill assuming the occurrence of an earthquake directly under Tokyo at night or on a holiday and conduct an initial response drill for west Japan • Firmly establish processes for gathering information on damage and reporting to entities outside the company by members of the west Japan initial response centers • Make NTT Communications support bases available to Group companies in Japan	• Confirmed the effectiveness of the new Disaster Response Headquarters environment by conducting a disaster prevention drill to reconfirm the basic actions required of disaster response members in the event of an earthquake directly under Tokyo (February 2019) • Held a seminar for disaster response members to look back on disasters that occurred in 2018 and the disaster prevention drill conducted in February 2019; reconfirmed basic actions in the event of a disaster and discussed process improvements (March 2019)	• Response to major disasters that occurred in fiscal 2018 showed greater understanding of the process for gathering damage information and reporting to entities outside the company • Participant survey response confirms drills and training were effective	★★★	• Reconfirm the process of basic actions to be taken for a hypothetical earthquake in the Nankai Trough, confirm the operational process for the new Disaster Response Headquarters • Conduct an emergency assembly drill assuming the occurrence of an earthquake directly under Tokyo at night or on a holiday and conduct an initial response drill for west Japan • Firmly establish processes for gathering information on damage and reporting to entities outside the company by members of the west Japan initial response centers • Upgrade the system to bolster information gathering ability and simplify the disaster response process	Within the organization	
Robust Network Security for Customers	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	• Reduction in the number of long-term malfunctions - Networks in Japan (more than 3 hours): 67 incidents/year - Overseas networks (more than 4 hours): 530 incidents/year - Other (CL, A&C, and voice, more than 1 hour): 44 incidents/year • Starting in fiscal 2018, will expand the scope of constant monitoring for customer services including networks, Internet, cloud, email, hosting, and voice-based services and pursue further initiatives for reducing long-term malfunctions	• Analyzed actual cases of long-term malfunctions for process errors and areas that could be improved, made improvements • Promoted the introduction of a constant monitoring mechanism for customer services including networks, Internet, cloud, email, hosting, and voice-based services	• Reduced the number of long-term malfunctions - Networks in Japan (more than 3 hours): 56 incidents/year - Overseas networks (more than 4 hours): 387 incidents/year - Other (CL, A&C, and voice, more than 1 hour): 92 incidents/year • Significantly exceeded the reduction targets for networks in Japan and overseas networks due to ongoing efforts but unable to meet the target for other services, which was partly due to the increase in the number of users	★★	Due to the solid progress being made in reducing the number of long-term malfunctions for networks in Japan (more than 3 hours) and for overseas networks (more than 4 hours), a new target of more than an hour of long-term malfunctions will be set for these networks and other services DNW: 1,297 lines/month CL: 17 incidents/year A&C: 38 incidents/year Voice: 16 incidents/year	Within/outside the organization	

