

Noving Forward Together As Your Value Partner

Nippon Telegraph and Telephone Corporation
ANNUAL REPORT 2017

For the year ended March 31, 2017

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Special Feature:	
Acceleration of	
B2B2X Businesses	



Forward-Looking Statements

The forward-looking statements and projected figures concerning the future performance of NTT and its subsidiaries and affiliates contained or referred to in this report are based on a series of assumptions, projections, estimates, judgments, and beliefs of the management of NTT in light of information currently available to it regarding the economy, the telecommunications industry in Japan, and other factors. These projections and estimates may be affected by the future business operations of NTT and its subsidiaries and affiliates, the state of the economy in Japan and abroad, possible fluctuations in the securities markets, the pricing of services, the effects of competition, the performance of new products, services and new businesses, changes to laws and regulations affecting the telecommunications industry in Japan and elsewhere and other changes in circumstances that could cause actual results to differ materially from the forecasts contained or referred to in this report.

Editorial Policy

This is an integrated report that combines information that is important to shareholders and investors, including not only such information as growth strategies and financial results but also environmental (E), social (S), and governance (G) information. The report focuses on explanations of NTT Group's initiatives targeting increases in corporate value over the medium to long term. In editing this report, reference was made to the International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC). The report is intended to help readers to understand NTT Group, which is accelerating the process of business structure transformation to be a "Value Partner" and working to increase corporate value by contributing to the realization of a sustainable society.

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Shareholders' Meeting Materials

http://www.ntt.co.jp/ir/shares_e/shareholders_meetings.html

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Form 20-F

http://www.ntt.co.jp/csr_e/report.html

In





Development of Telephony Services

Transition to Mobile and Broadband Services



90/3 91/3 92/3 93/3 94/3 95/3 96/3 97/3 98/3 99/3 00/3 01/3 02/3 03/3 04/3 05/3 06/3 07/3 08/3 09/3 10/3 11/3 12/3 13/3 14/3 15/3 16/3 17/3 (Fiscal vear ended March 31)





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Expansion of Global Cloud Services



Value Creation Image

Guided by the "Towards the Next Stage 2.0" Medium-Term Management Strategy, NTT Group will leverage the management resources it has accumulated to date to pursue sustainable gains in corporate value in a distinctive manner by utilizing ICT.



A NIPPON TELEGRAPH AND TELEPHONE CORPORATION

NTT Group Formation (Fiscal year ended March 31, 2017)

NTT Group*1						
Total Assets:	Con	solidated Operating Revenues:	Consolidated Operating Income:	Number of En	nployees: Co	onsolidated Subsidiaries:
¥21,250.3 billion	¥	1,391.0 billion	¥ 1,539.8 billion	274,8	344	944
	100.00%*²	Regional Communications Business	NTT EAST NTT WEST	Major Services Competitive Advantages	businesses, etc. FTTH and other services In the field of regional telecon	s operations in Japan and relat nmunications, comprehensive of services and area coverage nsive customer base
O NTT	100.00%*2	O Long Distance and International Communications Business	dimension data	t Major Services Competitive Advantages t t as	tional telecommunications bus related businesses Cloud services, data center se and other services In the fields of long-distance a tions, comprehensive strength and area coverage), extensive	ations operations in Japan, inte siness, solutions business, and ervices, migration support serv and international telecommunic ns (reliability / stability of servic e service lineup, including appli arge market share, and extens
Nippon Telegraph and Telephone Corporation (Holding Company) Main Businesses:	66.66%*²	Mobile Communications Business	döcomo	Major Services Competitive Advantages	Mobile phone business and r LTE mobile phone services at In the mobile telecommunica R&D capabilities, as demonst network quality, service devel partnerships with related con and extensive customer base	nd other services titions market, technical and trated by the LTE Xi service, lopment capabilities, including npanies, large market share,
For NTT Group as a whole, formulation of management strategies and promotion of basic research *1 In this annual report, "NTT Group" refers to NTT and its subsidiaries *2 Voting rights to major subsidiaries (As of March 31, 2017)	54.21%*²	Data Communications Business	NTTDATA	Major Services Competitive Advantages	and overseas ERP services, ICT outsourcin In the IT services market, neu reliability, and foresight, as we	utrality, technical capabilities, ell as results and know-how in grage these capabilities in such
		Other Businesses	Other Group Companies		Real estate, finance, construc development, advanced tech	ction / electric power, system nnology development, etc.



9.7%

(26,734)



Operating

Revenues*3

*3 Percentage of simple sum of all segments (including intersegment transactions)

Regional Communications Business

25.4%

(¥3,308.2 billion)

Long Distance and International Communications Business

16.4%

16.0%

(43,842)

NTT Group Topics (Fiscal year ended March 31, 2017)

In accordance with the Medium-Term Management Strategy, "Towards the Next Stage 2.0," each segment implemented initiatives to accelerate the process of self-transformation to a "Value Partner" and to return NTT Group to a profit growth track.



8 NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Performance Highlights

Financial Data (End of year / month)											Billions of yen
	2007/3	2008/3	2009/3	2010/3	2011/3	2012/3	2013/3	2014/3	2015/3	2016/3	2017/3
Operating revenues ^{*1} Graph 1	¥10,760.6	¥10,680.9	¥10,416.3	¥10,181.4	¥10,305.0	¥10,507.4	¥10,700.7	¥10,925.2	¥11,095.3	¥11,541.0	¥11,391.0
Operating expenses	9,653.5	9,376.3	9,306.6	9,063.7	9,090.1	9,284.4	9,498.8	9,711.5	10,010.8	10,192.8	9,851.2
Operating income Graph 2	1,107.0	1,304.6	1,109.8	1,117.7	1,214.9	1,223.0	1,202.0	1,213.7	1,084.6	1,348.1	1,539.8
Net income attributable to NTT*1*8 Graph 2	481.4	635.2	538.7	492.3	509.6	467.7	521.9	585.5	518.1	737.7	800.1
Total assets ^{*1}	18,291.1	18,518.8	18,796.4	18,939.1	19,665.6	19,389.7	19,549.1	20,284.9	20,702.4	21,035.9	21,250.3
Shareholders' equity*1	7,120.8	7,410.8	7,298.1	7,788.2	8,020.7	7,882.6	8,231.4	8,511.4	8,681.9	8,833.8	9,052.5
Interest-bearing debt Graph 3	4,770.8	4,677.2	4,899.3	4,491.7	4,553.5	4,274.0	4,036.0	4,200.0	4,406.7	4,163.3	4,088.2
D/E ratio (%)*2 Graph 3	67.0%	63.1%	67.1%	57.7%	56.8%	54.2%	49.0%	49.3%	50.8%	47.1%	45.2%
Capital investment*3 Graph 4	2,236.9	2,128.9	2,145.1	1,987.1	1,870.1	1,946.6	1,970.0	1,892.8	1,817.5	1,687.2	1,700.0
Capex to sales ratio (%)*4 Graph 4	20.8%	19.9%	20.6%	19.5%	18.1%	18.5%	18.4%	17.3%	16.4%	14.6%	14.9%
Depreciation Graph 5	2,097.3	2,161.9	2,139.2	2,012.1	1,962.5	1,910.7	1,899.2	1,880.3	1,828.0	1,766.3	1,462.2
R&D expenses	272.1	271.1	268.2	278.1	268.2	267.9	269.2	249.3	233.8	213.4	211.6
EBITDA*5 Graph 6	3,359.9	3,611.2	3,383.4	3,249.3	3,286.0	3,234.1	3,244.2	3,204.2	3,063.4	3,277.9	3,183.3
EBITDA margin (%) Graph 6	31.2%	33.8%	32.5%	31.9%	31.9%	30.8%	30.3%	29.3%	27.6%	28.4%	27.9%
Cash flows from operating activities	2,361.3	3,090.8	2,514.1	2,817.8	2,830.9	2,508.3	2,453.7	2,727.9	2,391.8	2,711.8	2,917.4
Cash flows from investing activities	(2,151.0)	(1,990.6)	(2,269.7)	(2,308.9)	(2,052.2)	(1,971.2)	(1,776.3)	(2,106.8)	(1,868.6)	(1,759.8)	(2,089.3)
Free cash flows*6	210.3	1,100.2	244.4	508.9	778.7	537.1	677.4	621.1	523.2	952.1	828.0
Cash dividends, applicable to earnings for the year (Yen) \star^7	40	45	55	60	60	70	80	85	90	110	120
Dividend payout ratio (%)	23.0%	19.5%	27.5%	32.3%	31.2%	38.2%	37.2%	33.4%	38.0%	31.4%	30.7%
ROE (%)	6.9%	8.7%	7.3%	6.5%	6.4%	5.9%	6.5%	7.0%	6.0%	8.4%	8.9%
Net income attributable to NTT per share (Yen) *1*7*8 Graph 7	174	231	200	186	193	183	215	255	237	350	391

Graph 1

Operating Revenues*1





(Fiscal year 2008/3 2009/3 2010/3 2011/3 2012/3 2013/3 2014/3 2015/3 2016/3 **2017/3** ended March 31)

Graph 3

Interest-Bearing Debt / D/E Ratio*2

(Billions of yen) 6,000



Graph 2

Operating Income / Net Income Attributable to NTT*1*8 (Billions of yen)



ended March 31) Operating income Net income attributable to NTT

Graph 4





*1 In regard to affiliates that became subject to the application of the equity method in the fiscal year ended March 31, 2008, and in the fiscal year ended March 31, 2014, the equity method has been applied retroactively to past years, and consequently figures for the period from the fiscal year ended March 31, 2007, to the fiscal year ended March 31, 2013, have been retroactively adjusted.

(%)

80

*2 D/E ratio = Interest-bearing debt / Shareholders' equity x 100 *3 Capital investment is recognized on an accrual basis for the acquisition of property, plant and equipment.

*4 Capex to sales ratio = Capital investment / Operating revenues x 100

_____300 200

> (Fiscal year 2008/3 2009/3 2010/3 2011/3 2012/3 2013/3 2014/3 2015/3 2016/3 2017/3 ended March 31)

*5 From the fiscal year ended March 31, 2017, the method for calculating EBITDA has been revised. EBITDA = Operating income + Depreciation + Loss on sales of property, plant and equipment + Impairment loss *6 Free cash flows = Cash flows from operating activities + Cash flows from investing activities *7 Adjusted for a stock split of common stock (100-for-1) with an effective date of January 4, 2009, and a stock split of common stock (2-for-1) with an effective date of July 1, 2015. *8 With the application of the accounting pronouncement issued by the Financial Accounting Standards Board ("FASB") in December 2007, relating to noncontrolling interests in the consolidated financial statements, starting from the fiscal year ended March 31, 2010, the name of this line item was changed.





(Fiscal year 2008/3 2009/3 2010/3 2011/3 2012/3 2013/3 2014/3 2015/3 2016/3 **2017/3** march 31)









2006/10/30

(Fiscal year 2008/3 2009/3 2010/3 2011/3 2012/3 2013/3 2014/3 2015/3 2016/3 2017/3 ended March 31) - Moody's - S&P

2011/9/1

Aa1→Aa2

Performance Highlights

Operational Data (End of year / month)

Number of subscriptions*1, etc.		2007/3	2008/3	2009/3	2010/3	2011/3	2012/3	2013/3	2014/3	2015/3	2016/3	2017/3
Fixed-line communications services	Telephone subscriber line*2 + INS-Net*3	50,495	46,034	42,085	38,330	34,884	31,672	28,766	26,366	24,344	22,718	21,336
Fixed-line broadband services subscriptions Graph 1	FLET'S ADSL	5,323	4,656	3,992	3,381	2,858	2,322	1,848	1,483	1,219	1,053	919
	FLET'S Hikari*4	6,076	8,777	11,134	13,251	15,059	16,564	17,300	18,050	18,716	19,259	20,053
	Hikari Collaboration Model	_	_	_	-	_	_	_	_	270	4,691	8,744
	Hikari Denwa ^{*4*5}	3,174	5,725	8,011	10,142	12,113	13,900	15,169	16,256	17,108	17,374	17,759
Video services subscriptions	Hikari TV	_	_	552	1,009	1,413	2,004	2,453	2,823	3,014	3,052	3,023
	FLET'S TV*4	_	_	120	270	592	861	1,003	1,161	1,345	1,432	1,521
Mobile communications services subscriptions Graph 2	Xi + FOMA + mova	52,621	53,388	54,601	56,082	58,010	60,129	61,536	63,105	66,595	70,964	74,880
· · · · · · · · · · · · · · · · · · ·	FOMA	35,529	43,949	49,040	53,203	56,746	57,905	49,970	41,140	35,851	32,285	30,336
	LTE (Xi)	_	_	_	_	26	2,225	11,566	21,965	30,744	38,679	44,544
dmarket (10,000 subscriptions)*6	dmarket	_	_	_	_	_	74	499	769	1,188	1,554	1,608
	dTV	_	_	_	_	_	74	413	441	468	499	469
	dhits	_	_	_	_	_	_	52	208	304	375	354
	danime store	_	_	_	-	_	_	34	115	183	204	180
	dkids	—	_	_	-	_	—	_	5	41	47	35
	dmagazine	_	_	_	-	_	_	_	_	191	325	363
	dgourmet	—	—	—	-	—	—	—	—	—	103	124
Billing plan Kake-hodai & Pake-aeru (10,000 subscriptions)*7	_	_	_	-	_	_	_	_	1,783	2,970	3,707

ARPU* ⁸												Yen
ARPU of fixed-line	NTT East	¥3,170	¥3,110	¥3,050	¥2,980	¥2,930	¥2,860	¥2,810	¥2,760	¥2,700	¥2,650	¥2,610
(Telephone subscriber line*2 + INS-Net subscriber line*3)	NTT West	3,020	2,960	2,900	2,850	2,800	2,760	2,720	2,690	2,650	2,610	2,580
ARPU of <i>FLET'S Hikari</i> *4 Graph 3	NTT East	5,050	5,310	5,580	5,740	5,880	5,920	5,860	5,660	5,490	5,510	5,250
	NTT West	5,120	5,460	5,620	5,780	5,890	5,940	5,880	5,830	5,680	5,470	5,280
Mobile aggregate ARPU*9 Graph 4	Mobile aggregate ARPU	6,700	6,360	5,710	5,350	5,070	5,140	4,900	4,370	4,100	4,170	4,430
	Voice ARPU	4,690	4,160	3,330	2,900	2,530	2,200	1,760	1,490	1,280	1,210	1,250
	Packet ARPU	2,010	2,200	2,380	2,450	2,540	2,590	2,720	2,880	2,820	2,910	2,990
	Smart ARPU	_	_	_	-	_	350	420	—	_	-	_
	docomo Hikari ARPU	_	_	_		—	_	—		—	50	190



Fixed-Line Broadband Services Subscriptions (Thousands of subscriptions)



Graph 2

Mobile Communications Services Subscriptions



mova (2G) FOMA (3G) LTE (XI)



ARPU of FLET'S Hikari*4

Graph 3

*6 Number of dmarket subscriptions represents the total for dTV, dhits, danime store, dkids, dmagazine, dgourmet, dhealthcare pack, and dliving

*7 Billing plan with four central components-Kake-hodai, which offers nationwide voice calls for a flat monthly rate; Share Pack, which allows packet data volume to be shared among family members; Zutto DOCOMO Wari, which is a discount service based on the number of years of use; and U25 Ouen Discount, which supports customers who are aged 25 or younger. *8 Please see page 90 for the ARPU calculation method and other details.

*9 The ARPU calculation method was changed from the fiscal year ended March 31, 2016. Accompanying this change, the new method has been applied retroactively to the ARPU figures for the fiscal year ended March 31, 2014, and the fiscal year ended March 31, 2015. Packet ARPU from the fiscal year ended March 31, 2009, to the fiscal year ended March 31, 2011, includes an amount corresponding to Smart ARPU.

*1 As of each fiscal year-end

*2 The number of Telephone subscriber line is the total of individual lines and central station lines (Subscriber Telephone Light Plan is included).

*3 The number of INS-Net is the total of INS-Net 64 and INS-Net 1500 (INS-Net 64 Lite Plan is included). In terms of the number of channels, transmission rate, and line use rate (base rate), INS-Net 1500 is in all cases roughly 10 times greater than INS-Net 64. For this reason, one INS-Net 1500 subscription is calculated as 10 INS-Net 64 subscriptions.

*4 The figures for FLET'S Hikari, Hikari Denwa, and FLET'S TV include wholesale services provided to service providers by NTT East and NTT West.

*5 The number of Hikari Denwa subscriptions is calculated by number of channels in thousands.

Thousands of subscriptions



Strategy

Non-Financial Highlights

Environmental / Social Data

Environmental Data

	2013/3	2014/3	2015/3	2016/3	2017/3	
CO2 emissions volume*1 (Million tons of CO2)	4.41	4.86	5.08	4.89	4.59	
CO2 emissions volume per sales (t-CO2 /Billions of yen)	452	498	533	505	480	
Contribution to reduction in society's CO ₂ emissions*2 *3	Calculated from the fiscal year ended					
(Times, compared to CO ₂ from NTT Group)	March 31, 2017					
Electrical efficiency of communications services*2 *4	Calculated from the fiscal year ended					
(Times, improvement from the fiscal year ended March 31, 2014)	March 31, 2017					
Final disposal rate for waste (%)	1.45	1.15	0.88	0.82	1.03	

*1 Total for Scope 1 (direct emissions from the use of fuel, etc.) and Scope 2 (indirect emissions accompanying the use of energy, such as electricity)

*2 Performance in comparison with 2030 environmental targets

 $^{\star}3$ Calculated by converting the energy saving benefits of supplied ICT services into CO_2

*4 Calculated for five major domestic companies (NTT East, NTT West, NTT Communications, NTT DOCOMO, and NTT DATA)





Final Disposal Rate for Waste



Note: Scope of data collection: Japan

Social Data

Numbers of Consolidated Group Companies and Employees

	2013/3	2014/3	2015/3	2016/3	2017/3
Number of Group companies (Companies)	827	946	917	907	944
Number of employees (Employees)	227,150	239,750	241,600	241,500	275,000

Employment



*1 As of March 31, 2017, estimated number of employees for 944 consolidated companies in the NTT Group

*2 As of March 31, 2017, total number of employees of NTT, directly affiliated companies in Japan, and their affiliated companies in Japan (total of 41 companies) *3 Section manager level or higher

CO₂ Emission Volume per Sales



External Evaluations

SRI Indexes and Other External Evaluations (O Represe

Dow Jones Sustainability Index

Index evaluating corporate sustainability from the three perspectives of the economy, environment, and society. Developed through collaboration by Dow Jones, of the U.S., and RobecoSAM, of Switzerland, a specialist in investigation of SRI.

