Message from the President & CEO

03 We promote CSR activities that meet the expectations of society and contribute to achieving the SDGs as a global ICT service provider.
We are committed to realizing a Smart World to resolve social issues and achieve the SDGs.

NTT Communications celebrated its 20th anniversary in July 2019. I would like to express my deepest gratitude to our customers and to all of those associated with our business for your support over the years that has made this possible.

NTT Communications was founded 20 years ago with the mission to transform long-distance, international and Internet communications. Since then, we have been opening new possibilities for individuals and companies by taking on the challenges of advanced communications infrastructure and ICT solutions as a leader in international communications, including long-distance and Internet services. Consequently, we are sustaining social development while achieving growth alongside our customers and stakeholders in Japan and abroad.

Today the Sustainable Development Goals (SDGs) are being upheld around the world, and momentum is building behind efforts for realizing a sustainable, diversified, and inclusive society. This in turn has led to higher expectations for ICT solutions as a decisive response to resolving social issues. On our part, we have sought to bring about a sustainable society by harnessing ICT in order to address social problems in various areas, in Japan and abroad, such as improving the energy efficiency of data centers and telecommunications buildings to reduce our carbon footprint and to realize a rich global environment, providing services based on AI technology to raise our productivity, and conducting feasibility studies to enhance educational quality and to create learning opportunities in the Philippines.

Furthermore, we will contribute to public health and wellbeing through our participation in the deleteC project, which is intended to make cancer a curable disease, as well as activities by the Shining Arcs rugby team.

We consider the current era, in which society stands at the threshold of a major sustainable transformation, as a second founding for NTT Communications, and we have therefore renewed our commitment to meeting public expectations by creating a new corporate culture under the slogan “REBORN.”

Guided by our new corporate mission of “Creating communication methods that open up new possibilities for people and our world,” we will continue to explore and create brand-new forms of communication that open additional opportunities for humankind and bring future happiness. We are resolved to serve society, contribute to the SDGs, and fulfill our responsibilities by rising to the challenge of realizing a Smart World as a “DX Enabler™” leading the digital transformation of society.

Tetsuya Shoji
President and CEO
NTT Communications Corporation
Corporate Overview (as of March 31, 2019)

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

Number of Employees
6,150 (NTT Communications Group: 23,300)

Business
Domestic and international telecommunications services

Group Companies in Japan (as of October 1, 2019)
● NTT Com Online Marketing Solutions Corporation
● NTT Com Engineering Corporation
● NTT Com CIEO Corporation
● NTT Com Solutions Corporation
● NTT Com Marketing Corporation
● NTT Smart Trade Inc.
● NTTPC Communications, Inc.
● NTT World Engineering Marine Corporation
● NTT Com DD Corporation
● NTT Bidlink, Inc.
● NTT Resonant Inc.
● X-LISTING Co., Ltd.
● Phone Appli Inc.
● N. F. Laboratories, Inc.

Operating Revenues (Billions of yen) IFRS

<table>
<thead>
<tr>
<th></th>
<th>Group-wide</th>
<th>Non-consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2017</td>
<td>1,333.5</td>
<td>1,392.0</td>
</tr>
<tr>
<td>FY2018</td>
<td>1,392.0</td>
<td>1,392.0</td>
</tr>
</tbody>
</table>

Operating Income (Billions of yen) IFRS

<table>
<thead>
<tr>
<th></th>
<th>Group-wide</th>
<th>Non-consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2017</td>
<td>118.5</td>
<td>109.9</td>
</tr>
<tr>
<td>FY2018</td>
<td>125.0</td>
<td>118.5</td>
</tr>
</tbody>
</table>

Number of Employees

<table>
<thead>
<tr>
<th></th>
<th>Group-wide</th>
<th>Non-consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2016</td>
<td>21,150</td>
<td>22,050</td>
</tr>
<tr>
<td>FY2017</td>
<td>22,050</td>
<td>22,050</td>
</tr>
<tr>
<td>FY2018</td>
<td>23,300</td>
<td>23,300</td>
</tr>
</tbody>
</table>

Editorial Policy
The NTT Communications Group is committed to creating new value for society and addressing social issues. We have compiled the “NTT Communications Group CSR Report 2019” as a tool for communicating the Group’s approach to our stakeholders and reporting our CSR initiatives. The expanded version provides a comprehensive report on the progress of our CSR Priority Activities and information on our CSR activities together with in-depth data arranged by the Priority Areas of our Fundamental CSR Policy—Contributions to Society, Contributions to the Global Environment, Respect for Human Resources and Continuous Strengthening of Corporate Governance.

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

As part of integrating the NTT Group’s international operations, NTT Communications transferred its overseas operations to NTT Ltd. This report therefore provides information concerning our activities in Japan.

Period Covered
Fiscal 2018: April 1, 2018 to March 31, 2019
(Also contains information on activities conducted before or after this timeframe)

Issue Date Information
October 2019
(Previous report: October 2018; next report scheduled for October 2020)

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

For more information on our editorial policy, see:
Providing Services in Areas that Sustain Society

In our bid to become the partner of choice, we consistently provide cutting-edge services toward realizing the digital transformation (DX) of our customers. We support customer businesses with a world-class telecommunications network, including submarine cables, data centers, and IP backbone.

---

Global Tier 1* Provider

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

We provide direct connections to major service providers in Asia, Oceania, North America, and Europe via the world's largest high-speed, large-capacity broadband network of 3,742 Gbps between Asia and Oceania. At the same time, we maintain reliable communication environments and stable operations based on a single autonomous system (AS) network and Service Level Agreements (SLA).

---

Global High-Speed Communications Network

We provide direct connections to major service providers in Asia, Oceania, North America, and Europe via the world's largest high-speed, large-capacity broadband network of 3,742 Gbps between Asia and Oceania.

---

ICT Total Solutions for Businesses

We have established bases in over 120 locations in more than 40 countries and regions, staffed by experts on the ICT environment of each place.

---

Global Data Center Service Offering the Highest Levels of Quality

Our Nexcenter brand provides high-quality data center services across the globe by operating over 300 facilities based on unified standards, with more than 450,000 m² of server room space. We seek to unify our service specifications further, in collaboration with Group companies, in order to realize even greater customer convenience. Moreover, we are expanding our data center business, primarily in the United States, Europe, and the Asia-Pacific region including Japan, to respond more flexibly to the scope and speed of service that customers require.

---

Recognition for Our Global Network Services

Our one-stop global network services exist because of our advanced technological capabilities and wealth of know-how unique to a telecommunications carrier. NTT Communications was ranked among global leaders in the 2019 Magic Quadrant for Network Services, Global, chosen by U.S.-based Gartner Inc.

---

Personal Services

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

---

Leaders*2

Our one-stop global network services exist because of our advanced technological capabilities and wealth of know-how unique to a telecommunications carrier. NTT Communications was ranked among global leaders in the 2019 Magic Quadrant for Network Services, Global, chosen by U.S.-based Gartner Inc.

---

*1 Tier 1: An Internet service provider that controls its own worldwide broadband IP backbone and is capable of ensuring the quality of its network without depending on an upper tier provider. Gartner Magic Quadrant for Network Services, Global, Neil Rickard, Bjarne Munch, Danellie Young, February 25, 2019, G00354862. Gartner does not endorse specific vendors, products, or services presented in publications issued by Gartner Research. Nor does it advise technology users to choose only those vendors that were given the highest ratings, or otherwise recommend. Gartner Research publications, as well as statements made by analysts, reflect the opinions of Gartner Research and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with regard to the material hereof, including warranties of merchantability or fitness for a particular purpose.

*2 Gartner Magic Quadrant for Network Services, Global, Neil Rickard, Bjarne Munch, Danellie Young, February 25, 2019, G00354862.
Developing NTT Communications’ New Mission Statement

In 2019, NTT Communications laid out its new mission statement and core beliefs for achieving further progress in a time of great change. President Shoji called on all employees to participate in a discussion about a new corporate mission, and the Mission Statement Project was subsequently launched in December 2018. Chosen from among all our employees, those involved in the project worked toward creating a new mission statement after a number of discussions with the president and management team members.

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

Our Core Beliefs

Take the Initiative

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

Inspire Each Other

Engage in honest discussion for a better tomorrow. Be sincere when debating with those who share your goals and respect their viewpoints. This will inspire a group synergy that helps you achieve unprecedented results.

Respond to Society’s Needs

Engage in honest discussion for a better tomorrow. Be sincere when debating with those who share your goals and respect their viewpoints. This will inspire a group synergy that helps you achieve unprecedented results.

Pay attention to society and your clients to create the future they need. Ask yourself whether you are truly doing what is best for your clients and society. It is through answering and then surpassing their expectations that you can create the future they want to see.

Developing NTT Communications’ New Mission Statement

In 2019, NTT Communications laid out its new mission statement and core beliefs for achieving further progress in a time of great change. President Shoji called on all employees to participate in a discussion about a new corporate mission, and the Mission Statement Project was subsequently launched in December 2018. Chosen from among all our employees, those involved in the project worked toward creating a new mission statement after a number of discussions with the president and management team members.
Corporate Message

Connecting into Tomorrow

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

Tagline

Go the Distance.

The 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 we have embraced for a long time.

Contributions to Society

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

Contributions to the Global Environment

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

Respect for Human Resources

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

Continuous Strengthening of Corporate Governance

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

As a partner that links the present to the future, the NTT Communications Group contributes to the realization of a safe, comfortable and abundant society by working to solve social issues and create new value for society on a global scale through ICT.
The NTT Communications Group promotes CSR initiatives through the CSR Committee. Chaired by the managing director in charge of CSR, the committee is responsible for establishing a structure for implementing management initiatives from economic, environmental, and social perspectives. Under this committee, we have set up the Environmental Protection Subcommittee. The CSR Committee meets annually to issue CSR reports, report on CSR activities, and consider and implement measures for promoting CSR activities. In fiscal 2018, representatives of 13 major Group companies attended the CSR Committee meeting. Matters reported to and discussed by the committee, including important information related to social or environmental risks, are shared with the Board of Directors as needed.

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

We sorted our material CSR issues by referencing a variety of international guidelines and initiatives, such as the UN Global Compact and SDGs, ISO 26000, and the GRI Guidelines, and adopting a broad view of the NTT Communications Group value chain.

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

To ensure the effective functioning of our structure for promoting CSR activities, we have continuously operated an established mechanism for reviewing the results of our activities. Specifically, we regularly establish CSR KPIs that serve as targets for key CSR activities for each fiscal year. Moreover, we gauge the effectiveness of our CSR governance by verifying and reviewing the level of achievement every year.

The CSR KPIs are determined by the CSR Committee, and the chairman is responsible for overall results. In addition to verifying the level of achievement, the CSR Committee also assesses the effectiveness of the KPIs themselves. The committee meets once a year. It is charged with continually reviewing the CSR management mechanism, including reviewing the Fundamental CSR Policy and updating the KPIs. In fiscal 2018, we linked the CSR Priority Activities with the UN Sustainable Development Goals (SDGs) and confirmed and evaluated the effectiveness of our KPIs.

In fiscal 2019, we will seek to help achieve the SDGs while consistently and steadily implementing PDCA cycles in our CSR activities by setting fiscal 2019 targets in accordance with our medium-term targets (vision).
The NTT Communications Group sets medium-term targets for each initiative of the CSR Priority Activities and pursues them through PDCA cycles.

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

We invited Kaori Kuroda, Executive Director of CSO Network Japan, to again take part in a dialogue with our CSR Committee chairperson in fiscal 2018, after he participated in fiscal 2017. Our discussion covered the significance and results of our efforts to incorporate the SDGs into our priority CSR activities and our expectations for the future as the central themes of our discussion and received a number of important ideas for management strategy moving forward. 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.

### CSR Priority Activities and Medium-term Targets

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

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

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

For more information, please refer to the list of Fiscal 2018 Activity Results and Fiscal 2019 Targets provided in the first part of our report on each activity.

### Outside Advice for Management

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

We invited Kaori Kuroda, Executive Director of CSO Network Japan, to again take part in a dialogue with our CSR Committee chairperson in fiscal 2018, after he participated in fiscal 2017. Our discussion covered the significance and results of our efforts to incorporate the SDGs into our priority CSR activities and our expectations for the future as the central themes of our discussion and received a number of important ideas for management strategy moving forward. 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.

---

**Step 2: Evaluating the Significance of the Issues**

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

**Step 3: Identifying Materiality**

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

---

**CSR Priority Activities Identified**

- Innovation that Supports a Networked Society
- Ensuring Stable and Reliable Services as Mission-critical Infrastructure
- Robust Network Security for Customers
- Continuous Improvement in Customer Satisfaction
- Collaboration with Suppliers
- Social Contributions and Fostering of Communities
- Human Resources Development
- Respect for Diversity and Equal Opportunities
- Maintaining and Improving Employee Health
- Realizing a Low-carbon Future
- Implementing Closed-loop Recycling
- Planning a Future of Co-existing with Nature
- Thorough Compliance
- Respect for Human Rights
- Risk Management
- Ensuring Information Security
- Planning a Future of Co-existing with Nature
- Thorough Compliance
- Respect for Human Rights
- Risk Management
- Ensuring Information Security
- Planning a Future of Co-existing with Nature
- Thorough Compliance
- Respect for Human Rights
- Risk Management
- Ensuring Information Security

**Dialogues with an external expert (January 2019)**
Working to deepen employee CSR awareness by sharing the NTT Group’s best practice CSR-related measures, NTT Communications has been participating in the NTT Group CSR Conference since the first one in fiscal 2013, with the aim of giving consideration to the forms CSR and social responsibility should take in the years to come. NTT Communications received awards at the conference in fiscal 2016, 2017, and 2018.

