Society

Contributions to Society

Priority Activities

■ Innovation That Supports a Networked Society ■ Ensuring Stable and Reliable Services as Mission-Critical Infrastructure
■ Robust Network Security for Customers ■ Continuous Improvement in Customer Satisfaction
■ Collaboration with Suppliers ■ Social Contribution and Fostering of Communities

SDGs

Our Goals: Become an ICT company that leverages its innovation capabilities to continue supporting society globally

Amid the ongoing spread of information and communications technology (ICT) as social infrastructure, our businesses fulfill a role in society and are also wide-ranging. Under our Fundamental CSR Policy, we are working on improvements in ICT and on ensuring information security, while providing stable, highly reliable information and telecommunications 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. From fiscal 2011 onward, we have been reflecting all of these in CSR targets (medium-term targets) in CSR Priority Activities "Contributions to Society" and seeking to make ongoing improvements. In fiscal 2016, we were able to steadily achieve each of our priority activities based on new medium-term targets in line with the changing times. From fiscal 2017 onward, we will strengthen our PDCA system while making progress in further initiatives.

Activity Achievements in Line with CSR Indexes

Reexamining the importance (materiality) of external interactions undertaken during fiscal 2015 and 2016, we expanded the scope of priority activities in order to carry out the priority activity "Contributions to Society." In particular, based on domains for which society's expectations are rising in line with the global spread and evolution of ICT companies, we have established even more specific domains led by "Innovation That Supports a Networked Society," Ensuring Stable and Reliable Services as Mission-Critical Infrastructure," and "Robust Network Security for Customers."

In fiscal 2016—the initial fiscal year for undertaking activities in line with new priority activities—we on the whole "achieved" or "nearly achieved" the established targets. In fiscal 2017, we will take steps to enhance systems to promote even more reliable PDCA based on these successes.

Contributions to Society

Fiscal 2016 Activity Achievements and Fiscal 2017 Targets

Priority Activities	Activity Measures	Medium-Term Targets (Form We Want to Take in Five Years' Time)	Fiscal 2016 Targets	Fiscal 2016 Activity Results			Fiscal 2017 Targets	Boundaries	
				Details of Specific Activities (Qualitative Results)	Quantitative Results	Self-Assessment		Scope of Activities (Within/Outside Organization)	Scope
Innovation That Supports a Networked Society	Provision of new value that contributes to business transformation	Utilizing the IoT and cloud technologies, develop and deploy a range of global seamless services in line with the business needs of corporate customers	Actively launch new services, including IoT and cloud	Providing seamless ICT solutions that consist of globally optimal combinations of various services, we realize globally integrated and managed ICT environments, low-cost, flexible and on-demand ICT environments, and safe and secure ICT environments for businesses in order to support customers' efforts to innovate their business processes, such as the acceleration of decision-making and improvement of productivity, and create new businesses.	29 functions (commenced provision of new services and plans)	★★★	Contribute to client company's digital transformation by optimizing customers' hybrid ICT environments	Within/outside	Group Companies in Japan and overseas
	Realization of safe and secure daily lifestyles; bridging of the digital divide	Bridging the digital divide separating Japan from other countries, contribute to improvements in accessibility, develop services geared toward individual customers and build supply frameworks	Launch new services geared toward improvements in OCN services and implement continuous functional enhancements	• Strengthen OCN Mobile ONE service functions by gathering information mainly via social media to identify market trends and needs - Full-scale provision of free Wi-Fi spots - Commence five-minute Kake-Hodai (unlimited voice calls), Anshin Support Service, 20GB/month packet, 30GB/month packet • Receiving high ratings for the above initiatives, MM Research Institute announced that NTT Communications captured the No. 1 share of the MVNO market share for a sixth consecutive time	Seven functions (commenced provision of new services and plans)	★★★	Launch new services geared toward improvements in OCN services and implement continuous functional enhancements	Within/outside	Group Companies in Japan and overseas
Ensuring Stable and Reliable Services as Mission-Critical Infrastructure	Development of disaster-resilient networks	To guard against loss of communications after a disaster has occurred, an ongoing process of making fundamental ICT facilities (buildings, steel towers, electric power, power lines/public works) more resilient	• Measures to prevent floods caused by latest hazards (plans for flood protection construction work at communications building in Osaka Prefecture) • Improvement in seismic performance by reinforcing the linings of pipelines	• Launched the new submarine cable-laying vessel "Kizuna" (November 2016) • Changed to a route for the Asia Submarine-cable Express (ASE) that avoids the area near the Luzon Strait (seafloor canyons) • Collaborated with NTT EAST, NTT WEST, and Docomo to fully repair in a short period several cable route sections severed during the Kumamoto Earthquake (April 2016) and Typhoon No. 10 (August 2016)	• Undertook measures to prevent latest hazards at key telecommunications buildings Dojima 1 Building • Seismic reinforcements (completed March 2017) Sekime Building (administration wing) • Improvement in key route reliability by reinforcing the linings of pipelines Kawasaki service area (completed in fiscal 2016 3.3km) Nara (completed in fiscal 2016 3.8km)	★★★	• Measures to prevent floods caused by latest hazards (flood prevention examined Shirahige, Karagasaki; seismic reinforcement: examined Tenjinminami) • Improvement in seismic performance by reinforcing the linings of pipelines (Kawasaki, Nara remaining stages) • Submarine cable APG • Improve reliability of landing stations Strengthen building security measures for Minami Boso Landing Station (planned completion September 2018), etc.	Within	Group Companies in Japan and overseas
	Measures to address major natural disasters	• Continuous strengthening of planned response that assumes a hypothetical earthquake in the Nankai Trough, conducting of blind drill themes (drill format not made public to participants) • Gathering of disaster relief information for liaising with government and municipal bodies and making reporting processes faster and more operationally entrenched • Enhance liaison within NTT Communications Group	• Rush drill that assumes an earthquake has struck directly underneath the Tokyo metropolitan area at night on a Saturday or national holiday, first initial response drill involving west Japan initial response headquarters • Gathering of disaster information for personnel at west Japan initial response headquarters and entrenched implementation of external report processes • Opening of NTT Communications support bases for domestic Group companies	Conducted companywide disaster prevention drills to prepare for large-scale companywide malfunctions	—	★★☆	• Reconfirmed basic action/processes in the event of an earthquake directly under the Tokyo metropolitan area and took measures to reconfirm employee and emergency personnel familiarity with NTT Communications disaster equipment • Rush drill that assumes an earthquake has struck directly underneath the Tokyo metropolitan area at night on a Saturday or national holiday, first initial response drill involving west Japan initial response headquarters • Gathering of disaster information for personnel at west Japan initial response headquarters and entrenched implementation of external report processes • Opening of NTT Communications support bases for domestic Group companies	Within	Group Companies in Japan