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

NTT Communications Corporation CSR Report 2019

Expanded Version

CSR Priority Activities	Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2018 Targets	Fiscal 2018 Activity Results			Fiscal 2019 Targets	Scope	SDGs
				Specific Activities	Quantitative Results	Self-assessment		Activities	
Robust Network Security for Customers	Strengthening vulnerability response functions	Develop measures for both domestic and overseas Group companies to strengthen their vulnerability response functions	• Incorporate security measures into design and manufacturing processes in order to address security issues during development • Conduct a vulnerability assessment of Web-based apps owned by the NTT Communications Group and overseas Group companies • Bolster the Group's software development capability by continuously improving the assessment record management system	• Conducted activities to promote the use of the SAST source code analysis tool • Conducted a vulnerability assessment of X-Listing Co., Ltd. • Continued to enhance the design and coding capabilities by improving the karl assessment record management system	• Obtained an average of 2 to 3 assessment results per month • Pointed out 3 areas of improvement, thereby reducing the Group's security risks • Added more than 10 functions through in-house programming	★★★	• Conduct vulnerability assessment of Web-based apps owned by the NTT Communications Group and overseas Group companies • Bolster the Group's software development capability by continuously improving the assessment record management system	Within the organization	**9** **11**
	Rapid and reliable responses to security threats	Continuously enhancing and strengthening services that contribute to safe and secure corporate and national information systems	• In professional services, strengthen solutions that support CSIRT operations, including those for visualizing vulnerabilities and endpoint cyber hygiene management • In managed security services, enhance the collaborative defense functions between networks and terminals based on EDR (Endpoint Detection & Response) and promote collaboration in SECaaS (Security as a Service) projects	• Began providing vulnerability visualization solutions that enable users to visualize vulnerabilities in professional services, raise the efficiency of addressing vulnerabilities, ensure uniform security levels, and enhance information security governance; in the area of investigating terminals infected by targeted malware, reinforced endpoint security solutions by using AI technology to boost malware detection capability • Added an EDR endpoint security menu to managed security services; added and expanded the functions of supportive devices for network content security; enhanced the Group's overall collaborative defense capability for ICT by launching the Cloud Gateway Security service that monitors the security of cloud gateways	• Introduced 9 new services	★★★	• Strengthen solutions that support CSIRT operations in professional services • Expand security measures for cloud gateways and IoT/OT in managed security services	Within/outside the organization	
Continuous Improvement in Customer Satisfaction	Ongoing customer satisfaction surveys	Continuous improvements in customer satisfaction level scores	• Expand the scope of the customer survey (inside and outside Japan) • Thoroughly implement "Kaizen (Improvement) Activities" and PDCA cycles at domestic and overseas Group companies	• Increased the number of surveys and responses • Conducted the customer satisfaction survey at each point of interaction with the customer journey • Provided feedback to customers via the official website by publishing the results of kaizen (improvement) activities conducted in response to the voice of customers	• Survey responses - Domestic corporate customers: 2,737 (up 4% year on year) - Overseas corporate customers: 101 (down 11% year on year due to a decrease in the number of local subsidiaries surveyed) - VOE survey*: 380 (up 67% year on year)	★★★	• Strengthen analysis of customer needs and utilize results in marketing activities • Change survey questions to further promote the PDCA cycle for improvements by measuring the effect of the previous year's activities (Example: add a question asking whether the results of kaizen activities have led to higher levels of customer satisfaction)	Within/outside the organization	**8**

*Voice of Employee Survey, which seeks ideas from NTT Communications employees on service improvements.

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

NTT Communications Corporation CSR Report 2019

Expanded Version

Contents

Message from the President & CEO

Company Information

NTT Communications CSR

Contributions to Society

Contributions to the Global Environment

Respect for Human Resources

Continuous Strengthening of Corporate Governance

CSR Priority Activities	Initiatives	Medium-term Targets (Form We Want to Take in Five Years)	Fiscal 2018 Targets	Fiscal 2018 Activity Results			Fiscal 2019 Targets	Scope	SDGs
				Specific Activities	Quantitative Results	Self-assessment		Activities	
Collaboration with Suppliers	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	Conducted the annual supplier survey on promoting CSR procurement	Survey conducted for 10 companies	★★★	Continue to conduct the annual supplier survey on promoting CSR procurement	Within/outside the organization	8
Social Contributions and Fostering of Communities	Contributions to communities	Promoting social contribution activities in a variety of fields and according to the social contribution principles, such as sustainability, efficiency, due diligence, global perspective, and skills	• Continue local cleanup activities and introduce cleanups by individual Group companies • Continue holding events with sales of breads, snacks, and other items in cooperation with local organizations supporting persons with disabilities	• Conducted a cleanup activity around the head office; local cleanups also took place at other business bases and Group companies • Held sales events at the head office building and other facilities and individual Group companies	• Head office area cleanup activities: held twice (June and November) with a total of 473 participants • Head office sales events: held 4 times (July, November, February, and March), with gross sales of 394,965 yen	★★★	• Continue local cleanup activities and introduce cleanups by individual Group companies • Continue holding events with sales of breads, snacks, and other items in cooperation with local organizations supporting persons with disabilities	Within/outside the organization	4
	Fostering communities and the next generation	Developing a strategic social contribution framework that leverages the Group's business characteristics to support community development and contribute to fostering youth	Continue promoting initiatives for the sound development of children by providing social education opportunities such as workplace visits that offer firsthand experience of cutting-edge AI and IoT technologies, and by organizing rugby classes by the Group's sponsored rugby team	• Held Family Day and a beach cleanup • Held rugby classes at elementary schools and junior-high schools based on an agreement with Urayasu City; actively participated in classes promoting the Tokyo 2020 Olympic and Paralympic Games; held classes on career development for athletes	• Family day: held 3 times in August, with 50 children participating • Conducted a beach cleanup in June, with 40 children participating • Rugby classes: held at 15 schools, with about 2,000 children participating	★★★	Continue promoting initiatives for the sound development of children by providing social education opportunities such as workplace visits that offer firsthand experience of cutting-edge AI and IoT technologies, and by organizing rugby classes by the Group's sponsored rugby team	Within/outside the organization	