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

NTT Group CSR Charter

As a Member of the NTT Group

Promoting CSR throughout the Entire Group

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

NTT Group CSR Committee

Participation in NTT Group CSR Conferences

Working to deepen employee CSR awareness by sharing the NTT Group’s best practice CSR-related measures, NTT Communications has been participating in the NTT Group CSR Conference since the first one in fiscal 2013, with the aim of giving consideration to the forms CSR and social responsibility should take in the years to come. NTT Communications received awards at the conference in fiscal 2016, 2017, and 2018.
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

Contributions to Society

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
Participation in External Groups

Fiscal 2018 Activity Results and Fiscal 2019 Targets
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
Participation in External Groups

NTT Communications Corporation
CSR Report 2019 Expanded Version

11

Contributions to Society

Message from the President & CEO
Company Information

Contributions to the Global Environment
Respect for Human Resources
Continuous Strengthening of Corporate Governance

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
Participation in External Groups

Fiscal 2018 Activity Results and Fiscal 2019 Targets
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
Participation in External Groups

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
Fiscal 2018 Activity Results and Fiscal 2019 Targets

Actions Implemented in Line with CSR KPIs

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

---

<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Initiatives</th>
<th>Medium-term Targets (Form We Want to Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2018 Activity Results</th>
<th>Fiscal 2019 Targets</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation that Supports a Networked Society</td>
<td>Provision of new value that contributes to business transformation</td>
<td>Utilize IoT and cloud technologies to develop and essentially deploy a range of global services that meet the business needs of corporate customers</td>
<td>Contribute to the digitization of companies by offering end-to-end IoT solutions that meet individual needs</td>
<td>Created three solutions: Things Cloud for Logistics, for Place, and for Maintenance</td>
<td>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</td>
<td>Activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realization of safe and secure daily (daily life, daily business)</td>
<td>Bridge the digital divide inside and outside Japan; develop accessibility-enhanced services for individuals and a framework for delivering them</td>
<td>Launch new services for improving OCN and continuously implement functional enhancements</td>
<td>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</td>
<td>Created 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</td>
<td>Activities</td>
<td></td>
</tr>
</tbody>
</table>

Achievement levels based on self-assessment: ★★★: Target achieved; ★★: Target almost achieved; ★: Target only partially achieved
Contents
• Continuous Strengthening of Environment
  Contributions to the Global Environment
• Contributions to Society
  Fiscal 2018 Activity Results and Fiscal 2019 Targets
  Innovation that Supports a Networked Society

Contributions to Society
Fiscal 2018 Activity Results and Fiscal 2019 Targets
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
Participation in External Groups

Contributions to Society
Fiscal 2018 Activity Results and Fiscal 2019 Targets
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
Participation in External Groups

Expanded Version


text content...
<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Initiatives</th>
<th>Medium-term Targets (Form We Want to Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2018 Activity Results</th>
<th>Fiscal 2019 Targets</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robust Network Security for Customers</td>
<td>Strengthening vulnerability response functions</td>
<td>Develop measures for both domestic and overseas Group companies to strengthen their vulnerability response functions</td>
<td>• Incorporate security measures into design and manufacturing processes in order to address security issues during development</td>
<td>• Conducted activities to promote the use of the IAST source code analysis tool</td>
<td>• Conducted a vulnerability assessment of K-Ltering Co., Ltd.</td>
<td>★★★</td>
<td>9, 11</td>
</tr>
<tr>
<td>Rapid and reliable responses to security threats</td>
<td>Continuously enhancing and strengthening services that contribute to safe and secure corporate and national information systems</td>
<td>• In professional services, strengthen solutions that support CISP operations, including those for visualizing vulnerabilities and endpoint cyber hygiene management</td>
<td>• In managed security services, enhance the collaborative defense functions between networks and terminals based on EDR (Endpoint Detection &amp; Response) and protect intrusion management services (SECA) (Security as a Service) projects</td>
<td>• Began providing vulnerability visualization solutions that enable users to visualize vulnerabilities in professional services, raise the efficiency of addressing vulnerabilities, assure uniform security levels, and enhance information security governance, in the area of investigating terminals infected by targeted malware, enhanced endpoint security solutions by using AI technology to boost malware detection capability</td>
<td>• 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</td>
<td>★★★</td>
<td>9</td>
</tr>
<tr>
<td>Continuous Improvement in Customer Satisfaction</td>
<td>Ongoing customer satisfaction surveys</td>
<td>Continuous improvements in customer satisfaction level scores</td>
<td>• Expanded the scope of the customer survey (inside and outside Japan)</td>
<td>• Conducted vulnerability assessment at each point of interaction with the customer</td>
<td>• Conducted vulnerability assessment for Web-based apps owned by the NTT Communications Group and overseas Group companies</td>
<td>★★★</td>
<td></td>
</tr>
</tbody>
</table>

**Fiscal 2018 Targets**
- Survey responses: Domestic corporate customers: 2,737 (4.9% 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)  
- Pointed out 3 areas of improvement, thereby reducing the Groups' security risks  
- Added more than 10 functions through in-house programming

**Fiscal 2019 Targets**
- Survey responses: Domestic corporate customers: 2,377 (up 4% year on year)  
- Overseas corporate customers: 97 (down 11% year on year)  
- Strengthen solutions that support CISP operations in professional services  
- Expanded security measures for cloud gateways and IT&I encouraged security services

*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
<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Initiatives</th>
<th>Medium-term Targets (Forms We Want to Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2019 Targets</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration with Suppliers</td>
<td>Dissemination of CSR and green procurement</td>
<td>• Promoting the procurement of environmentally sound products through measures such as having individual suppliers assess products • Preventing conflict in anti-social behavior across the supply chain, for example, addressing the conflict minerals issue</td>
<td>Conducted the annual supplier survey on promoting CSR procurement</td>
<td>Continue to conduct the annual supplier survey on promoting CSR procurement</td>
<td>Within/outside the organization</td>
<td>8</td>
</tr>
<tr>
<td>Social Contributions and Fostering of Communities</td>
<td>Promoting social contribution activities in a variety of fields and according to the social contribution principles, such as sustainability, due diligence, global perspective, and skills</td>
<td>• 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</td>
<td>• Conducted a cleanup activity around the head office local cleanup 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</td>
<td>• 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</td>
<td>Within/outside the organization</td>
<td>4</td>
</tr>
</tbody>
</table>

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

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.
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.
Contributions to Society | Ensuring Stable and Reliable Services as Mission-critical Infrastructure

NTT Communications Corporation CSR Report 2019
Expanded Version

Contents
Message from the President & CEO
Company Information
NTT Communications CSR

Contributions to Society
Fiscal 2018 Activity Results and Fiscal 2019 Targets
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
Participation in External Groups

Contributions to the Global Environment
Respect for Human Resources
Continuous Strengthening of Corporate Governance

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 network connections at all times.

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.

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.

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.
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 new 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 our services to our overseas bases on the Enterprise Cloud service, which consists of robust, disaster-resilient data centers for companies that leverage NTT Communications but also throughout the NTT Group.

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.

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.
Disaster recovery support

Disaster recovery support

Contributions to Society | Ensuring Stable and Reliable Services as Mission-critical Infrastructure

Fiscal 2018 Activity Results and Fiscal 2019 Targets
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
Participation in External Groups

Message from the President & CEO

Company Information

NTT Communications CSR

Contributions to Society

Fiscal 2018 Activity Results and Fiscal 2019 Targets
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
Participation in External Groups

Contributions to the Global Environment

Respect for Human Resources

Continuous Strengthening of Corporate Governance
Contributions to Society | 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 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 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.
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 ITIL®*, 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.

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.
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.
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.

Ongoing Customer Satisfaction Surveys

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.

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

- Prohibition of forced labor and child labor
- Factory safety measures
- Management of hazardous chemicals
- Prevention of corruption and bribery
- Ensuring product safety
- Prohibition of leaks of personal information
- Respect for the right to organize and conduct collective bargaining
- Measures targeting occupational injury and illnesses
- Effective use of resources and energy
- Respect for intellectual property rights
- Creation of a quality management system
- 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.
**Contributions to Society | Collaboration with Suppliers**

**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.

---

**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.
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.
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.

Social Contribution Activities in Fiscal 2018

- Preservation of the Natural Environment: 21 projects, 1,095 participants, expenditure of 7,523,153 yen
- Social Welfare: 25 projects, 7 participants, expenditure of 28,065,924 yen
- Promotion of Education and Culture: 11 projects, 165 participants, expenditure of 5,438,800 yen
- Regional Development and Exchange: 7 projects, 147 participants, expenditure of 11,550,000 yen
- International Exchange: 3 projects, 0 participants, expenditure of 5,000,000 yen
- Promotion of Sports: 4 projects, 378 participants, expenditure of 11,760,000 yen
- Others: 2 projects, 11 participants, expenditure of 15,000 yen

Total: 71 projects, 1,791 participants, expenditure of 67,377,137 yen

Cleanup Activities

NTT Communications has participated in cleanup campaigns in Tokyo’s Chiyoda Ward since 2008. In fiscal 2018, cleanup 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.
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

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

#### Fifth Shining Arcs Cup

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.

<table>
<thead>
<tr>
<th>Season</th>
<th>Participating Team(s)</th>
<th>Money Donated</th>
<th>Use of Funds Raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011–2012 Season</td>
<td>NTT Communications</td>
<td>366,525 yen</td>
<td>Donated to Japanese Red Cross Society</td>
</tr>
<tr>
<td>2012–2013 Season</td>
<td>NTT Communications</td>
<td>404,800 yen</td>
<td>Donated to Miyagi Rugby Football Union</td>
</tr>
<tr>
<td>2013–2014 Season</td>
<td>All Top League teams</td>
<td>Approx. 2 million yen</td>
<td>Invited children from disaster-affected regions to a Japanese national rugby team game held in June 2014</td>
</tr>
<tr>
<td>2015–2016 Season</td>
<td>All Top League teams</td>
<td>2,270,170 yen</td>
<td>Held rugby class in areas affected by the Kumamoto earthquake</td>
</tr>
<tr>
<td>2016–2017 Season</td>
<td>All Top League teams</td>
<td>2,352,561 yen</td>
<td>Provided career education and rugby classes in the Tohoku region</td>
</tr>
<tr>
<td>2017–2018 Season</td>
<td>All Top League teams</td>
<td>805,643 yen</td>
<td>Donated to disaster-affected regions through the Central Community Chest of Japan (Red Feather)</td>
</tr>
<tr>
<td>2018–2019 Season</td>
<td>All Top League Teams</td>
<td>1,390,002 yen</td>
<td>Donated to disaster-affected regions through the Central Community Chest of Japan (Red Feather)</td>
</tr>
</tbody>
</table>
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.

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

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

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

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

Our Ambition

A society in harmony with nature, preserving the planet’s abundance

◆ A low-carbon society with a light environmental footprint that thoroughly recycles resources
◆ A society that respects biodiversity and protects abundant natural resources
Fiscal 2018 Activity Results and Fiscal 2019 Targets

In line with the three underpinning themes of fiscal 2018: "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. We were particularly aggressive in our efforts to reduce CO₂ emissions, improve our final waste disposal ratio, and raise awareness of biodiversity activities in Japan and around the world. Our accomplishments across Group companies include implementing new greenhouse gas reduction initiatives, improving our final waste disposal ratio, and organizing a biodiversity photo contest.

In fiscal 2019, we will continue pursuing various measures with a focus on activities that include reducing electricity consumption, promoting waste recycling, and preserving ecosystems in order to contribute to reducing the environmental impact of our Group as well as society as a whole.

### Contributions to the Global Environment | Fiscal 2018 Activity Results and Fiscal 2019 Targets

#### Actions Implemented in Line with CSR KPIs

<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2019 Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting society's carbon emissions through products and services</td>
<td><strong>We will contribute to reducing CO₂ emissions across society by at least 10 times more than the NTT Com Group's own emissions in 2020 (fiscal 2018 target is 14.2-fold higher)</strong></td>
<td><strong>Expand the use of the Environmental Solutions Label System to contribute to reducing CO₂ emissions across society by at least 10 times more than the NTT Com Group's own emissions in 2020 (fiscal 2013 target is 14.4-fold higher)</strong></td>
</tr>
<tr>
<td>Realizing a Low-carbon Future</td>
<td><strong>We will raise power efficiency per data transmission in our telecommunications businesses, including data centers, by at least 10 times compared to fiscal 2019 levels (fiscal 2020 target)</strong></td>
<td><strong>Maintain and promote the sales of Environmental Solutions Label-certified services capable of contributing to reducing CO₂ in society</strong></td>
</tr>
</tbody>
</table>

#### Fiscal 2018 Activity Results and Fiscal 2019 Targets

<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Initiatives</th>
<th>Medium-term Targets (From We Want to Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Specific Activities</th>
<th>Quantitative Results</th>
<th>Self-assessment</th>
<th>Fiscal 2019 Targets</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting society's carbon emissions through products and services</td>
<td><strong>We will contribute to reducing CO₂ emissions across society by at least 10 times more than the NTT Com Group's own emissions in 2020 (fiscal 2018 target is 14.2-fold higher)</strong></td>
<td><strong>Contribute to reducing CO₂ emissions across society by at least 10 times more than the NTT Com Group's own emissions in 2020 (fiscal 2018 target is 14.2-fold higher)</strong></td>
<td><strong>Contribute to reducing CO₂ emissions across society by at least 10 times more than the NTT Com Group's own emissions in 2020 (fiscal 2018 target is 14.2-fold higher)</strong></td>
<td><strong>Maintain and promote the sales of Environmental Solutions Label-certified services capable of contributing to reducing CO₂ in society</strong></td>
<td><strong>Contribution to reducing CO₂ emissions: 15.8 t-CO₂</strong></td>
<td><strong>Target has been revised in accordance with the new calculation method.</strong></td>
<td><strong>Expand the use of the Environmental Solutions Label System to contribute to reducing CO₂ emissions across society by at least 10 times more than the NTT Com Group's own emissions in 2020 (fiscal 2013 target is 14.4-fold higher)</strong></td>
<td><strong>Within the organization</strong></td>
<td><strong>13</strong></td>
</tr>
<tr>
<td>Cutting carbon emissions from businesses</td>
<td><strong>We will raise power efficiency per data transmission in our telecommunications businesses, including data centers, by at least 10 times compared to fiscal 2019 levels (fiscal 2020 target)</strong></td>
<td><strong>Raise power efficiency per data transmission in our telecommunications businesses, including data centers, by at least 10 times in 2030 compared to fiscal 2019 levels (fiscal 2018 target was 3.8-fold higher)</strong></td>
<td><strong>Raise power efficiency per data transmission in our telecommunications businesses, including data centers, by at least 10 times in 2030 compared to fiscal 2019 levels (fiscal 2018 target was 3.8-fold higher)</strong></td>
<td><strong>Increase in power efficiency: 5.4%</strong></td>
<td><strong>CO₂ emissions: 368,000 t-CO₂</strong></td>
<td><strong>Target achieved</strong></td>
<td><strong>Within the organization</strong></td>
<td><strong>17</strong></td>
<td></td>
</tr>
<tr>
<td>Realizing a Low-carbon Future</td>
<td><strong>Implement the following energy management measures to further reduce electricity use</strong></td>
<td><strong>Reduce electricity use by removing equipment that consumes large amounts of power and shut down surplus air conditioners: NTT Data Center Nippon Research Center (old calculation method)</strong></td>
<td><strong>Reduce electricity use by removing equipment that consumes large amounts of power and shut down surplus air conditioners: NTT Data Center Nippon Research Center (new calculation method)</strong></td>
<td><strong>Overall power efficiency in our telecommunications businesses</strong></td>
<td><strong>CO₂ emissions: 368,000 t-CO₂</strong></td>
<td><strong>Target achieved</strong></td>
<td><strong>Within the organization</strong></td>
<td><strong>17</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Achievement levels based on self-assessment:** ★★★ Target achieved ★★ Target almost achieved ★ Target only partially achieved
## Contributions to the Global Environment | Fiscal 2018 Activity Results and Fiscal 2019 Targets