FTSE4 Good Index

Global ESG index from FTSE Russell, of the U.K., a wholly owned subsi iary of the London Stock Exchange.

FTSE Blossom Japan Index

Index compiled by FTSE Russell to reflect performance of Japanese companies displaying excellence in terms of environmental, social, and governance (ESG) factors

Morningstar Socially Responsible Investment Index

From among approximately 4,000 listed companies in Japan, Morningst selects 150 companies for superior social responsibility and converts the stock prices into the index, which is the first SRI index in Japan.

Intellectual Property Related

Clarivate Analytics Top 100 Global Innovators

Top 100 organizations selected as global business leaders each year by Clarivate Analytics. Organizations are selected on the basis of granted li rights for unique inventions and successful commercialization.

Brand Related

Brand Finance Global 500

Brand Finance is a global leader in brand valuation and strategic consultancy, with a presence in more than 20 countries. Brand Finance uses a original methodology to quantify and rank corporate brands for comparin a wide range of categories.

BrandZ Top 100 Most Valuable Global Brands 2016

Millward Brown, which is one of the world's leading market research firm conducts branding-, media-, and communications- related operations. Millward Brown uses an original methodology to rank approximately 23, company brands, with comprehensive consideration of company finance and corporate image based on consumer surveys.

	2013	2014	2015	2016	2017
ents I	nclusion)				
the by n the	_	O Asia Pacific As of September	Asia Pacific As of September	Asia Pacific As of September	O Asia Pacific As of September
id-	_	_	-	O As of June	O As of June
I	_	-	_	_	O As of June
star neir	_	0	0	0	O As of July
y IP	0	0	0	0	O As of January
II- an nies	16	67	70	23	15 2nd among Japanese companies
ms, 3,000 ces	_	-	_	47	50 2nd among Japanese companies

Overview

Strategy

ESG

Operation

nnovation

Aiming to achieve sustained gains in corporate value as the "Value Partner" that customers continue to select

1. Introduction

Business Transformation Based on the Medium-Term Management Strategy

In November 2012, NTT Group announced its "Towards the Next Stage" Medium-Term Management Strategy, positioning the growth field of global cloud services as a core pillar for its business going forward. At the same time, we commenced efforts to improve the efficiency of existing network services and thoroughly bolster competitiveness. Later, in May 2015 we

launched "Towards the Next Stage 2.0," a management strategy aimed at realizing further profit growth that was formulated to guide these efforts.

"Towards the Next Stage 2.0" maintains the basic focus of the prior medium-term management strategy while placing additional emphasis on increasing profits, targeting growth in earnings per share (EPS). To achieve the redefined target for EPS growth, the new strategy is centered on accelerating the profit generation of global cloud services and enhancing the profitability of network services.

Under "Towards the Next Stage 2.0," we have chosen to pursue sustainable growth by promoting the B2B2X model to explore new markets. In other words, we aim to have NTT Group function as a catalyst for the creation of new business models and new, high-value-added services with various partners.

September 2017 President and Chief Executive Officer, Representative Member of the Board

Hiror Unousa

Progress toward Medium-Term Financial Targets and Future Outlook

"Towards the Next Stage 2.0" has four financial targets. The most important of these targets is for EPS growth. The other targets are for streamlining capital investment in the domestic network business, reducing costs associated with fixed-line and mobile access networks, and increasing overseas sales and operating income.

These financial targets are set to be achieved in the fiscal year ending March 31, 2018. I will now briefly discuss our current forecasts with regard to these targets.

For the fiscal year ending March 31, 2018, we aim to achieve recording-breaking operating revenues, operating income, and net income. Through efforts targeting this goal, EPS-defined as the most important medium-term financial target-should come to ¥414, exceeding the targeted level of at least ¥400. We are also making smooth progress toward our targets for streamlining capital investment in the domestic network business and reducing costs associated with fixed-line and mobile access networks, both of which we expect to achieve.

With regard to overseas sales and operating income, we have determined that it will be difficult to accomplish the

Progress toward Medium-Term Financial Targets and Future Outlook

C		
Medium-term financial targets (Fiscal year ending March 31, 2018)	Fiscal year ended March 31, 2017 (Results)	Fiscal year ending March 31, 2018 (Plan)
At least ¥400	¥391	¥414
At least ¥200.0 billion	¥136.4 billion	¥205.0 billion
At least ¥800.0 billion	¥654.0 billion	¥830.0 billion
\$22.0 billion / \$1.5 billion	\$16.9 billion / \$0.79 billion	\$19.6 billion / \$1.2 billion
	Medium-term financial targets (Fiscal year ending March 31, 2018) At least ¥400 At least ¥200.0 billion At least ¥800.0 billion \$22.0 billion /	Medium-term financial targets (Fiscal year ending March 31, 2018)Fiscal year ended March 31, 2017 (Results)At least ¥400¥391At least ¥200.0 billion¥136.4 billionAt least ¥800.0 billion¥654.0 billion\$22.0 billion /\$16.9 billion /

1. Overseas operating income excludes M&A-related temporary expenses, such as depreciation costs of intangible fixed assets. 2. Streamlining capital investment (domestic network business) excludes capital investment for NTT Communications' data centers and certain other assets 3. Figures for cost reductions (fixed-line / mobile access networks) are financial targets that exclude the impact of the change in the depreciation method for property, plant and equipment. 4. Financial targets for overseas sales and overseas operating income and for streamlining capital investment have not been revised. 5. In May 2016, the target for EPS growth was revised from at least ¥350 to at least ¥400.

6. In May 2016, the target for cost reductions was revised from at least ¥600.0 billion to at least ¥800.0 billion

2. Progress of and Outlook for "Towards the Next Stage 2.0" Medium-Term Management Strategy

targets of \$22.0 billion and \$1.5 billion set for these items, respectively, in the fiscal year ending March 31, 2018. Instead, we are forecasting overseas sales of \$19.6 billion and overseas operating income of \$1.2 billion. In regard to our overseas operations, we have continued to expand our global business lineup through mergers and acquisitions while pursuing sales and service coordination between Group companies. In the fiscal year ended March 31, 2017, the results of these efforts began appearing steadily as we received orders from customers in various industries around the world. One noteworthy example of a global client would be the Public Transport Victoria of Australia. In the fiscal year ending March 31, 2018, we will step up the cross-selling and other collaborative initiatives we have been implementing thus far and also work toward further cost reductions. At the same time, we will undertake new initiatives, such as the integration and reinforcement of the cloud services of NTT Communications and Dimension Data. We will seek to accomplish our global business targets at the earliest possible date through the continued advancement of such cross-Group initiatives

Enhancement of Shareholder Returns

We plan to continue increasing dividend payments over the medium term while giving consideration to stability and sustainability. Annual dividends for the fiscal year ended March 31, 2017, were ¥120 per share. We plan to raise dividend payments by ¥30, to ¥150 per share, in the fiscal year ending March 31, 2018, in light of the favorable trends in business performance. This amount is six times higher than when the Company was first listed on the stock market 30 years ago. Looking ahead, we will continue to increase dividend payments while giving consideration to stability and sustainability.

With regard to share buybacks, it was decided to conduct acquisitions of treasury stock with an upper limit of ¥150.0 billion at a meeting of the Board of Directors held in December 2016. These acquisitions were completed in April 2017. This entailed treasury stock acquisitions in the fiscal year ended March 31, 2017, that totaled ¥374.1 billion, including the portion acquired from the government of Japan in June 2016, as well as an additional ¥43.2 billion in acquisitions conducted in April 2017. In the future, we will maintain a flexible stance toward conducting share buybacks based on consideration of factors including performance and market trends as well as the need to improve capital efficiency.

Note: Figures above have been adjusted for a stock split of common stock (100-for-1) conducted with an effective date of January 4, 2009, and a stock split of common stock (2-for-1) conducted with an effective date of July 1 2015



telecommunications operators can play a lead role by supplying all the necessary services themselves. NTT Group does not look to play a lead role, but rather aims to become one of many crucial actors in supporting customers as they transform their business models and create new businesses. Launched in February 2015, the Hikari Collaboration Model, the world's first model for full-scale fiber-access services offered through a wholesale framework, is based on this policy. This service is thus aimed at creating new businesses and new, high-valueadded services together with partners.

The "Towards the Next Stage 2.0" Medium-Term Management Strategy, which inherited this policy, set the clear goal for achieving sustainable growth of exploring new markets by further promoting the B2B2X model. The aim of the B2B2X model is to support the business model transformations of service providers, represented by the center B, in order to contribute to innovation in the lifestyles of end users, represented by the X, or to the resolution of social issues with new

Aim of B2B2X Model Initiatives

3. Pursuit of Further Corporate Value Gains

In the fiscal year ended March 31, 2017, we were able to accelerate several concrete collaborative projects together with various partner companies through our B2B2X model initiatives. We have been proactive in explaining NTT Group's efforts with this regard. For example, some of these initiatives were described at CEBIT 2017, the world's largest ICT business trade fair, which was held in Germany in March 2017. I feel that strong progress was made in B2B2X model initiatives during the fiscal year ended March 31, 2017. I would like to take this opportunity to refresh your understanding with regard to the aim and concept of our B2B2X model initiatives

In the "Towards the Next Stage" Medium-Term Management Strategy announced in November 2012, we set forth our goal of becoming a "Value Partner" that customers continue to select and deem valuable. This goal is meant to be achieved by responding to the globalization of markets and the evolution of cloud services in order to break away from being simply a telecommunications operator.

The current era is one in which customers are able to freely choose the services they wish to use. In this era, it is not enough to be chosen once: companies must continue to be selected. Furthermore, this era is no longer one in which

B2B2X Business Model



services created together with service providers. In this manner, the B2B2X model goes beyond the previous approach of growing earnings by providing network and peripheral services directly to individuals, companies, and other consumers. The true aim of this model is to work together with partners to provide the value born out of NTT Group's strengths to individuals and companies through an ever-widening range of service providers, and thereby create new business models

We are currently accelerating numerous B2B2X model collaborative projects together with various service providers. These ventures include the merger of Kabuki and ICT to create new and moving experiences in the entertainment field, the realization of smart soccer stadiums and new visual expressions in the sports field, the optimization of manufacturing through the use of the IoT in factories in the manufacturing field, and the development and verification of connected car technologies in the automotive field. We will further build upon these initiatives going forward.

Resolution of Social Issues and Shaping of the Future

To reiterate, NTT Group is promoting the B2B2X model with the aim of creating new services and value to innovate lifestyles and resolve social issues. Turning our eyes to the world at large, we will see that the movement to develop a sustainable society is gaining steam on a global scale, as exemplified by the adoption of the Sustainable Development Goals by the United Nations. This movement is increasingly directing more anticipation toward NTT Group, which has continued to utilize ICT to resolve social issues over the years. In Japan, the Cabinet Office is promoting "Society5.0" initiatives with the goal of creating an ultra-smart society as part of its initiatives for building industries and transforming society for the future. The principles behind these initiatives are shared by NTT Group. In conjunction with the Cabinet Office's initiatives, the Japan Business Federation (Keidanren) has established its own action plan with a view to revitalizing Japan by realizing Society5.0 through public-private partnerships.

The realization of Society5.0 is anticipated to be driven by the IoT, big data, and AI. This is because the IoT makes it possible to accumulate various social data as big data, which can be analyzed by AI to contribute to the resolution of social issues. This process will require that data from society as a whole be shared and utilized. However, there are two major tasks that will need to be addressed to make this possible. The first task is the development of frameworks for collecting data. Specifically, frameworks must be established for enhancing data in terms of both quality and quantity. The second task is the formulation of rules for ensuring the safe and trustworthy use of personal information.

For addressing these issues, a scheme in which local governments play a central role in accumulating and promoting the use of big data is ideal. Rather than giving a single company exclusive access to this data, it would be better for population, map, disaster prevention, and other publicly available information held by local governments and for the big data collected by companies to be compiled and provided to the entire industry as a public asset. In this scheme, local governments should lead efforts to share and utilize this data to contribute to the improvement of services for local residents and to the development of local industries.

NTT Laboratories is developing secret sharing technologies that enable data to be stored safely and be protected from deletion following system malfunctions as well as secret computation technologies that make it possible to process anonymized data. I believe that these technologies will help support the sharing and utilization of data. We should also be able to offer assistance through our Al-powered big data analysis technologies as well as through the telecommunications services we have accumulated to date.

We have concluded comprehensive partnership agreements with Fukuoka City and Sapporo City and are examining and implementing various solutions to the issues faced by the local governments in each city.

In this manner, NTT Group will collaborate with local governments to link contributions to regional economic development to the improvement of corporate value.

Reinforcement of Foundations for Improving Corporate Value

Good corporate governance and the empowerment of diverse human resources are important building blocks for our foundations for improving corporate value.

I believe that the effective functioning of corporate governance is indispensable for sustained gains in corporate value. Accordingly, NTT is working to bolster the effective functioning of corporate governance based on its fundamental policies of ensuring sound management, conducting appropriate decisionmaking and business activities, clarifying accountability, and maintaining thorough compliance.

I believe that accountability is one of our most important responsibilities, and we therefore implement management with an emphasis on communication with shareholders and other investors. Our medium-term management strategy focused on EPS growth was formulated as we sought means of incorporating stakeholder feedback into management. Going forward, NTT's management, myself included, will actively engage in exchanges of opinion with shareholders and other investors to enhance their understanding of our medium-term management strategy.

In terms of compliance, we recognize the extreme importance of operating our business in observance of laws and regulations and with a strong sense of ethics. To this end, the NTT Group Corporate Ethics Charter sets forth conduct guidelines for corporate officers and employees. NTT also conducts training and annual surveys of employees to measure their awareness, and the results are then used for corporate ethics

International trends remain opaque, and NTT Group is currently faced with a need to prepare for business risks. At the same time, it can be expected that the IoT, big data, AI, and other ICT will evolve to address various issues, accelerating the speed of transformation in industrial structures and social life.

In this environment, NTT Group finds itself poised to take advantage of various business opportunities. To capitalize on awareness enhancement initiatives in order to guarantee the effectiveness of the charter.

Employees are an important source of competitiveness for companies. In order to empower a diverse range of employees, we have positioned diversity management as a core element of our management strategies, and diversity promotion initiatives are being implemented accordingly. These initiatives have led NTT to receive the highest rating of gold in the PRIDE INDEX, which is designed to recognize efforts for supporting the LGBT community and other sexual minorities.

We also realize that the creation of a workplace environment that is conducive to the long-term efforts of a diverse range of human resources is an urgent task. In reforming work styles and leave acquisition practices, managers should be the vanguards of changing awareness ahead of employees. To get the ball rolling on such changes, I issued a message to all NTT Group employees and managers stating that managers should strive to set a good example in terms of work styles and leave acquisition practices. Going forward, we will promote work style reform to secure human resources and cultivate a workplace environment that is more conducive to employees' exercising their talents to improve labor productivity. Specific measures with this regard will include encouraging employees to take extended leave, allowing employees to work from home and otherwise practice teleworking, and making it possible for employees to work early morning hours through flextime systems

4. In Closing

Collaboration as a "Value Partner"

this prime positioning, we will enhance the R&D and operating capabilities we have fostered to date. At the same time, we will collaborate with partners in other industries as a "Value Partner" in our ongoing quest to create new services and business models.

I would like to ask for your ongoing support of NTT Group in the years ahead.

Acceleration of B2B2X Businesses

Drastic Transformation of Business Structure

NTT Group has continued to transform its business structure in response to changes in markets and in technologies. Such transformations have included the development of broadband operations and global businesses.

We are currently exploring new business fields with the potential to drive the ongoing growth of NTT Group with an eye to 2020 and the vitalization of local economies.

We are combining our broadband operations, which are being developed across Japan, with our information systems, which boast strengths in various fields, to make comprehensive value proposals and develop businesses with various aims. Such aims include developing sports and other fields into growth industries; boosting the competitiveness of the agricultural, manufacturing, and service industries; resolving social issues arising from the declining birth rate, aging population, and other causes; and transforming people's lifestyles.

As we develop these operations, NTT Group's business structure is undergoing a drastic transformation, evolving from its former telecommunications-centered business-to-consumer structure to adopt a structure focused on B2B2X businesses. B2B2X businesses are a step forward from the business-to-business model. In these businesses, NTT Group supports service providers, represented by the second B, in supplying various services to end users, represented by the X, through smartphones and network-connected sensors.

NTT Group strives to serve as a catalyst for service providers falling under the second B, stimulating transformations in the business models of companies and in the services for residents offered by local governments as well as supporting information-grounded decision making by consumers and community members through these transformations. The ultimate goal of these efforts is to aid in lifestyle transformation

Aims of B2B2X Model Initiatives

The digitization of information will allow for a variety of data to be collected, processed, and distributed via networks, making it possible for previously under-utilized information assets and expertise to be used more effectively.

The advancement of the IoT, meanwhile, will enable for the conditions of various articles to be monitored in a timely fashion through smartphones and other mobile terminals as well as through network-connected sensors and monitors attached to machinery, buildings, and infrastructure.

In addition, artificial intelligence (AI) will greatly increase the ability to support service providers (the second B) in creating new value by instantaneously processing and analyzing massive amounts of collected data.

Accelerating the development of B2B2X businesses is a strategy designed to transform NTT Group's business structure so that it may evolve from a model of providing services directly to individuals and businesses to a model of supporting service providers in various fields to deliver value to end users. The Group will advance this transformation while at the same time taking advantage of digitization, the IoT, AI, and other social and technological developments.

Major Initiatives in the Fiscal Year Ended March 31, 2017

In the fiscal year ended March 31, 2017, NTT Group accelerated several concrete projects together with various partners, including companies, organizations, and local governments.

The results of some of these initiatives were introduced at CEBIT 2017, which was held in Germany in March 2017, and at Niconico Chokaigi 2017, which was held in April 2017 in Makuhari, Japan, as part of our proactive drive to explain these efforts.