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

CSR Priority Activities

Innovation that Supports a Networked Society

Our Approach

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

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

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

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

Primary Concept

The CSR Committee reviews activities under the CSR Priority Activity "Innovation that Supports a Networked Society," verifies achievements, and pursues initiatives for further improving activities in conjunction with the department charged with implementing each initiative. The CSR Priority Activities are closely connected to the global growth strategies that we are currently promoting. Our corporate vision, "Vision 2020," is intended to generate new social value by providing advanced technologies and services to ensure global connectivity, and it plays a major role as a guideline for implementing CSR that leverages our business characteristics and strengths anticipated by society.

◆ NTT Communications Group Vision 2020

Main Achievements in Fiscal 2018 and Goals for the Coming Years

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

In fiscal 2018, we created three Things Cloud solutions after analyzing the needs and market potential in each industry of our customers. We also worked with 13 partner companies to expand areas for applying IoT and plan to develop services to address future security issues. We also sought to increase the convenience of our OCN service by launching the large-capacity, high-speed Internet access service OCN v6 Alpha for improved video viewing.

We will continue to provide services based on innovative technologies that contribute to addressing social issues through our business.

NTT Communications
Corporation
CSR Report 2019

Expanded Version

Contents

Providing Services that Help Advance the Evolution of an ICT Society

Reforming Operations by Pursuing the Business Vision

The NTT Communications Group corporate slogan "Transform. Transcend." expresses the message of providing pioneering technologies and services to "transform" customer businesses, society and markets, as well as creating new value that "transcends" expectations and imagination along with a world that "transcends" all barriers.

In this era of Big Data utilization, we aspire to be trusted by our customers as a reliable partner that can bring about their digital transformation. We formulated the "Transform. Transcend. Service Strategy 2018" with this goal in mind and will strive to strengthen and expand our capabilities for supporting the ways our customers utilize data.

Specifically, we divided the data utilization by corporate customers into collection, accumulation, and analysis. In this process, data generated by various IoT devices are collected and transmitted into a storage area. The collected data is accumulated for safekeeping and formatted to facilitate processing in the next stage, in which various accumulated data are combined and analyzed using AI to produce new knowledge.

We will seek through this approach to eliminate concerns surrounding the handling of personal data to realize our future vision of creating a society in which highly convenient services based on data utilization can be safely and securely depended on.

Promoting Digital Transformation to Create Value through the Use of IoT

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

In fiscal 2018, we developed three solutions, Things Cloud for Logistics, for Place, and for Maintenance. To realize these end-to-end solutions, we augmented the system for recommending devices for ThingsCloud® and launched the ThingsPartner™ program for co-creating a service ecosystem with our partners.

We intend to enhance customer convenience in fiscal 2019 by providing network options according to their intended use while also bolstering capabilities such as edge computing and data analysis to support customer businesses.

Providing the Benefits of ICT to All

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

CSR Priority Activities

Ensuring Stable and Reliable Services as Mission-critical Infrastructure

Our Approach

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

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

Primary Concept

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

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

Disaster Policy Fundamentals

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

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

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

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

Main Achievements in Fiscal 2018 and Goals for the Coming Years

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

In fiscal 2018, we acted on the results of inspections conducted in fiscal 2017 by implementing measures and improvements. Specifically, we redefined the target times for resuming operations after maintenance and management bases had been affected by disasters and took measures to address areas in which we could not meet those targets. As part of the emergency drills for fiscal 2018, we conducted a drill immediately after relocating to our new head office, under a scenario in which a major earthquake had struck underneath metropolitan Tokyo. We confirmed the effectiveness of the new headquarters environment and disaster prevention facilities and reviewed our recovery activities to more closely reflect actual conditions. We were able to record "achieved" or "almost achieved" for each initial target. In fiscal 2019, we will continue to promote activities set as ongoing targets.