<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Initiatives</th>
<th>Medium-term Targets (From 2018 to Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2019 Targets</th>
<th>Self-assessment</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realizing a low environmental impact business model</td>
<td>Building and maintaining a low environmental impact business model</td>
<td>Nationwide deployment of airflow control</td>
<td>★★★</td>
<td>• Building and maintaining a low environmental impact business model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implementing measures to reduce electricity use</td>
<td>Installation of energy-saving equipment</td>
<td></td>
<td>• Implementing measures to reduce electricity use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriately managing hazardous substances</td>
<td>Appropriately managing hazardous substances</td>
<td></td>
<td>• Appropriately managing hazardous substances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thorough implementation of a 3R policy in businesses</td>
<td>Through implementation of a 3R (reduce, reuse, and recycle) policy with regard to all resources relevant to our business activities</td>
<td>Improvement in the final waste disposal ratio: 2.1% or lower</td>
<td>★★★</td>
<td>• Implement the 3R (reduce, reuse, and recycle) policy for all the resources relevant to our business activities</td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Improvement in the final waste disposal ratio: 1.5% or lower (Fiscal 2030 target)</td>
<td>Promote a paperless working style that utilizes ICT equipment</td>
<td></td>
<td>• Promote a paperless working style that utilizes ICT equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Through implementation of a 3R (reduce, reuse, and recycle) policy with regard to all resources relevant to our business activities</td>
<td>Enhance promotion of the 3R policy</td>
<td>★★★</td>
<td>• Enhance promotion of the 3R policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improvement in the final waste disposal ratio: 2.1% or lower</td>
<td>Improve thermal recycling to improve the final disposal ratio</td>
<td></td>
<td>• Improve thermal recycling to improve the final disposal ratio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities that show consideration for biodiversity</td>
<td>Facility construction, maintenance, and repair based on NTT Group building concepts</td>
<td>Facility construction, maintenance, and repair based on NTT Group building concepts</td>
<td>★★★</td>
<td>• Facility construction, maintenance, and repair based on NTT Group building concepts</td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Compliance with action guidelines in regard to biodiversity conservation</td>
<td>Compliance with action guidelines in regard to biodiversity conservation</td>
<td></td>
<td>• Compliance with action guidelines in regard to biodiversity conservation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning a Future of Co-existing with Nature</td>
<td>Facility construction, maintenance, and repair based on NTT Group building concepts</td>
<td>Facility construction, maintenance, and repair based on NTT Group building concepts</td>
<td>★★★</td>
<td>• Facility construction, maintenance, and repair based on NTT Group building concepts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compliance with action guidelines in regard to biodiversity conservation</td>
<td>Compliance with action guidelines in regard to biodiversity conservation</td>
<td></td>
<td>• Compliance with action guidelines in regard to biodiversity conservation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilize ICT to contribute to biodiversity</td>
<td>Utilization of ICT to contribute to biodiversity</td>
<td>Utilization of ICT to contribute to biodiversity</td>
<td>★★★</td>
<td>• Utilization of ICT to contribute to biodiversity</td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Expansion of Aikawa Rakutaro</td>
<td>Information dissemination and educational activities through the goo Green Label</td>
<td></td>
<td>• Expansion of Aikawa Rakutaro</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Achievement levels based on self-assessment: ★★★: Target achieved, ★★: Target almost achieved, ★: Target only partially achieved.
Basic Philosophy and Vision

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

NTT Communications Group Global Environmental Charter

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

Environmental Statement and Eco Strategy 2030

The NTT Communications Group has formulated the NTT Communications Group Environmental Statement as its overarching policy for promoting environmental activities. In the statement, we have expressed how we should act as a company in order to fulfill our responsibilities toward the global environment in the future. We also established Eco Strategy 2030 as a means of identifying priority issues that should be addressed to realize the future outlined in the statement.

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

The NTT Communications Group Environmental Statement

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

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

- Realizing a Low-carbon Future
  - We are contributing to the reduction of CO₂ 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.
Under Eco Strategy 2030, we have set out specific initiatives to help realize the three futures outlined in the Environmental Statement. We also changed the names of the priority activities to accommodate the strategy.

### Contributions to the Global Environment

#### Eco Strategy 2030

<table>
<thead>
<tr>
<th>Three Futures We Are Targeting</th>
<th>Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing to the reduction of CO₂ emissions across society</td>
<td>We will contribute to reducing CO₂ emissions across society by at least 10 times more than the NTT Communications Group's own emissions.</td>
</tr>
<tr>
<td>Raising power efficiency in our telecommunications businesses</td>
<td>We will raise power efficiency per data transmission in our telecommunications businesses by at least 10 times compared to fiscal 2013 levels.</td>
</tr>
<tr>
<td>Adapting to climate change</td>
<td>We will play our part in adapting to climate change by actively promoting initiatives through all our activities and by collaborating with our stakeholders.</td>
</tr>
<tr>
<td>Final waste disposal ratio</td>
<td>We will aim to keep the final disposal ratio of the waste generated by the NTT Communications Group at 1.5% or less.</td>
</tr>
<tr>
<td>Preservation of ecosystems</td>
<td>We will play our part in preserving ecosystems by actively promoting initiatives through all our activities and by collaborating with our stakeholders.</td>
</tr>
</tbody>
</table>
Environmental Management

Promotion Framework for Reducing Environmental Impact

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

Particularly in recent years, we have been making efforts to ascertain and curb environmental impact by means of Scope 3 at the supply chain level. Moreover, we have been promoting environmental protection activities since fiscal 2019 under a Groupwide environmental management structure. Looking ahead, we intend to pursue initiatives focused on saving energy and reducing energy use that will lead to further reductions in environmental impact.

---

**Environmental Protection Framework**

| Main Tasks |
|-------------------|----------------------------------|
| President | Planning and implementation of energy-saving measures at telecommunications, data centers, and office buildings. |
| CSR Committee (CSR Office) | Encourage efforts to reduce environmental impact centered on activities to reduce paper usage, eliminate waste, and conserve electricity in office operations. |
| Working Group | Share and commonly apply examples of advanced efforts from each business unit. |
| Greenhouse Gas Reduction | Plan and implement energy-saving measures at telecommunications, data centers, and office buildings. |
| Environmental Initiatives at Offices | Encourage efforts to reduce environmental impact centered on activities to reduce paper usage, eliminate waste, and conserve electricity in office operations. |
| Dismantling Telecommunications Equipment | Share and commonly apply examples of advanced efforts from each business unit. |
| Construction/Waste | Thoroughly process and manage dismantled telecommunications equipment in line with the law. |
| PCB Storage and Disposal | Plan and implement measures designed to improve the recycling ratio. |
| Container Recycling | Encourage appropriate processing and recycling of construction waste. |
| Green Procurement | Submit government reports relating to asbestos removal and reconstruction. |
| Environmental Accounting | Formulate plans for the appropriate storage and treatment of PCBs. |
| Environmental Solutions | Submit PCB management reports to the government. |
| Group Company | Comply with the Containers and Packaging Recycling Law. |
| Environmental Management | Encourage green purchasing. |
| Environmental Accounting | Build an environmental accounting system and provide performance analyses and reports for management. |
| Environmental Solutions | Create ICT services that contribute to the efficient use of energy and resources as well as to the reduction of environmental impact. |
| Group Company | Promote and provide information about environmentally-friendly services. |

---

(as of October 1, 2019)
In performing these calculations, we have referred to unit emission databases and other materials produced through studies by the Ministry of the Environment and other government ministries and agencies and expanded the scope of target categories. Of the 15 target categories, our calculations include 11 that are relevant.

### Volumes of Scope 3 Emissions by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Share</th>
<th>Emissions (t CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purchased goods and services</td>
<td>29.7%</td>
</tr>
<tr>
<td>2</td>
<td>Capital goods</td>
<td>14.2%</td>
</tr>
<tr>
<td>3</td>
<td>Fuel and energy activities not included in Scope 1 and Scope 2</td>
<td>1.9%</td>
</tr>
<tr>
<td>4</td>
<td>Upstream transportation and distribution</td>
<td>0.3%</td>
</tr>
<tr>
<td>5</td>
<td>Waste generated through business activities</td>
<td>0.0%</td>
</tr>
<tr>
<td>6</td>
<td>Business travel</td>
<td>0.3%</td>
</tr>
<tr>
<td>7</td>
<td>Employee commutations</td>
<td>0.3%</td>
</tr>
<tr>
<td>8</td>
<td>Upstream leased assets</td>
<td>0.0%</td>
</tr>
<tr>
<td>9</td>
<td>Downstream transportation and distribution</td>
<td>0.0%</td>
</tr>
<tr>
<td>10</td>
<td>Use of products sold</td>
<td>47.2%</td>
</tr>
<tr>
<td>11</td>
<td>Disposal of products sold</td>
<td>1.8%</td>
</tr>
<tr>
<td>12</td>
<td>Upstream leased assets</td>
<td>4.2%</td>
</tr>
<tr>
<td>13</td>
<td>Telecommunications Facilities</td>
<td>0.2%</td>
</tr>
<tr>
<td>14</td>
<td>Investments</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100.00</td>
</tr>
</tbody>
</table>
Environmental Accounting in Fiscal 2018

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 2018 declined by approximately 130 million yen year on year to 1.7 billion yen, consisting of around 0.6 billion yen in investments and about 1.1 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 2018 was 1.74 billion yen, almost the same as in the previous fiscal year.

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Key Measures</th>
<th>FY2017</th>
<th>FY2018</th>
<th>FY2017</th>
<th>FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Business area cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pollution prevention costs</td>
<td>Oil tank facility for power generator use Management of items using PCBs</td>
<td>73</td>
<td>142</td>
<td>72</td>
<td>80</td>
</tr>
<tr>
<td>Global environmental conservation costs</td>
<td>Measures to reduce CO2 emissions resulting from electricity use</td>
<td>530</td>
<td>450</td>
<td>205</td>
<td>577</td>
</tr>
<tr>
<td>Resource circulation costs</td>
<td>Waste disposal and reuse expenses</td>
<td>1</td>
<td>0</td>
<td>462</td>
<td>319</td>
</tr>
<tr>
<td>(2) Upstream/downstream costs</td>
<td>Measures to recover, recycle, and reuse telecommunications equipment</td>
<td>79</td>
<td>14</td>
<td>315</td>
<td>52</td>
</tr>
<tr>
<td>(3) Administration costs</td>
<td>Environmental conservation management activities</td>
<td>0</td>
<td>0</td>
<td>66</td>
<td>63</td>
</tr>
<tr>
<td>(4) R&amp;D costs</td>
<td>Allocated portion of the NTT Group’s environmental R&amp;D costs</td>
<td>0</td>
<td>0</td>
<td>32</td>
<td>10</td>
</tr>
<tr>
<td>(5) Social activity costs</td>
<td>Costs of supporting volunteer participation</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>(6) Environmental remediation costs</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>683</td>
<td>607</td>
<td>1,156</td>
<td>1,101</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Key Measures</th>
<th>FY2017</th>
<th>FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>Revenues from sales (cables, metal scrap, etc.)</td>
<td>243</td>
<td>423</td>
</tr>
<tr>
<td>Cost reductions</td>
<td>Reductions in expenses as a result of measures such as those related to reducing electricity use</td>
<td>591</td>
<td>517</td>
</tr>
<tr>
<td></td>
<td>Reductions in purchase cost as a result of reusing dismantled telecommunications equipment</td>
<td>404</td>
<td>380</td>
</tr>
<tr>
<td></td>
<td>Decrease in postal and paper costs due to utilization of MyPage (online account page)</td>
<td>527</td>
<td>422</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,768</td>
<td>1,740</td>
</tr>
</tbody>
</table>

Target period: April 1–March 31
Scope: NTT Communications Corporation and 13 Group companies in Japan
Tabulation and disclosure figures were tabulated in line with the Ministry of the Environment’s Environmental Accounting Guidelines 2005 and the NTT Group Environmental Accounting Guidelines. Expenses include personnel expenses but exclude depreciation.
Three companies in the NTT Communications Group had acquired ISO 14001 certification as of March 31, 2019. We have contracted outside environmental consultants to perform internal audits once a year to certified departments and companies in order to ensure the appropriate implementation of environmental management and continual improvements that will allow for a steady reduction of the environmental impact of business activities. Regular reviews and renewal examinations are undertaken by an independent certification body as well. Outstanding issues are thus identified, and remedial measures are taken swiftly. Besides our initiatives centering on reductions of office paper and electricity use and the promotion of waste recycling, we encourage the adoption of measures aimed at creating an environmentally friendly society.

### Environmental Management Structure

#### Acquiring ISO 14001 Certification

Three companies in the NTT Communications Group had acquired ISO 14001 certification as of March 31, 2019. We have contracted outside environmental consultants to perform internal audits once a year to certified departments and companies in order to ensure the appropriate implementation of environmental management and continual improvements that will allow for a steady reduction of the environmental impact of business activities. Regular reviews and renewal examinations are undertaken by an independent certification body as well. Outstanding issues are thus identified, and remedial measures are taken swiftly. Besides our initiatives centering on reductions of office paper and electricity use and the promotion of waste recycling, we encourage the adoption of measures aimed at creating an environmentally friendly society.