NTT Group will strive to continue being an entity with which second B service providers want to collaborate.





Examples of B2B2X Model Initiatives

B2B2X Model Collaboration with a Sports League

Contribution to the Development of the Sports Field into a Growth Industry with J.League Club Teams

Recently, we have been witnessing the expansion of the sports content industry on a global scale along with other market changes. At the same time, the advancement of the IoT, AI, virtual reality (VR), and other technologies has become ever more apparent. In response to these trends, the Japanese government is spurring forward a drive to develop the sports field into a growth industry in light of 2020.

In the midst of these trends, NTT Group has concluded a collaboration agreement with the J.League and Perform Group with regard to the Smart Stadium project. This project, which is aimed at promoting the advancement of ICT in J.League stadiums and club hometowns, represents one of our first B2B2X model initiatives.

In the fiscal year ended March 31, 2017, NTT Group began converting Yurtec Stadium Sendai and Kashima Soccer Stadium into smart stadiums, joining NACK5 Stadium Omiya, which has already undergone this conversion. We plan to expand smart stadium initiatives going forward. In addition, we are collaborating with Perform Group to make it possible to view sports events anytime, anywhere through DAZN for docomo, a revolutionary live sports viewing channel, and through Hikari TV.

Diagram of Collaboration Initiatives

Expansion of Customer Base through Digital Marketing



Furthermore, NTT DOCOMO has concluded a top partner agreement with the J.League, while NTT Group has entered into an official technology partner agreement. By building upon our cooperative relationship with the J.League, we will utilize NTT Group's ICT services and assets to promote the B2B2X model.

Looking ahead, NTT Group will strive to encourage greater engagement with current J.League fans and supporters and to step up communication with prospective soccer fans. To this end, we will utilize Group assets, such as NTT DOCOMO's d POINT service, while also holding user-participation events linked to social networking services (SNSs).

We aim to deliver higher levels of satisfaction to current J.League fans and to create new fans by leveraging NTT Group's augmented reality (AR), VR, and other technologies to create new entertainment experiences and by making effective use of J.League's archive of past videos.

In addition, we will help invigorate J.League club hometowns by enhancing relationships between local fans and supporters and the J.League and its club teams through coordination among Group company branches and docomo shops located throughout Japan.

B2B2X Model Collaboration with Entertainment Companies

Merger of Kabuki and ICT to Create New and More Moving Experiences

NTT is collaborating with SHOCHIKU Co., Ltd., in a joint test aimed at proposing completely new ways of viewing Kabuki by merging Kabuki with state-of-the-art ICT. As the first step of this test, we delivered a real-time, ultrahigh-presence live viewing experience of the KABUKI LION SHI-SHI-O: The Adventures of the Mythical Lion performance, which took place at Japan KABUKI Festival in Las Vegas 2016, to Haneda Airport by using the Kiraril immersive telepresence technology and other cutting-edge technologies.

At the Las Vegas event, an exhibition was held displaying such technological feats as a system that used angle-free object search technology to recognize specialized masks simulating the unique kumadori makeup featured in Kabuki. When a mask was held up to one's face, it would be recognized, and the Kabuki makeup mask would be superimposed onto the individual's face on a monitor using AR technologies. In addition, projection mapping was applied to a giant three-dimensional face object in conjunction with the distinctive pauses and expressions and other dynamic performances for which Kabuki is known. At the same time, deformation lamp light projection technologies were used to present the appearance that still kumadori images on a wall were actually moving, injecting an added degree of human emotion into the exhibit.

Furthermore, the KABUKI LION SHI-SHI-O Las Vegas Performance Returns in Kumamoto event was held to give form to the desires of NTT, NTT West, Kumamoto Prefecture, and SHOCHIKU to support the recovery from the impacts of the 2016 Kumamoto earthguakes. This event included Kabuki Theater Virtual Performance and other exhibits that enabled visitors to experience the potential of merging Kabuki with ICT.

Through these events, we are conducting R&D ventures for utilizing ICT to realize next-generation Kabuki. As we advance these ventures, we will leverage the insight into entertainment expressions gained through these events in future efforts for providing new and more moving experiences.







Examples of B2B2X Model Initiatives

B2B2X Model Collaboration with Local Governments and Companies

Contribution to ICT Community Development Utilized Publicly Available Data and Real-World Data through Collaboration with Sapporo City and **Local Distribution Companies**

NTT Group is supporting Sapporo City's efforts to build an advanced model for ICT community development.

We have joined the Sapporo City ICT Utilization Platform Study Panel, a public-private-academic partnership established by Sapporo City. Through participation in this committee, we aim to contribute to ICT community development in a wide range of fields, including sports, tourism, transportation, snow countermeasures, health, childcare, regional economic development, and resident services.

Our first initiative through this partnership was conducted in conjunction with the Sapporo Snow Festival and the 2017 Sapporo Asian Winter Games. We worked together with Sapporo City and local distribution companies to collect and analyze real-world data related to travel, preference, and purchasing trends among domestic and overseas tourists. This information was used to deploy measures for stimulating consumption, including mutual customer referrals by hotels, tourist spots, and shopping facilities, and to help communicate the appeal of Sapporo City.

These data-based marketing initiatives led to substantial year-on-year increases in the sales of the local distribution companies with which we partnered. Furthermore, we were able to analyze industry-wide data on purchases by product category and nationality, data that normally would not have been shared with competitors. These analyses allowed for the rediscovery of markets that individual companies had failed to discover and made it possible to implement marketing measures from new perspectives. These benefits served to verify the advantages of sharing data with industry peers.

By increasing the number of companies participating in these initiatives, we hope to provide further support for consumption-stimulation measures.

NTT Group will also continue aiding the ICT community development efforts of Sapporo City and cities in the fields of transportation, snow countermeasures, health, and childcare.

Overall Framework for Data-Based Marketing (Travel and Consumption)



B2B2X Model Collaboration in Manufacturing Industry

Agreement with FANUC to Work toward Quick Establishment and **Commencement of Service of FIELD System for Optimizing Manufacturing** with the IoT

An agreement has been reached between FANUC CORPORATION, NTT, NTT Communications, and NTT DATA to engage in collaboration pertaining to edge computing technologies and ICT platform utilization, both areas of focus for all parties, to quickly establish and commence service of the FANUC Intelligent Edge Link and Drive (FIELD) system. This system is an open platform being developed by FANUC that is meant to be connected to computer numerical control devices, robots, peripheral devices, sensors, and other equipment to perform sophisticated analyses for optimizing manufacturing.

Scheme for Optimizing Manufacturing at Factories





FANUC is a global supplier in the field of factory automation and robots. This company is currently engaged in the development and commercialization of the FIELD system. This open platform is designed to be linked to the various equipment used at manufacturing sites to enable smart processing and utilization of the big data produced by such equipment in order to realize unprecedentedly smart manufacturing sites.

Through our partnership with FANUC, the cutting-edge technologies of NTT Laboratories and the ICT platforms and management solutions being deployed on a global basis by NTT Communications will be incorporated into the FIELD system scheme to realize the quick establishment and commencement of service of this system. We will also seek to make this system the de facto standard. At the same time, NTT DATA's application development experience and expertise, which entails using analyses of big data to resolve various issues seen at factories, will be utilized to support the work process reforms of organizations adopting the FIELD system. Acting as the "Value Partner" that customers continue to select, NTT Group will collaborate with various partners in the field of ICT to promote co-innovation initiatives. NTT Group has positioned manufacturing industry as a priority field. In this field, NTT Group is united in its goal of creating new, high-value-added services and business models together with its partners.

ESG



Examples of B2B2X Model Initiatives

B2B2X Model Collaboration in Livestock Industry

Provision and Testing of Beef Cattle Life Cycle IoT Services for Realizing Stable Supply of Wagyu Beef

In primary industries in Japan, such as agriculture and fishing, the IoT, AI, and other ICT are anticipated to contribute to the resolution of serious issues faced in these industries, including the lack of practitioners stemming from population aging. In addition to helping increase production efficiency and stabilize and improve quality, ICT is expected to make it possible for practical know-how to be represented visually and passed on to others.

In the Wagyu beef industry, the aging and decline of cattle farmers are causing an ongoing shortage of calves. Looking to address this issue, NTT Group has turned its attention to the overall beef cattle life cycle. We hope to reduce the labor requirements for successfully breeding calves, fattening them, and eventually shipping them using the IoT and to offer IoT services that support stable shipments of Wagyu beef.

NTT DOCOMO is working together with the ZEN-NOH Group to advance initiatives targeting cattle farmers for reducing the amount of labor associated with the birth of Wagyu cattle.

In these initiatives, sensors for the cattle body temperature monitoring system developed by REMOTE, INC., are attached to cows that are expected to deliver calves in the near future. The body temperatures of these cows are monitored closely, and graphs are produced, which can be viewed via a smartphone or tablet connected to NTT DOCOMO's communications network. Accordingly, cattle farmers are able to easily maintain an understanding of the cows' conditions. E-mails are sent to farmers 24 hours before the expected delivery or when the cow's water breaks so they can have sufficient time to prepare. Through these features, the system reduces the need for farmers to check up on cows day and night.

In addition, NTT East is engaged in a verification test together with Zenchikuren and Computer Associated Laboratory, Inc., aimed at preventing falling-related deaths of beef cattle prior to shipment.

In this verification test, we have deployed a system in which infrared motion sensors are installed in cattle barns. The image data from these sensors is collected via Wi-Fi and uploaded to a cloud server by means of a milli-wave network capable of long-distance, wireless communications. This data is utilized to identify when beef cattle have fallen, and e-mails are sent when a fallen cattle is detected.

Every year, between 1% and 2% of procured calves die before being raised to a shippable state due to their lungs collapsing as a result of going undetected after having fallen down. This initiative is designed to prevent such deaths.

Beef Cattle Life Cycle



Realization of Society5.0

The Cabinet Office is promoting "Society5.0" initiatives with the goal of creating an ultra-smart society as part of its initiatives for building industries and transforming society for the future. These initiatives are being advanced through public-private partner-ships to transform society for the future. The IoT, big data, and AI are expected to be key technologies and concepts for the realization of Society5.0.

(Reference) Definition of an Ultra-Smart Society An ultra-smart society is one in which people can receive the items and services they need when and in the amount required. This society should be capable of providing fine-tuned responses to various social needs and making high-quality services available to all. In this manner, an ultra-smart society will enable people to overcome differences of age, gender, region, and language to live empowered and comfortable lives.

Society5.0 (5th Science and Technology Basic Plan)



The IoT is anticipated to make it possible for data from throughout society to be accumulated as big data and analyzed via AI to resolve various social issues.

In order for the IoT and big data to be used to resolve social issues in this way, it will be necessary to appropriately share and utilize the population, road, and other infrastructure (public sector) data possessed by local governments along with purchasing, transportation, and other industry (private sector) data.

In this undertaking, local governments should play a central role by effectively managing public sector and private sector data that has been collected to return the value produced by this information to citizens and local companies. This process will expand the possibilities for utilizing data and thereby contribute to the development of local businesses and the improvement of services for residents.

NTT Group aims to support the efforts of local governments to use ICT for community development purposes. To this end, we have concluded comprehensive partnership agreements with Fukuoka City and Sapporo City through which we have been contributing to the development of tourism and other local industries and to the improvement of healthcare, child support, and other resident services. These initiatives have brought to light a number of tasks needing to be addressed.

The first task is to establish data management entities and increase the number of companies taking part in the aforementioned scheme. If local governments are able to commit to playing a central role in this scheme, participating companies will be more trusting of the scheme, which in turn will make it possible to accumulate highly viable data that would be difficult to compile at the individual-company level. Furthermore, returning the value created through this data to the companies that supplied it will support an ongoing cycle of data collection, processing, and utilization. NTT Group hopes to assist in generating such a cycle.

• Transformation of society by expanding the application of the IoT to various fields · Sophisticated integration of virtual and physical spaces 2. Construction of Shared Platforms Infrastructure Maintenance Natural Disaster-Resilient Societ Management and Upgrade Smart Food Chain Systems Hospitality System Integrated Material Smart Production System Development Syste 50 40 Information Society **Ultra-Smart Societv**

ESG

The second task is to formulate standardized rules and guidelines. One goal of this scheme is for various business operators to share purchase data and use it in marketing and promotional activities. However, the types of data collected currently vary by company as do the methods for categorizing products, and policies for disclosure are not uniform. It is therefore necessary for rules to be decided upon by business operators each time information is shared, and the development of such rules thus represents an obstacle needing to be overcome in order to promote such initiatives. By gaining experience through involvement in various information sharing initiatives, we aim to provide support to enable industry organizations and business operators to flexibly take part in such initiatives.

The third task will be to develop safe data management technologies and procedures. It can be expected that the data to be utilized through this scheme will include sensitive information in the possession of participating companies. For this reason, it is crucial to develop technologies for safely and reliably managing this data, including encryption and anonymization technologies, as well as management systems for preventing misuse of data. NTT Laboratories is developing secret sharing and secret computation technologies as well as anonymization technologies and is preparing for the practical application of these technologies.

Looking forward, NTT Group will utilize its assets to contribute to the resolution of government issues, the invigoration of local communities, and consequently the realization of Society5.0.



NTT Group exhibited leading-edge examples of B2B2X model use cases and technologies at CEBIT 2017, the world's largest ICT business trade fair, which was held in Hanover, Germany in March 2017.

Our exhibits presented an overall view of the value we supply to service providers, the second B in the B2B2X model. We were able to attract much attention and praise by displaying a lineup of the value offered on a Groupwide basis to address specific industries and regional issues. The exhibited NTT Group initiatives have the potential to contribute to the realization of Society5.0.



Future Market Scale and Initiatives for B2B2X Businesses

Following its privatization in 1985, NTT Group primarily focused its business on generating telephony and other voice revenues. After the turn of the century, however, broadband operations and global businesses became the engine driving our growth.

In the future, NTT Group will merge the broadband and information systems it has developed to date to pursue sustainable growth by supporting efforts for making industries and lifestyles smarter. Broadband and information systems will remain central pillars of NTT Group's operations going forward. At the same time, we will leverage the unique strengths born out of the Group's operations in various business domains, including real estate and energy management, as we adopt the perspective of second B service providers in delivering comprehensive value and taking part in collaborative efforts with entities outside of the Group. We thereby aim to help increase the value supplied to end users, the X of the B2B2X model, by second B providers in order to expand our B2B2X businesses.

Potential for the B2B2X Market



The government's Japan Revitalization Strategy 2016 defines 10 areas for public-private partnership projects. By advancing growth strategies focused on these 10 areas, this strategy targets a gross domestic product of ¥600 trillion. Of this amount, ¥30 trillion is to be generated by the industrial field, ¥10 trillion is to come from sports, and ¥11 trillion is to stem from tourism.

Furthermore, the Japanese government's Growth Strategy 2017 has defined "building and developing pleasant infrastructure and towns," "realization of mobility revolution," and "extension of healthy lifespan" as strategic areas for realizing Society5.0. In addition, tourism, sports, and culture; aggressive development of the agricultural, forestry, and fishery industries; and energization and productivity improvement in service industries have been defined as core areas for government policy aimed at the construction of a regional economic virtuous circulation system.

NTT Group will coordinate its efforts with government policy as it utilizes ICT for realizing smart industries in various fields and supporting improvements in the resident services of local governments in order to expand B2B2X businesses.

Source: Japan Revitalization Strategy 2016

Corporate Governance

Overview of Corporate Governance Systems

Basic Policy

NTT believes that raising the effectiveness of corporate governance is an important management issue for meeting the expectations of various stakeholders, including shareholders and other investors, as well as customers, business partners, and employees, and for maximizing corporate value. Accordingly, NTT is working to strengthen corporate governance based on the purpose of the principles of Japan's Corporate Governance Code, which was put forth by the Tokyo

Stock Exchange. Based on the "Towards the Next Stage 2.0" strategy established in May 2015, NTT seeks to accelerate the process of self-transformation to a "Value Partner" and place the entire Group on a profit growth track. To this end, NTT will work to realize its basic policies of ensuring sound management, executing appropriate decision-making and business activities, clarifying accountability, and maintaining thorough compliance.

Overview of Enhancing Corporate Governance System

Major Revisions of Laws and Regulations Related to Corporate Governance	2002 • Passage of U.S. Sarbanes-Oxley Act 2004 • Establishment of TSE's corporate governance principles for listed companies	2006 • Enforcement of Companies Act 2007 • Enforcement of Financial Instruments and Exchange Act	2015 • Enforcement of revised Companies Act • Enforcement of TSE's Corporate Governance Code
	-2005	-2010	-2017
Business Execution / Supervision Systems	 1985 • Establishment of NTT, appointment of several outside Members of the Board 2003 • Increase in number of Audit & Supervisory Board Members: form 4 members (2 inside members, 2 outside members, 10 5 members (3 inside members, 2 outside members, 2 outside members) 2005 • Establishment of Appointment and Compensation Committee 	 Increase in number of outside Audit & Supervisory Board Members: from 5 members (3 inside members, 2 outside members) to 5 members (2 inside members, 3 outside members) Appointment of financial expert as Audit & Supervisory Board Member 	 2011 • Appointment of first female corporate officer (1 outside Audit & Supervisory Board Member) 2015 • Establishment of independence standards for independent Members of the Board and indepen- dent Audit & Supervisory Board Members
Internal Control / Risk Management	2002 • Establishment of Business Risk Management Committee • Formulation of NTT Group Business Risk Management Manual • Establishment of NTT Group Corporate Ethics Charter • Establishment of Corporate Ethics Committee • Establishment of Groupwide Corporate Ethics Help Line 2003 • Commencement of response to U.S. Sarbanes-Oxiev Act 2005 • Establishment of Internal Audit Office	2006 • Establishment of Internal Control Office • Consolidation of Internal Audit Office • Establishment of Basic Policy for the Development of Internal Control Systems 2010 • Establishment of Risk Management Rules	 2015 Revision of Basic Policy for the Development of Internal Control Systems 2016 Commencement of disclosing information on operation (overview) of internal control systems
Ensuring the Exercise of Shareholder Voting Rights	2002 • Implementation of electronic voting for exercise of rights	2006 • Introduction of ICJ's electronic voting platform for institutional investors	 2012 • Commencement of providing notes to non-consoli- dated financial statements, etc., over Internet 2015 • Commencement of making Notice of Convocation available on Internet prior to mailing (42 days before date of Ordinary General Meeting of Shareholders) 2016 • Commencement of Internet disclosure of Notice of Convocation prior to mailing (same day for Japanese- and English-language versions, 42 days before date of Ordinary General Meeting of Shareholders) • Expansion of Internet disclosure of Information 2017 • Commencement of Notice of Convocation distribution in format compatible with smartphones
Information Disclosure	2003 • Commencement of disclosure of quarterly information • Establishment of disclosure regulations • Establishment of Disclosure Committee 2005 • Establishment of IR Office • Establishment of RS Promotion Office • Establishment of CSR Promotion Office • Establishment of CSR Committee • Commencement of SSR Committee	2006 • Commencement of disclosure of Corporate Governance Report 2010 • Publication of disclosure policy	2014 • Commencement of issuance of integrated reports 2015 • Commencement of disclosure of Corporate Governance Report in response to Corporate Governance Code • Commencement of issuance of sustainability reports

Corporate Governance System

NTT, in order to strengthen functions for appropriately supervising business execution, appoints several outside independent Members of the Board and has established the Audit & Supervisory Board, of which outside independent Audit & Supervisory Board Members make up a majority to strengthen its auditing system. Additionally, NTT has voluntarily established the Appointment and Compensation Committee, which consists of four members, including two outside independent Members of the Board, to further increase the objectivity and transparency of decisions relating to appointments and compensation. NTT has determined that governance functions based on the Company with Board of Company Auditors model are sufficiently effective to achieve this purpose.