Contents

Development of Disaster-resilient Networks

Keeping Networks Reliable Following Disasters

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

During the heavy downpours that mainly affected western Japan in July 2018, torrential rain caused roads to collapse and bridges to fall. This disrupted our main relay cables between Hiroshima and Okayama and between Hiroshima and Ehime. We prepared recovery plans on-site to open new routes by setting up telephone poles that skirted around areas affected by landslides and completed restoring the cables three days after the disaster.

In the aftermath of the Hokkaido Eastern Iburi Earthquake that struck in September 2018, a blackout caused the loss of power at five NTT Communications buildings in Hokkaido. We quickly switched to emergency power sources and continued to provide stable services, which we were able to maintain through the prolonged power outage by drawing upon an in-house fuel stockpile supplemented by government-supplied fuel.

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

Providing Services that Underpin Corporate Business Continuity

Offering a range of services to respond to such crises as major earthquakes and pandemics, NTT Communications supports the continuity of its customers' businesses. For example, earthquake early-warning information is provided through a service and includes details about seismic intensity and arrival time before the tremors are felt. As the service enables initial damage prevention and ensures personal safety, it is considered effective for formulating a business continuity plan (BCP), since business restoration can be expected soon after an earthquake. A service that simultaneously reports personal safety confirmations both verifies and gathers information on the safety of employees during times of disaster, including outbreaks of news strains of influenza and earthquakes. Available on a routine basis via communications networks, the service is also effective in confirming the safety of school contact networks and elderly persons as well as for simultaneously contacting employees dispatched to client companies.

Moreover, we are expanding services to our overseas bases on the Enterprise Cloud service, which consists of robust, 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 Employed for Disaster Restoration

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 360-degree 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.

◆ Cable-Laying Ship Kizuna

Subsea Cable-laying Ship Kizuna
Total tonnage: 8,598 tons; deadweight capacity: 4,098 tons, total length: 108.64 meters; width: 20 meters; designed load draft: 6.0 meters; sea speed: 13.2 knots; maximum passenger capacity: 60; cruising distance: 9,500 nautical miles (around 30 days); registry location: Japan (Tokyo)

NTT Communications Corporation CSR Report 2019

Expanded Version

Contents

Message from the President & CEO

Company Information

NTT Communications CSR

Contributions to Society

Contributions to the Global Environment

Respect for Human Resources

Continuous Strengthening of Corporate Governance

◆ Disaster recovery support

◆ Disaster recovery support

NTT Communications Corporation CSR Report 2019

Expanded Version

Contents

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. We are also making them more robust while enhancing their vulnerability response functions with regard to unknown threats. Moreover, we are planning to enhance our vulnerability response functions to include overseas Group companies. In view of the materiality analysis and review of the CSR medium-term targets conducted in fiscal 2016, we regard these issues as independent priority activity areas and are working to strengthen our initiatives.

Primary Concept

Regarding the CSR Priority Activity "Robust Network Security for Customers," we are undertaking measures that are positioned as important initiatives consisting of network surveillance 24 hours a day, 365 days a year; strengthening of vulnerability response functions; and rapid and reliable responses to security threats. Given these, no matter what the issue is, we implement reviews and set CSR targets on the basis of current problems and issues of social concern, while the CSR Promotion Office and departments responsible for each activity cooperate with each other.

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

◆ NTT Communications Security Declaration

At NTT Communications, we believe that our most important mission is to provide our customers with services which they can use with the assurance that their critical information is being protected and to contribute to improving the security of our customers. We view security as the single most important issue to be addressed in providing services, and we pledge to work together with our customer to provide the best in security for their needs.

To achieve this end, we do our utmost to ensure security throughout all aspects of the value chain, from the development of technologies and services to the construction and operation of systems. As ICT professionals, all of us at NTT Communications are committed improving our capability to ensure security.

Main Achievements in Fiscal 2018 and Goals for the Coming Years

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

In fiscal 2018, we offered a vulnerability visualization solution for the security of an ICT environment and used AI technology to boost the capability of the standard test for malware-infected terminals.