#### ISO 14001-certified Companies

<table>
<thead>
<tr>
<th>Company Certified</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTT Communications Corp. Procurement Dept.</td>
<td>October 1999</td>
</tr>
<tr>
<td>NTT Communications Corp. Solution Services Dept.</td>
<td>March 2004</td>
</tr>
<tr>
<td>NTTPC Communications, Inc.</td>
<td>November 2003</td>
</tr>
<tr>
<td>NTT Plala Inc.</td>
<td>December 2011</td>
</tr>
</tbody>
</table>

As of March 31, 2019

#### Environmental Audits and Environmental Surveys

Guided by its Global Environmental Charter, the NTT Communications Group shares yearly PDCA and other reports at the Global Environmental Protection Subcommittee, an organization that comes under the CSR Committee. These reports outline details of the various activities administered by the 10 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 2018. We will continue our Companywide efforts to prevent pollution and comply with related laws and regulations.

#### Promoting Green Procurement

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

### Status of Green Procurement and Green Purchasing (1,000 Units)

<table>
<thead>
<tr>
<th></th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green procurement of goods, excluding office supplies</td>
<td>1,200</td>
<td>1,050</td>
<td>900</td>
<td>1,540</td>
<td>2,040</td>
</tr>
<tr>
<td>Green procurement of office supplies</td>
<td>250</td>
<td>200</td>
<td>200</td>
<td>220</td>
<td>250</td>
</tr>
</tbody>
</table>

*Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management. Thereof.
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 2018, all-employee training sessions covered international trends such as the SDGs and ESG investments. Additionally, we undertook a range of environmental awareness and educational activities, including a cleanup of the areas around our offices and the seaside, promotion of the ecocap movement, and a biodiversity-related photo contest. Moreover, woodland conservation activities were carried out at NTT Com Solutions and NTT Com Marketing in a bid to deepen employee understanding of the importance of protecting the natural environment.
Our Approach

Our range of approaches to reduce CO₂ emissions includes saving energy and improving the efficiency of our facilities as well as offering services that incorporate excellent Low-carbon features and engaging in environmental contribution activities. For our environmental initiatives in relation to Company facilities, we have set targets from three viewpoints: telecommunications facilities, offices, and overseas bases, and all of our employees are working together to reduce CO₂ emissions. Particularly, since electricity consumption accounts for more than 90% of total CO₂ emissions from business activities, we can expect great advantages as a result of saving energy and improving the energy efficiency of telecommunications equipment. We are thus making strong efforts in such respects as leading the industry in introducing cutting-edge technologies.

Primary Concept

While the advancement and spread of ICT has helped to bring about an affluent society and convenient lifestyles, the increase in power consumption from ICT-related equipment is placing enormous pressure on the environment. Against such a backdrop, SDGs 13 is urgently combating climate change. Reducing CO₂ emissions, the main cause of climate change, is a matter of utmost urgency not only for humans but also for the prosperity of all living creatures. As part of our initiative to contribute to the creation of a low-carbon society, we set “Realizing a Low-carbon Future” as one of the themes for our Environmental Statement. In order to make our statement concrete, we will take on activities with a strong awareness of specific effects while continuing to strengthen our efforts from a global perspective and taking into account the expansion of our businesses’ supply chains.

Main Achievements in Fiscal 2018 and Goals for the Coming Years

In fiscal 2018, we continued our ongoing efforts to raise power efficiency per data transmission in our telecommunications businesses. Our comprehensive activities to improve power efficiency included adjusting telecommunications facility intake/exhaust directions, using humidity sensors to improve airflow, optimizing the room temperature by controlling air-conditioning, and turning off unused equipment. As a result, power efficiency increased by 3.5 times, which exceeded the target of 3.3 times. In addition, when putting our solutions on the market, those assessed as having a certain level of environmental impact reduction benefits are given the NTT Group’s Environmental Solutions Label to make visible their effects. Consequently, our contribution to reducing society’s CO₂ emissions was 15.8 times the volume of our own CO₂ emissions, thereby exceeding our target of 14.2 times. Going forward, we will further develop these initiatives and commit to realizing a Low-carbon society.
Reduction of Greenhouse Gases

Fiscal 2018 Results and Fiscal 2019 Outlook

We provide facilities that other carriers and data center operators need in order to offer their own services, and we have been disclosing information on fuel and electricity used by these facilities as CO2 emissions by the NTT Communications Group in accordance with the reporting method defined by Japan’s Act on Promotion of Global Warming Countermeasures (dotted line column in the “CO2 Emissions from Business Activities” graph for fiscal 2018).

We have recently established a new compilation method based on the Ministry of the Environment’s Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver. 2.1). Therefore, we have decided to calculate the above CO2 emissions under Category 13 of Scope 3 emissions and disclose the NTT Communications Group’s CO2 emissions under Scope 1 and Scope 2 (the solid line columns in the graph for fiscal 2018). Consequently, CO2 emissions* from business activities for the NTT Communications Group totaled 242,000 t-CO2. If we compare power consumption in fiscal 2018 was 752.9 million kWh, up 0.4% due to a slight increase in telecommunications buildings and server rooms in our data centers but roughly in line with the target of 749.6 million kWh.

CO2 emissions per unit of sales were 0.17 t-CO2/millions of yen.

In fiscal 2019, the NTT Communications Group will work together and continue to reduce CO2 emissions through ongoing energy-saving activities, research and development of technologies, and implementing new measures including energy saving rules. It has set a target for reducing CO2 emissions by 1% from fiscal 2018 to 240,000 t-CO2 or below.

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

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

Fiscal 2018 Results and Fiscal 2019 Outlook

We provide facilities that other carriers and data center operators need in order to offer their own services, and we have been disclosing information on fuel and electricity used by these facilities as CO2 emissions by the NTT Communications Group in accordance with the reporting method defined by Japan’s Act on Promotion of Global Warming Countermeasures (dotted line column in the “CO2 Emissions from Business Activities” graph for fiscal 2018).

We have recently established a new compilation method based on the Ministry of the Environment’s Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver. 2.1). Therefore, we have decided to calculate the above CO2 emissions under Category 13 of Scope 3 emissions and disclose the NTT Communications Group’s CO2 emissions under Scope 1 and Scope 2 (the solid line columns in the graph for fiscal 2018). Consequently, CO2 emissions* from business activities for the NTT Communications Group totaled 242,000 t-CO2. If we compare power consumption in fiscal 2018 was 752.9 million kWh, up 0.4% due to a slight increase in telecommunications buildings and server rooms in our data centers but roughly in line with the target of 749.6 million kWh.

CO2 emissions per unit of sales were 0.17 t-CO2/millions of yen.

In fiscal 2019, the NTT Communications Group will work together and continue to reduce CO2 emissions through ongoing energy-saving activities, research and development of technologies, and implementing new measures including energy saving rules. It has set a target for reducing CO2 emissions by 1% from fiscal 2018 to 240,000 t-CO2 or below.

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

*CO2 emissions were calculated using emission factors obtained from electric power companies.
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 introduce the latest equipment and technologies with the aim of reducing the carbon footprint of our data centers.

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

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

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 work on more finely tuned air-conditioning power management. This includes calculating the power usage effectiveness of each room to improve low-efficiency rooms by implementing thorough airflow improvement, temperature adjustments, and air-conditioning shutdown initiatives. We will also pursue air-conditioning controls that take into account outdoor and indoor temperatures that vary with each season and time of day, such as temporarily adjusting temperatures and shutting down air-conditioning at night and during winter as well as reducing daytime power consumption by using night-time electricity to cool the rooms.

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. Now with four system units in operation, we generated approximately 367,000 kWh of electricity in fiscal 2018. The power generated is used to light the building’s communal areas.

In the years to come, we will continue to promote the use of environmentally sound renewable energy.
Overall Amounts of Electricity Generated by Solar Panels at Data Centers

<table>
<thead>
<tr>
<th></th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>kWh</td>
<td>377,689</td>
<td>372,069</td>
<td>367,108</td>
</tr>
</tbody>
</table>

Solar panels installed at the Tokyo No. 5 Data Center

Office Initiatives

Fiscal 2018 Results and Plans for Fiscal 2019

Drastic measures are being called for in the form of office initiatives to cut electricity use, while considerations are being made to place a limit on initiatives for communications facilities such as data centers and telecommunications buildings that require a certain amount of continuous power supply to provide their services.

In fiscal 2018, and based on our new calculation method, CO2 emissions amounted to 21,000 t-CO2 as a result of our energy-saving measures, which were not as tight as those implemented in the period following the Great East Japan Earthquake. If we compare power consumption based on the previous calculation method as an indicator of progress in our energy conservation efforts, compared to the target of 40.4 million kWh, actual power consumption by offices in fiscal 2018 was 41.7 million kWh, up 3.2%, which was mainly due to the heatwave that began in July 2018. From fiscal 2019 onward, we will implement energy-saving measures that take into account comfortable working environments as well as work efficiency. We are targeting emissions not exceeding 22,000 t-CO2, by revising our energy saving rule and by expanding the use of thin-client computers.

In addition to summer and winter energy-saving measures, the NTT Communications Group implements ongoing electricity-saving measures throughout the year, including the use of energy-saving settings on computers, reducing the number of lights in elevators and our operations, and adjusting air-conditioner settings, and we are striving to reduce our energy consumption in Japan.

During the summer months, the Group targeted a reduction of electricity consumption at its office buildings of 30% from the fiscal 2010 level. Some of the main initiatives taken by the Group to achieve that target were: maintaining higher air-conditioner settings (at 28°C in the summer), cutting back on the number of lights used, reviewing the dress code, and switching off office equipment when leaving the office. Thanks largely to these endeavors, in fiscal 2018, the Group achieved a reduction in total electricity consumption of approximately 27.3% at its three principal buildings in Hibiya, Shiodome, and Tamachi. We also implemented similar energy-saving measures in winter such as setting air-conditioners to 20°C.

Average Electric Consumption in Office Buildings from June to September

<table>
<thead>
<tr>
<th></th>
<th>FY2010</th>
<th>FY2017</th>
<th>FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>kWh</td>
<td>8.66</td>
<td>6.13</td>
<td>6.15</td>
</tr>
<tr>
<td></td>
<td>6.29</td>
<td>3.16</td>
<td>3.16</td>
</tr>
<tr>
<td></td>
<td>4.77</td>
<td>1.78</td>
<td>1.75</td>
</tr>
<tr>
<td></td>
<td>1.24</td>
<td>3.24</td>
<td>3.24</td>
</tr>
</tbody>
</table>
Promoting the Use of the Company’s Internal Cloud

NTT Communications maintains many internal systems for delivering services to customers. Migrating and integrating these systems with internal ICT infrastructures through a private cloud using server virtualization brings down energy consumption and other environmental impacts. With these environmental considerations, we promote the use of an internal cloud platform and, as a result, over two-thirds of the internal system now operates on the internal ICT platform. Looking ahead, we plan to continue migrating and integrating our internal ICT infrastructure and work on reducing environmental impact.

Fiscal 2018 Results and Fiscal 2019 Outlook

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

In fiscal 2018, we worked to reduce the amount of paper by digitalizing sales tools and manuals as well as by expanding web-based applications. Despite these efforts, transportation increased by 7.2% year on year to 386,000 tonne-kilometers. In fiscal 2019, we will continue our efforts to reduce transportation volume by digitalizing internal tools and brochures as well as promoting the use of Web-based application systems.

Reducing Fuel Use by Company Vehicles

To help solve pollution problems and contribute to the realization of a low-carbon society, we have devised measures to introduce environmentally friendly vehicles and are seeking to reduce the amount of fuel used by Company vehicles across the entire Group.

We are currently reviewing the number of our sales vehicles and steadily promoting eco-driving and other measures. As a result, gasoline and diesel consumption by Company vehicles in fiscal 2018 totaled 121,000 liters and 8,000 liters, respectively. Compared to the previous fiscal year, these figures represent a decrease of about 54,000 liters (approximately 29.5%). We will continue to use environmentally friendly Company vehicles based on our Eco-car Introduction Policy.
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)

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, CO₂, 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 CO₂ 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.

Fiscal 2018 Results and Fiscal 2019 Outlook

We are aiming to contribute to realizing a low carbon society by reducing the Company's carbon footprint and expanding services that help reduce carbon emissions. To this end, we believe that developing technologies that are ahead of the times and providing state-of-the-art services that utilize such technologies are important factors. Following this idea as an ICT solutions company, we will continue to create services that reduce environmental impact and generate a host of technical innovations that contribute to a future in which people and the Earth exist in harmony. In fiscal 2018, we conducted an environmental assessment of Nexcenter facilities, expanded sales of cloud services and data center services, and contributed to a reduction in the environmental impact on society.

In fiscal 2019, we will continue to proactively develop solutions and services that effectively reduce our carbon footprint while seeking to raise the profile of the Environmental Solutions Label System so that we are recognized as a company which contributes to the reduction of CO₂ emissions.
Acquisition of the Eco ICT Logo

We conducted a self-assessment of our CO2 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 CO2 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 8.1 was published in January 2019. 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 Industry Consortium (designated nonprofit organization).

For more information on the Eco ICT Logo, see:

For more information on the self-assessment checklist, see:
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 reuse and recycling ratios 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 aspects of our business.

Main Achievements in Fiscal 2018 and Goals for the Coming Years

In fiscal 2018, the final disposal of waste from dismantled telecommunications equipment amounted to 0.3 tonnes, construction waste to 187.1 tonnes, and office waste to 31.5 tonnes. The total volume of final waste disposal decreased by 2.0 tonnes, compared to the previous fiscal year, to 218.9 tonnes, while the total volume of waste generated decreased by 14,989.0 tonnes to 11,149.8 tonnes due to decreased construction work of wireless relay stations. Going forward, we will thoroughly implement the 3Rs (reduce, reuse, and recycle) in our business activities.

Primary Concept

In order to contribute to the realization of a recycling-oriented society, we are pursuing the creation of a low environmental impact business model in addition to our daily efforts to improve the reuse and recycling ratios. Specifically, we organize working groups in the three areas of dismantled telecommunications equipment, construction waste, and office waste, and we are cooperating with other NTT Group companies in the promotion of waste reduction and reuse and recycling in various aspects of our business. In addition to our internal efforts, we are also leveraging our knowledge, technologies, and knowhow to contribute to the creation of a recycling-oriented society.
Initiatives to Improve the Final Disposal 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 ratios, and since fiscal 2013 we have been accelerating our efforts for the measures to improve the final disposal ratio.