Achievement Levels Self-Assessment Set at Three Levels ★★★: Target achieved ★★☆: Target almost achieved ★☆☆: Target only partially achieved

Contributions to Society

Priority Activities	Activity Measures	Medium-Term Targets (Form We Want to Take in Five Years' Time)	Fiscal 2016 Targets	Fiscal 2016 Activity Results			Fiscal 2017 Targets	Boundaries	
				Details of Specific Activities (Qualitative Results)	Quantitative Results	Self-Assessment		Scope of Activities (Within/Outside Organization)	Scope
Robust Network Security for Customers	Network surveillance 24 hours a day, 365 days a year	• Constantly monitor customer services (networks, Internet, cloud, mails, hosting, voice services, etc.) to promote global-seamless operations • Construct framework to monitor global seamless networks • Ongoing reduction in number of long-term malfunctions	Reduction in number of long-term malfunctions • Networks in Japan (more than three hours): 103 cases/year • Overseas networks (more than four hours): 400 cases/year • Other (CL, A&C and voice, more than one hour): 71 cases/year (as the types of services handled has increased)	[Networks in Japan] • Shorten the time needed to assign NTT Communications maintenance personnel (0 reports made) • Horizontal application based on examples of reduction in number of long-term malfunctions [Overseas networks] • Continue holding quality improvement meetings with overseas carriers • Identify malfunctions in connections (ebonding) between trouble tickets, and increase the number of value tickets to eliminate these issues [Other (CL, A&C and voice)] • Develop operational processes that utilize reliability guidelines	Reduction in number of long-term malfunctions • Networks in Japan (more than three hours): 91 cases/year • Overseas networks (more than four hours): 564 cases/year (increased number of tickets by eliminating ebonding malfunctions) • Other (CL, A&C and voice, more than one hour): 86 cases/year	★★☆	• Reduction in number of long-term malfunctions Networks in Japan (more than three hours): 86 cases/year Overseas networks (more than four hours): 460 cases/year Other (CL, A&C and voice, more than one hour): 48 cases/year • Regarding overseas networks, continue holding improvement GOC and individual event meetings as well as quality improvement meetings with carriers • In other services, undertake measures to reduce malfunctions that include revamping monitoring/testing tools to address increases in equipment size and malfunctions accompanying rises in customers	Within/outside	Group Companies in Japan and overseas
	Strengthening of vulnerability response functions	Include overseas Group companies in addition to domestic Group companies in developing measures to strengthen vulnerability response functions	• Strengthening of vulnerability response functions, including at domestic Group companies - Embedded implementation of vulnerability assessment tasks (networks/applications/penetration tests) and early implementation of fixes for any vulnerabilities that are discovered	Strengthen and further entrench vulnerability assessment/repair systems	Number of vulnerability assessments conducted: 275 systems	★★★	Improve quality of vulnerability assessment tasks for Web apps and early implementation of fixes for any vulnerabilities that are discovered	Within	Group Companies in Japan
	Rapid and reliable responses to security threats	Continuous enhancements to and strengthening of services that contribute to safe and secure corporate and national information systems	• Area expansion and increased sophistication of professional services that support the strengthening of risk management with regard to security measures • Increased sophistication of managed security services that visualize as well as support the rapid and accurate dealing with security threats • Formulation of and service menu entries for security measure models relating to SDx and the IoT	• In October 2016, began providing targeted malware-infected terminal survey menu—which surveys all terminals to determine whether some terminals are infected with targeted malware in customer ICT environments by expanding the area and increasing the sophistication of professional services—and guaranteeing urgent incident response, which provides rapid assistance within 24 hours of a security incident occurring • Promote stronger systems to upgrade daily threat analysis and analysis engines, train analysts, and enhance systems in order to improve MSS sophistication. Analysis engine upgrading involves the initial installation in 2015 of threat detection logic that uses AI-based machine learning technology. Since then, this system has been expanded on and its capabilities enhanced. • Developed and began providing as part of the MSS menu Proactive Incident Response services for SDx. In addition, implemented and evaluated PoC in preparation for commercialization of IoT services	• Added two services to professional services • Added three types of detection logic that uses machine learning in order to increase the sophistication of managed security services • Released Proactive Initiative Response service menu entry for security measures for SDx that are compatible with two models	★★★	• Area expansion and increased sophistication of professional services that support the strengthening of risk management with regard to security measures • Increased sophistication of managed security services that visualize as well as support the rapid and accurate dealing with security threats • Increase sophistication of security measure models relating to SDx and the IoT	Within/outside	Group Companies in Japan and overseas

Achievement Levels Self-Assessment Set at Three Levels ★★★: Target achieved ★★☆: Target almost achieved ★☆☆: Target only partially achieved