We are continuously analyzing the vulnerability of Web-based apps owned by Group companies to maintain a consistently safe service. Also, we sought to strengthen our monitoring system and enhance analysis and improvement to reduce long-term malfunctions.

As we strive to ensure robust network security for customers, we will continue to promote activities for achieving our targets in fiscal 2019.

Around-the-clock Efforts to Protect Customer ICT Systems

Providing Stable Enterprise System Network Monitoring/Operating Services

NTT Com Solutions has been operating its Management Solutions Center (Sapporo), which has been constantly monitoring and stably operating ICT system networks since June 2008. In addition to monitoring and operating customer ICT systems 24 hours a day, 365 days a year, the center is responsible for customer inquiries, malfunction rectifications, and BCP management support.

ICT systems and stable operation centers have recently become essential components of business continuity, and therefore operation centers, as the underlying infrastructure protecting customer ICT systems, must be highly reliable. Characteristically, Sapporo is an area that suffers relatively few lightning strikes or large-scale natural disasters such as earthquakes and typhoons, and it is some distance from Tokyo. Consequently, the operation center itself is unlikely to be affected by any widespread major disaster or pandemic, which would allow the facility to take the place of the operation centers in the Tokyo area.

The center has introduced and firmly established an IT Service Management System (ITSMS). The aim of the system, which is based on ITILR®*, is to enhance service quality, increase 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.

Being configured to utilize services that include the cloud, customer systems are also undergoing major changes in terms of their technologies and data. The center will continue working to enable itself to keep pace with these changes and

effectively deliver ongoing operational support services providing high quality at a low cost as part of its drive to increase customer satisfaction.

*UK-formulated guidelines compiled in multiple volumes covering the operation and management of computer systems. ITILR® (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 (DX) presents business opportunities for companies, it also signifies the start of an era of zero trust in an ICT environment where business expansion leads to assimilation into the Internet, thereby increasing cyber risks. Under these circumstances, safeguarding business continuity in the face of both foreseeable and unforeseeable risks, as well as risks associated with external attacks or internal foul play, has become a major management concern.

NTT Communications established the Security Operation Center in 2003 and began offering corporate security management services. We then brought a company that specialized in overseas security into the Group and globally launched WideAngle, a comprehensive security risk management service, in June 2013, with the cooperation of NTT Secure Perspective Laboratories.

In fiscal 2018, we began providing a vulnerability visualization solution that allows users to visualize security risks in an expanding ICT environment and effectively address increasing vulnerabilities. To maintain secure corporate ICT environments in this zero-trust era, we also provided more advanced analysis and boosted security monitoring primarily for endpoints and cloud gateways by applying AI technology

and augmented functions.

We will continue to help companies achieve digital transformation by providing solutions that support the generation of new value through the safe use of data.

Countering Malware

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

CSR Priority Activities

Continuous Improvement in Customer Satisfaction

Our Approach

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

Our key responsibilities for attentively listening to feedback from our varied customer base and developing and enhancing the mechanisms for flexibly utilizing that feedback directly and continuously boost customer satisfaction. They are also prerequisites that guide us as we seek to grow alongside society as a leading global ICT company and continue to provide highly reliable quality services.

These initiatives are intended to increase the high added value of the global economy and improve productivity, in turn contributing to sustainable economic growth in alignment with SDG 8 "Decent Work and Economic Growth." Following this concept, we will continue to enhance and upgrade mechanisms that are reflected in our businesses, incorporating the opinions of a wide range of stakeholders.

Primary Concept

Our corporate rules set out that we must remain committed to enhancing service quality and raising customer satisfaction by accurately addressing customer needs, requests, and expectations while continuously assessing and improving all our operations. Accordingly, our corporate planning, sales, service, and operation divisions collaborate to periodically conduct customer satisfaction surveys. Regardless of the area they oversee or the products and services they provide, every employee must always consider customer service as the foundation of our corporate integrity. From this perspective, we have established and stringently adhere to Our Mindset, which is disclosed to our customers and other stakeholders.