We select seven or eight buildings each year to implement the measures and then conduct detailed on-site surveys including confirmation of the disposal workflows and interviews with the disposal companies. Based on this, we may change the disposal methods and the companies. As a result, the final office waste disposal ratio, which was 6.1% in fiscal 2013, has been reduced to 1.4%, as of fiscal 2018.

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.

Specificially, we encourage reduction efforts that include curbing the use of paper and increasing the rate of double-sided printing by using printing log data from IC card multifunction printers. Initiative status data per individual and section are collected and disclosed to all employees on a monthly basis. As a result of having continued to encourage the digitization of paper documents and paperless meetings that make use of projectors and tablets, in fiscal 2018 paper consumed per full-time employee (converted to A4-size office paper) was 4,224 sheets, which was less than the previous year.

Total Office Waste and Final Disposal Ratio

Scope: NTT Communications Corporation and 13 Group companies in Japan
Figures are adjusted retroactively to increase accuracy.

Total and Per-employee Office Paper Use

Scope: NTT Communications Corporation and 13 Group companies in Japan
Figures are adjusted retroactively to increase accuracy.

Building Business Models with Low Environmental Impact

Thorough Implementation of the 3Rs in Office Buildings

NTT Communications Corp.
**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 progress check of efforts, identify issues, and promote improvements across the Group as a whole, including at overseas bases.

**Primary Concept**

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

**Biodiversity Action Plan**

1. **Basic Policy: in Compliance with the NTT Group Biodiversity “Approach Concept” Established by the NTT Group**
   - Development Centered on Business Activities
     - The Group recognizes that all activity is inextricably linked to the planet and to biodiversity, understands that the scope and impact at home and overseas are related depending on the nature of a business, and promotes initiatives that are recognized as having a preservation effect.
   - Development Centered on Contribution to Society
     - In partnership with its stakeholders, the Group widely promotes initiatives toward the preservation of biodiversity, regardless of their relevance to its business.

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

**Main Achievements in Fiscal 2018 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 2019, 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.
In constructing its subsea communications cable network, NTT Communications' fundamental policy is to prevent marine pollution. We are signatories to treaties on the prevention of marine pollution and, in addition to complying with environmental legislation, undertake initiatives that place importance on coexistence with marine organisms and the fisheries industry. Group company NTT World Engineering Marine Inc., which handles the laying, burying, and maintenance of subsea cables, develops business with a strong awareness of the need to preserve marine environments.

Assessing Biodiversity

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

Reducing Environmental Impact from the Laying of 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, in shallow sea areas we give consideration to the preservation of the marine environment such as by deciding on cable-laying routes that avoid coral reefs and other inhabited areas.

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

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

> Upon the Construction and Dismantling of Relay Stations

Wireless relay stations, the backbone of data communication networks, are often in areas rich with nature such as on hills and islands. And so we emphasize consideration for biodiversity in their operations. As of March 31, 2019, 12 of our 51 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 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.

> Contributing through Products and Services

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

- Chinese sparrow hawk migration

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

“goo Green Label” Activities

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

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

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

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 2018 and Goals for the Coming Years

In fiscal 2018, we continued our initiative to review the number of vehicles owned, introduced low-emission vehicles, and promoted eco-driving. As a result of reducing the number of cars by about 14% year on year, we succeeded in decreasing CO2 emissions by 30%. These initiatives led to a remarkable achievement in reducing NOx emissions.

SOx emissions decreased by 41% as we expanded our efforts to reduce electricity consumption in air-conditioning and implement energy management at telecommunications and data center buildings. Going forward, we will plan new strategies to reduce electricity use and expand the implementation of our ongoing activities.

With regard to PCBs, we have disposed of low-concentration PCBs as planned. The remaining PCBs, in western Japan, will be properly stored until they are disposed of in fiscal 2019, scheduled in accordance with the operational status of the waste disposal facility.
Preventing Air Pollution

Our business activities produce NOx and SOx emissions, which cause air pollution. 69% of the NOx emissions are attributable to the use of gasoline and diesel in our operational vehicles, while the remaining 31% are emitted as a result of electric power generation at communications buildings and other facilities. Most SOx (87%) is emitted during the generation of electricity that we use. In fiscal 2018, NOx and SOx emissions were 226 tonnes (a year-on-year decrease of 19%) and 26 tonnes (a year-on-year decrease of 41%), respectively, as a result of a decline in electricity use. We will continue to promote eco-driving and review our vehicle fleet numbers while making efforts to reduce electricity use in our operations toward contributing to the mitigation of global warming and prevention of air pollution.

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 2018 was approximately 143 tonnes, roughly the same as in the previous fiscal year. Meanwhile, the volume of specified chlorofluorocarbons (CFCs) used in our air-conditioning equipment in fiscal 2018 was up by around 6 tonnes from the preceding fiscal year, to approximately 283 tonnes.
Addressing Asbestos Concerns

Asbestos remediation for buildings and offices involved the implementation of airborne asbestos surveys of buildings for which asbestos had been spray-applied in order to confirm that levels did not exceed statutory limits, revised in September 2006. There were no asbestos emissions in fiscal 2018. 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 PCB

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

With regard to high-concentration PCB currently stored in Hyogo and Hiroshima prefectures, we are coordinating plans with waste disposal companies to commence detoxification processing in fiscal 2019.
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.

**Cases of Major Leakage**

There were no incidents involving major leakages in the NTT Communications Group in fiscal 2018.

**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. The remaining waste in Osaka will be detoxified in fiscal 2019.
In accordance with its Fundamental CSR Policy, the NTT Communications Group respects employee diversity and strives to create workplace environments that champion self-fulfillment. Realizing workplaces with high professional awareness and also fair workplaces in which personnel maintain a mutual respect for diversity naturally requires developing employee self-initiative and building structures to encourage independent thinking. Following these concepts, we have positioned the Groupwide initiatives to be addressed as core measures and are promoting ongoing improvements. These include the fair treatment of personnel and the development of training systems, the creation of workplaces where diversity is respected, and the upgrading of measures designed to maintain and enhance employee health.

Our Ambition

A society where everyone acknowledges and lifts each other higher
- A society where diversity is respected in terms of individuality, attributes and beliefs
- A society where people can use their abilities to the fullest
In fiscal 2018, we were able to achieve or almost achieve our targets. In fiscal 2019, in light of the results of respective activities, we intend to take further action as a corporate group that pursues ever-greater emphasis on respect for diversity and the vitality of human resources.
## CSR Priority Activities

<table>
<thead>
<tr>
<th>Activities</th>
<th>Initiatives</th>
<th>Medium-Term Targets (From What We Want to Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2018 Activity Results</th>
<th>Quantitative Results</th>
<th>Self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employment and promotion of diverse human resources</strong></td>
<td>• Foster female employees and support measures to improve the ratio of women in managerial positions.</td>
<td>• Further promotion of activities and improvements in workplaces with disabilities.</td>
<td>• Continue department level and diverse Group company level activities that involve discussions with female managers to influence and improve employee career-mindedness.</td>
<td>• Held Open-Cafe events for presenting role models for new female employees through panel discussions involving senior female employees and group discussions.</td>
<td>• Held seminars for employees about taking care of disabled employees attending by female employees and supervisors to provide information on career design methods and encourage active communication with supervisors.</td>
<td>• Held seminars for employees providing nursing care to support balancing nursing care and careers.</td>
</tr>
<tr>
<td></td>
<td>• Promote seconding employees to new companies and also accepting such employees; plan to send 30 seconding employees.</td>
<td>• Promote seconding employees to new companies and accept 15 seconding employees.</td>
<td>• As destinations for secondment, created more points that contribute to developing human resources in areas that are essential to future business, such as managed services and security.</td>
<td>• Offered opportunities for practical training prior to employment for persons with disabilities.</td>
<td>• Offered opportunities for practical training prior to employment for persons with disabilities.</td>
<td>• Offered support for building networks among female employees, including the promotion of digital transformation (DX), by accelerating work style reform based on the introduction of example of work style reform using various tools.</td>
</tr>
</tbody>
</table>

### Fiscal 2019 Targets

- **Scope**: Activities and targets of NTT Communications Group

- **SDGs**: Further improvements, including the promotion of digital transformation (DX), by accelerating work style reform based on the integration of systems, tools, and processes.

- **Activities**: 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.

- **Within the organization**: To promote the hiring of people with disabilities; maintain the ratio at 2.2% or higher.

### Message from the President & CEO

**Continuous Strengthening of Respect for Human Resources**

- **Contributions to Society**
  - Received the Award for Excellence in the 19th Japan Telework Association (February 2019)
  - 95% of employees said they intend to continue using the terminal to all employees.
  - Positive response from a user survey: Due to widespread acceptance of remote working, the number of employees working from home rose from 26% to 42.1% of all employees.
  - Positive response from employees regarding work-life balance improvements in employee work-life balance.
  - Positive response from employees regarding work-life balance improvements in employee work-life balance.

- **Contributions to the Global Environment**
  - Further improve productivity, including the promotion of digital transformation (DX), by accelerating work style reform based on the integration of systems, tools, and processes.

- **Respect for Human Resources**
  - More than 90% of employees said they intend to continue using the terminal to all employees.
  - Positive response from employees regarding work-life balance improvements in employee work-life balance.
  - Positive response from employees regarding work-life balance improvements in employee work-life balance.

- **SDGs**: Further improvements, including the promotion of digital transformation (DX), by accelerating work style reform based on the integration of systems, tools, and processes.
Our Approach

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

Specifically, we conduct skill level checks annually for all employees, encourage them to acquire public certifications, and offer an extensive range of training options so that they can be the most appropriate ones for their development needs. As of April 2018, NTT Communications offers 784 skills enhancement courses, 192 skills enhancement support courses (such as distance learning), and 101 personal development support courses. Looking ahead, we plan to further strengthen our career development options to reflect the digital transformation of business.

Primary Concept

Customer needs are becoming more diverse, sophisticated, and complex, and the pace of transition into new businesses and new consumption models is accelerating. Given these changes in the operating environment and customer needs, NTT Communications is investing in developing its frontline professionals to be more globally competitive. Specifically, we have established nine specialized categories for our professional human resources. For each category, we have identified necessary skill standards from both internal and external perspectives, including applied expertise, experience and skills, ability to communicate with employees on-site, and specialization. In this way, we help each employee to become an expert in their specialized category. We flexibly revise these specialized categories and the skill standards on an ongoing basis while also taking into account changes in the market and evolving operational strategies.

Main Achievements in Fiscal 2018 and Goals for the Coming Years

We offer expanded opportunities to enhance specialized skills, based on the career development plan (CDP) that aligned with our Professional Human Resource Development Program. Specifically, we conduct skill level checks annually for all employees, encourage them to acquire public certifications, and offer an extensive range of training options so that they can be the most appropriate ones for their development needs. As of April 2018, NTT Communications offers 784 skills enhancement courses, 192 skills enhancement support courses (such as distance learning), and 101 personal development support courses. Looking ahead, we plan to further strengthen our career development options to reflect the digital transformation of business.

<table>
<thead>
<tr>
<th>Main Categories</th>
<th>Units Monitoring Employee CDPs</th>
<th>Subcategories</th>
<th>Units Ascertaining Employee Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sales</td>
<td>• Corporate sales  • Partner sales  • Consumer and SME sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Service planning, marketing</td>
<td>• Collaboration  • Networks  • Cloud  • Applications  • Voice  • Security  • Managed ICT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Operational planning</td>
<td>• Changes  • Delivery  • SO  • Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Engineering</td>
<td>• Data centers  • Infrastructure networks  • IP networks  • Servers and storage  • Software development  • Applications  • Voice  • Security  • Intellectual property  • Data science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Service management, project management</td>
<td>• Infrastructure networks  • Software development  • Applications  • Voice  • Security  • Intellectual property  • Data science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. ICT consulting</td>
<td>• Business planning  • Labor and welfare  • Personnel  • Publicity  • General affairs  • Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Finance</td>
<td>• Management strategies  • Business planning  • Labor and welfare  • Personnel  • Publicity  • General affairs  • Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Legal affairs</td>
<td>• Management strategies  • Business planning  • Labor and welfare  • Personnel  • Publicity  • General affairs  • Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Staff</td>
<td>• Management strategies  • Business planning  • Labor and welfare  • Personnel  • Publicity  • General affairs  • Procurement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Education and Training Systems

We provide a range of training programs designed to improve employee skills and to encourage appropriate career paths. The new employee training program covers not only NTT Communications Group strategies and systems but also principle 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 develop their CDPs and gain hands-on knowledge and experience. At the same time, in discussions with their superiors they decide which training courses to take. The training menus are modified based on employee surveys and other considerations to make the content more practical and appropriate. Moreover, training options are constantly reviewed to ensure consistency with the overall training program. Average training cost and hours per employee were 63,000 yen and 22 hours.

Extension of Young Employee 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 2018, we sent 30 employees overseas through the program.

Internal Job Posting System

We have implemented an internal job posting system to provide motivated employees 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. Recently, we have particularly focused on leveraging the internal posting system for IoT- and AI-related positions.