Business execution at NTT is conducted in accordance with the organizational regulations governing the functions and

operations of each organization. Important decisions are made under the supervision of the Board of Directors and based on the responsibility regulations that define the responsibilities and authorities for the president, senior executive vice presidents, and the head of each organization. In addition, NTT has established various meetings and committees as has been deemed necessary to discuss important matters related to corporate management and Group management in order to ensure that appropriate decisions are made for facilitating Group management.

Composition of Board of Directors / Audit & Supervisory Board





··· Of 17 members, Outside independent members 5 / Female members 2



Board of Directors Number of meetings in the fiscal year ended March 31, 2017: 12

The Board of Directors consists of 12 Members of the Board, including two outside independent Members of the Board. In principle, the ordinary meetings of the Board of Directors are held once per month. In addition, extraordinary meetings are held as needed. The Board of Directors makes decisions on matters stipulated by law and on important matters related to corporate management and Group management. Moreover, through such means as periodic reports from Members of the Board on the status of the execution of members' duties, the Board of Directors supervises the execution of duties by Members of the Board. The members of NTT's Board of Directors are elected based on having a high level of integrity and insight.

Audit & Supervisory Board Number of meetings in the fiscal year ended March 31, 2017: 22

The Audit & Supervisory Board consists of a total of five Audit & Supervisory Board Members, comprising two internal Audit & Supervisory Board Members (one of whom is female) and three outside independent Audit & Supervisory Board Members (one of whom is female). From an independent perspective that differs from that of individuals responsible for business execution, the Audit & Supervisory Board implements operational audits and accounting audits and audits the status of the execution of duties by Members of the Board.

Appointment and Compensation Committee Number of meetings in the fiscal year ended March 31, 2017: 1

For the purpose of improving objectivity and transparency in the decisions regarding appointments and compensation of Members of the Board, NTT has established on a non-statutory basis the Appointment and Compensation Committee, which consists of four Members of the Board, including two outside independent Members of the Board, as a preliminary review institution of the Board of Directors.

Executive Officers Meeting Number of meetings in the fiscal year ended March 31, 2017: 32

Important corporate matters to be decided are, in principle and in advance, discussed by the Executive Officers Meeting, which is made up of the president, senior executive vice presidents, full-time directors, and the heads of staff organizations. The Executive Officers Meeting is held about once a week. To improve the transparency of management decision-making, one Audit & Supervisory Board Member participates in the Executive Officers Meeting.

Various Committees

A number of committees have been established below the Executive Officers Meeting to discuss specific issues related to corporate and Group management strategies. Major committees include the Technology Strategy Committee, which deliberates on the Group's R&D vision and technology development strategy; the Investment Strategy Committee, which examines investment projects that are larger than a certain scale; and the Finance Strategy Committee, which discusses basic financial strategies and financial issues. These committees, which are convened as necessary throughout the year, are, in principle, chaired by the president or a senior executive vice president and are attended by relevant Members of the Board and others.

Major Committees

Committee name	Overview		
CSR Committee	Formulates basic CSR strategy and CSR goals for the Group, formulates basic policy for CSR-related reports		
Corporate Ethics Committee	Establishes corporate ethics, takes thorough steps to maintain discipline		
Human Rights Education Committee	Establishes human rights education systems and responds to discrimination incidents, etc.		
Technology Strategy Committee	Formulates R&D vision, technology development strategy, and R&D alliance strategy		
Investment Strategy Committee	Formulates investment strategy related to large investment projects, etc.		
Finance Strategy Committee	Formulates basic strategies related to finance and policies for addressing financial issues		
Business Risk Management Committee	Undertakes crisis management for the handling of business risks related to corporate management		
Disclosure Committee	Establishes policies for compiling yearly reports		
U.S. Sarbanes-Oxley Act Internal Control Committee	Tracks status of internal control in accordance with the Sarbanes-Oxley Act on a Groupwide basis, verifies and monitors measures to improve deficiencies		
Group CISO Committee	Formulates of the Group's information security management strategies		

Board of Directors

Members of the Board (As of June 30, 2017)

Senior Vice President Member of the Board Senior Vice President Member of the Board Takashi Hiroi Head of Finance and Accounting Head of Global Business

Executive Vice President Member of the Board Tsunehisa Okuno Mitsuyoshi Kobayashi Head of Technology Planning

Senior Executive Vice President Representative Member of the Board Hiromichi Shinohara

Chief Technology Officer Chief Information Security Officer In charge of technical strategy and international standardization Head of Research and Development Planning Senior Executive Vice President Representative Member of the Board Jun Sawada

Executive Vice President Member of the Board Akira Shimada

Chief Financial Officer Chief Compliance Officer Chief Information Officer In charge of business strategy and risk management

Head of General Affairs



Outside Independent Member of the Board Katsuhiko Shirai

Director of Japan Display, Inc.

Chairman of the Board Satoshi Miura President and Chief Executive Officer Representative Member of the Board Hiroo Unoura

Senior Vice President Member of the Board Hiroki Kuriyama

Head of Strategic Business Development In charge of 2020 Project

Senior Vice President Member of the Board Eiichi Sakamoto Head of Corporate Strategy Planning

Outside Independent Member of the Board Sadayuki Sakakibara

Senior Adviser of Toray Industries, Inc. Director of Hitachi, Ltd. Chairman of the Japan Business Federation (Keidanren)

Overview

Strategy

Operation

Innovation

Background and Experience of Members of the Board



Satoshi Miura Date of Birth: April 3, 1944 Chairman of the Board Years served as Member of the Board: 12 Shares Owned: 33,740 Number of Meetings Attended (Percent): 12/12 (100%)

Background and Experience Apr. 1967 : Joined Nippon Telegraph and Telephone Public

Corporation Jun. 1996 : Senior Vice President Head of Personnel Member of the Board of the Company

- Jul. 1996 : Senior Vice President

- Jul. 1996 : Senior Vice President Head of Personnel for Industrial Relations Member of the Board of the Company Jun. 1998 : Executive Vice President Head of Personnel for Industrial Relations Member of the Board of the Company Jan. 1999 : Executive Vice President Deputy Senior Executive Manager of the NTT-East Provisional Headquarters Member of the Board of the Company Jul. 1999 : Senior Executive Vice President
- Jul. 1999 : Senior Executive Vice President Representative Director of Nippon Telegraph and Telephone East Corporation
- Telephone East Corporation Jun. 2002: President and Representative Director of Nippon Telegraph and Telephone East Corporation Jun. 2005: Senior Executive Vice President Head of the Corporate Management Strategy Division Representative Member of the Board of the Company Jun. 2007: President and Chief Executive Officer Representative Member of the Board of the Company Jun. 2016: Chairman of the Board of the Company Jun. 2016: External Director of Hiroshima Bank, Ltd. (resent prost)
- (present post) Principal Concurrent Position

External Director of Hiroshima Bank, Ltd.



Hiroo Unoura

Shares Owned: 29,000

(Percent): 12/12 (100%)

Board: 15

Date of Birth: January 13, 1949

Years served as Member of the

Number of Meetings Attended

President and Chief Executive Officer

Representative Member of the Board

Head of Department I Member of the Board of the Company Jun. 2005 : Senior Vice President

Head of Denartment V

Background and Experience

Corporation Jun. 2002 : Senior Vice President

Head of Department V Member of the Board of the Company Jun. 2007: Executive Vice President Head of Corporate Strategy Planning Head of Corporate Business Strategy Member of the Board of the Company Jun. 2008: Senior Executive Vice President Representative Member of the Board of the Company

Apr. 1973 : Joined Nippon Telegraph and Telephone Public

- the Company Jun. 2011 : Senior Executive Vice President
- Representative Member of the Board of the Company Jun, 2012 : President and Chief Executive Officer

Representative Member of the Board of the Company (present post)

Principal Concurrent Positions

None



Tsunehisa Okuno

Date of Birth: October 12, 1960 Senior Vice President Head of Global Business Member of the Board

(present post) Principal Concurrent Positions Senior Vice President of Dimension Data Holdings plc Director of NTT Security Corporation

Corporation Jul. 2007 : Vice President of the Corporate Business

Company Jan. 2011 : Senior Vice President of Dimension Data Jan. 2011 : Senior Vice President of Dimension Data Holdings plc (present post) Jun. 2011 : Head of Global Business of the Company Jun. 2012 : Senior Vice President Head of Global Business Member of the Board of the Company (present poet)

(present post) Jun. 2016 : Director of NTT Security Corporation

Strategic Business Development of the

Background and Experience

Years served as Member of the Board: 5 Shares Owned: 4,900 Number of Meetings Attended

(Percent): 12/12 (100%)

Background and Experience

(present post)

Principal Concurrent Positions

Background and Experience

Apr. 1965 : Assistant of the First Faculty of Science and

International Exchange Center of Wased

University Nov. 1998 : Executive Director of Waseda University

Background and Experience Apr. 1986 : Joined the Company May 2005 : Vice President of Corporate Business Strategy of the Company Jun. 2008 : Vice President of Strategic Business Development of the Company Jul. 2009 : Vice President of Corporate Strategy Planning of the Company Jun. 2014 : Head of Finance and Accounting of the Commany Company Jun. 2015 : Senior Vice President Head of Finance and Accounting Member of the Board of the Company

Takashi Hiroi Date of Birth: February 13, 1963 Senior Vice President

Head of Finance and Accounting Member of the Board Years served as Member of the

Board: 2 Shares Owned: 3.300 Number of Meetings Attended



(Percent): 12/12 (100%)



Katsuhiko Shirai

Outside Independent Member of the Board

(Percent): 12/12 (100%)

(present post) Nov. 2016 : Honorary Advisor of Waseda University (present post) Principal Concurrent Positions

(present post) Jun. 2012 : Director of Japan Display, Inc.

Director (Part-Time) of Japan Display, Inc



Hiromichi Shinohara

Date of Birth: March 15, 1954

Chief Technology Officer

Senior Executive Vice President

Chief Information Security Officer

international standardization

Planning

Board: 8

In charge of technical strategy and

Head of Research and Development

Representative Member of the Board

Years served as Member of the

Number of Meetings Attended

Shares Owned: 15 900

(Percent): 12/12 (100%)

Background and Experience Apr. 1978 : Joined Nippon Telegraph and Telephone Public Corporation

- Corporation Jun. 2009 : Senior Vice President Head of Research and Development Planning Member of the Board of the Company Jun. 2011 : Senior Vice President Head of Research and Development Planning Head of the Information Sharing Laboratory Group Member of the Board of the Company Cet 2011 : Senic Vice Development Oct. 2011 : Senior Vice President Head of Research and Development Planning Member of the Board of the Company
- Jun. 2012 : Executive Vice President Head of Research and Development Planning
- Head of Research and Development Planning Member of the Board of the Company Jun. 2014 : Senior Executive Vice President Head of Research and Development Planning Representative Mmber of the Board of the Company (present post)

Principal Concurrent Positions None



Jun Sawada

Date of Birth: July 30, 1955 Senior Executive Vice President Chief Financial Officer Chief Compliance Officer Chief Information Officer In charge of business strategy and risk management Representative Member of the Board Years served as Member of the

Board: 3 Shares Owned: 12,000

Number of Meetings Attended



Mitsuyoshi Kobayashi Date of Birth: November 3, 1957 Executive Vice President Head of Technology Planning Member of the Board

Years served as Member of the Board: 5 Shares Owned: 8,600

Number of Meetings Attended (Percent): 12/12 (100%)



Member of the Board of Nippon Telegraph and Telephone West Corporation Jun. 2012 : Senior Vice President

Jun. 2012 : Senior Vice President Head of Technology Planning Head of Strategic Business Development Member of the Board of the Company Jun. 2012 : Senior Vice President Member of the Board of NTT COMWARE CORPORATION (present post) Jun. 2014 : Executive Vice President Head of Technology Planning Member of the Board of the Company (present nors) (present post)

Principal Concurrent Position Member of the Board of NTT COMWARE CORPORATION



Akira Shimada Date of Birth: December 18, 1957 Executive Vice President Head of General Affairs

Member of the Board Years served as Member of the Board: 5

Shares Owned: 8,104

- Apr. 1981 : Joined Nippon Telegraph and Telephone Public Corporation
 Jul. 2007 : General Manager of the Accounts and Finance Department of Nippon Telegraph and Telephone West Corporation
 Jul. 2009 : General Manager of the General Affairs and Personnel Department of Nippon Telegraph and Telephone East Corporation Jun. 2011 : Senior Vice President General Manager of the General Affairs and Personnel Department of Nippon Telegraph and Telephone East Corporation Jun. 2011 : Senior Vice President General Manager of the General Affairs and Personnel Department
 - Personnel Department Member of the Board of Nippon Telegraph and

Apr. 1981 : Joined Nippon Telegraph and Telephone Public

Telephone East Corporation Jun. 2012: Senior Vice President Head of the General Affairs Member of the Board of the Company Jun. 2012: Wember of the Board of Nippon Telegraph and Telephone West Corporation (present post) Jun. 2015: Executive Vice President Head of General Affairs Member of the Board of the Company (present nost)

Nippon Telegraph and Telephone West Corporation



Nov. 1998: Executive Director of Waseda University
 Nov. 2002: President of Waseda University
 Nov. 2010: Educational Advisor of Waseda University
 Apr. 2011: Chairperson of the Foundation for the Open University of Japan
 Jun. 2012: Member of the Board of the Company (messent nost)

Date of Birth: September 24, 1939

Years served as Member of the Board: 5

Shares Owned: 3,400 Number of Meetings Attended

Number of Meetings Attended (Percent): 12/12 (100%)

Chief Executive Officer of NTT Security Corporation

(Percent): 12/12 (100%) Background and Experience



elephone Fast Corporation

(present post) Principal Concurrent Position Member of the Board of

Notes: 1 As of June 30, 2017



Corporation Jun. 2012 : Senior Executive Vice President

(present post)

Representative Director and President,

Principal Concurrent Position

Executive Manager of Corporate Strategy Planning Department Representative Member of the Board of NTT

Representative Member of the Board of NTT Communications Corporation Jun. 2013 : Senior Executive Vice President Representative Member of the Board of NTT Communications Corporation Jun. 2014 : Senior Executive Vice President Representative Member of the Board of the Communications Member of the Board of the

Company (present post) Jun. 2016 : Representative Director and President, Chief Executive Officer of NTT Security Corporation

Apr. 1983 : Joined Nippon Telegraph and Telephone Public Strategy of the Company Jun. 2008 : Head of the Global Business Strategy Office of



Hiroki Kuriyama

Date of Birth: May 27, 1961 Senior Vice President Head of Strategic Business Development In charge of 2020 Project Member of the Board

Years served as Member of the Board: 3

Shares Owned: 3.670

Number of Meetings Attended (Percent): 12/12 (100%)



Eiichi Sakamoto

Date of Birth: September 3, 1963 Senior Vice President Head of Corporate Strategy Planning Member of the Board

Years served as Member of the Board: 1

Shares Owned: 2.800

Number of Meetings Attended (Percent): 9/9 (100%)

ADI. 1985 J	ioined the Company
Feb. 2003 : V	/ice President of Department I of the Company
May 2005 : V	/ice President of Corporate Business Strategy
C	of the Company
Jun. 2008 : V	/ice President of Corporate Strategy Planning
	of the Company
	/ice President of President's Office of General
A	Affairs of the Company
Jun. 2014 : S	Senior Vice President
	lead of Strategic Business Development
N	Nember of the Board of the Company
(present post)

Principal Concurrent Positions

Background and Experience

Jun. 2016 : Senior Vice Presi

Principal Concurrent Position

and Telephone East Corporation

Member of the Board of Nippon Telegraph

Apr. 1986 : Joined the Company Oct. 2005 : Head of the Business Management Group of

the Corporate Strategy Planning Departr Nippon Telegraph and Telephone East Jul. 2009 : Head of the Planning Group of the Corporate Jul. 2005. Head on the Frailing Doubup of the population Strategy Planning Department of Nippon Telegraph and Telephone East Corporation Jul. 2011: Head of the Public Relations of the Compary Strategy Planning of the Company Strategy Planning of the Company On. 2015: Senior Vice President, Managing Director of

Corporate Marketing Strategy Department of NTT DOCOMO, INC.

Company Member of the Board of the Company

Head of the Corporate Strategy Planning of the

(present post) Member of the Board of Nippon Telegraph and Telephone East Corporation (present post)

None

Q



Sadayuki Sakakibara

Date of Birth: March 22, 1943 Outside Independent Member of the Board

Years served as Member of the Board: 5

Shares Owned: 8,100

Number of Meetings Attended (Percent): 12/12 (100%)

registered as Toray Industries, Inc.) Jun. 1994 : Director of the Corporate Planning Department of Toray Industries, Inc.