◆ Our Mindset

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

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

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

Main Achievements in Fiscal 2018 and Goals for the Coming Years

We are engaged in multifaceted activities with a primary focus on continuous customer satisfaction surveys. In the VOC (Voice of the Customer) survey conducted in fiscal 2018, we revised a section of the survey to ask about customer needs and what they expect from the NTT Communications Group by adding questions about important areas for business development into which customers intend to focus their resources. As a result, we received many comments concerning customer expectations in areas such as sales and proposal capabilities, pricing, service quality, and security as well as advanced capabilities in AI and IoT.

We have established a PDCA cycle for service improvement, comparing the satisfaction scores for each service over the years and reviewing the impact of improvements implemented in the previous year. We are also planning new improvement measures based on the customer feedback received in fiscal 2018, with the intention of raising the scores in the subsequent fiscal year. Customer satisfaction scores have risen or fallen, depending on the service, and we will work toward raising the scores to achieve the abovementioned medium-term targets by consistently implementing PDCA cycles to improve service based on the results of ongoing customer satisfaction surveys.

Ongoing Customer Satisfaction Surveys

Efforts that Utilize Feedback from Our Corporate Customers

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

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

In the VOC survey for fiscal 2018, we received valuable feedback from 2,156 customers in Japan and abroad. We disclose our responsive actions on our website.

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

> **Web** For more information on customer feedback received through the VOC survey, see:
> **https://www.ntt.com/about-us/cs/cs/qa/hojin.html**
> (Japanese Only)

Efforts that Utilize Feedback from Individual Customers

Operation of OCN Technical Support for Individual Customers

Under the OCN provider service, we set up OCN Technical Support as a point of contact for receiving questions from and advising individual OCN members as well as for undertaking various kinds of support work.

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

Sharing through the Dedicated OCN Customer Feedback Website

We set up the OCN Customer Feedback website to further raise the quality of the OCN service. The website receives numerous comments and requests from customers and shares case studies of improvements based on them. We will continue to utilize the website to improve our service and further develop the site to deliver a more comfortable Internet experience for customers.

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

NTT Communications Corporation CSR Report 2019

Expanded Version

CSR Priority Activities

Collaboration with Suppliers

Our Approach

In recent years, there have been calls for companies to implement CSR activities along 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 and that 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 Supply Chain CSR Promotion Guidelines and focus on developing a mutual understanding and relationships of trust with our suppliers. We also focus on promoting CSR and green procurement. At the same time, we are working on the development of a procurement system based on the concept of CSR procurement, which extends beyond environmental issues to thoroughly consider humanitarian and social issues as well.

Primary Concept

Maintaining a focus on value creation through business, we have a particular need to procure high-quality services and products in an economical and timely manner. On the basis of its following three-point policy on procurement for steadily implementing its aforementioned supply chain CSR promotion guidelines, NTT Communications engages in fair and competitive procurement activities within the global market while conducting its procurement activities from the perspective of the broad global marketplace in an effort to make Group management more competitive. The Procurement Department supervises the procurement activities of all Group companies and works closely with each organization to promote CSR procurement Groupwide.

◆ Summary of Supply Chain CSR Promotion Guidelines

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

Basic Policy on Procurement

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

Main Achievements in Fiscal 2018 and Goals for the Coming Years

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

In fiscal 2019, 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.

CSR and Green Procurement

Promoting CSR Procurement

We have formulated the Guideline 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. We established new criteria for selecting new business partners and entering into agreements. Also, we added CSR compliance to our credit screening criteria, for which we had already considered initiatives related to human rights and labor issues. A clause requiring compliance with our CSR guidelines was incorporated into each order form, which we have required the use of since January 2018. When we determine that a company has failed to meet our criteria and thus represents a risk, we do not trade with them. Each trade agreement includes articles from our Guideline for CSR in Supply Chain, and we have requested the compliance of our business partners.

  To promote CSR procurement, we conduct a survey that targets major suppliers with the intention of confirming the management status of the Guideline for CSR in Supply Chain. After the results are compiled and analyzed, we consider means of improvement for dealing with high risk concerns. In fiscal 2018, we received responses from 10 companies (response rate: 100%) but found no high-risk issues. Looking ahead, we will continue to work with our business partners to promote CSR procurement.