In fiscal 2018, approximately 70 employees were assigned to departments of their choice within the NTT Communications Group and NTT Group. Looking ahead, we will continue to actively use the internal job posting system to facilitate career advancement and revitalize the organization. We also plan to create job postings in specific focus areas associated with achieving our business vision.
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. Under this system, it is crucially important to accurately assess employee willingness to take risks and act with a sense of urgency on behalf of customers as well as their level of performance against their goals. We therefore pay attention to execution and take action to ensure the process remains transparent and rational. 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 supervisors 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

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Number of employees</th>
<th>Ratio of females in managerial positions (%)</th>
<th>Turnover rate (%)</th>
<th>New employees (which are non-Japanese nationals)</th>
<th>Rehiring rate (%)</th>
<th>Ratio of employees with disabilities (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal 2014</td>
<td>6,500</td>
<td>4.3</td>
<td>2.4</td>
<td>219 (36)</td>
<td>43</td>
<td>2.1</td>
</tr>
<tr>
<td>Fiscal 2015</td>
<td>6,450</td>
<td>4.7</td>
<td>2.7</td>
<td>195 (22)</td>
<td>50</td>
<td>2.0</td>
</tr>
<tr>
<td>Fiscal 2016</td>
<td>6,350</td>
<td>4.8</td>
<td>3.4</td>
<td>201 (24)</td>
<td>47</td>
<td>1.9</td>
</tr>
<tr>
<td>Fiscal 2017</td>
<td>6,250</td>
<td>5.4</td>
<td>3.2</td>
<td>205 (16)</td>
<td>73 (120)</td>
<td>2.0</td>
</tr>
<tr>
<td>Fiscal 2018</td>
<td>6,150</td>
<td>6.1</td>
<td>4.1</td>
<td>257 (18)</td>
<td>67 (74)</td>
<td>2.2</td>
</tr>
</tbody>
</table>

* As of March 31 for each fiscal year.
*2 As of March 31 for each fiscal year. Scope: NTT Communications Corporation, including seconded employees.
*3 As of March 31 for each fiscal year. Scope: NTT Communications Corporation, excluding seconded employees.
*4 As of April 1 for each fiscal year. Scope: NTT Communications Corporation.
*5 As of June 1 of the following year for each fiscal year.
*6 NTT Communications Corporation and 9 domestic Group companies.
Enhancing Employee Motivation through the Digital Transformation Contest (DigiCom)

To expand its future horizons, the NTT Communications Group has always actively invited employees to submit ideas for new services. To this end, in August 2018 we held the fourth DigiCom, after having held the first in 2016. In addition to promoting digital transformation and innovations for work style reform, DigiCom is intended to nurture the mentality and corporate culture of challenge and bring fun to work. The qualifying and final rounds took place over a four-day period, and 653 participants from 96 teams enjoyed presenting and demonstrating their ideas. The grand prize was awarded to NTT Resonant’s “Warui Hito Mistukeeru (Spotting the Bad Guys)” in the digital transformation category and to NTTPC Communications’ “Committing to Results at Home – Personal Home Trainer” in the innovation category. Warui Hito Mistukeeru is a function that enables OCN Mobile ONE to detect forged identification documents using cloud-based face recognition technology and refuse subscription applications. The Personal Home Trainer is a service that allows users to correct their form while training at home.

Going forward, we will continue to work on initiatives that raise employee motivation while at the same time seeking ideas for new services.

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.
Respect for Diversity and Equal Opportunities

Our Approach

The NTT Communications Group focuses on creating workplaces that allow personnel with diverse backgrounds to work to the best of their ability, regardless of gender, sexual orientation or sexual identity, age, birthplace, nationality, or disability. We established the Diversity Promotion Office in April 2008, and our diversity-related initiatives have mainly focused on supporting career development for women and hiring people with disabilities as well as work-style reforms and establishing a shared understanding of diversity in the workplace. The general public has demonstrated particular interest in promoting active roles for women. For example, in Japan more advanced measures are being implemented through public-private partnerships based on the Act of Promotion of Women’s Participation and Advancement in the Workplace. On a global scale, corporations are expected to lead by example to achieve SDG 5 “Gender Equality.” To this end, we are taking steps to advance diversity in terms of nationality. In response, we have been working to expand the scope of Global Human Resource Management (GHRM) since 2010. In order for diversity to take root, top management shares department so that someone would be specifically responsible for driving GHRM-related initiatives together with offshore representatives. Diversity promotion is thus positioned as being essential for the sustainable development of business. In order for diversity to take root, top management shares diversity messages in and outside of the Group.

Primary Concept

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

Diversity Promotion

◆ Promotion of Diversity Fundamental Policy

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

◆ Diversity and Inclusion Trends

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

Main Achievements in Fiscal 2018 and Goals for the Coming Years

In fiscal 2018, we did not limit ourselves to just striving to boost the ratio of female employees in managerial positions. We recognize that in a few years the employee population at the veteran tier will increase. In addition, we need to face up to the reforms of businesses and the challenge of new growth fields in the next few years. We also need a new work style suitable for employees who are retired after retirement age. To address all these challenges, we have been building tailor-made careers for employees in their 50s 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.
Employing Women’s Participation and Advancement

To increase opportunities for engaging diverse human resources, the NTT Communications Group supports employees at various stages of their career development. In line with the NTT Group’s declaration to double the number of female managers in its organization, the Company also has set a goal of increasing its female manager ratio to 7.0% by the end of 2020 (compared to 6.1% at the end of 2018). It is actively hiring female employees to achieve this goal. As a result of supporting career development efforts that lead to more women in managerial positions and continuously implementing policies and measures that support female employees with young children, we received the highest order implementing policies and measures that support female employees with children, and their supervisors to encourage staff to take on greater responsibilities. In fiscal 2018, we organized seminars for female employees and their supervisors to talk about career advancement in the workplace as well as ways to encourage the active participation of female employees.

It is actively hiring female employees to achieve this goal. As a result of supporting career development efforts that lead to more women in managerial positions and continuously implementing policies and measures that support female employees with young children, we received the highest order implementing policies and measures that support female employees with children, and their supervisors to encourage staff to take on greater responsibilities. In fiscal 2018, we organized seminars for female employees and their supervisors to talk about career advancement in the workplace as well as ways to encourage the active participation of female employees.

As of June 1, 2019, the NTT Communication Group’s rate of employees with disabilities is 2.11% at the Group level. We also hire at the new graduate level as well as mid-career level through employment agencies. In addition, we have retention programs to ensure these employees stay with the Company. Employees are positioned and actively contributing in various parts of our organization including sales and engineering.

Alternative Career Designs

NTT Communications has established a continued employment system that allows employees reaching the mandatory retirement age of 60 to continue working, if they wish, until they reach 65. We recognize that in the next few years we will need to address reforms in existing businesses and the challenge of new growth fields. In addition, we will need a new work style suitable for employees who have been retired after their mandatory retirement age. Therefore, we have been working on building tailor-made careers for employees in their 50s to provide them with new challenges and opportunities to fully exercise their expertise and thereby allowing them to keep working and remain highly motivated.

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

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

NTT Com CHEO’s telecommuting contact center operates at a very high standard in terms of service level, service quality, and customer satisfaction. It has passed the audit for the COPCR Customer Experience Standard certification, an international standard for contact center operations, and became the first work-from-home contact center in the Asia-Pacific region to obtain certification. Moving forward, we will continue to focus on initiatives that encourage the adoption of teleworking and in turn create a society in which everyone with motivation and the ability to work is able to do so.

For more information on NTT Com CHEO’s initiatives on telework, see: https://www.nttcheo.com/corporate/telework/ (Japanese Only)
Recruiting Global Human Resources

Taking into consideration the rapid and dynamic changes in its operating environment, the NTT Communications Group established Vision 2020, a medium-term policy that focuses on faster business development. The Group is striving to strengthen its human resources to achieve this vision by actively hiring diverse, capable employees who can contribute to bolstering the Group’s competitiveness and its globalization. Specifically, we are hiring overseas students and Japanese nationals who have graduated from universities outside Japan to recruit diverse talent from across the world.

Global Human Resource Management (GHRM) Initiatives

Diversity management is attracting attention as a way to leverage the various benefits of a diverse workforce in business management. We expect all Group companies to work on GHRM as a unit with “Global One Team” as our key message to create an environment in which global resources can excel. In the long-term secondment program that started in fiscal 2009, a total of 22 locally hired overseas employees have been seconded to the head office and are promoting global business in Japan. In fiscal 2004, we introduced a program to bring mid-career employees from overseas subsidiaries to work at the head office for six months. These programs facilitate the leveraging and sharing of the skills and expertise of overseas employees at the head office, and these interactions promote the realization of the Global One Team. In fiscal 2018, NTT Communications expanded its mutual exchanges of resources with overseas subsidiaries. Continuing from the previous fiscal year, we conducted training in international communication and pre-assignments. In addition, eligibility for secondment assignments in various regions of Asia, Europe, North America, and South America was extended to young employees in July 2011. This was done to expose employees with less than five years tenure in the Company with genuine hands-on experiences at an overseas location and to develop them more rapidly as globally competitive resources.

In the coming years, we will continue to expand GHRM initiatives through the development and assignment of managers at overseas subsidiaries who are capable of leading global business for the entire Group as well as through the promotion of global human resource exchanges.

Initiatives for LGBT Issues

We are actively nurturing awareness of LGBT and other sexual minorities across our organization and implementing policies to support them.

To ensure an accurate understanding of LGBT and related issues, we have included these topics in our standard human rights training curriculum, which targets all employees. In addition to raising awareness, we are developing an environment in which individuals who identify as LGBT can engage in their work with a sense of security: In fiscal 2018, we organized an “LGBT Seminar (Ally Café)” to promote understanding of LGBT issues and to seek allies in the workplace. “Ally” stickers were distributed to those who declared their support for LGBT, and these were displayed on computers and in other places as a sign of support.

Furthermore, we have implemented a helpdesk where employees can discuss their sexual orientation, sexual identity, and other related matters. In November 2016, we began applying life-event-related benefits, such as special leave, condolence, and congratulation money, 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 2018, we were awarded the Gold rating, the highest in its PRIDE Index, for the third consecutive year since 2016.
**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 health.

**Primary Concept**

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

In fiscal 2018, we sought to promote the use of remote working systems, including flextime and teleworking, which had been introduced across the Group in the previous fiscal year. With particular respect to remote working, we accelerated the pace of employee use of the system by actively participating in the Telework Days national campaign, spearheaded by Japan’s Ministry of Internal Affairs and Communication to promote teleworking as part of the government’s work style reforms. We also developed initiatives to raise awareness of efforts to encourage leaving work at standard times by such measures as designating promotional months, early planning of annual leaves, and periodic distribution of e-mail newsletters that feature improving work efficiency and communications.

In fiscal 2018, in our “respect for work-life balance” pillar, we focused on realizing work styles that are more efficient and productive. As a result, we achieved a certain level of success compared to the previous year, such as a decrease in overtime work during August and November, the designated months for encouraging employees to leave work at regular times.

As for our “thorough implementation of occupational safety and health” pillar, we focused on reducing the number of workplace accidents. We endeavored to raise awareness of workplace accidents and promoted preventive measures. The five workplace accidents reported this year were essentially at the same level as last year (four incidents). Combined with a health checkup rate of 99.9%, 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.

In fiscal 2019, we continued to focus on realizing work styles that are more efficient and productive while also ensuring that duties are carried out effectively and thoroughly. We also continued to promote the use of remote working systems, including flextime and teleworking, which had been introduced across the Group in the previous fiscal year. We accelerated the pace of employee use of the system by actively participating in the Telework Days national campaign, spearheaded by Japan’s Ministry of Internal Affairs and Communication to promote teleworking as part of the government’s work style reforms. We also developed initiatives to raise awareness of efforts to encourage leaving work at standard times by such measures as designating promotional months, early planning of annual leaves, and periodic distribution of e-mail newsletters that feature improving work efficiency and communications.
**NTT Communications Corporation CSR Report 2019**

**Expanded Version**

**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 Children¹ and, as a result we were designated as a certified business operator by the Tokyo Bureau of the Ministry of Health, Labour and Welfare in fiscal 2008, 2011, 2015, and 2017. We are currently working on our Fifth Action Plan (April 1, 2017 through March 31, 2022) and enhancing our work environments so they become places where every employee can excel with a sense of personal satisfaction and diverse work styles are mutually accepted and understood. These efforts have been externally recognized, and as a result we received Platinum Kurumin certification in October 2017. In May 2016, NTT Communications received the Class 3 (highest class until the regulatory revision in 2019) certification among the certifications granted by the Minister of Health, Labour and Welfare based on the Act of Promotion of Women’s Participation and Advancement in the Workplace². This certification is granted to corporations that demonstrate outstanding efforts in promoting women’s participation in the workplace. We received it due to a variety of efforts and achievements, including the implementation of policies that enable women to continue working after childbirth, initiatives supporting a sound work-life balance, career development support for women, a high female hiring rate, an extensive range of career path options, and the active promotion of women into managerial positions.

¹ This act was established to encourage actions to support raising next-generation children. Its initiatives are not completely led by the government; companies with more than 100 employees are obligated to draw up action plans that support employees who are raising young children. Certified companies are entitled to use the Kurumin and Platinum Kurumin logos.

² In light of a rapidly decreasing population and anticipated shortages in the working population, this act was established to promote women’s participation in the workplace. It is intended to create an environment in which women can choose how they work, demonstrate their abilities, and succeed in their working lives. Companies with more than 101 employees are obligated to draw up action plans that promote the active participation of their female employees. Certified companies are entitled to use the Eruboshi logo.

**Number of Employees Who Took Maternity, Childcare, or Nursing-care Leave**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Maternity Leave</th>
<th>Childcare Leave</th>
<th>Nursing-care Leave</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>83</td>
<td>104</td>
<td>5</td>
</tr>
<tr>
<td>2015</td>
<td>76</td>
<td>154</td>
<td>3</td>
</tr>
<tr>
<td>2016</td>
<td>74</td>
<td>152</td>
<td>3</td>
</tr>
<tr>
<td>2017</td>
<td>84</td>
<td>89</td>
<td>4</td>
</tr>
<tr>
<td>2018</td>
<td>63</td>
<td>173</td>
<td>4</td>
</tr>
</tbody>
</table>

**Promotion of Work Style Reform**

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

For policies and rules, we sought to introduce flexible systems that cater to individual circumstances and operations. These include the abolition of rules limiting eligibility for teleworking, which is intended to support balancing work and family needs, and remote working, which enables the effective use of time. We also shared examples of employees using these and the flextime system. In the environment and tools area, we rolled out secure computers throughout the Company in addition to thin clients and BYOD (bring your own device)* that had been introduced in fiscal 2018 to enable speedy startup of computers and realize a working environment using fat terminals that are unaffected by the network environment. Looking ahead, we will continue to pursue automation and higher efficiency based on digital transformation (DX). For the area of awareness and culture, we are disseminating information intended to encourage employees to take long annual leaves and days off in between holidays and also sharing best practices with all staff.

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

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

* A policy under which employees are permitted to use their personal mobile devices at work.
Promotion of Diverse Work Styles and Increasing Productivity

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

Increasing the productivity of our business operations will lead to improving the balance between work and life for our employees, and we want to cultivate a work culture in which they can perform and maintain their health. We will continue to drive our work style reform toward that goal.