Contributions to Society

Priority Activities	Activity Measures	Medium-Term Targets (Form We Want to Take in Five Years' Time)	Fiscal 2016 Targets	Fiscal 2016 Activity Results			Fiscal 2017 Targets	Boundaries	
				Details of Specific Activities (Qualitative Results)	Quantitative Results	Self-Assessment		Scope of Activities (Within/Outside Organization)	Scope
Continuous Improvement in Customer Satisfaction	Ongoing CS surveys	Continuous improvements in customer satisfaction level scores	• Enhancement of satisfaction level survey recipients • Deployment of CS surveys to Group companies (expand scale of overseas Group company surveys) • "Kaizen (Improvement) Activities" based on customer feedback and thorough implementation of PDCA systems at domestic and overseas Group companies	• Increase survey target services/survey targets • Revamp overseas survey processes • Commit to Companywide Kaizen (Improvement) meetings	• Rises in the number of survey respondents Japan: 2,113 (+97% YoY) Overseas: 152 (+181% YoY)	★★★	• Enhancement of satisfaction level survey recipients • "Kaizen (Improvement) Activities" b and ongoing thorough implementation of PDCA systems at domestic and overseas Group companies	Within/outside	Group Companies in Japan and overseas
Collaboration with Suppliers	Spread of CSR and Green Procurement	• Promote the procurement of products that show consideration has been given to environmental impact by having every supplier and company conduct product assessments • Prevention of complicity in anti-social behavior in the supply chain, as typified by conflict minerals issue	Implementation of ongoing (annual) supplier surveys relating to CSR procurement promotion	Implementation of ongoing (annual) supplier surveys relating to CSR procurement promotion	Surveys conducted for 11 companies	★★★	Implementation of ongoing (annual) supplier surveys relating to CSR procurement promotion	Within/outside	NTT Communications nonconsolidated
Social Contribution and Fostering of Communities	Contributions to Communities	Based on social contribution principles, such as sustainability, efficiency, due diligence, global perspective and skills, promote social contribution activities in a variety of fields	• Ongoing implementation of neighborhood cleanup activities and deployment to Group companies • Holding of sales events (bread, sweets, etc.) in cooperation with local organizations that support people with disabilities	• Ongoing implementation of neighborhood cleanup activities around the head office well as at other facilities and by Group companies • Holding of sales events in the head office building as well as at other facilities and by individual Group companies	• Head office area cleanup activities (held twice (June, November) with 545 participants) • Head office sales events (held five times (April, July, December, February, March) with gross sales of 520,235 yen)	★★★	• Ongoing implementation of neighborhood cleanup activities and further deployment to Group companies • Continuing to hold sales events (bread, sweets, etc.) in cooperation with local organizations that support people with disabilities	Within/outside	Group Companies in Japan and overseas
	Community/ Next-Generation Training	Leverage business characteristics, contribute to community support and training of the next generation, build strategic social contribution frameworks	Promoting activities geared toward children's healthy development by providing opportunities to understand more about the company, for example by experiencing workplaces, and by rugby classes given by the club that is our sponsored rugby team	• Hold family days and open doors to junior high school students • Create tag rugby teams that include Ichikawa, Urayasu, and Warabi city boards of education and hold rugby classes at elementary schools in these areas. In addition, actively conduct tag rugby classes with current as well as former players	• Family day (held three times in August; number of children participating: 63) • Junior high school study visits (April (sponsored by the holding company) and May; number of children participating: 13) • Rugby classes (held at 15 schools total; number of children participating: approximately 1,500)	★★★	Continuously promoting activities geared toward children's healthy development by providing opportunities to understand more about the company, for example by experiencing workplaces that allows them a first-hand look at the latest AI and IoT technology, and by rugby classes given by the club that is our sponsored rugby team	Within/outside	Group Companies in Japan and overseas

Achievement Levels Self-Assessment Set at Three Levels ★★★: Target achieved ★★☆: Target almost achieved ★☆☆: Target only partially achieved

Contributions to Society

# Innovation That Supports a Networked Society

Our Approach

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

The utilization of cloud services is becoming more generalized, from everyday lifestyles to business, and the development of all 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 the Internet of Things (IoT) 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 think UN sustainable development goal No. 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.

Measures, Policies, and Promotional Framework

The CSR Committee reviews activities that are in line with the key CSR activity "Innovation That Supports a Networked Society," verifies achievements, and undertakes initiatives toward making further improvements in activities in conjunction with the department charged with implementing each initiative. Key activities are closely connected to global growth strategies that we are currently promoting. Our corporate vision "Vision 2020" plays a major role in initiatives for creating new social value by providing advanced technologies and services as well as undertaking CSR that leverages our business characteristics and strengths anticipated by society and aimed at global connectivity.

■ Corporate Vision "Vision 2020"
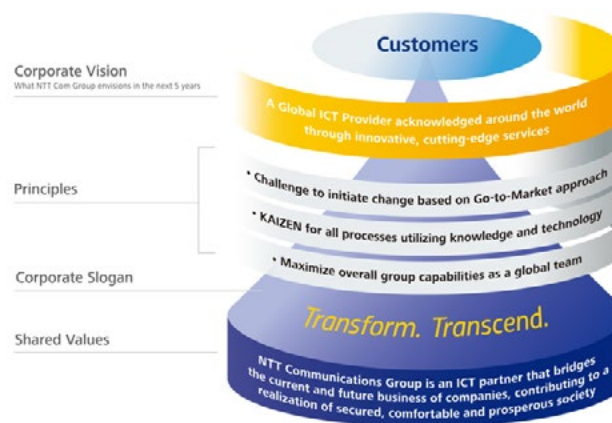
Main Achievements in Fiscal 2016 and Goals for the Coming Years

In fiscal 2016, we established key initiatives for the "Provision of new value that contributes to business transformation" and "Realization of safe and secure daily lifestyles; bridging of the digital divide" based on new medium-term targets established in September 2016 and, in turn, successfully realized and improved a wide variety of products and services.

To begin, "Provision of new value that contributes to business transformation" involves developing seamless, superior security solutions globally mainly by using IoT and clouds as a company able to provide advanced ICT solutions worldwide. Consequently, we have commenced provision of 29 new services and plans. As for "Realization of safe and secure daily lifestyles; bridging of the digital divide," we are continuously building systems to develop and provide services for individual customers, improving OCN Mobile ONE services (which NTT Communications boasted the top market share within the MVNO industry in fiscal 2016), and continually working to improve services that enable all customers regardless of age to safely and easily use the Internet.

Contributions to Society

Providing Services That Help Realize Evolution of an ICT Society

Business Reform through Promotion of 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.

We provide seamless ICT solutions, globally optimal combinations of various services, such as Cloud, Colocation, Network, Application, Security and Managed ICT, leveraging strengths that are unique to a network service provider.

Our seamless ICT solutions realize: (1) globally integrated and managed ICT environments; (2) low-cost, flexible and on-demand ICT environments; and (3) safe and secure ICT environments for businesses. We support customers' efforts to innovate their business processes, such as the acceleration of decision-making and improvement of productivity, and create new businesses.

IoT Office Newly Established

In August 2015, NTT Communications established its IoT Office within its Management Planning Department as an organization to respond to wide-ranging customer needs with regard to IoT. By effectively leveraging IoT, the manufacturing sector, where major innovation is expected, will become more diverse, extending from manufacturing to the construction, transportation, nursing, financial and service industries.

NTT Communications continues to create systems that make it possible to easily and scalably utilize a variety of IoT services by combining the proprietary secure communication networks that have traditionally been its strength with its range of cloud service products and IoT technologies.

In fiscal 2016, we released items such as Factory Packages as solutions for manufacturing industry factories, Machine Cloud for remote monitoring of industrial equipment, and Vehicle Manager to enable vehicle operation safety management. In fiscal 2017, we released Things Clould as an application enablement platform that utilizes IoT Platform services provided to date to promote customer IoT businesses. In so doing, we will provide value to an even greater number of customers.

Providing the Benefits of ICT to All

As ICT gains in importance as social infrastructure, the elimination 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.