Developing Procurement Professionals

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

  We encourage our employees to obtain the Certified Procurement Professional (CPP) qualification, sponsored by the Japan Management Association, so they can have specialized knowledge in purchasing and procurement. As of March 31, 2019, a total of 61 employees have obtained either Grade A or Grade B certification.

  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.

Response to Conflict Minerals

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

Disclosure of Supply Chain through EcoVadis

Rising public expectations for CSR activities that also encompass the supply chain have increased the importance of companies knowing the status of their suppliers' CSR activities and disclosing that information to clients. Since fiscal 2016, we have reported supply chain information with EcoVadis*. We have also been proactively disclosing information to our clients and companies considering doing business with us.

  We received a Silver rating following the first sustainability assessment in March 2017. After making improvements in regard to issues pointed out in that evaluation, we received a Gold rating for our second assessment in May 2018.

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

NTT Communications
Corporation
CSR Report 2019

Expanded Version

Contents

Message from the President & CEO

Company Information

NTT Communications CSR

Contributions to Society

Contributions to the Global Environment

Respect for Human Resources

Continuous Strengthening of Corporate Governance

Evaluating on a global basis our activities in such areas as the environment, fair labor and human rights, ethics, and sustainable procurement, all of which have been positioned as benchmarks, we will steadfastly work to improve our CSR performance going forward.

CSR Priority Activities

Social Contributions and Fostering of Communities

Our Approach

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

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

◆ Social Action Principles

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

Serving Local and International Communities

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

In fiscal 2018, we conducted 71 projects, in which a total of 1,791 employees participated. Expenditures for social contribution activities amounted to 67.37 million yen.

◆ Social Contribution Activities in Fiscal 2018

	Number of Projects	Number of Participants	Activity Expenditure (Yen)
Preservation of the Natural Environment	21	1,095	7,523,153
Social Welfare	23	7	28,065,924
Promotion of Education and Culture	11	163	3,438,860
Regional Development and Exchange	7	147	11,550,000
International Exchange	3	0	5,006,000
Promotion of Sports	4	378	11,760,000
Others	2	1	33,200
Total	71	1,791	67,377,137

Cleanup Activities

NTT Communications has participated in cleanup campaigns in Tokyo's Chiyoda Ward since 2008. In fiscal 2018, cleanups took place around Hibiya Park on June 1 and November 6, 2018 with 246 and 224 employees participating, respectively. Players from the Shining Arcs corporate rugby team also conduct monthly cleanups around the headquarters building and home rugby field in

Ichikawa City, Chiba Prefecture.

Providing Nationwide Opportunities to Work from Home

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

Over the years, we have received numerous awards in and outside of Japan that recognize our contributions to developing women's careers, rebuilding local communities, and supporting employment. These include the top place in the Best Home/Remote Agent Program category for the Asia-Pacific Region of the Contact Center World Awards 2018.

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

Social Contribution Activities at Group Companies

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

◆ **Major Social Contribution Activities at Group Companies in Fiscal 2018**

Company Name	Activity	Outline	Period	Number of Participants
NTT Com Marketing / NTT Com Solutions	Cleanup in the Shiroi natural woodlands	Environmental preservation activities in the natural woodland of Shiroi City, Chiba Prefecture	May, September, October 2018	85
NTT Com Solutions / NTT PC Communications	Donation of emergency food supplies	Emergency food supplies are donated and delivered overseas to bring relief to countries where people are starving	Year-round	—
NTT Communications Group	Cleanup around Group buildings and the neighborhood	Cleanup around Group buildings and the neighborhood	Year-round	755
	Cleanup of beaches	Cleanup of Enoshima Beach, Kanagawa Prefecture	April 2018	135
	Rugby classes	Employees are dispatched to elementary schools in Chiba Prefecture where they hold rugby classes to popularize the sport and nurture youth	Year-round	90
	Collection of plastic bottle caps, pull-tabs, used stamps, old calendars, and books	Collection of plastic bottle caps, pull-tabs, stamps, and other used items for donation to various organizations	Year-round	—

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. In April 2018, the team relocated its headquarters to Urayasu City, Chiba Prefecture and has been holding rugby classes in elementary schools there and engaging in community-oriented initiatives aimed at boosting the health of city residents under a mutual cooperation and support agreement. Since there are few rugby competitions with rankings for elementary school students, we host the Shining Arcs Cup to boost the level of rugby. The fifth tournament took place in fiscal 2018, and there were heated battles among the roughly 400 players from 19 teams (the largest number of participants to date) from Chiba Prefecture, Tokyo, and the surrounding Kanto region.