Background and Experience

Apr. 1967 : Joined Toyo Rayon Co., Ltd. (currently

of loray industries, inc.
Jun. 1996 : Director of the Board of Toray Industries, Inc. Jun. 1998 : Managing Director of Toray Industries, Inc.
Jun. 1999 : Senior Managing Director of Toray Industries, Inc.
Jun. 2001 : Executive Vice President of Toray Industries, Inc.
Jun. 2002 : President of Toray Industries, Inc.
Jun. 2010 : Chairman and Répresentative Member of the Board of Toray Industries, Inc.
Jun. 2012 : Member of the Board of the Company (present post)
Jun. 2013 : Director of Hitachi Ltd. (present post)
Jun. 2014 : Chairman of the Japan Business Federation (Keidanren) (present post)
Jun. 2014 : Chairman of the Board of Directors, Toray Industries, Inc.
Jun. 2015 : Chief Senior Adviser and Chief Senior Counselor of Toray Industries, Inc.
Jun. 2017 : Senior Adviser of Toray Industries, Inc. (present post)

Principal Concurrent Positions

Senior Adviser of Toray Industries, Inc. Outside Director of Hitachi, I td. Chairman of the Japan Business Federation (Keidanren)

Composition of the Board of Directors

The Board of Directors is of a size appropriate to the Group's business. and the composition of the Board of Directors reflects consideration for a balance of specialties and for diversity. The Board of Directors has

Activities of the Board of Directors

In principle, ordinary meetings of the Board of Directors are held once per month. In addition, extraordinary meetings are held as needed. The Board of Directors makes decisions on matters stipulated by law and on important matters related to corporate management and Group

Evaluation of the Effectiveness of the Board of Directors

The Board of Directors of NTT, which is a pure holding company, plays the role of monitoring the specific business operations of Group companies based on the medium- to long-term business strategy of the entire Group.

The Board of Directors of NTT decides on important items related to the Group's management that have passed the review of the Executive Officers Meeting, made up of the president, senior executive vice presidents, full-time directors, and the heads of staff organizations, as well as the review of the various committees chaired by the president or a senior executive vice president and attended by the relevant directors, while also monitoring the status of the execution of the duties of individual Members of the Board.

At the meetings of the Board of Directors, based on the authority of the individual Members of the Board, current issues regarding Group management and the initiatives being taken to resolve them are reported and reviewed. In the fiscal year ended March 31, 2017, the Board of Directors met 12 times, and discussions were held on initiatives to expand profits in the near term for global cloud services, the status of business recovery and new policies aimed at sustained growth in network services, and measures for improving returns to

Nomination Policies and Procedure for Members of the Board

NTT Group strives to contribute to the resolution of social issues and the realization of a safer, more secure, and more affluent society. To accomplish this goal, the Group acts as a trusted "Value Partner" that customers continue to select in order to provide them with new value on a global basis. NTT has established the policy of positioning human resources who share these ideals in the upper ranks of NTT Group's management, and NTT is electing these human resources from both inside and outside the Group.

In regard to Member of the Board candidates, individuals are elected based on their having the broad-ranging perspective and experience, superior management skills and leadership, strong business intuition, and motivation necessary to contribute to the overall development of

Support System for Members of the Board

NTT has concluded contracts with the lawyers and other specialists who may be called upon as necessary to provide advice at the expense of NTT.

The secretariat of the Board of Directors is made available as a

Training for Members of the Board

NTT Group works to cultivate candidates suitable for positions in top management who are able to respond to the rapidly changing management environment by creating a range of training opportunities in such areas as domestic and overseas economic and social issues, compliance, and risk management, and by allowing employees to

12 Members of the Board, including two outside independent Members of the Board, who have been appointed in order to strengthen functions for supervising business execution.

management. Moreover, through such means as periodic reports from Members of the Board on the status of the execution of members' duties, the Board of Directors supervises the execution of duties by Members of the Board.

shareholders in relation to "Toward the Next Stage 2.0."

Additionally, ideas and opinions on issues concerning Group management were exchanged among outside independent Members of the Board and Audit & Supervisory Board Members, among outside independent Members of the Board and Representative Members of the Board, among outside independent Members of the Board and executives of major Group companies in and outside Japan, and among outside independent Members of the Board of NTT and outside independent Members of the Board of major Group companies and other members

In these meetings, we received opinions on NTT's Board of Directors from outside independent Members of the Board and Audit & Supervisory Board Members stating that adequate information is provided and that Members of the Board engage in active discussion, thereby ensuring the Board's effectiveness.

Taking into account these initiatives, through evaluation, we have determined that the effectiveness of the Board of Directors is being ensured, and NTT will work to further improve the Board's effectiveness going forward.

NTT Group in order to facilitate the increasing of NTT Group's corporate value.

From the perspective of strengthening the function of supervising business execution, for outside independent Members of the Board. NTT elects individuals who present no risk of a conflict of interest with general shareholders. In principle, NTT appoints several outside independent Members of the Board.

The nomination procedure for Member of the Board candidates involves the review of candidates by the Appointment and Compensation Committee. The candidates are then approved by the Board of Directors and presented for voting at the General Meeting of Shareholders.

venue of contact for outside independent Members of the Board, which they can use to receive support with regard to their daily duties through explanations, responses to inquiries about business execution, and other means.

accumulate new job experience. Additionally, outside independent Members of the Board can gain a deeper understanding of NTT Group's businesses through opportunities to deepen their understanding of the business trends of Group companies and of the latest R&D results at the research facilities of NTT.

Audit & Supervisory Board

Audit & Supervisory Board Members (As of June 30, 2017)

Outside Independent Audit & Supervisory Board Member Seiichi Ochiai



Audit & Supervisorv Board Membe Akiko Ide

Composition of the Audit & Supervisory Board The Audit & Supervisory Board comprises three outside independent Audit & Supervisory Board Members (one of whom is female), who have experience and knowledge in a range of fields - as a certified public accountant, university professor, and lawyer-and two full-time Audit & Supervisory Board Members (one of whom is female). We conduct effective audits by combining the independence of outside Audit & Supervisory Board Members with the superior information

Activities of the Audit & Supervisory Board

Audit & Supervisory Board Members attend meetings of the Board of Directors and other important meetings. In addition, Audit & Supervisory Board Members meet periodically with Representative Members of the Board and Members of the Board to exchange ideas and opinions and hold discussions on various topics. In this way, Audit & Supervisory Board Members maintain an understanding of the execution of duties by Members of the Board and provide their opinions as needed.

In the fiscal year ended March 31, 2017, the Audit & Supervisory Board met 22 times. Moreover, separate from meetings of the Audit & Supervisory Board, the Audit & Supervisory Board Members Preliminary Deliberation Meeting convened 36 times. These meetings provide a venue for the sharing of information. For example, at these meetings Audit & Supervisory Board Members receive explanations from corporate officers on matters to be discussed at the Executive Officers Meeting. In addition, Audit & Supervisory Board Members work closely with Independent Auditors and the Internal Control Office. Audit & Supervisory Board Members exchanged opinions with the Independent Auditor nine times and with the Internal Control Office 10 times. Audit & Supervisory Board Members also receive explanations concerning audit plans and reports on the status of internal control systems and provide advice as needed.

Audit & Supervisory Takao Maezawa Outside Independent Audit & Supervisory Board Member Takashi lida

Outside Independent Audit & Supervisory Board Membe Michiko Tomonaga

collection capabilities of full-time Audit & Supervisory Board Members. Among the board members, full-time Audit & Supervisory Board Member Takao Maezawa has experience in the accounting division of NTT and its affiliated companies, while outside independent Audit & Supervisory Board Member Michiko Tomonaga, a certified public accountant, has considerable knowledge in the areas of finance and accounting

In initiatives related to Group companies, Audit & Supervisory Board Members received information from the Representative Members of the Board on 20 major Group companies regarding the status of corporate governance and measures to maintain and enhance corporate governance, and discussions were conducted on those matters. In addition, Audit & Supervisory Board Members visited major bases in Japan and overseas (26 bases), received information from local representatives, and conducted discussions. Furthermore, Audit & Supervisory Board Members received reports regarding audit results, etc., from Audit & Supervisory Board Members of major Group companies and exchanged opinions with them. In addition, the Audit & Supervisory Board is implementing initiatives that contribute to enhancing the auditing activities of Audit & Supervisory Board Members of major Group companies, including regularly holding training sessions by outside experts for Audit & Supervisory Board Members of major Group companies.

Through these activities, Audit & Supervisory Board Members support the sound, steady growth of NTT and Group companies from an independent perspective that differs from that of individuals responsible for business execution. In addition, Audit & Supervisory Board Members contribute to the strengthening of corporate governance systems and the fostering of awareness of compliance matters.

9

Strategy

Background and Experience of Audit & Supervisory Board Members



Akiko Ide Date of Birth: February 28, 1955 Audit & Supervisory Board Member Years served as Audit & Supervisory Board Member: 3 Shares Owned: 7.500 Board of Directors Number of Meetings Attended (Percent): 12/12 (100%) Audit & Supervisory Board Number of Meetings Attended (Percent): 22/22 (100%)



- Jun. 2003 : General Manager of Customer Services of NTT DOCOMO, INC.
- Sep. 2004 : Concurrently General Manager of Customer Services and General Manager of Information
- Security of NTT DOCOMO, INC. Jun. 2005 : General Manager of Customer Services of NTT DOCOMO, INC.
- DOCOMO, INC. Apr. 2006 : General Manager of Corporate Citizenship Department of NTT DOCOMO, INC. Jun. 2006 : Executive Director and General Manager of Corporate Citizenship Department of NTT DOCOMO, INC.
- JUL 2008: Executive Director and General Manager for Chugoku regional office of NTT DOCOMO, INC. Jun. 2012: Executive Director and Director of Information Security of NTT DOCOMO, INC.
- May 2013 : President and Chief Executive Officer of Nay 2013: President and Onliel Executive Onlicer of Radishbo-yea Co., Ltd. Jun. 2013: Executive Director and Senior Manager in Charge of Commerce Business Promotion of NTT DOCOMO, INC.
- Jun. 2014 : Full Time Audit & Supervisory Board Member of NTT (present post)
- Principal Concurrent Positions

Mar. 1975 : Registered as a certified public accountant

(certification up-to-date) Jul. 2007 : Vice President of the Japanese Institute of

Jun. 2011 : Outside Audit & Supervisory Board Member of

Certified Public Accountants

Jul. 2008 : Senior Partner at Ernst & Young Japan Jun. 2010 : Outside Corporate Auditor of Keikyu

n. 2016 : Outside Director of Keikyu

(present post

Principal Concurrent Positions

Outside Director of Keikvu Corporation

Certified Public Accountant

Background and Experience

None



Takao Maezawa Date of Birth: October 24, 1955

Audit & Supervisory Board Member Years served as Audit & Supervisory Board Member: Shares Owned: 9.304

Board of Directors Number of Meetings Attended (Percent): 9/9 (100%)

of Meetings Attended (Percent): 15/15 (100%)



Date of Birth: April 10, 1944 Outside Independent Audit & Supervisory Board Member Years served as Audit & Supervisory Board Member: 5 Shares Owned: 5.104

Board of Directors Number of

Audit & Supervisory Board Number

Notes: 1 As of June 30, 2017

2 Number of meetings attended is for the fiscal year ended March 31, 2017

I awver

Company

Nomination Policy and Procedure for Audit & Supervisory Board Members

NTT has the policy of electing Audit & Supervisory Board Member candidates who have the capacity to provide audits based on specialized experience and insight. From the perspec tive of guaranteeing fair audits of the execution of duties by Members of the Board, for outside independent Audit & Supervisory Board Members, NTT elects people who present no risk of a conflict of interest with general shareholders. In accordance with the Companies Act, NTT ensures that outside independent Audit & Supervisory Board Members make up half or more of the Audit & Supervisory Board.

Support Structures for Audit & Supervisory Board Members

The Office of Audit & Supervisory Board Members, which has four dedicated NTT employees, has been established as a structure to support audits by Audit & Supervisory Board Members. In addition, NTT has concluded contracts with the lawyers and other specialists who may be called upon as necessary to provide advice at the expense of NTT.

In addition, when Audit & Supervisory Board Members are elected, they are trained with respect to market trends and

Independent Members of the Board and Audit & Supervisory Board Members

From the perspectives of strengthening supervising functions for execution and guaranteeing appropriate audits of the execution of duties by Members of the Board, NTT has the policy of selecting individuals to serve as outside Members of the Board and outside Audit & Supervisory Board Members who do not represent risks of conflicts of interest with general shareholders

Independence Standards

- In order to meet the independence criteria, a person may not fall under any of the categories below in the last three fiscal years (1) A person who executes business in a partner company that exceeds NTT's Standards*1
- (2) A person who executes business in a lending company that exceeds NTT's Standards*2
- (3) A consultant, an accountant, a lawyer, or any other person providing professional services, who received monetary payments or any other gain in assets equal to or more than ¥10 million, excluding the Board Members' or Audit & Supervisory Board Members' compensation, from NTT or its major subsidiaries*3 in any of the last three fiscal years
- (4) A person who executes business in an organization that received donations exceeding NTT's Standards Even if any of (1) through (4) above applies to a person, where it has been decided that a person meets the Independence Standards, the reasons shall be explained and disclosed at the time of the person's appointment as the Independent Member of the Board or Audit & Supervisory Board Member.
- *1 "A partner company that exceeds NTT's Standards" is defined as a company that has had any business dealing with NTT and its major subsidiaries*3 in any of the last three fiscal years equal to or more than 2% of the total operating revenues of NTT and its major subsidiaries for the respective fiscal year.
- *2 "A lending company that exceeds NTT's Standards" is defined as a company in which the total amount of borrowings on a consolidated basis in any of the last three fiscal years equals to or is more than 2% of NTT's consolidated total assets for the respective fiscal year
- *3 The major subsidiaries are NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION, NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION, NTT COMMUNICATIONS CORPORATION, NTT DATA CORPORATION, and NTT DOCOMO, INC. *4 An "organization that received donations exceeding NTT's Standards" is defined as an organization which received donations from NTT and its major subsidiaries*3 in any of the last three fiscal
- years exceeding ¥10 million or 2% of the total income of the organization, whichever is larger, during the respective fiscal year



Michiko Tomonaga Date of Birth: July 26, 1947

Outside Independent Audit & Supervisory Board Member Years served as Audit &

Supervisory Board Member: Shares Owned: 2,500

Board of Directors Number of Meetings Attended (Percent): 11/12 (92%)

Audit & Supervisory Board Number of Meetings Attended (Percent): 22/22 (100%)



Takashi lida Date of Birth: September 5, 1946 Outside Independent Audit & Supervisory Board Member

Years served as Audit & Supervisory Board Member: 3 Shares Owned: 2,700

Board of Directors Number of Meetings Attended (Percent): 12/12 (100%)

Audit & Supervisory Board Number of Meetings Attended (Percent): 22/22 (100%)



(present post) Jun. 2014 : Outside Audit & Supervisory Board Member of

Corporate Auditor (Part-Time) of Shimadzu Corporation Outside Director of Alps Electric Co., Ltd.



- Associations 2012 : Established Kowa Law Office (present post) 2012 : Corporate Auditor (Part-Time) for
- Principal Concurrent Positions

Lawyer

- Background and Experience Apr. 1974 : Registered as attorney-at-law (Daini Tokyo Bar
- Apr. 1997 : Executive Governor of the Japan Federation of
- Apr. 2006 : Chairman of the Daini Tokyo Bar Association Apr. 2006 : Vice President of the Japan Federation of Bar
- Shimadzu Corporation (present post) Jun. 2013 : Corporate Auditor of JAFCO Co., Ltd Jun. 2013 : Outside Director of Alps Electric Co., Ltd.
- NTT (present pos

Apr. 1990: Professor at the University of Tokyo Graduate Schools for Law and Politics and the Faculty of Law of the University of Tokyo Apr. 2007: Professor at Chuo Law School Apr. 2007: Registered as attorney-at-law (Dai-Ichi Tokyo Bar Association) (registration up-to-date) Jun. 2007: Emeritus Professor at the University of Tokyo (researt nort) Jun. 2011 : Outside Audit & Supervisory Board Member of NTT (present post) Feb. 2012 : Audit & Supervisory Board Member of the Corporation for Revitalizing Earthquake affected Business Jun. 2014 : Outside Director of Japan Exchange Group, Inc. (present post) Jun. 2008 : Outside Director of EBARA CORPORATION Jun. 2012 : Outside Audit & Supervisory Board Member of Seiichi Ochiai * Audit & Supervisory Board Member Michiko Tomonaga is NTT (present post) Jul. 2012 : Outside Director of Meiji Yasuda Life Insurance a Certified Public Accountant who has extensive knowl edge concerning finance and accounting matters. Company (present post) Jun. 2013 : Outside Auditor of Ube Industries, Ltd.

Meetings Attended (Percent): 9/12 (75%)

of Meetinas Attended (Percent) 18/22 (82%)



Background and Experience

Jun. 201

Training Institute

Aug. 2011 : Executive Vice President

Jun. 2012 : President and CEO of NTT PC Communication

NTT Communications Corporatio Jun. 2008 : Senior Vice President

Apr. 1978 : Joined Nippon Telegraph and Telephone Public

Management Department, General Manager of

Senior vice President Deputy General Manager of the Enterprise Business Division Member of the Board of NTT Communications

Member of the Board of NTT Communications

Head of Second Sales Division Member of the Board of NTT Communications

Jun. 2016 : Full Time Audit & Supervisory Board Member of NTT (present post)

finance and accounting matters resulting from experience

* Mr. Maezawa has extensive knowledge concerning

Seikei University Apr. 1981 : Professor in the Faculty of Law of Seikei

(present post)

Outside Auditor of Ube Industries, Ltd.