In fiscal 2016, we diversified our OCN Mobile ONE lineup in an effort to promote the spread of MVNO services. Enhancing support services for beginners, we have built a system that enables even more users to benefit from ICT.

In addition, we began providing IoT-compatible 100-yen SIM cards in July 2017 for corporate Arcstar Universal One Mobile Global M2M mobile network services aimed at upgrading global business infrastructure through the spread of IoT.

We are contributing to the use and spread of IoT in a wide array of applications by providing high-quality services at competitive prices.

Contributions to Society

Ensuring Stable and Reliable Services as Mission-Critical Infrastructure

Our Approach

Coming hand in hand with the evolution of the ubiquitous society, the economic and social damage arising from factors that interrupt or bring to a halt information communication networks in emergencies remains unquantifiable. As we are entrusted with managing networks and vital data associated with the globalization of many companies, we are in intense demand to maintain networks and in particular for our responsibilities in continuing network connections at all times.

As a corporate group that provides telecommunications services both in Japan and globally by utilizing the network technologies that underpin advanced ICT societies and maintenance systems, we have for some time set "the ensuring of highly stable and reliable mission-critical infrastructure" as a key initiative for the essential CSR area of "contribution to society." We are making constant efforts in environment improvements that allow confident use of networks even in the event of a disaster or other emergency. Specifically, together with ensuring telecommunications reliability and providing stable services by increasing capacity and enhancing the reliability of our communication routes, through redundant and decentralized equipment and facilities and with year-round, 24-hour monitoring throughout the network, we are promoting initiatives throughout the Group. These initiatives focus on UN Sustainable Development Goal No. 11 "Sustainable Cities and Communities," and we are investigating approaches from the perspective of contributing to ongoing expansion and improvement of access to high-quality, sustainable living environments.

Measures, Policies, and Promotional Framework

Activities based on the priority activity of "ensuring stable and reliable 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 charged with being responsible for each activity cooperate with each other.

With natural disasters occurring with increasing frequency both in Japan and overseas recently, 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 Three Disaster Policy Fundamentals to Address Disasters and are taking steps to thoroughly apply this throughout the Group.

■ NTT Communications
  Three Disaster Policy Fundamentals to Address Disasters

1. Improvements in networks reliability
We are working to improve reliability so that partial damage to telecommunications systems does not have a great effect on others.
2. Maintaining of mission-critical communications
We have secured means of communication to allow important communications in a disaster situation.
3. Swift restoring of disrupted communication services
We will restore to service damaged telecommunications equipment as soon as possible.

Main Achievements in Fiscal 2016 and Goals for the Coming Years

All CSR activities based on the priority activity of "ensuring stable and reliable mission-critical infrastructure" are configured in a variety of ways relating to making information infrastructure more disaster resilient, including "the development of disaster-resilient networks" and "measures to address major natural disasters and similar events."

In fiscal 2016, we devised ongoing improvements in line with each target. Specifically, we launched the new submarine cable laying vessel Kizuna, rerouted part of the high-volume Asia Submarine-cable Express (ASE) that connects key Asian cities, continued to perform seismic reinforcement work at existing buildings, and took steps to further enhance telecom systems. As part of emergency drills conducted in fiscal 2016, we held companywide malfunction drills that simulated large-scale malfunctions following a major disaster as well as reaffirmed reconstruction activities. We were able to record "achieved" or "almost achieved" for each initial target. In fiscal 2017, we will continue to promote activities set as ongoing targets.

Contributions to Society

Developing Disaster-Resilient Networks

Keeping Networks Reliable Following Disasters

NTT Communications has adopted a set of three Disaster Policy Fundamentals to address disasters. Based on these policy fundamentals, we work to maintain mission-critical communications and swiftly restore disrupted communication services.

In the Kumamoto Earthquake that struck in April 2016, the main relay cable between Oita and Kumamoto was damaged by the second earthquake, which was of magnitude 7.0. As the scale of disruption from landslides was extensive, the recovery of the same route was beset with difficulties. We locally examined a recovery plan for a new 23-kilometer disaster route that skirted around the former route, and the cable restoration work was completed 12 days after the disaster.

Torrential rain from Typhoon No. 28, which struck in August 2016, caused landslides that damaged relay routes in central and eastern Hokkaido. As a result of numerous areas being damaged mainly by landslides and collapsed bridges, we constructed new routes approximately 220km long to bypass damaged routes and completed cable reconstruction work in around six weeks.

We work on a daily basis to raise awareness about disasters among employees and employees of partner companies, so they can rapidly respond to disasters. Specifically, we conduct training that makes use of "Safety Confirmation/Notification," one of the services offered by NTT Communications as well as regular training exercises that simulate large-scale natural disasters.

Providing Services That Underpin Corporate Business Continuity

Offering a range of high-quality services to respond to such crises as major earthquakes and pandemics, NTT Communications supports the continuity of its customers' businesses. To give a typical example, earthquake early-warning information is a service that delivers earthquake information, including seismic intensity and arrival time, before tremors are felt. Enabling initial damage prevention and ensuring personal safety, this is said to be an effective service in formulating a business continuity plan (BCP), since business restoration can be expected soon after an earthquake. A service that simultaneously reports personal safety confirmations both verifies and gathers information on the safety of employees during times of natural disaster, including outbreaks of new-strain influenza and earthquakes. Available on a routine basis via communications networks, this service is also effective in confirming the safety of school contact networks and elderly persons, as well as in simultaneously contacting employees who are visiting clients.

We are also expanding services to 14 bases in 11 countries worldwide on Enterprise Cloud, a global cloud service consisting of robust, disaster-resilient data centers for companies that leverage outstanding technological capabilities as telecommunications carriers, and connect high-quality/high-volume networks between Japan and overseas bases. Consequently, this optimal service provides BCP measures that ensure the timely backup of data at remote locations.

Cloud^n provides an environment that enables flexible changes of resources even during periods of rapidly increasing levels of access at the time of a disaster. This service has a variety of applications, including as a personal safety confirmation system.

State-of-the-Art Cable-Laying Ship Kizuna

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 throughout the NTT Group as well.

In order to rapidly transport disaster reconstruction materials, we completed work on the cable laying ship Kizuna in March 2017. Kizuna carries disaster recovery equipment in cable tanks and six 20-foot containers, which enables it to transport NTT Group vehicles used for disaster reconstruction. In addition, Kizuna is equipped with an onboard emergency mobile base station that uses dynamic positioning functions, making it possible to restore on an emergency basis regional telephone services disabled during disasters.