Through these activities we hope to contribute to the healthy development of young people who will lead the next generation and to the development of rugby as a sports culture and thereby generate excitement for the Rugby World Cup tournament in Japan on September 20, 2019.

◆ **Fifth Shining Arcs Cup**

Participation in the deleteC Project

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

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

Going forward, we will make training jerseys in pink—the deleteC image color—for the team and donate part of the revenue from original goods to deleteC. Also, we will organize charity matches and convey messages online such as through social media to raise recognition and promote the cause.

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

Initiatives Supporting Reconstruction from the Great East Japan Earthquakes

NTT Communications sought ways to support those affected by the Great East Japan Earthquake of March 11, 2011 through rugby. We began collecting donations from all the Shining Arcs players and staff at games based on points scored (10 yen per point) to keep alive the memory of the disaster and support the reconstruction efforts in affected areas. Having extended the Shining Arcs activity to all the Top League teams in Japan, we were able to significantly expand the scale of the initiatives. Furthermore, we invited selected teams from Iwate Prefecture, which was affected by the Great East Japan Earthquake, and from Kumamoto Prefecture, affected by the 2016 Kumamoto Earthquakes, to take part in the fifth Shining Arcs Cup tournament.

Apart from the activities related to the Great East Japan Earthquake, members of the Top League's Leaders Council collected donations for areas affected by natural disasters, including the northern Osaka earthquake, torrential rains in western Japan, and the Hokkaido Iburi Earthquake of 2018.

◆ **Japan Rugby Top League Fundraising Led by Shining Arcs (NTT Communications)**

	Participating Team(s)	Money Donated	Use of Funds Raised
2011–2012 Season	NTT Communications	366,525 yen	Donated to Japanese Red Cross Society
2012–2013 Season	NTT Communications	404,800 yen	Donated to Miyagi Rugby Football Union
2013–2014 Season	All Top League teams	Approx. 2 million yen	Invited children from disaster-affected regions to a Japanese national rugby team game held in June 2014
2014–2015 Season	All Top League teams	2,306,040 yen	Held charity event for children from city of Kamaishi, Iwate Prefecture (October 24, 2015) Invited children from Kamaishi to LIXIL CUP 2016 rugby game
2015–2016 Season	All Top League teams	2,270,170 yen	Held rugby classes in areas affected by the Kumamoto earthquake
2016–2017 Season	All Top League teams	2,252,561 yen	Provided career education and rugby classes in the Tohoku region
2017–2018 Season	All Top League Teams	805,643 yen	Donated to disaster-affected regions through the Central Community Chest of Japan (Red Feather)
2018–2019 Season	All Top League Teams	1,390,002 yen	Donated to disaster-affected regions through the Central Community Chest of Japan (Red Feather)

Participation in External Groups

Our Approach

Toward the creation of a better society, companies are expected to actively participate in progressive public and private sector initiatives as well as industry-wide efforts. Extolling the importance of these activities based on SDG 17 "Partnerships for the Goals," we are continuing to enhance their social value. We collaborate with a variety of organizations and take in industry-leading actions.

Membership in External Organizations

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

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

Assisting in Preventing Internet Crime

Efforts to Safeguard Internet User Safety and Security

While damage associated with Internet security breaches is declining, unauthorized Internet banking remittances, a cyber-crime for which malware is used, resulted in financial losses of about 460 million yen in Japan in 2018, according to the National Police Agency. Avoiding such damage requires individual users to implement security measures. However, many types of malware conceal their behavior from users who may not realize their computers have been infected, increasing the difficulty of applying countermeasures.

NTT Communications is proactively addressing the creation of systems that will increase the safety and security of using the Internet. We have been the first Japanese ISP to provide an anti-malware service that customers can use free of charge without having to apply or set up a system.

Contributing to the Welfare of Children

Industrywide 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, plala, 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 the website address lists provided by the ICSA. In response, NTT Resonant has implemented measures on the search engines it offers.