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 a wealth of benefit options (39 options in fiscal 2018) based on their individual lifestyle.

We also revised the options to emphasize maintaining and boosting health, with specific focus on: (1) expanding items covered by health checkups; (2) creating a packaged benefits service; and (3) setting up a helpdesk for consultations on in-house systems, health issues, childcare, nursing care, and other issues. We will continue developing this system and an even more employee-friendly menu.

Encouraging Employees to Take Various Leaves

As part of its work-life balance initiatives, NTT Communications encourages employees to take their entitled leaves. We strive to establish work environments that support them by raising awareness of entitled leaves and encouraging them to schedule their leaves to coincide with long national holidays. In fiscal 2018, 17.2 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.
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. We conduct seminars for employees to raise their awareness of healthy working lives. In addition, our welfare program, which previously operated under different policies for permanent and nonpermanent employees, was updated in May 2018 to integrate our policies for all employees. We used the opportunity to disseminate a message across the entire Group to promote health management. In the area of improving our health checkup rate, the list of employees who have not yet received health checkups is reviewed, and they are encouraged to follow through to receive checkups. As one strategy for managing mental health in each workplace, 141 employees took the "mental health keeper" training course, bringing the total number of those certified to 3,076 in fiscal 2018.

We offer counseling on an ongoing basis as well as other types of support for high-risk employees based on reports issued by Japan's Ministry of Health, Labour and Welfare (492 participants in fiscal 2018). Other measures for further expanding our support include setting up consultation desks, both inside and outside the organization, as well as counseling programs for employees who are being sent on overseas assignment. Also, our new Employee Assistant Program (EAP) and follow-up programs were set up for mid-career hires.

In recognition of our efforts to promote health management measures, in February 2019 we were designated as an outstanding enterprise under the “White 500” Recognition for Excellence in Health and Productivity Management for Fiscal 2019 by the Ministry of Economy, Trade and Industry (METI) and Nippon Kenko Kaigi for the second consecutive year. In the coming years, we will continue to implement measures across all Group companies in Japan toward maintaining healthy and comfortable work environments and further strengthening the capability or those providing mental health care at each workplace.

◆ Health and Productivity Management Certification (White 500) logo

健康経営優良法人 2019
ホワイト500
continuous strengthening of corporate governance

message from the president & ceo

contents

company information

ntt communications csr

contributions to society

contributions to the global environment

respect for human resources

continuous strengthening of corporate governance

fiscal 2018 activity results and fiscal 2019 targets

continuous strengthening of corporate governance governance

thorough compliance

respect for human rights

risk management

ensuring information security

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

our ambition

a society built on coexistence and mutual trust between stakeholders and companies

◆ a society where corporate actions are closely aligned with laws, regulations, and ethics
◆ a society that benefits from corporate activities and daily dialogue with stakeholders

targeted sdgs

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

our ambition

a society built on coexistence and mutual trust between stakeholders and companies

◆ a society where corporate actions are closely aligned with laws, regulations, and ethics
◆ a society that benefits from corporate activities and daily dialogue with stakeholders

targeted sdgs
Continuous Strengthening of Corporate Governance | Fiscal 2018 Activity Results and Fiscal 2019 Targets

Fiscal 2018 Activity Results and Fiscal 2019 Targets

Following an external reassessment of the materiality conducted from fiscal 2015 to fiscal 2016, we reviewed the range of activities toward achieving the “Continuous Strengthening of Corporate Governance,” one of our CSR Priority Areas. We have focused on improvements to accommodate the business environment and social needs, which have changed since the CSR Priority Areas were originally determined, including advancing ICT throughout society and implementing supply chain management. The CSR Priority Activities for action have accordingly become even more diverse, ranging from compliance and respect for human rights to information security. In fiscal 2018, we attained all our targets, and we intend to incorporate the results into developing our initiatives further in fiscal 2019 on a Groupwide basis.

Actions Implemented in Line with CSR KPIs

Fiscal 2018 Activity Results and Fiscal 2019 Targets

<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Initiatives</th>
<th>Medium-term Targets (Projected to Take Effect in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2018 Activity Results</th>
<th>Fiscal 2019 Targets</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Strengthening of Corporate Governance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within the organization</td>
<td></td>
</tr>
<tr>
<td>Through Compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race awareness and establish compliance throughout the Group</td>
<td>Becoming a company that promotes corporate ethics, including compliance with laws, social norms, and internal rules</td>
<td>Deliver executive messages on corporate ethics from members of top management to all employees; issue an e-magazine on compliance for all employees; conduct job level-based training sessions, including compliance seminars for senior executives; compliance training for all full-time and temporary employees, new employee training, and other risk-based training; enhance corporate ethics training materials for NTT Communications Group companies; seek entries for slogans on human rights and compliance</td>
<td>Delivered an executive message on corporate ethics from the president and head of the Compliance Committee to all employees; periodically published a legal affairs column in the online journal to raise awareness of compliance; shared initiatives on compliance at the conference of Group company presidents and conducted job level-based training sessions, including compliance training for all full-time and temporary employees, new employee training, and other risk-based training; enhanced corporate ethics training materials for NTT Communications Group companies; sought entries for slogans on human rights and compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thorough Compliance

Appropriate prevention and response to violations and misconduct

- Maintaining and operating various points of contact that consultants and whistleblowers can safely approach as needed
- Ensuring thorough communication for individuals who report incidents
- Points to provide an appropriate and adequate response to consultations and report on diverse issues, and support consultations in languages other than Japanese
- NTT Group Corporate Ethics Help Line set up at a law firm
- NTT Communications Compliance Hotline
- Compliance hotline set up at NTT Communications Group companies
- Workplace Problem Consultation Helpdesk that receives consultations on workplace-related issues
- Human Rights Consultation Helpdesk
- Conducting training for staff in charge of promoting compliance
- Strengthening audits to facilitate the discovery and prevention of illegal activity
- Incorporate CAAT (Computer Assisted Audit Techniques) into analysis as part of internal auditing, begun full-scale deployment, and expanded the scope of companies covered

- Maintained and operated various points of contact to provide an appropriate and adequate response to consultations and report on diverse issues, and support consultations in languages other than Japanese
- NTT Group Corporate Ethics Help Line set up at a law firm
- NTT Communications Compliance Hotline
- Compliance hotline set up at NTT Communications Group companies
- Workplace Problem Consultation Helpdesk that receives consultations on workplace-related issues
- Human Rights Consultation Helpdesk
- Conducting training for staff in charge of promoting compliance

Number of consultations concerning the NTT Communications Group received by contact points in fiscal 2018: 106

Number of consultations concerning the NTT Communications Group received by contact points in fiscal 2018: 106

• Strengthen functions for following up on individuals who report incidents and individuals targeted in reports to make regular improvements
• Pursue open and highly interactive initiatives to raise the visibility of points of contact for internal reporting so that employees as well as others can consult with a sense of security
• Continue to develop a platform (system) for operating points of contact for internal reporting
• Consider obtaining the whistleblowing compliance management system certification
### Continuous Strengthening of Corporate Governance | Fiscal 2018 Activity Results and Fiscal 2019 Targets

#### CSR Priority Activities

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Medium-term Targets (Farm We Want To Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2019 Targets</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respect for Human Rights</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect awareness and establish respect for human rights throughout the Group</td>
<td>Understand issues related to human rights awareness at NTT Communications and domestic Group companies as well as overseas Group companies to strengthen initiatives for raising human rights awareness as a global enterprise</td>
<td>Strengthen initiatives on human rights due diligence, including identifying priority regional/human rights issues for overseas Group companies and considering and implementing action plans.</td>
<td>Carried out a manifest human rights impact assessment at an overseas affiliate that requires priority attention with regard to potential risks described in fiscal 2017 and identified the company’s human rights issues (risks).</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appropriate prevention and response to human rights abuses</strong></td>
<td>Create a Companywide consultation and reporting mechanism capable of preventing and responding to human rights abuses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Promotion and stringent practice of respect for human rights through contents and services</strong></td>
<td>• Contribute to raising human rights awareness in society by utilizing SBT • Thoroughly eliminate elements from contents and services that appear to encourage human rights abuses</td>
<td>Protect children’s human rights by maintaining access restrictions for goo, plala, and OCN services based on a list of child pornography website addresses provided by the ICSA.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Continuous upgrades and management structure for risk management</strong></td>
<td>• Business risks: Develop a domestic and overseas management structure that enable consistently appropriate responses to environmental and social risk elements such as climate change and scarcity of resources, in addition to economic risk elements. • Crisis risks: Develop BOP measures for promptly responding to pandemics and natural disasters.</td>
<td>• Crisis risks: Considered and implemented measures for the 3 priority risks of human resources, B2C, and press relations, as designated by the Business Risk Management Committee.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Respect for Human Rights</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributions to the Global Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributions to Society</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous Strengthening of Corporate Governance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiscal 2018 Activity Results and Fiscal 2019 Targets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous Strengthening of Corporate Governance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thorough Compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect for Human Rights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensuring Information Security</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Achievement levels based on self-assessment
- ★★★: Target achieved
- ★★★: Target almost achieved
- ★★: Target partially achieved
### Continuous Strengthening of Corporate Governance | Fiscal 2018 Activity Results and Fiscal 2019 Targets

<table>
<thead>
<tr>
<th>CSR Priority Activities</th>
<th>Initiatives</th>
<th>Medium-term Targets (Farm We Want To Take in Five Years)</th>
<th>Fiscal 2018 Targets</th>
<th>Fiscal 2018 Activity Results</th>
<th>Fiscal 2019 Targets</th>
<th>Scope</th>
<th>SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring Information Security</td>
<td>Deploy various measures to strengthen security management based on collaboration with domestic Group companies as well as overseas Group companies.</td>
<td>• Strengthen security management in collaboration with domestic Group companies to raise competitiveness. • Aim for Companywide deployment of internal inspections based on standards for system audits and information security audits, and conduct that operations related to service fees. • Strengthen process management to ensure the safe handling of confidential information, including personal information. • Conduct Companywide security training to raise awareness and limit occurrences of security incidents (attendance: 100%). • Improve and strengthen security measures at each Group company based on security survey results. • Bolster collaboration regarding responses to security incidents, including cyberattacks.</td>
<td>• Conducted internal inspections based on standards for system audits and information security audits in the First Sales Division, System Division, and Customer Services Division. • Conducted Companywide security training (from November 2018 to the end of March 2019)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of Security Specialists</td>
<td>Develop security training to raise individual skills required for responding to security issues, such as IT professionals. Fiscal 2020 targets: more than 2,400 people (Advanced level: several people; Intermediate level: 1,900; Elementary level: 500 people).</td>
<td>• Develop personnel who provide support to stationary daily operations (expand the scope and upgrade no skills: Elementary level. Intermediate level: develop personnel to support major events in 2020.</td>
<td>• Expanded the scope of activities by organizing NTT Communications CTF contests and concurrent study sessions. • Conducted special training for major events in 2020.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Management of Personal Information</td>
<td>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.</td>
<td>• Compliance with the European Union’s General Data Protection Regulations (GDPR). • Upgrade PrivacyMark.</td>
<td>• Compliance with GDPR. • Revised internal rules on information security, protection of customer information, etc. • Continued GDPR compliance with major services. • Upgraded PrivacyMark. • JISQ3001: upgraded based on 2017 standards.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Specific Activities
- Number of personnel who received training in fiscal 2018: Advanced level: 1,900 people; Intermediate level: 82 new; Elementary level: 956 new.

### Quantitative Results
- Number of personnel who upgraded: 8.

### Self-assessment
- Achievement levels based on self-assessment: ★★★: Target almost achieved; ★★: Target almost achieved; ★: Target only partially achieved.
Continuous Strengthening of Corporate Governance

Our Foundational Mission and Core Beliefs

Business Activities under Our Mission and Core Beliefs

The NTT Communications Group took the opportunity of its 20th anniversary in 2019 to establish its mission, “Creating communications methods that open up new possibilities for people and 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 by fully demonstrating the personal strength and individuality of our employees. Our core beliefs embody the values that all of us should uphold in realizing 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 making use of the results of a united effort drawing upon repeated discussions by employees, the president, and members of management. In our relationship with stakeholders, we may at times become uncertain as to what constitutes the right decision or action. Whenever this concern arises, we will return to our mission and core beliefs in order to determine the right action as a company serving society. Through these actions, we will strive to become a trusted company that satisfies the needs of customers and society.