Specifically, the ship's upper bridge deck is equipped with spaces that enable the installation of numerous satellite communication parabolic antennas that keep 360-degree communications from being impeded. This design allows for the installation of more telecom equipment during disasters.

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

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

Contributions to Society

Robust Network Security for Customers

Our Approach

As the adoption of ICT becomes more widespread in society, and at a time when more and more information on companies and individuals is being accumulated on networks, as an ICT business operator we are responsible for ensuring that the valuable information we receive from our customers remains confidential and for securely retaining and managing that information. Focusing on UN sustainable development goal No. 11 "Sustainable Cities and Communities," the realization of advanced, safe, secure, and sustainable living environments is a management issue that is closely connected to ICT.

To meet society's ever-growing expectations for infrastructure innovation symbolized in UN Sustainable Development Goal No. 9 "Industry, Innovation and Infrastructure," we continue to enhance our efforts toward robust network security for our customers. While remaining in strict 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 more robust and enhancing their vulnerability response functions with regard to unknown threats. We are also planning to enhance our vulnerability response functions to include not only Group companies in Japan but also those overseas. Under these circumstances, in view of the materiality analysis and review of the CSR medium-term targets conducted in fiscal 2016, we are regarding these issues as independent priority activity areas and working to further strengthen our efforts. Along with this, we will further enhance these initiatives.

Measures, Policies, and Promotional Framework

Regarding the priority activity "customer network security," we are currently undertaking measures that are positioned as important initiatives consisting of "implementing network surveillance 24 hours a day, 365 days a year," "enhancing functions that address vulnerabilities," and "rapid and reliable security threat responses based on internal and external conditions." Given that, no matter what the issue, we implement reviews and set CSR targets on the basis of current problems and issues of social concern, while the CSR Promotion Office and the departments charged with being 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 thoroughly implement them.

■ NTT Communications Security Declaration

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

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

→ **Click here for details on our security management declaration/policy**

Main Achievements in Fiscal 2016 and Goals for the Coming Years

The basis of CSR activities based on the priority activities consists of all types of measures designed to thoroughly tighten network security, based on "implementing network surveillance 24 hours a day, 365 days a year" while constructing systems to rapidly and reliably respond to threats.

In fiscal 2016, we devised ongoing improvements in line with each target. Specifically, we reduced long-term malfunctions by improving the monitoring accuracy based on a diverse array of services for customers that include email and voice calling (VoIP), and implemented further strengthening of unauthorized access detection. Along with this, we strengthened functions to address vulnerabilities in domestic and overseas Group companies as well as develop services to further bolster the safety and reliability of customer information systems.

Excluding not reaching targets for overseas network malfunctions, we were able to record "achieved" or "almost achieved" for each initial target as a result of these activities. In fiscal 2017, we will continue to promote activities set as ongoing targets.

Contributions to Society

24-Hour, Year-Round Efforts to Protect Customers' ICT Systems

Providing Stable Enterprise System Network Monitoring/ Operating Services

NTT Com Solutions has been operating its Management Solutions Center (Sapporo) as an operations center that constantly monitors and stably operates 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.

In recent years, ICT systems and the operation centers needed for their stable operation have become essential for company business continuity, and high reliability is being demanded from operation centers, as they form the infrastructure that protects customer ICT systems. Characteristically, Sapporo is an area that suffers relatively few lightning strikes or large-scale natural disasters, such as earthquakes and typhoons, and is some distance from Tokyo. Therefore, the operation center itself is unlikely to be affected by any widespread major disasters or pandemics, which would allow the facility to function as a backup for 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 customer satisfaction levels while improving efficiency and productivity. As a result, the Center acquired ISO 20000 certification, the international standard for ITSMSs, 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 content. The Management Solutions Center (Sapporo) will continue working to enable it to keep pace with these changes and to effectively deliver ongoing operational support

services which offer high quality at a low cost as part of its drive to increase customer satisfaction.

* ITIL®: Systematic guidelines covering the operation and management of computer systems formulated by the UK government. The guidelines are compiled in several volumes of books. ITIL® (IT Infrastructure Library) is a registered trademark of the Office of Government Commerce (OGC) of the UK government.

Rapid and Reliable Threat Responses

Monitoring Enterprise Network Security

With the continued globalization of business activities, we are witnessing growing calls for a uniform global approach toward risk management by the corporate sector. Meanwhile, the dramatic rise in such security risks as cyber-attacks, including unauthorized access, computer viruses, and the leakage of data in recent years, has reached a point where the massive losses incurred by companies are threatening their very existence.

Under these circumstances, NTT Communications established the Security Operation Center (SOC) in 2003 and began offering corporate security management services. To that end, we brought a company that specialized in overseas security into the Group. In June 2013, in collaboration with NTT Secure Perspective Laboratories we launched WideAngle, a service which provides comprehensive research and monitoring of security risks as well as providing remedies, and we began offering the service globally.

Continuing from fiscal 2015, in fiscal 2016 we enhanced measures to counter unknown threats at endpoints and commenced services that rapidly and automatically block transmissions from infected terminals by SOCs through the use of SD-LAN technology installed in network virtualization technology. In order to increase the sophistication of managed security services, we are upgrading daily threat analysis and analysis engines, training analysts, and enhancing systems. Analysis

engine upgrading involves the installation of threat detection logic that uses AI-based machine learning technology. Since then, this system has been expanded on and its capabilities enhanced.

Drawing on our extensive expertise in security operations and proven strength in technological development, we work diligently to establish safe and secure information system environments for as many companies as possible, both in Japan and overseas.

Countering malware, which has become a social issue

The growing use of ICT throughout society has led to the social issue of cyber-crime, which has caused severe damage to a wide array of people. One such cyber-crime is the use of malware, which generally refers to software and code made for the malicious purpose of damaging computers and other equipment. Infecting equipment such as computers with malware allows third parties to use external devices and transmissions to gain unauthorized access to Internet banking information, personal identification, passwords, and other private information. In February 2016, NTT Communications began providing free of charge to individual and corporate customers its Malware Unauthorized Transmission Blocking Service, which protects users from malware-related information leaks, starting with domestic IPS.

This service protects customers from damage when malware is transmitted to external servers and other equipment by identifying malware via the transmission data (address) and blocking access. Based on this, NTT Communications became the first domestic operator to provide on a trial basis services that block unauthorized transmissions based on transmission address data.

Society

Contributions to Society

Continuous Improvement in Customer Satisfaction

Our Approach

Our business covers the full gamut, from the building of global telecommunications networks to the provision of Internet service provider operations. The customers with whom we are in contact through business, ranging from corporations to individuals, are thus likewise varied.