Outside Director of Meiji Yasuda Life Insurance

Principal Concurrent Positions

University Apr. 1990 : Professor at the University of Tokyo Graduate

ne Incorporat

Corporation Executive Vice President Deputy General Manager of the Enterprise Business Division

Executive Manager of the General Affairs of

Corporation Jun. 2006 : Executive Manager of Human Resource

	The procedure for nomination involves Members of the Board proposing Audit & Supervisory Board Member candidates
C-	based on the aforementioned nomination policy. These
	proposals are then discussed by the Audit & Supervisory Board, which consists of half or more of outside independent Audit & Supervisory Board Members, and consent is granted if appro-
e	priate. The candidates are then approved by the Board of Directors and presented for voting at the General Meeting of
lf	Shareholders.

compliance. They then continue to undergo training on a broad
spectrum of topics, including domestic and overseas economic
and social issues, after being appointed.
Moreover, NTT is creating opportunities for tours and imple-
menting other initiatives so that outside Audit & Supervisory
Board Members can further deepen their understanding of NTT
and NTT Group.

Nomination Procedure for Outside Members of the Board and Outside Audit & Supervisory Board Members

for :	NTT designates outside Members of the Board and outside
n	Audit & Supervisory Board Members who fulfill both the
	independence criteria stipulated by Tokyo Stock Exchange, Inc.,
d	and NTT's own independence standards as outside indepen-
	dent Members of the Board or outside independent Audit &
s.	Supervisory Board Members.

Reason for Nomination and Status of Independence

Outside Members of the Board (Independent Members of the Board)

News	Reason for nomination	. Status of independence				
Name	Reason for nomination	Total amount of transactions with and total amount of donations from NTT and its major subsidiaries in the last three fiscal years				
	Katsuhiko Shirai has a wealth of experience as an opera- tional director of an educa- tional institution and a high level of integrity and insight. NTT believes that he will help strengthen the supervisory function for business execu- tion and expects to incorpo- rate the opinions he provides from his wide-ranging experience and his manage- rial perspective. Sadayuki Sakakibara has a wealth of experience, includ- ing as an operational director of an educational institution, and a high level of integrity and insight. NTT believes that he will help strengthen the supervisory function for business execution and expects to incorporate the	Waseda University, at which Katsuhiko Shirai has served as President	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
				Comparison with total annual revenues of the university	Less than 1%	
Katsuhiko Shirai			Total of donations	Comparison with total annual revenues of the university	Less than 1%	
		The Open University of Japan Foundation, at which Katsuhiko Shirai served as Chairperson (retired in March 2017) Toray Industries, Inc., at which Sadayuki Sakakibara served as Chairman of the Board	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
			Total of donations	_	Less than ¥10 million	
			Total of	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
Sadayuki			transactions	Comparison with total annual revenues of the company	Less than 1%	
Sakakibara		Japan Business Federation (Keidanren), at which Sadayuki Sakakibara currently	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
	opinions he provides from his wide-ranging experience and his managerial perspective.	serves as Chairman	Total of donations	_	Less than ¥10 million	

Outside Audit & Supervisory Board Members (Independent Audit & Supervisory Board Members)

Name	Reason for nomination		Status of independence			
Name	Reason for nomination	Total amount of transactions with and total amount of donations from NTT and its major subsidiaries in the last three fiscal years				
	Michiko Tomonaga has worked for many years as a Certified Public Accountant, and NTT expects that she will conduct future audits based on the knowledge and insight that she has gained through her career.	Ernst & Young Japan, at which Michiko Tomonaga worked as Senior Partner (retired in June 2010)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
Michiko				Comparison with total annual revenues of the audit firm	Less than 1%	
Tomonaga		Japanese Institute of Certified Public Accountants, at which Michiko Tomonaga served as Vice President (retired in July 2010)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
				Comparison with total annual revenues of the association	Less than 1%	
	Seiichi Ochiai has been serving for many years as a university professor special- izing in the study of law, and NTT expects that he will conduct future audits based on the knowledge and insight that he has gained through his career.	Chuo University, at which Seiichi Ochiai was a professor (retired in March 2015)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
Seiichi Ochiai				Comparison with total annual revenues of the university	Less than 1%	
			Total of donations*1	-	Less than ¥10 million	
Takashi	Takashi lida has worked for many years in legal sectors, and NTT expects that he will	Mori, Hamada & Matsumoto Law Office, with which Takashi lida was affiliated (retired in December 2011)	Total of transactions	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	
lida	conduct future audits based on the knowledge and insight that he has gained through his career.	Kowa Law Office, which Takashi lida established	Total of transactions*2	Comparison with total annual operating revenues of NTT and its major subsidiaries	Less than 1%	

*1 Applicable donations only include those to organizations other than the law schools that Seiichi Ochiai served at.

*2 Applicable transactions only include those related to common communication services

Status of Activities of Outside Members of the Board and Outside Audit & Supervisory Board Members

		Name	Statements Made
(Outside Members of the Board	Katsuhiko Shirai	Katsuhiko Shirai made comment and global strategy from his pers
	(Independent Members of the Board)	Sadayuki Sakakibara	Sadayuki Sakakibara made com investment from his perspective
E (I S	Outside Audit &	Michiko Tomonaga	Michiko Tomonaga made comme through her extensive experience
	Supervisory Board Members (Independent Audit & Supervisory Board	Seiichi Ochiai	Seiichi Ochiai made comments n through his extensive experience
	Members)		Takashi lida made comments ma his extensive experience as a law

Compensation of Members of the Board and Audit & Supervisory Board Members

For the purpose of improving objectivity and transparency in th compensation of Members of the Board, NTT has established the Appointment and Compensation Committee, which consists of four Members of the Board, including two outside independent Members of the Board. After discussion at this committee, compensation-related decisions are made by the Board of Directors.

Compensation of Members of the Board (excluding outside Members of the Board) consists of a base salary and a bonus. The base salary is paid monthly on the basis of the scope of each Member of the Board's roles and responsibilities. The bonus is paid taking into account NTT's business results for the respective fiscal year. Also, Members of the Board make month

Total Compensation of Members of the Board and Audit & Supervisory Board Members (Fiscal Year Ended March 31, 2017)

Position	Number of payees	Total compensation
Members of the Board	13	¥539 million
Audit & Supervisory Board Members	6	¥117 million
Total	19	¥656 million

Notes: 1 The above amounts include compensation paid to one Member of the Board and one Audit & Supervisory Board Member who resigned from their positions following the conclusion of the 31st Ordinary General Meeting of Shareholders held on June 24, 2016. 2 At the 21st Ordinary General Meeting of Shareholders held on June 28, 2006, the maximum limit on total annual compensation of Members of the Board was set at an aggregate of ¥750 million and

the maximum limit on total annual compensation of Audit & Supervisory Board Members was set at an aggregate of ¥200 million 3 Total compensation of Members of the Board includes ¥98 million in bonuses for the fiscal year ended March 31, 2017

4 In addition to the above, an accrecate of ¥13 million is to be paid to Members of the Board who are also employees as bonuses for their service as employees

Independent Auditor

Activities of the Independent Auditor NTT has appointed KPMG AZSA LLC as its Independent Auditor.

The Independent Auditor maintains the level of coordination with the Audit & Supervisory Board and the Internal Control Office necessary to conduct appropriate audits. As part of this coordination, the Independent Auditor appropriately audits by reporting the audit plans and audit results to the Audit & Supervisory Board and working together with the Internal Control Office to establish systems for monitoring the status of

de at Board of Directors' Meetings and Audit & Supervisory Board Meetings

nts mainly concerning the business strategies of Group companies, research and development, rspective as an operational director of an educational institution with extensive experience.

mments mainly concerning the business strategies of Group companies, business plans, and e as a corporate executive with extensive experience

nents mainly concerning the accounting audit based on the professional perspective fostered ce as a certified public accountant.

mainly concerning corporate governance based on the professional perspective fostered ce as a university professor and a lawyer.

nainly concerning corporate governance based on the professional perspective fostered through awve

he 1	contributions of a defined amount or more from their base salary for the purchase of NTT shares through the Board Members Shareholding Association in order to reflect NTT's
	medium- and long-term business results in compensation.
	Purchased shares are to be held by the Members of the Board
	throughout their terms of office.
	In order to maintain a high level of independence, compensa-
	tion of outside Members of the Board consists of a base salary
	only, and is not linked to NTT's business results.
	For the same reason, compensation of Audit & Supervisory
	Board Members consists of a base salary only. The amount of
е	this salary is determined by resolution of the Audit & Supervisory
hly	Board.

oversight related to evaluating internal control systems for financial reports. For the fiscal year ended March 31, 2017, the Independent Auditors who carried out the audit were Takuji Kanai, Kensuke Sodekawa, and Masashi Oki, whose years of experience as Independent Auditors are within the statutory guidelines.

In addition, 20 certified public accountants and 34 other staff members assisted in conducting the audits.

Nomination of the Independent Auditor

NTT believes that it is important to maintain and enhance audit quality while increasing audit efficiency. Based on this policy, the Audit & Supervisory Board evaluates Independent Auditor candidates from the perspectives of their independence and specialties and the appropriateness and adequateness of their auditing activities. The candidates who are approved by the Audit & Supervisory Board are then presented for voting at the Ordinary General Meeting of Shareholders.

reappoint the Independent Auditor in any of the cases described in Article 340 (1) of the Companies Act based on a unanimous vote by all Audit & Supervisory Board Members. In addition, if the Board of Directors determines that it would be difficult for the Independent Auditor to perform proper audits, the Audit & Supervisory Board may propose a resolution to the Ordinary General Meeting of Shareholders that the Independent Auditor be discharged or that the Independent Auditor not be reappointed.

The Audit & Supervisory Board may choose to dismiss or not

Compensation of Independent Auditor

NTT and its major subsidiaries pay compensation to KPMG AZSA LLC, NTT's Independent Auditor, and other member firms

of the KPMG network for audit services and for non-audit services.

	Fiscal year ended March 31, 2016	Fiscal year ended March 31, 2017
Compensation for audit services	¥4,812 million	¥5,004 million
Compensation for non-audit services	¥447 million	¥567 million
Total	¥5,259 million	¥5,571 million

Note: Audit services refer to the auditing of the financial statements of NTT and its consolidated subsidiaries in Japan and overseas

Non-audit services include the provision of quidance and advice related to International Financial Reporting Standards, tax returns, and tax consultation for consolidated subsidiaries in Japan and overseas

Internal Control

particular issues.

Overview of Internal Control Systems NTT maintains internal control systems related to financial reporting based on the U.S. Public Company Accounting Reform and Investor Protection Act of 2002 (Sarbanes-Oxley Act), Section 404, and the Financial Instruments and Exchange Act of Japan. Based on tests and evaluations of the design and operational effectiveness of these systems, we have been able to confirm the effectiveness of these systems without any

The Internal Control Office, with its staff of 22 people, verifies the internal control systems in place throughout the Group and the status of their implementation. Internal audits are conducted by the internal auditing divisions of each Group company, and

the results of these auditing activities are reviewed by NTT. In addition, standardized audits are performed with regard to major risk factors that are common issues throughout the Group, and we are continuously enhancing and verifying their effectiveness. At the same time, NTT is continuously accelerating its efforts to develop and implement IT and other Groupwide internal control systems and to improve their operational procedures and efficiency.

NTT has established the Basic Policies Concerning the Maintenance of Internal Control Systems for NTT Group, which was approved via resolution by the Board of Directors. The basic concepts of these policies are as follows.

Basic Policies Concerning the Maintenance of Internal Control Systems (Excerpt)

I. Basic Concepts for the Development of Internal Control Systems

- 1. NTT shall develop a system of internal controls by taking measures for the prevention and minimization of losses, with the objectives of ensuring compliance with legal requirements, managing risks, and achieving appropriate and efficient business operations.
- 2. NTT shall establish the Internal Control Office, which oversees the establishment of internal control rules and frameworks. The Internal Control Office shall evaluate the effectiveness of the internal control systems based on internal audits regarding high risk matters affecting the entire NTT Group, and shall make sure that necessary corrective measures and improvements are implemented.
- 3. NTT shall also take appropriate measures to ensure the reliability of its internal control systems for financial reporting based on the U.S. Public Company Accounting Reform and Investor Protection Act of 2002 ("Sarbanes-Oxley Act") and the Financial Instruments and Exchange Act.
- 4. As a chief executive officer, the president shall be responsible for ensuring the development and operation of the internal control systems.

Compliance Systems

Establishment of the NTT Group Corporate Ethics Charter

Recognizing that it is imperative to conduct business in compliance with laws and regulations and to maintain high ethical standards in order to promote sound corporate activities, NTT established the NTT Group Corporate Ethics Charter in November 2002.

The NTT Group Corporate Ethics Charter, which applies to al officers and employees of NTT Group, lays out the basic principles for corporate ethics and provides specific guidelines for

- inconsistent with that spirit occurs.
- to his / her subordinate staff to ensure that their conduct is in conformity with our corporate ethics.
- refrain from giving or receiving from customers, business partners, and other interested parties excessive gratuities.
- enhance their awareness of our corporate ethics.
- improvement of monitoring tools to protect customer and other information.
- shall be protected so that the reporting party shall not suffer any negative consequences due to such reporting.
- in order to fulfill its social accountability.

□ Initiatives to Promote Awareness of the NTT Group Corporate Ethics Charter

To ensure the effectiveness of the NTT Group Corporate Ethic Charter, NTT Group companies offer training sessions on corporate ethics to employees. In addition, on a website for employees, examples of corporate ethics issues are explained in detail and the text of the NTT Group Corporate Ethics Char

Groupwide Corporate Ethics Help Line (External Help Line)

To prevent dishonesty or misconduct, each Group company ha set up an internal consulting center. In addition, NTT has estab lished the Groupwide Corporate Ethics Help Line as an externa contact point and outsources its operation to a law firm.

The content of the consultations and reports are investigate and handled by the staff member in charge, and a report is submitted to the Corporate Ethics Committee of each Group company. All reports are collected at least once a year by NT where the response status is ascertained and reported to the Board of Directors.

Reports Filed through the Groupwide Corporate Ethics Help Line

	Fiscal year ended	Fiscal year ended	Fiscal year ended	Fiscal year ended
	March 31, 2014	March 31, 2015	March 31, 2016	March 31, 2017
Number of reports	312	322	304	365

-		
ll		
-		

ethical behavior. These guidelines are intended to remind everyone of their duty as members of a group that bears significant responsibility to society. This responsibility includes preventing dishonesty, misconduct, and the disclosure of corporate secrets as well as refraining from exchanging excessive favors with customers and suppliers. The guidelines are also meant to ensure that employees conduct themselves according to the highest ethical standards in both private and public activities.

NTT Group Corporate Ethics Charter

1. Recoanizing the establishment of corporate ethics as one of its most important missions, top management shall exert its leadership to ensure that the spirit of this Charter is adopted throughout the Company, and shall assume full responsibility for solving any problems when any event

2. Every person with subordinate employees shall not only act in a self-disciplined manner, but shall also always provide guidance and assistance

3. Every officer and employee of NTT Group shall not only comply with all laws and regulations, social standards, and internal company rules whether in Japan or overseas, but officers and employees shall also hold the highest ethical philosophy within himself / herself both in public and in any private situations. Among other things, each officer and employee, as an officer or employee of a member of a Global Information Sharing Corporate Group, shall keep himself / herself fully aware that any disclosure of customer or other internal privileged information constitutes a materially wrongful act. Also, as a member of a group of companies which holds great social responsibilities, he / she shall strictly

4. Each NTT Group company, at the first opportunity, shall take initiatives to provide training programs in order to help its officers and employees

5. Every officer and employee of NTT Group shall direct his / her efforts to prevent wrongful or scandalous acts which may potentially occur as specialization and advancement of our business proceeds. Each NTT Group company shall improve its system to prevent such acts, including, for instance, the re-assignment of contract representatives who have remained with the same customers for a long period of time, and the

6. Any officer or employee who may come to know of the occurrence of any wrongful act or any scandal shall promptly report the wrongful act or scandal to his / her superior or other appropriate persons. If he / she is not able to make such a report, he / she may contact the Corporate Ethics Help Line (Contact Point). It should be noted that every officer and employee who reports the occurrence of any wrongful act or scandal

7. In the event of an occurrence of any wrongful act or scandal, each NTT Group company shall be committed to the settlement of the problem by taking appropriate steps through a speedy and accurate fact finding process, and responding in a timely, suitable, and transparent manner

ics ed arter	is made available. In these ways, NTT is working to enhance the understanding of employees. Furthermore, NTT conducts annual surveys of employees to measure their awareness and imple- ments other corporate ethics awareness-enhancement initiatives.
.ine)	
nas	The NTT Group Corporate Ethics Charter clearly states that
b-	people who file reports with the Groupwide Corporate Ethics
nal	Help Line are protected from any disadvantage arising from the fact that they filed a report.
ted	In April 2017, NTT requested an impartial and fair third-party evaluation of its help line as recommended by the revised
C	version of Guideline on Internal Whistleblowing System released
ΓT,	by the Consumer Affairs Agency in December 2016. This evalu-
е	ation found that the Company's help line was generally appro-
	priately implemented and operated.

Corporate Governance

Prevention of Bribery

In recognition that it is essential to conduct business in compliance with laws and regulations and in accordance with high ethical standards, NTT Group forbids dishonesty, including all forms of bribery, provision of preferential treatment to suppliers. In particular, in regard to the prevention of bribery, we have prepared a bribery prevention handbook, which has also been made available on the in-house website. We are working to ensure that all Group employees, including those at overseas subsidiaries, are aware of bribery prevention. In these ways, we are taking steps to foster a thorough understanding of bribery prevention.

In addition, NTT, NTT East, and NTT West stipulate that bribery is forbidden under the Act on Nippon Telegraph and Telephone Corporation, etc., and that breaches are punishable by law.

Coordination with Suppliers

NTT has established and disclosed the NTT Guidelines for CSR in Supply Chain with the aim of fulfilling its social responsibilities by working together with suppliers to ensure conformity with social norms and legal compliance. We thereby aim to prevent bribery and other forms of misconduct along the supply chain.

The NTT Guidelines for CSR in Supply Chain states that suppliers are requested "to maintain a sound and normal relationship with political bodies and government administrations, without resorting to bribery and / or making illegal political donations" and "not to offer and / or request inappropriate benefits to / from stakeholders." We expect suppliers to comply with these requests, and are striving to prevent misconduct at suppliers and throughout the entire supply chain.