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

For more information on our mission and core beliefs, see: https://www.ntt.com/en/about-us/we-are-innovative/vision.html

Dialogue with Stakeholders and Major Topics

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Opportunities for Engagement</th>
<th>Main Purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>Voice of Customer (VOC) survey</td>
<td>Improve the quality of products and services</td>
</tr>
<tr>
<td></td>
<td>CS surveys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exchange of opinions at the NTT Communications Forum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exchange of opinions based on daily interaction with Customers</td>
<td></td>
</tr>
<tr>
<td>Business Partners</td>
<td>Arcstar Carrier Forum (ACF)</td>
<td>Improve the quality of products and services</td>
</tr>
<tr>
<td></td>
<td>Customer Council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partner Summit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surveys, daily exchange of opinions</td>
<td></td>
</tr>
<tr>
<td>Society at Large</td>
<td>Dialogue with stakeholders</td>
<td>Contribute to the development of a sustainable society</td>
</tr>
<tr>
<td></td>
<td>Exchange of opinions with NPOs, NGOs</td>
<td>Participate in social contribution and community activities</td>
</tr>
<tr>
<td></td>
<td>Social contribution activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental protection activities</td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>Comments from the president during dialogue meetings and lectures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feedback collected through the corporate intranet and helpline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DDI Support Line</td>
<td>announcer, customer satisfaction (CS) surveys and take steps to improve satisfaction levels</td>
</tr>
<tr>
<td></td>
<td>Employee satisfaction surveys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>broaden the corporate vision and philosophy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create a career for women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realize value in work</td>
<td></td>
</tr>
</tbody>
</table>

Our Approach and Results of Stakeholder Engagement

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

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

### Examples of Policies and Guidelines for CSR Priority Areas and Priority Activities

<table>
<thead>
<tr>
<th>CSR Priority Areas and Priority Activities</th>
<th>Policies and Guidelines</th>
<th>Page in Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributions to Society</td>
<td>Innovation that Supports a Networked Society</td>
<td>Corporate Vision 2020</td>
</tr>
<tr>
<td></td>
<td>Ensuring Stable and Reliable Services as Mission-critical Infrastructure</td>
<td>NTT Communications Three Disaster Policy Fundamentals to Address Disasters</td>
</tr>
<tr>
<td></td>
<td>Robust Network Security for Customers</td>
<td>NTT Communications Security Declaration</td>
</tr>
<tr>
<td></td>
<td>Continuous Improvement in Customer Satisfaction</td>
<td>Our Mindset</td>
</tr>
<tr>
<td></td>
<td>Collaboration with Suppliers</td>
<td>Basic Policy on Procurement</td>
</tr>
<tr>
<td></td>
<td>Social Contributions and Fostering of Communities</td>
<td>Social Action Principles</td>
</tr>
<tr>
<td>Contributions to the Global Environment</td>
<td>Basic Philosophy and Vision</td>
<td>NTT Communications Group Global Environmental Charter</td>
</tr>
<tr>
<td></td>
<td>Environmental Statement</td>
<td>NTT Communications: Three Disaster Policy Fundamentals to Address Disasters</td>
</tr>
<tr>
<td></td>
<td>Eco Strategy 2030</td>
<td>NTT Communications Security Declaration</td>
</tr>
<tr>
<td></td>
<td>Preserving Biodiversity</td>
<td>Biodiversity Action Plan</td>
</tr>
<tr>
<td>Respect for Human Resources</td>
<td>Nurturing Human Resources</td>
<td>Policy on Human Resources: Development and Nine Ideal Employees</td>
</tr>
<tr>
<td></td>
<td>Respect for Diversity and Equal Opportunities</td>
<td>Promotion of Diversity: Fundamental Policy</td>
</tr>
<tr>
<td>Continuous Strengthening of Corporate Governance</td>
<td>Respect for Human Rights</td>
<td>Basic Policy on Human Rights Education</td>
</tr>
<tr>
<td></td>
<td>Internal Controls</td>
<td>Basic Approach for Maintaining an Internal Control System</td>
</tr>
<tr>
<td></td>
<td>Ensuring Information Security</td>
<td>NTT Communications Security Declaration</td>
</tr>
</tbody>
</table>
Corporate Governance Structure

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

The Board of Corporate Auditors comprises three auditors. In addition to attending important meetings such as those of the Board of Directors, they hold meetings of the Board of Corporate Auditors to audit the execution of directors’ duties with an emphasis on confirming the legality and appropriateness of management decisions. A dedicated organization and staff facilitates efficient audit operations. The corporate auditors seek to strengthen the audit structure by periodically sharing information on audit plans and results with accounting firms and relevant parties to maintain close cooperation.

Composition of Board Directors and Auditors (as of July 1, 2019)

<table>
<thead>
<tr>
<th>Directors Name</th>
<th>Main Responsibilities and Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>President &amp; CEO</td>
<td>Tetsuya Shoji</td>
</tr>
<tr>
<td>Senior Executive Vice President</td>
<td>Toru Maruoka</td>
</tr>
<tr>
<td>Senior Executive Vice President</td>
<td>Masaaki Moribayashi</td>
</tr>
<tr>
<td>Executive Vice President</td>
<td>Hidemune Sugahara</td>
</tr>
<tr>
<td>Executive Vice President</td>
<td>Tomohiro Ando</td>
</tr>
<tr>
<td>Executive Vice Presidents</td>
<td>Mamoru Watanabe</td>
</tr>
<tr>
<td>Executive Vice Presidents</td>
<td>Hidetaka Nishikawa</td>
</tr>
<tr>
<td>Executive Vice Presidents</td>
<td>Kazuhiko Nakayama</td>
</tr>
<tr>
<td>Executive Vice Presidents</td>
<td>Toshio Kanai</td>
</tr>
<tr>
<td>Executive Vice Presidents</td>
<td>Kazushi Kojima</td>
</tr>
<tr>
<td>Executive Vice Presidents</td>
<td>Masayuki Okawa</td>
</tr>
<tr>
<td>Executive Vice Presidents</td>
<td>Takashi Ohta</td>
</tr>
<tr>
<td>Corporate Auditors</td>
<td>Shigeno Toyota</td>
</tr>
<tr>
<td>Corporate Auditors</td>
<td>Niihara</td>
</tr>
<tr>
<td>Corporate Auditors</td>
<td>Yokoyabashi</td>
</tr>
</tbody>
</table>

Appointing Directors

Directors are appointed with the expectation that they will utilize their extensive knowledge and insight in their respective fields.
Continuous Strengthening of Corporate Governance | Thorough Compliance

Thorough Compliance

Compliance Promotion Framework

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

We have created a system to promote compliance with our fiscal 2002 launch of the Compliance Committee, chaired by the director in charge of compliance, and by assigning compliance promotion leaders and staff to each unit. With the ongoing globalization of the Group's business, compliance risks have become increasingly complex and global in nature.

In response, we formulated Global Compliance Regulations in July 2015 as a common compliance policy for Group companies in Japan and overseas. We have been promoting compliance management across the Group through disseminating top management messages, training employees, and conducting internal audits to confirm and improve ongoing initiatives at each Group company.

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

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

Initiatives for Preventing Corruption

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

In concrete terms, we have established operational procedures to ensure compliance with prevailing laws and regulations, which includes setting up a screening system for advertising and designating leaders in each department who conduct voluntary screening. The Legal and Internal Audit Department is responsible for screening specific types of advertisements. In February 2019, we sought to address the diversification in contemporary advertising media and methods by revising the Specific Screening Method for Advertising in an effort to ensure appropriate implementation.

In addition to complying with the Act against Unjustifiable Premiums and Misleading Presentations as well as associated laws, regulations, and guidelines.

Appropriate Advertising

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

To earn customer trust, NTT Communications adheres to the Voluntary Standards and Guidelines on Advertisement of Telecom Services, established by the Telecom Services Promotion Conference*, so that customers can safely choose and use our services. We also strive to convey proper, easily understood information to customers by adhering to our internal Rules on Advertising and following the basic principles

* A council consisting of four telecommunications industry groups: the Telecommunications Carriers Association, Telecom Services Association, Japan Internet Providers Association, and Japan Cable and Telecommunications Association.
Awareness-raising Programs and Training for Thorough Compliance

To ensure thorough legal compliance and fair business activities, companies are required to implement awareness and training programs for employees and directors on an ongoing basis. The NTT Communications Group provides annual compliance training to all employees and directors. In fiscal 2018, our designated theme was "data falsification and doctoring," which has become a social issue. In addition to organizing conventional training for raising awareness of rules by emphasizing knowledge of laws and internal regulations, we began offering training that encourages employees to take appropriate action through mutual communication and support in situations that often lead to compliance violations. We also actively conduct internal awareness programs by inviting entries for compliance slogans and regularly providing information via the internal website. We attach great importance to surveys on corporate ethics because they allow us to gain a detailed understanding of employee views and attitudes over time. In fiscal 2018, we conducted a survey targeting all Group employees and are seeking to enhance initiatives based on the results toward further raising compliance awareness across the entire Group.

In view of the growing importance of compliance in the supply chain, for example, ensuring legal compliance by subcontractors, we are bolstering our initiatives to raise employee awareness of securing compliance in subcontracting agreements.

Consultation Hotline

We established the NTT Communications Group Hotline, which is accessible to all employees across the NTT Communications Group. Additionally, the NTT Group operates an external contact point for consultation and reporting, staffed by lawyers, to foster an open corporate culture.

In fiscal 2018, a total of 76 incidents, all in Japan, were reported through these two channels that were related to the NTT Communications Group. The Compliance Office responded appropriately to these reports after investigating the facts and implemented the necessary actions to prevent recurrence.

Access the external contact point for the NTT Group Corporate Ethics Helpline at:
To create a rich corporate culture founded on respect for human rights, we laid out our Basic Policy on Human Rights Education in July 1999 to raise employee awareness. Also, we set up the Human Rights Education Promotion Committee to firmly establish a corporate constitution that does not tolerate discrimination of any kind as well as to promote awareness of the issues. Guided by the NTT Group Human Rights Charter, established in 2014, the committee reports on human rights education activities and plans related measures.

**Basic Policy on Human Rights Education**

As a company that develops business on a global basis, NTT Communications places the utmost importance on solving human rights issues, including discrimination, as a part of its efforts to build a rich corporate culture that respects human rights. As we strive to maintain a corporate constitution that does not tolerate any form of discrimination, we are working to find solutions to human rights and discrimination issues through every facet of our day-to-day business activities.

For more information on the NTT Group Human Rights Charter, see: [https://www.ntt.co.jp/csr_e/communication/team-ntt/82.html](https://www.ntt.co.jp/csr_e/communication/team-ntt/82.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.

**Human Rights Due Diligence**

To identify any negative impact our business activities may have on human rights, we exercise due diligence by conducting a potential impact assessment of risks using various related data as well as a potential impact assessment based on interviews with stakeholders on the results of the first assessment. In concrete terms, we conduct human rights management surveys in collaboration with NTT to grasp priority issues, designate priority themes for the NTT Group, and plan and implement action plans that address the designated human rights concerns. In fiscal 2018, we conducted hearings with NGOs working on issues related to business and human rights in regions that were associated with relatively high risks in our business activities. We also engaged in dialogues with local Group companies on policies for addressing human rights issues, whether they had the necessary system in place for identifying such issues, and their relevance to local operations.

**Measures for Raising Human Rights Education**

Companies have recently been subject to growing public demand for creating frameworks for protecting human rights that are closely aligned with the nature of each business. The NTT Communications Group is a global ICT provider, and a diverse array of full-time and temporary employees participate in our business operations. Accordingly, we promote respect for human rights with due consideration for diversity. We have made it mandatory for all full-time and temporary employees of the NTT Communications Group to attend the All-Employee Human Rights Education Training sessions, designed to foster a heightened sense of awareness within each and every employee. In fiscal 2018, we sought to enhance the training by including LGBT issues alongside other general topics to create an opportunity for employees to think for themselves. We also shared more examples of our response to concerns such as the UK Modern Slavery Act of 2015. We will seek to ensure that employees remain conscious of these concerns in their daily operations by encouraging them to frequently review the NTT Group Human Rights Charter and NTT Communications Group’s Basic Policy on Human Rights Education and by widely disseminating information on our multiple contact points for consultation. In addition to training, we invite entries on human rights and compliance slogans as an opportunity for each employee to consider the potential impact assessment. We also held dialogues with local Group companies on policies for addressing human rights issues, whether they had the necessary system in place for identifying such issues, and their relevance to local operations.
importance of this public concern.
In fiscal 2018, we received 13,736 entries from 7,187 people, comprising full-time and temporary employees at all Group companies, including overseas subsidiaries and members of employees’ families. We will continue to engage in various educational measures and foster respect for diversity and acceptance of differences toward creating brighter, more vibrant workplaces.

**Contact Points for Human Rights Issues**
The NTT Communications Group has set up internal and external contact points for employees to consult on issues that arise in the workplace. We also disseminate information through training sessions and email newsletters to raise awareness of the contact points among full-time and temporary employees. The contact points are absolutely committed to confidentiality and protecting the rights of individuals who seek consultation.

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. For example, we block 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.
Risk Management

Business Risk Management

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

We reorganized the system in fiscal 2010, identifying 25 material risk items in our Risk Definition Report and adopting a mechanism in which the management status of material risks is monitored through audits. At the same time, we sorted out our risk-related operations and boosted efficiency. Since then, we have continuously requested that each organization identify the risks as well as review and revise their policy and measures for addressing risks. Furthermore, we ask the heads of each organization, including directors, for a self-evaluation on the status of organizational risk management, confirmation that no risks have been overlooked, and operational audits of the status of each organization’s measures against risk. We have extended these activities to principal Group companies in Japan to promote risk management throughout the Group.

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

Crisis Management

In the aftermath of 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 install that awareness in all departments by ensuring strict adherence to manuals and organizing drills. Particularly since fiscal 2013, we have laid out an operational plan to prepare against a pandemic in compliance with the Act on Special Measures for Preparedness and Response against Pandemic Influenza and New Infectious Diseases, and we are currently formulating a related concrete business continuity plan. 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.

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.

For more information on NTT Communications’ initiatives against disaster, see:
https://www.ntt.com/about-us/cs/saitai.html
(Japanese Only)
At NTT Communications, the Legal and Internal Audit Department conducts internal audits of Group companies, including internal organizations, with an emphasis on business risks. Through the audits, we seek to reduce and prevent the manifestation of management risks at individual organizations and Group companies while proposing operational improvements to enhance the corporate value of the entire NTT Communications Group.

In fiscal 2018, we sought to further enhance the quality of our internal audits by undergoing an external quality assessment based on international standards and conducted by the Institute of Internal Auditors. In light of the observations gained from the assessment, we will review our operational processes and utilize CAAT* to accelerate and intensify our drive to reform our internal auditing functions to bolster risk control and operational efficiency.

*Computer-assisted audit techniques that utilize big data
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.

**Basic Policy**

The NTT Communications Security Declaration is 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.

**Protection of Customer Information and Personal Information**

We operate in strict compliance with laws and regulations as well as the Ministry of Internal Affairs and Communications’ guidelines relating to the protection of personal information. In situations in which we subcontract the handling of customer personal information, we select subcontractors that meet the standards for handling customer information.

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

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

**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.

*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](https://www.ntt.com/en/about-us/hp/privacy.html)
We have established common benchmarks on information security management for our operations in Japan and overseas, based on the requirements of ISO/IEC 27001, the international standard for ISMS. Also, we are enhancing the Group’s information security governance through ongoing management activities aimed at raising the standard of our initiatives, centered on regular monitoring of compliance and corrective action.

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

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

In fiscal 2018, we implemented major initiatives, led by the information security department (NTT Com-SIRT). We addressed software vulnerabilities and continued to apply the WideAngle comprehensive risk-management service to IT systems throughout the Company to reduce security risks. We also sought to enhance the level of our security risk management through initiatives that included the implementation of centralized management over Companywide IT systems using the platform for distributing information on vulnerability assessments.

As of March 2019, 21 Group companies, comprising 8 in Japan and 13 overseas, have obtained external ISMS certification for their information security management systems. Seven companies that primarily handle personal information entrusted by customers have obtained PrivacyMark accreditation in recognition of their systems for protecting personal information.