Listening with a finely tuned ear to feedback from such a varied customer base, while developing and enhancing the mechanisms to flexibly utilize that feedback, are important responsibilities that directly boost customer satisfaction on an ongoing basis. In addition, creating guidelines for continually providing high-quality, highly reliable services represent challenges as we grow as a leading global ICT company in partnership with society.

Guided by the UN Sustainable Development Goal No. 8 "Decent Work and Economic Growth," these initiatives are intended to increase the high added value of the global economy, improve productivity, and in turn contribute to sustainable economic growth. Based on this concept, we will continue from here onward to enhance and upgrade mechanisms that are reflected in our businesses, incorporating the opinions of a wide range of stakeholders.

Measures, Policies, and Promotional Framework

In order to consistently satisfy customers, we have established "Continuous improvement in customer satisfaction" as a priority activity. Accordingly, we are committed to taking customer satisfaction (CS) surveys on a regular basis and proactively utilizing points of contact with our customers. The CSR Promotion Department and the divisions in each business cooperate while implementing these initiatives.

Faithfully serving our customers is our approach that all employees must always bear in mind regardless of the area they are overseeing or the products and services they are providing. From this perspective, we have established "Our Approach," which all employees must strictly adhere to and is not only shared via our internal intranet but also disclosed to customers and other stakeholders.

■ Our Approach

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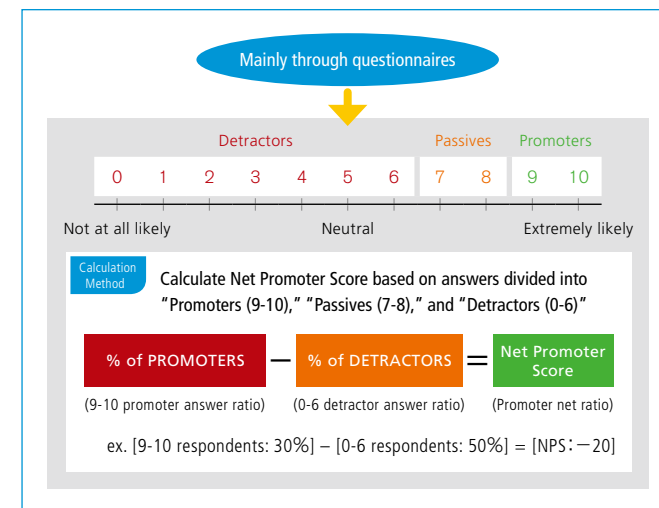
1. Find solutions to customer concerns and problems
2. Boost customer business growth
3. Help consolidate customer core operations

Based on these approaches, 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 2016 and Goals for the Coming Years

Regarding priority activities, we established "continuous improvements in customer satisfaction" as a medium-term target and are promoting multifaceted activities based on the core initiative of conducting customer satisfaction surveys. In fiscal 2016, we continued to expand targets of customer satisfaction surveys in Japan while accelerating the extension of these surveys to Group companies. In addition, we have continued to undertake "Kaizen (Improvement) activities" based on customer feedback while working to revamp these PDCA and thoroughly promote these at domestic and overseas Group companies. As a result of these activities, we were able to record "achieved" for each initial target starting with customer satisfaction scores.

■ Customer Satisfaction Score Calculation Method

Mainly through questionnaires

| | Detractors | | | | | | | Passives | | Promoters | |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Not at all likely   Neutral   Extremely likely

Calculation Method: Calculate Net Promoter Score based on answers divided into "Promoters (9-10)," "Passives (7-8)," and "Detractors (0-6)"

% of PROMOTERS — % of DETRACTORS = Net Promoter Score

(9-10 promoter answer ratio) (0-6 detractor answer ratio) (Promoter net ratio)

ex. [9-10 respondents: 30%] − [0-6 respondents: 50%] = [NPS：−20]

Contributions to Society

Ongoing Customer Satisfaction Surveys

Efforts That Utilize Feedback from Customers at Affiliates

In aiming to remain the service provider of choice for customers around the world, it is not only those responsible for sales who contact customers on a daily basis. All employees are as one in regarding customer contact as a priority and make every effort to improve customer satisfaction by providing innovative services and through daily improvement activities.

One of the initiatives we implement is an annual VOC (Voice of the Customer) survey on customer satisfaction. The variety of feedback we receive is taken seriously and earnestly added to our improvement activities.

The majority of feedback from corporate customers is in the form of requests relating to quality and reliability. Requests such as these—involving network quality, cloud reliability, security initiatives and the like — are essential to our business. There has also been an increasing demand for applications that help companies change the way their employees work. Some of the comments we receive pose challenges to us, such as asking us to ensure seamless domestic and overseas operations or enable integrated management with other companies' services. Responding to such requests is one of our everyday tasks.

We disclose our efforts with regard to such feedback on our website.

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

Initiatives 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 for giving advice to individual OCN members as well as for undertaking various kinds of support work.

In order for our customers to use ICT services securely and comfortably, we place great importance on detailed customer support preparations. On that basis, we have assigned contact center and home visit staff and respond to inquiries on a daily basis. We are also focusing on operator training and are continuing our efforts toward the realization of high-quality support, such as by making both Web-based and practical training mandatory.

Sharing through Dedicated OCN Customer Feedback Website

With the aim of further improving the quality of the OCN service, we set up a dedicated OCN Customer Feedback website and are working on service improvements.

We receive numerous comments and requests from customers concerning OCN services. On our website, we provide case studies of improvements based on this feedback.

Feedback sometimes takes the form of either praise or complaints, and this type of interaction is very important to our everyday efforts to enhance service quality.

We will naturally continue to reflect OCN Customer Feedback with improvements in our services, incorporating enhancements leading to more convenient Internet access for our customers.

🏢 Contributions to Society

Collaboration with Suppliers

Our Approach

In recent years, there have been calls for companies to implement CSR activities along entire supply chains. Those demands have naturally 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 in line with the basic premise of achieving UN Sustainable Development Goal No. 8 "Decent Work and Economic Growth."

Accordingly, as part of the responsibilities of a global ICT company, we have established Supply Chain CSR Promotion Guidelines and are focusing on the development of mutual understanding and relationships of trust with our suppliers as well as on the promotion of CSR and green procurement. At the same time, we are pursuing 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.

Measures, Policies, and Promotional Framework

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 therefore engages in fair and competitive procurement activities within the global market, conducting its procurement activities from the perspective of the broad global marketplace and in an effort to make Group management more competitive.