Promotion of Risk Management

With respect to business risk management, NTT has established Risk Management Rules stipulating basic policies on risk management with the aims of, among others, anticipating and preventing the materialization of potential risks and minimizing losses if any risk materializes. Chaired by a senior executive vice president, the Business Risk Management Committee spearheads efforts to develop and operate a PDCA cycle for managing risks. During the fiscal year under review, the committee held one meeting during which discussions involved identifying risks that could potentially have a Companywide impact, policies for managing such risks, and other such matters. NTT has also formulated the NTT Group Business Risk Management Manual, and distributed it to each Group company, in order to facilitate Groupwide risk management initiatives. On the basis of the manual, which stipulates matters that include proactive measures for potential risks, collaborative Groupwide approaches and policies for addressing risks that materialize, and pathways for communicating information, systems have been developed and implemented that enable swift action to be taken.



Identification of Risks / Specified Material Risks

From time to time, NTT reviews assumed risks and management policies based on changes in the social environment.

In the identification of risks, the Business Risk Management Committee plays the central role. Analysis processes for the risks faced by NTT Group are formulated, and risk analysis is

Information Security Risk

If there is a leak or other misuse of confidential information, such as personal information, the action may affect NTT Group's business, including its credibility and reputation, and the Group's ability to obtain new subscribers or secure governmental contracts may be adversely impacted.

To prevent such a situation, NTT Group is making efforts to protect confidential information obtained in the course of its business, including the personal information of customers. In addition, NTT Group has formulated the NTT Group Information Security Policy, which outlines its stance on ensuring information

Disaster Risk

Five Group companies—NTT, NTT East, NTT West, NTT Communications, and NTT DOCOMO—have been designated as public institutions under the Basic Act on Disaster Control Measures.

Accordingly, in preparation for a disaster, NTT Group has formulated the Disaster Management Operation Plan for the purpose of smooth, appropriate implementation of measures to prevent damage.

Investment Risk

NTT Group actively engages in joint ventures, alliances, and collaborations, both domestically and overseas, as well as acquisitions and other strategic investments in order to respond rapidly to changes in market structures and customer needs. Before investments are made, commercial viability and risks are investigated and analyzed. In addition, after investments are made, monitoring is conducted periodically. In these ways, the Group is working to obtain the expected investment returns and to strengthen governance and risk management.

Strategic Shareholdings

NTT does not hold so-called "cross-held shares" to create stable shareholders, and has no plans to hold them in the future.

However, as one of its business policies, the Company pursues collaboration and open innovation with partners in various industries to contribute to medium- to long-term improvement in corporate value. Based on this policy, we own shares of partner companies as necessary.

periodically implemented in accordance with these processes.	
In this way, Companywide risks are identified. In addition, corre-	
lation analyses are implemented for these risks. Those risks with	
the potential to have the greatest influence are specified as	
"material risks," and countermeasures are formulated.	

security. Furthermore, NTT Group continues to take steps on a Groupwide basis to protect the personal information of customers and prevent any leakage, including enhanced internal information management; the prevention of improper access; the implementation of physical, system-level security measures to prevent information loss, alteration, leakage, etc.; training and awareness-raising for officers and employees; appropriate supervision of contractors; and the publication of manuals.

Damage prevention measures require an ongoing process of periodic review to reflect the latest knowledge and legal revisions. In June 2014, the Japanese government revised the Nankai Trough Earthquake Countermeasures Basic Plan. In response, NTT Group has revised the Disaster Management Operation Plan and is strengthening damage prevention measures.

In regard to investments by NTT Group companies, consultation and advance reporting are required for projects that exceed a certain scale, and commercial viability and risks are investigated and analyzed. After investments are made, major projects are monitored in accordance with KPIs that have been established in advance.

With respect to exercising voting rights in relation to strategic shareholdings, NTT exercises voting rights acquired through share ownership, as it sees fit, from the perspectives of sustainable growth of the companies NTT invests in and improving corporate value for both NTT and the companies.

Dialogue with Shareholders and Other Investors

NTT promotes management that prioritizes discussions with shareholders, which not only includes discussions at General Meetings of Shareholders but also involves senior management, including the president, actively promoting discussions with shareholders about medium-term management strategies, corporate governance, business performance trends, and other topics through one-on-one meetings with institutional investors and briefings targeting individual investors.

The opinions received from shareholders through such discussions are shared in the Company. NTT considered and formulated the "Towards the Next Stage 2.0" Medium-Term Management Strategy that was announced in May 2015 in light

Policy for Constructive Dialogue with Shareholders and Other Investors



Initiatives to Enhance Dialogue

For institutional investors

- Implementing quarterly financial results presentations (4 times)
- Participating in IR conferences in Japan and overseas (10 times)
- Holding NTT IR DAY (briefing for institutional investors, 1 time) Implementing one-on-one briefings in Japan and overseas (total of more than 400 times)

(Topics: medium-term management strategy, financial results, corporate governance, etc.)

Receipt of Awards for IR Activities

Awards for Excellence in Corporate Disclosure

(The Securities Analysts Association of Japan)

ディスクロージャー 2016年度 優良企業



of shareholder opinions.

During discussions with shareholders, insider information is strictly controlled, and information is proactively disclosed with due consideration to fair disclosure (timely, fair, and impartial information disclosure). To increase convenience for overseas investors, we strive to release Japanese- and English-language disclosure materials at the same time. The Japanese- and English-language versions of the entire Notice of Convocation for the Ordinary General Meeting of Shareholders, including the business report, were released at the same time, more than one month prior to the date of the Ordinary General Meeting of Shareholders.

The Head of Finance and Accounting is responsible for communications with investors, and the IR office is established within the Finance and Accounting Department

The Finance Strategy Committee takes steps to enhance communications based on cooperation with related departments, such as periodically discussing the settlement of accounts.

In addition to one-on-one meetings, we hold briefings, etc., in accordance with hemes that reflect investor needs.

Input from shareholders and other investors is shared with management and Group companies and is used to enhance communications.

We are implementing information disclosure in a fair and impartial manner in accordance with our disclosure policy.

For individual investors

- Implementing Company briefings (20 times) (including 3 company briefings by senior executives)
- Implementing online Company briefings (2 times)
- Participating in individual investor fairs (1 time)
- Holding facility tours (1 time)

Note: The numbers of times are for the fiscal year ended March 31, 2017.

Internet IR Commendation Awards (Daiwa Investor Relations)



Information Gathering







Enhancement of Shareholder Relations Activities and Communication of Feedback within the Company

NTT is actively enhancing its shareholder relations activities. Specific initiatives with this regard include increasing the number of visits to the individuals entrusted with exercising voting rights on behalf of domestic and overseas institutional investors and holding additional meetings with institutional investors for discussing environmental, social, and governance (ESG) issues. We also seek to provide a wider range of opportunities to speak with investors on the topic of corporate governance. The investor feedback received and areas of interest identified through these shareholder relations activities are communicated to the Disclosure Committee, which is chaired by a senior executive vice president (the CFO), so that disclosure policies and strategies can be formulated based on this information. Based on the resulting disclosure policies and strategies, a wider range of information pertinent to the exercise of voting rights is included in notices of convocation (business reports), integrated reports, and other documents. For example, we seek to disclose more viable information in relation to corporate governance (revised the items included to incorporate those for which investor interest is high) and reworked the overall content of such documents to focus more on items related to increasing corporate value, such as Initiatives for Cybersecurity and Initiatives to Ensure Diverse Personnel Can Demonstrate their Talents. We then visit the investors to verify



the benefits of these improvements, utilizing their feedback to

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Strateg

Value Creation through Social and Environmental Contributions

NTT Group provides network, cloud, system integration, and various other ICT services. When providing these services, we are expected to furnish appropriate responses to a diverse range of social and environmental issues.

For example, in order to respond to cyber-attacks and other information security threats, which are becoming a social problem, NTT Group is charged with the tasks of ensuring its security in its own operations and supporting customers in improving their security.

Another pressing task for NTT Group is improving efficiency with regard to electricity consumption, a cause of CO₂ emissions, in order to reduce its impact on the environment. This is especially true given the large amount of electricity used in data centers, which are critical to the provision of ICT services.

Furthermore, the ICT market is changing as various new players from within Japan and from overseas enter the market and as the services provided in this market rapidly grow increasingly more varied and sophisticated. To respond to these changes, it is vital for us to develop frameworks for encouraging participation by diverse, human resources.

NTT Group is working to minimize medium- to long-term business risks by appropriately responding to social and environmental issues. At the same time, we will pursue the sustained improvement of corporate value by contributing to the resolution of such issues through our business activities.



Material Issue

NTT Group's Basic Policy Regarding Social and Environmental Initiatives

NTT Group CSR Charter – Basic Principles for **Social and Environmental Initiatives**

Guided by the basic principles put forth in the NTT Group CSR Charter, NTT Group seeks to achieve sustainable growth by contributing to the resolution of social and environment issues.

In recent years, an increasing amount of global activity for realizing a sustainable society has been seen, as visible in such events as the approval of the Sustainable Development Goals (SDGs) at the United Nations General Assembly in September 2015. Meanwhile, the business scope of the Group has been transforming as it develops global businesses and transitions to the B2B2X model. In light of this transformation, in May 2016 we revised the NTT Group CSR Priority Activities, which define material issues for the CSR activities to be addressed through a concerted effort by Group companies, and modified the NTT Group CSR Charter. Furthermore, NTT Group announced its endorsement of the SDGs in September 2016 as one such facet of its proactive efforts to address social and environmental issues.

Sustainable Development Goals

The SDGs are a set of 17 goals needing to be addressed leading up to 2030 that were approved at the UN Sustainable Development Summit held at the UN headquarters in New York in September 2015. The leaders of more than 150 UN member nations were present at this summit. The SDGs contain goals for addressing a wide range of social needs to put an end to poverty as well as those for combating climate change, one of a number of objectives requiring action on the part of all countries, all people, and all companies.

	SUSTAINABLE GOALS DEVELOPMENT GOALS 17 GOALS TO TRANSFORM OUR WORLD				
1 [№] ¶¥†††	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION	5 ERIMER EQUILITY	6 CLEAN WATER AND SANTIATION
7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 NOUSTRY INVALIDIN AND DEPASTRUCTURE	10 REDUCED INEQUALITES	11 SUSTAINABLE CHIES	12 responsible constantion and production
13 GUMATE	14 BELOW WATER	15 ON LAND	16 PEACE JUSTICE AND STRONG INSTITUTIONS	17 PARTINERSHIPS FOR THE GOALS	SUSTAINABLE DEVELOPMENT GOALS

The NTT Group CSR Charter consists of a statement of our commitment to CSR and the four CSR goals that outline specific priority aspects of our CSR activities.



NTT Group CSR Charter

Our Commitment

NTT Group delivers the highest quality ICT solutions as a "Value Partner" for customers and contributes to the creation of a prosperous and sustainable society with vibrant communication.

Our CSR Goals

Enrich Social Communication

Protect the Global Environment

Our innovative ICT expertise enhances societal connectivity and convenience while providing a communications environment for addressing local and international challenges to sustainable community development.

Ensure Reliable Communications

We reduce environmental impact throughout our business, apply ICT to

alleviate the environmental load of society, and actively engage in resolving worldwide environmental issues.

Unite the Energies of Team NTT

We address social and ethical concerns as an infrastructure enterprise that supports society while protecting livelihoods by securing online information in a robust communications environment that can withstand natural disasters and cyber attacks.

Team NTT and its partners maintain the highest ethical standards and respect for human rights in business; value diversity and personal growth in the workplace; and contribute to building vibrant local communities.

NTT Group CSR Priority Activities

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CSR Priority Activities	Medium-Term Targets Accelerate the B2B2X business model by taking	CSR Quantitative Indicators (KPIs) / Targets	
Contribute to society through ICT	opportunities to use "2020" and "Vitalization of Local Economies"	Acceleration of the B2B2X business model	
	Enhance the system to provide diverse ICT	Sales of global services: \$22.0 billion (by FY2017)	
	services centered around "Global Cloud Services"	Expanding global footprint	
Improve access to ICT	for the entire world Make ICT services available for a broad range	Percentage of the access network converted to fiber optics: NTT East: 95%, NTT West: 93%	
	of customers, including the elderly and persons	Expanding the percentage of the population covered by LTE	
	with disabilities	Increasing the number of UD-capable products and services provided	
		Customer satisfaction survey: Better than in the previous fiscal year	
		Number of improvements made based on suggestions from customers: More than in the previous fiscal year	
Pursue customer satisfaction	Provide high-value-added products and services and fine-tuned support	Response rate and number of response hours at our call centers: Better than in the previous fiscal year	
		Improve facility utilization efficiency: Reduce cost by at least ¥200 billion (by FY2017)	
		Establish highly efficient business operations: Reduce cost by at least ¥800 billion (by FY2017)	
	In order to maintain our research and development	Increasing the number of patent applications	
Generate innovation	as an important growth driver of NTT Group for the future, promote advanced R&D that will lead the	Expanding the number of academic papers published outside the Company	
	world's information communications technologies	Person-days of participation in international standardization meetings	
Protect the Global Enviro	onment		
CSR Priority Activities	Medium-Term Targets	CSR Quantitative Indicators (KPIs) / Targets	
Use ICT to contribute to	While reducing CO ₂ emissions of the Company,		
the environment	contribute to the reduction of CO2 emissions of all	Amount of contribution to the reduction of CO ₂ emissions of all society:	
Reinforce value chain management	society, including value chains, through the utiliza- tion of ICT	At least 10 times of the Company's emissions (by FY2030)	
Address climate change Reduce the environmental	Improve electrical efficiency to reduce the environ- mental impact of business operations	Electrical efficiency of the communications services: At least 10 times highe than in FY2013 (by FY2030)	
impact of business operations	Control the final disposal ratio of waste and work toward the effective use of resources	Final disposal ratio of waste: Zero emissions (under 1%) (by FY2030)	
Effectively use resources	toward the effective use of resources		
Effectively use resources Ensure Reliable Commu			
		CSR Quantitative Indicators (KPIs) / Targets	
Ensure Reliable Commu	nication		
Ensure Reliable Commu CSR Priority Activities	nication Medium-Term Targets	CSR Quantitative Indicators (KPIs) / Targets	
Ensure Reliable Commu CSR Priority Activities Protect personal information Reinforce information security Ensure the stability and	nication Medium-Term Targets Prevent leaks of personal information	CSR Quantitative Indicators (KPIs) / Targets Number of incidents of personal information leaks: 0	
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Strategy

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NTT Group's Basic Policy for Stakeholder Engagement

Basic Policy

With its ever more global and complex value chain, NTT Group provides products and services to a diverse range of stakeholders across the globe. These stakeholders have a wide variety of needs and expectations regarding our operations. Stakeholder engagement serves as a means of understanding and taking into consideration the needs and expectations of our stakeholders in the way we conduct our business. With regard to social and environmental issues, in particular, incorporating stakeholder input to the greatest degree possible is a means of earning social trust, increasing competitiveness, and exercising accountability. Through appropriate stakeholder engagement, NTT Group strives to achieve sustainable growth together with its stakeholders. Of course, all engagement activities are conducted in accordance with relevant laws, regulations, and legal requirements.

Contributing to the Resolution of Social and Environmental Issues



Sustainable Growth Together with Stakeholders

NTT Group's Primary Approach to Major Stakeholders

NTT Group conducts business in Japan and overseas. To increase business sustainability, NTT Group operates its business in an integrated, Groupwide manner while focusing on the expectations and needs of its various stakeholders.

Customers (Enterprises and Individu	als)		
All customers, both enterprise and individual, who use services provided by NTT Group			
NTT Group's Approach	Examples of Engagement	Reasons for Engagement	
Aiming to be selected by customers as a "Value Partner," each individual employee will strive for an even higher awareness of CSR to provide safe, secure services that are high in quality and conve- nient from the customer's standpoint.	 Venues for customer inquiries Conducting customer satisfaction surveys Utilization of websites and social media Publication of yearly reports (Annual Reports, etc.) 	NTT Group endeavors to understand customer needs and perspectives in order to provide customers with higher-quality products and services and thereby increase customer satisfac- tion while at the same time striving to become a "Value Partner" to customers.	

Shareholders and Investors

Individual and institutional investors, including the shareholders and creditors of NTT Group

We will return profits to shareholders while

maintaining a sound financial standing and enhancing our corporate value. We will also endeavor to disclose information related to the Group in a timely, fair, and impartial manner.

Employees (Employees, Their Families, and Retired Employees)

Employees who work at NTT Group, their families, and retired employees who support NTT Group's CSR ideals

NTT Group's Approach	Examples of Engagement	Reasons for Engagement
We will advance various employee initiatives to create safe and healthy workplaces in which everyone can realize their full potential and be rewarded in their work and daily lives. We will also value communication with retired employees.	 Conducting employee satisfaction surveys Regular interviews Communication between management and employees Groupwide Corporate Ethics Help Line CSR conferences 	By creating safe and healthy workplaces and providing lifestyle support for employees, we hope to enable them to realize their full potential and to go about their work while remaining highly aware of CSR.

Local Communities

People in local communities who are connected to us through the core businesses of NTT Group companies

NTT Group's Approach	Examples of Engagement	Reasons for Engagement
We will advance alongside local communities by making social contributions and implementing disaster countermeasures through our business activities.	 Support and collaboration through social contribution activities Negotiation with local community residents when constructing or installing equipment Donations, sponsorship, and other support 	Through engagement, we strive to contribute to the development of enriched local communities and also to understand the issues faced by communities in order to make social contributions and implement disaster countermeasures.

Business Partners

Business partners who provide a range of cooperation in the provision of NTT Group services

NTT Group's Approach	Examples of Engagement	Reasons for Engagement
We will aim to work together to create and roll out services to resolve a variety of social issues.	 Creation of inquiry forms Disclosure of procurement policies and guidelines, etc. Surveys for suppliers Explanatory presentations for suppliers 	Engagement with business partners helps us procure products that take into account the environment, human rights, and other issues and build fair partnerships to exercise CSR and continue growing together with our business partners.

ICT Companies and Industry Associations

Other ICT companies and people in industry associations who are striving to develop information and telecommunications				
NTT Group's Approach	Examples of Engagement	Reasons for Engagement		
We will engage in discussions on the direction and initiatives for the information and telecommunica- tions industry, not only in Japan but also from a global perspective, and seek to address diverse social issues together.	 Entry into industry associations Participation in committees, etc. 	Through discussions on the direction and initia- tives for the information and telecommunications industry, we will invigorate the entire industry and contribute to society through telecommunications development and advancement.		