■ Summary of Supply Chain CSR Promotion Guidelines

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

■ Basic Policy on Procurement

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

Main Achievements in Fiscal 2016 and Goals for the Coming Years

In order to realize the CSR procurement concept, we aim to thoroughly promote the procurement of products that have minimal negative environmental impact by conducting product surveys with the cooperation of supplier companies as well as target the global spread of supply chains that do not contribute to social and humanitarian problems typified by the conflict mineral issue. Based on this concept, in fiscal 2016 we continued to conduct CSR procurement promotion surveys of suppliers that began in the previous fiscal year. We also made an effort to identify related risks. Working to more clearly explain to the companies that we are considering as suppliers, in the current fiscal year we have begun providing information to EcoVadis, which serves as a platform for conveying information on suppliers worldwide.

In fiscal 2017, we have continued to enhance supplier surveys while simultaneously taking steps to promote the exchange of opinions with suppliers and further increase information disclosure.

Strengthening Relationships with Our Partners

Development of ACF Partner Forum Designed to Enhance Ongoing Collaboration

The Arcstar Carrier Forum (ACF) is an international conference we have sponsored since 2000 that invites partner carriers from around the world to Japan for the purpose of improving quality in the operation and delivery of international network services. Held on a regular basis every year, the focus at the ACF has been on expanding discussions of initiatives aimed at improving the quality of essential infrastructure, such as ways to deal with malfunctions and construction issues, infrastructure design and construction processes to prevent issues from arising, and operational support systems that enable rapid issue analyses and resolutions.

Bearing the slogan "Go beyond~True Collaboration~," the fiscal 2016 ACF, the 13th, was held in Tokyo in June. In order to improve quality in terms of global network service layout, formulation, operation and maintenance and to improve customer satisfaction, network service providers together confirmed the added importance of exceeding customer expectations by reviewing technologies and processes that may not have recently been subject to review and by transcending organizational barriers. Participants held discussions on what steps to take to meet those expectations. Looking for ways to foster understanding and cooperation among three parties—NTT Communications, partner carriers, and customers — in fiscal 2017 we plan to engage in discussions with partner carriers and customers aimed at improving the quality of our comprehensive services.

Through initiatives such as the ACF, we will improve operations and quality in international network services, while also building extensive operational know-how.

■ Arcstar Carrier Forum 2016

CSR and Green Procurement

Promoting CSR Procurement

We have formulated supply chain CSR promotion guidelines that encourage procurement policies that respect human rights and protect the environment, ensure the quality and safety of products and services, and recognize the overall needs of society.

Based on the above guidelines, which were formulated in December 2013, we have asked our principal suppliers for their cooperation in completing questionnaires on the status of their initiatives with the aim of promoting CSR activities.

→ **Click here for details on supply chain CSR promotion guidelines**
   In addition, for more information on green procurement, please read our report Contributions to the Global Environment

Response to Conflict Minerals

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

EcoVadis Supplier Survey Initiatives

Rising corporate expectations for CSR activities that take the supply chain into consideration have resulted in the rising importance of companies working to determine the status of supplier CSR activities and disclosing information to suppliers. Since fiscal 2016, we have registered supply chain-related data with the EcoVadis information platform and have been promoting information disclosure to companies that are investigating suppliers and their business transactions.

Undergoing a sustainability survey for the first time in March 2017, we received a "Silver" rating.

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

* EcoVadis: 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 "supply chain."

Contributions to Society

Social Contribution and Fostering of Communities

Our Approach

NTT Communications encourages engagement in social contribution activities in a number of fields. We intend to continue contributing to the realization of an affluent society through activities that cover a wide range of fields that include: international cooperation; environmental conservation; health, medical and welfare fields; and regional development. In addition, at a time when efforts toward recovery are under way in the regions affected in the aftermath of the Great East Japan Earthquake, we are continuing our support efforts to reconnect the social bonds in those regions and do all we can to be of assistance in rebuilding lives there.

In recent years, it has become expected for social contribution activities to play a role in supporting the development of diverse communities that encompass the locality and the different generations. Maintaining an awareness of community in our activities, we will expand the scope of the people at which those activities are aimed.

■ Social Action Principles

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

Serving Local and International Communities

Cleanup Activities

NTT Communications has participated in cleanup campaigns in Tokyo's Chiyoda Ward since 2008. In fiscal 2016, cleanup activities were conducted around Hibiya Park on June 7 and November 8, 2016, by 262 and 283 people, respectively.

In addition, players from the Shining Arcs rugby team conduct cleanup activities in the area surrounding the team building and home rugby field in Ichikawa City every month.

Providing Nationwide Employment Opportunities for Women at Home

Including technical support for Internet connection service (OCN) members, we are developing business centered on technical support, such as telephone support (help lines, call centers), home visit support and the operational management of corporate ICT equipment. For these projects, we are actively providing opportunities for women resident in Japan to work from home.

Specifically, in the case of telephone and home visit support, staff working from home are active all over Japan, from Hokkaido in the north to Okinawa in the south. By tapping into the potential workforce—such as those who have given up work to bring up children, to provide nursing care or due to work-related family relocations; those who live in rural areas, where there are few jobs suited to their situation within easy commuting distance; and retired seniors—we are engaged in getting women to play a more active role, in revitalizing communities and in providing new job opportunities.

In the years to come, we would like to continue to provide opportunities for individuals who want to work without location or time constraints, thereby enabling them to utilize their abilities, and contribute to the realization of a society in which more people are able to take an active part.

Environmental Contribution Activities at Group Companies in Japan

For some time, we have been advocating that each Group company independently perform its own social contribution activities. As a result, gatherings of employee volunteers that perform environmental conservation activities, including natural woodland preservation, have formed at each company and are continuing their enterprising activities. The main activities are listed below. As a corporate citizen, we will continue to encourage the conducting of low-profile though meaningful activities that help local communities.

■ Examples of Environmental Contribution Activities at Group Companies in Fiscal 2016

Company Name	Measure	Outline	Implementation Period	Number of Participants
NTT Com Marketing	Natural woodland cleanup activities in Shiroi	Environmental preservation activities in natural woodland in Shiroi City, Chiba Prefecture	May, July, October 2016	30
NTT Com Solutions				38
NTT Plala	Protect coral reefs, which play a vital role in the ecosystem of our oceans	Implementation of a project to revitalize and protect coral reefs in Okinawa	August 2016	17
	Neighborhood cleanup activities	Cleanup of area around the head office building (Ikebukuro) and offices (Ariake) in Tokyo	April 2016 May 2016 June 2016 October 2016 November 2015 February 2016	137
NTT BizLink	Neighborhood cleanup activities	Cleanup of area around Sumitomo Fudosan Korakuen Building	Throughout the year	10

Local Support for ICT Adoption through Overseas Businesses

In Asia's emerging countries, where there is both acceleration of economic growth and a rising wave of society's adoption of ICT, there are urgent needs for information communication upgrades and human resource development. While ICT is in the process of becoming a cornerstone of corporate activities in each country, we launched a telemarketing business in January 2016, hired and trained local

Contributions to Society

operators, and are proposing and helping to install state-of-the-art ICT solutions, including cloud technologies and data centers, matched to the diverse needs of companies in the Asian region. Through our overseas businesses, we will accelerate the building of lasting relationships, from the aspects of the knowledge we have gained as an ICT company and of job creation, in the years to come.

Activities Performed by Corporate Rugby Team
Youth Development

NTT Communication's rugby team, the Shining Arcs, holds tag rugby—a combination of a game of tag and rugby—classes in conjunction with bodies such as the Ichikawa City, Urayasu, and Warabi boards of education with the goal of helping children live healthier lives and interact more closely with their communities through sports. In addition, as there are currently no competitions with rankings, such as a rugby tournament for elementary school pupils, a 14-team tournament was held for local rugby schools in Chiba Prefecture and Tokyo. The aim of the tournament, the third Shining Arcs Cup, was to improve children's ambitions and their level of competitive spirit as well as the level of the competition.

Through this kind of activity, we naturally hope to contribute to the healthy development of the young people who will be responsible for the next generation but also to the development of rugby as sports culture and to further expanding the numbers and raising the level of those playing competitive rugby.

■ The Second Shining Arcs Cup

Initiatives Supporting Recovery from the Great East Japan Earthquake

For the people affected by the Great East Japan Earthquake of March 11, 2011, NTT Communications wondered ongoing steps could be taken through rugby to ensure that people's memories did not fade. By collecting donations from all the Shining Arcs players and staff at games depending on the points scored (10 yen per point), we supported recovery in the disaster-affected regions through rugby. In the most recent 2016–2017 season, we held the "Japan Rugby Dream Match 2017 Top League All-Star For All Charity Match 2017 Supported by Valor Group" in Fukuoka Prefecture in northern Kyushu, from which we donated event revenue, including the proceeds from admission fee income and a charity auction. Put to use by the "Iwate Learning Hope Fund," the "East Japan Earthquake Recovery and Scholarship Fund" in Miyagi Prefecture and the "East Japan Earthquake Donations for Children" in Fukushima Prefecture, the ¥5 million in revenue generated by the event largely went to help support children affected by the Great East Japan Earthquake.

Having extended the Shining Arcs activity to all the TOP League teams, we were able to greatly expand the scale of initiatives.

■ Japan Rugby TOP League Fundraising Featuring Shining Arcs

	Participating Team (s)	Money donated	Use of funds raised
2011–2012 Season	NTT Com only	366,525 yen	Donated to Japanese Red Cross Society
2012-2013 Season	NTT Com only	404,800 yen	Donated to Miyagi Rugby Football Union
2013-2014 Season	All TOP League teams	Approx. 2 million yen	Invited children from disaster-affected regions to a Japanese national rugby team game held in June 2014
2014-2015 Season	All TOP League teams	2,306,040 yen	• Holding of charity event for children from city of Kamaishi, Iwate Prefecture (October 24, 2015) • Children from Kamaishi invited to LIXIL CUP 2016 rugby game
2015-2016 Season	All TOP League teams	2,270,170 yen	Rugby classes in areas affected by the Kumamoto earthquake
2016-2017 Season	All TOP League teams	2,252,561 yen	Not yet decided

Contributions to Society

Participation in External Groups

Our Approach

Toward the creation of a better society, companies are expected to be actively involved in progressive initiatives for the public and private sectors and in industry-wide initiatives. Extolling the importance of these activities based on UN Sustainable Development Goal No. 17 "Partnerships for the Goals," we are continuing to enhance the social significance of these activities. We collaborate with a variety of organizations and address the measures that will lead the industry.

Assisting in Internet Crime Prevention
Efforts to Safeguard Internet Users' Safety and Security
Breaches of security caused by malware are steadily on the increase. Taking as an example, unauthorized Internet banking remittances, which is one of the cyber-crimes for which malware is used, National Police Agency investigations estimate that the figure for this type of crime in Japan reached roughly ¥1.687 billion throughout 2016, the worst financial damages on record. The avoiding of financial losses by such unauthorized communications requires users to take security measures individually; however, a lot of systems behave in such a way that malware remains unnoticed even when a system is infected, so spreading countermeasures is no simple matter.

In response, NTT Communications is proactively addressing the creation of systems that will make using the Internet safer and more secure, such as being the first Japanese ISP to provide an anti-malware service that customers can use free of charge without having to make an application or set up a system.

In addition, NTT Communications participates in the Advanced Cyber Threats response InitiatiVE (ACTIVE), a support project designed to thwart damage from cyberattacks that target the vulnerabilities of Internet users' terminals. The project was launched in November 2013 by Japan's Ministry of Internal Affairs and Communications to realize a safe and secure Internet environment for citizens through a public-private collaboration. As specific measures to prevent malware infection, in addition to the list of malicious sites used by NTT Communications in its Malware Unauthorized Communication Blocking Service, the project increases the judgment accuracy of its malicious site list by sharing and utilizing an ACTIVE-compiled list, prevents the spread of customer malware infections, calls attention to infections and makes efforts to eradicate malware infections.

Helping Healthy Child Development
Industrywide Efforts toward Child Pornography Countermeasures
The blocking of child pornography on the Internet is an important issue that must be addressed, naturally in order to protect the human rights of children and to prevent children's participation in human rights abuses and ensure the provision of a safe Internet environment. Taking in particular the opportunity presented by the Japanese government's release of its policy on a national campaign against child pornography in 2010, the setting up of an active system—including the voluntary blocking of access to child pornography websites by Internet service providers (ISPs)—is continuing with support from the public and private sectors. In 2011, 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). In April 2011, members of the ICSA began to share information on the websites they will block to prevent access to child pornography images by providing other member providers with child pornography website address lists.

Specifically, the NTT Communications Group's "goo," "plala," and "OCN" services have access restrictions based on child pornography website address lists provided by the ICSA. In line with the child pornography website address lists provided by the ICSA, steps were also taken to block child pornographic images by each of the ISP providers in 2011, and NTT Resonant is responding by modifying the various search services that it operates.