Central Government and Administrative Agencies

economy, the environment, and other issues

We will fulfill our responsibility as an information	C C
and telecommunications company by adhering to	■ Si
the policies of the central government, administra-	■ Pa
tive agencies, and local governments.	pr

Compliance with laws and regulations Suggestions for government policy Participation in public-private partnership oroiects

General Meetings of Shareholders, financial results announcements

Explanatory presentations for individual investors Explanatory presentations for institutional investors Publication of yearly reports (Annual Reports, etc.)

By communicating with shareholders and other investors, we provide information necessary for investment decisions and help ensure that the Group is properly evaluated. We also utilize input received through interactions in Group management.

Central and local governments that make policy decisions on information and telecommunications, employment and the

We aim to conduct appropriate business activities while adhering to the policies of the central government and local governments and to help resolve the social issues faced by the central government and local governments.

Initiatives for Addressing Material Issues 1—Reinforcement of Information Security and Personal Information Protection



NTT Group serves numerous customers, ranging from individuals to enterprises, and it has thus been entrusted with vast quantities of personal information. Recent occurrences of large-scale personal information leaks in Japan and overseas are increasing customers' expectations for the protection of personal information. The regulatory environment is also becoming a greater influence on the needs for personal information protection, as indicated by the introduction of personal information protection regulations by the European Union. Accordingly, the requirements for effective information management are growing ever more rigorous.

Were a leak of personal information to occur, NTT Group's operations would suffer from a decrease in corporate value, the loss of customers, and other negative impacts. It is therefore crucial that we reinforce our information security and personal information protection systems to ensure stringent information management.

Overview of NTT Group's Information Security and Personal Information Protection Initiatives



Initiatives for Protecting NTT Group's Networks

Establishment and Implementation of Policies Regarding Information Security and Personal Information Protection NTT Group has established policies and rules concerning

customer, shareholder, employee, and other information in accordance with NTT Group Information Security Policy.

Furthermore, each Group company has developed a personal information protection structure that matches its particular business and has formulated its own information protection policies. Group companies are also advancing various other initiatives, including establishing organizations for promoting information security management and introducing security

Maintenance of an Information Management Structure Centered on the Group CISO Committee

In the Group's information management structure, a senior executive vice president (Representative Member of the Board) of NTT takes charge as the Chief Information Security Officer (CISO), the highest authority for information management. guiding NTT Group in ensuring stringent information management. The Group CISO Committee was established in 2015 as a body for promoting rigorous information security by

Steering of CSIRT

NTT Group established NTT-CERT in 2004 to function as a computer security incident response team (CSIRT). This team collects information regarding security incidents associated with the Group. It then offers support for addressing these incidents, formulates measures to prevent reoccurrence, develops training systems. Specific measures include introducing security systems and implementing strict hardware and software security measures to prevent unauthorized access to and loss of information and infection of systems by computer viruses and to manage removal of information from Company premises. At the same time, we are conducting other ongoing information security measures, including thoroughly educating employees and appropriately supervising outsourcing contractors.

formulating initiative policies, planning and instituting various measures, and promoting human resource development. With this structure, we seek out resolutions to information security issues. Similar structures are in place at Group companies and appropriate coordination is pursued between Group companies.

programs, and provides security-related information. As a central element of NTT Group's security initiatives, NTT-CERT provides a reliable venue for consultations regarding information security. The team also collaborates with organizations and specialists inside and outside NTT Group to offer support for

detecting and resolving security incidents, minimizing damages, CSIRT Association, which enables it to coordinate with and preventing occurrence. NTT-CERT is thereby contributing domestic and overseas CSIRT organizations. This coordination to better security for both NTT Group and societies that are makes it possible for NTT-CERT to share information on relevant permeated by information networks. trends and response measures. In addition, NTT-CERT partici-Moreover, NTT-CERT coordinates with the United States pates in the cross-industry seminars held by the National center Computer Emergency Readiness Team (US-CERT) and the of Incident readiness and Strategy for Cybersecurity (NISC) to Japan Computer Emergency Response Team Coordination share expertise and gather information. NTT-CERT also plays a Center (JPCERT/CC) and is also a member of the Forum of role in promoting the establishment of CSIRTs at Group compa-Incident Response and Security Teams (FIRST) and the Nippon nies and helping improve their response capabilities.



Cultivation of Information Security Human Resources

Threats to information security are becoming increasingly sophisticated and diverse, making damage from cyber-attacks and information leaks a public concern. At the same time, the spread of the Internet of Things (IoT) is driving a rapid rise in the number of devices connected to the Internet, greatly increasing the importance of addressing security issues. However, of the approximately 265,000 information security engineers at Japanese companies, it is estimated that around 160,000 lack the necessary skills to perform their job, while another 80,000 engineers are required to sufficiently meet the demand in the Japanese market. In this context, NTT Group is working to enhance its staff of security personnel. Believing that such efforts are also necessary at the national level, NTT Group is contributing to the training of security personnel across Japan through cooperation with the government, other companies, and educational institutions.

For its security personnel development measures, NTT Group has set the goal of expanding its staff of security experts in Japan from the level of 2,500 in November 2014 to about 10,000 by the fiscal year ending March 31, 2021. Meanwhile, Group companies are implementing human resource

			Job classification			
		Title	Security management consulting	Security operation	Security development	
Advanced	Advenced	Security master	Draduce first rate superior with best sofermores in the industry			
	Security principal	Produce first-rate experts with best performance in the industry				
Level Intermediate		Security professional	Reinforce the pool of specialists with deep experience and judgment			
	Beginner	Security expert	Raise the level of workers who can do their work with the required knowledge			

development measures based on the types and levels of security personnel. The number of certified security personnel showed a substantial year-on-year increase, reaching approximately 31,000 on April 30, 2017. We will continue to enhance our range of ever more practical development programs to increase the number of intermediate and advanced personnel, who are core to our security field operations.

Furthermore, NTT Group has participated in the Cross-Industry Committee on Cybersecurity Personnel Development as a secretariat since its establishment in June 2015, with the aims of forming bridges for collaboration within the cybersecurity industry, defining the types of human resources necessary for the industry and tracking their development, and supporting effective human resource development activities within the industry. The Group has also been holding the "Cyber-attack and Cyber-defense Technologies" course at Waseda University, an academia-industry collaboration project designed to uncover and cultivate future cybersecurity industry workers, since 2015. Through participation in these and various other initiatives, the Group is contributing to the development of security personnel at the national level.

Initiatives for Supporting Customers in Reinforcing Information Security

Integrated Development of Information Security Services through NTT Security Corporation NTT Security Corporation commenced operations in August 2016. This company consolidates the specialized security technologies of other Group companies from around world for use in the development of high-value-added security services that address new risks arising from the spread of next-generation technologies, such as IoT and AI technologies, and in the global provision of these services.

In addition, NTT Security has an integrated, global organizational structure for security services. With this structure, NTT Security fulfills its functions as the Group's center of excellence for security services by developing innovative security services and providing sophisticated security functions for the comprehensive ICT solutions other Group companies supply to customers. This company is also dealing in the Security Information & Event Management (SIEM) platform, into which it incorporates the technologies of NTT Laboratories to provide

combating threats and attacks against which generally marketed security tools are ineffectual. In addition, NTT Security is developing and operating global threat intelligence platforms to aggregate the information collected from around the world through the managed security services and honevpots (decov systems) NTT Group offers on a global scale. By analyzing this information, NTT Security identifies antagonistic agents, determines their capabilities and means of attack, and collects other valuable information, or security intelligence, for use in security measures. This security intelligence is utilized on a global scale to protect the ICT networks of customers.

defense, quick detection, isolation, and other services for

Going forward, NTT Security will work to expand its provision of end-to-end business solutions with embedded security services on the global market, through promoting cross-selling and service coordination with other NTT Group companies.

Major Orders

Scheme for Coordination between **NTT Group Companies**



Utilization of Information Security Technologies through Collaboration

NTT Group is collaborating with other organizations to develop security technologies. One example of such collaboration would be the development of a prototype technology for control systems with Mitsubishi Heavy Industries, Ltd. This

technology allows for the automatic detection of cyber-attacks on industrial equipment used in social infrastructure and for the implementation of defense measures. Please refer to page 83 for information on collaborative development.

R&D Capabilities Supporting NTT Group's Information Security and Personal Information Protection Initiatives Directives for Security-Related R&D Activities

Strategically, security is an extremely important development theme for maintaining a competitive edge in global cloud services and for building a solid platform for the creation of new businesses through the B2B2X model. Accordingly, NTT Group has put forth three directives for security-related communications services provided by NTT Group.

Directives for Security-Related R&D Activities

• Response to ever more skilled and sophisticated cyber-attacks

 Measures for addressing new threats arising from the advancement of the IoT

· Improvement of security related to the exchange, accumulation, and use of data

Example of R&D Activities

Security Orchestration Technologies

Cyber-attacks continue to grow more skilled and sophisticated example, cause network congestion with huge amounts of each year. In particular, there is a need for rapid, effective traffic, but our security orchestration technologies can shut off security measures for networks, which can have an influence on these attacks at the optimal point, without hindering normal all types of social infrastructure. NTT Group is thus advancing traffic. In addition, networks can be restored in an autonomous the development of security orchestration technologies. manner through automatic control. NTT Group will examine the Reflection distribution denial of service (DDoS) attacks, for introduction of these technologies on entire networks.

Example of Use



The SDN controller works together with each border router and routers near the target site so that only attack traffic is blocked.

R&D activities. These directives are designed to help the Group respond to recent changes in the circumstances surrounding security while advancing R&D activities that contribute to increased safety and reliability in the cloud and

R&D Initiatives

- Development of protective technologies for combating the threats of cyber-attacks
- Contribution to an increased ability to protect NTT Group's network platforms and other important infrastructure e.g., Security orchestration technologies
- Development of proactive technologies for utilizing personal data, etc.
- Contribution to increased value for the products of NTT Group companies e.g., Anonymization technologies

Network congestion is eliminated through defensive measures. Packet loss is 0%.



Anonymization Technologies for Utilizing Personal Information

In May 2017, a revision to the Act on the Protection of Personal Information came into full effect, laying out regulations for the handling of anonymously processed information. This revision came at a time when there was a strong need for the effective utilization of big data and personal data coupled with a disciplined approach respecting both legal requirements and the privacy of the individuals from whom such data originates. Anonymously processed information is personal information that has been processed in a manner that makes it impossible to identify the individual with whom it is associated or to revert it to its previous, un-anonymized form. Information processed in this manner can be distributed, with certain restrictions. In principle, un-anonymized personal information requires the consent of the individual in guestion in order to be provided to a third-party, while anonymously processed information has the advantage of being able to freely distribute without receiving consent. The

appropriate utilization of anonymously processed information has the potential of leading to the creation of new businesses.

If anonymously processed information is to be used for business applications, this information will need to be processed in a manner that meets the legal requirements for anonymity while also fulfilling safety requirements. Moreover, this processing method must also allow for this information to be utilized effectively. NTT Group has developed sophisticated anonymization technologies that employ mathematics to enable personal data to be used safely and effectively for the intended purpose and under the desired conditions. These technologies have led to victory in contests for technologies for protecting personal information. At the same time, we are advancing verification testing with companies that use data in their business to prepare services utilizing these services.

Identification of





Specialty store

Receipt of Excellence in the Field of Mathematics Award by NTT Fellow Dr. Okamoto in 20th Annual RSA Conference Awards

Dr. Tatsuaki Okamoto, an NTT Fellow who is the head of the Okamoto Research Laboratory in NTT's Secure Platform Laboratories, was presented with the Excellence in the Field of Mathematics award in the 20th Annual RSA Conference Awards program at RSA Conference 2017, a global information security conference.

RSA Conference Awards

The RSA Conference Awards program is a program that dates back to 1998. This program has three categories-mathematics, information security, and public policy. Each year, individuals or organizations (one per category, in principle) are presented with awards to honor the significant contributions they have made in their respective field over their lifetime.

Previous recipients of the Excellence in the Field of Mathematics award include researchers who have created modern encryption methods and other researchers who have made substantial contributions to the field of encryption. As such, this award is one of the highest honors one can receive in the field of encryption.

The 2017 Excellence in the Field of Mathematics was presented to Dr. Okamoto out of recognition for the exceptional contributions he and the Okamoto Research Laboratory have made to the field of encryption.



Disaster Countermeasures

Stable and Reliable Telecommunications Services in Preparation for Large-Scale Disasters

NTT Group has defined three key themes for disaster countermeasures-improving communications network reliability, securing critical communication systems, and promptly restoring telecommunications services. We have been strengthening efforts based on these themes since the Great East Japan Earthquake.

Specifically, we are taking measures to improve the reliability of our telecommunications infrastructure. To ensure that our telecommunications services operate without interruption at all times, we employ transmission trunk line multi-routing, have enacted blackout countermeasures for communications buildings and base stations, and are making communications buildings more disaster resistant. In addition, we are expanding the assortment of power supply vehicles and other disaster response equipment that we have positioned throughout Japan and are continuously conducting training to prepare for major natural disasters. Furthermore, we are making a daily effort to guarantee that, in the event of a disaster, we are able to immediately set up a Disaster Countermeasures Office and other emergency preparations and make the necessary emergency and critical communications as a public institution as designated by the Basic Act on Disaster Control Measures.

In the fiscal year ended March 31, 2017, two serious telecommunications disruptions^{*1} occurred at four telecommunications business companies (NTT East, NTT West, NTT Communications, and NTT DOCOMO), while service stability was maintained at 99.99%.*2

- *1. Number of disruptions that led to a stop of or lower quality for telecommunications services and that fulfill the following conditions: Voice services usable for emergency reports (110, 119, etc.): Service impacted for more than one hour with more than 30,000 people affected. Voice services not usable for emergency reports: Service impacted for more than two hours with more than 30.000 people affected or service impacted for more than one hour with more than 100 000 people affected
- affected

NTT Group's Basic Policy on Disaster Countermeasures

Disaster strikes Securing critical

communication systems

Securing 110, 119, 118, and other emergency services and critical communications, installing emergency-use public phones, and providing safety status checking services when disasters strike, etc.

Countermeasures strengthened since the Great East Japan Earthquake

 Measures for securing critical communications. Early resolution of communications blackouts Enhancements of disaster message services. Further Information Station implementation

 Building up of stock of disaster response equipment Enhancement of organization for disaste countermeasure operations Exercises and practice for a major earthquake Training of crisis management personnel and sharing of knowledge and skills

Support for Customers' Post-Disaster Restoration of Operations and Business Continuity

NTT Group has continued to provide telecommunications services in Japan, which cannot be allowed to be interrupted in the event of a disaster, for over 100 years. We are leveraging the track record of reliability and the associated expertise accumulated over this history to develop a solution business for supporting customers in maintaining business continuity. We anticipate significant business opportunities to arise with this regard going forward.

Damage from natural disasters, such as heavy rains and more frequent typhoons, is becoming increasingly common due to recent climate change. As a result, there is a growing risk of water and lightning damage and power outages, which now threaten to cause extensive damage should they occur. Many companies need to take measures to ensure

Internet-related services (free): Service impacted for more than 12 hours with more than 1.000,000 people affected or service impacted for more than 24 hours with more than 100,000 people

 Other services: Service impacted for more than two hours with more than 30,000 people affected or service impacted for more than one hour with more than 1,000,000 people affected. *2. [1 - total hours under the impact of serious disruptions (number of affected users × hours of serious disruptions) / total hours of major service provision (number of users × 24 hours × 365 days)] × 100%

Promptly restoring telecommunications services

Promptly restoring services by utilizing disaster response equipment and procuring materials, equipment, and manpower for restoration purposes, etc

Countermeasures strengthened since the Great East Japan Earthquake

Improving communications network reliability

Building facilities resilient to earthquakes, fires, storms, floods, and other disasters; conducting transmission trunk line multi-routing; monitoring and controlling network round the clock; etc.

Countermeasures strengthened since the Great East Japan Earthquake

- Enhanced disaster resistance (damage prediction, hazard map utilization)
- Stable provision of communications services (improvement of trunk line reliability, etc.)

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that, if emergency situations such as disasters occur in the future, the organizations are able to continue important operations and restore order quickly. These measures are necessary to provide support to disaster victims and facilitate swift recovery.

For this reason, NTT Group strives to provide support to help customers restore operations and maintain business continuity after disasters. To this end, we are developing business continuity solution operations across a wide range of fields, including data center services and cloud services, an area where service is provided by NTT Communications and NTT DATA, and building and electricity technologies, an area where service is provided by NTT FACILITIES.

Initiatives for Addressing Material Issues 2— **Reduction of Environmental Impact**

Basic Policy

Reducing CO₂ emissions and otherwise lowering environmental impacts is recognized as an important issue needing to be addressed internationally in order to create a sustainable society. With expanding global businesses, increasing overseas profit, and expanding B2B2X businesses at the core of its business strategies. NTT Group is pursuing sustainable

business development over the medium- to long-term. For this reason, NTT Group considers it absolutely essential to reduce its environmental impacts in order to grow further, and it is actively advancing initiatives to this end through cooperation with our various stakeholders.

NTT Group Environmental Statement

The NTT Group Environmental Statement compiles our vision for the future of the global environment we aim to build with our stakeholders, our environmental initiatives for building that future, and the company we aim to become through these efforts. The declaration begins with the words "People & Planet in Harmony." These words symbolize our goal of creating a future housing a sustainable society in which everyone and everything around the world is interconnected. To help realize

such a future, we at NTT Group will push forward with our daily environmental activities to fully exercise our capabilities as forerunners in environmental contribution.

We have defined three characteristics of the vision for the future encapsulated in the words "People & Planet in Harmony." NTT Group will contribute to endowing the future with these characteristics through the provision of ICT services and cutting-edge technologies.

NTT Group Environmental Statement

People & Planet in Harmony Dedicated to Environmental Preservation

To ensure a future that is better for all life on Earth, we are devoting great resources to ground-breaking technological advances and superlative eco-oriented ICT services.





We are contributing to the reduction of CO₂ emissions and facilitating adaptation to climate change





preservation of ecosystems

We are working toward more effective resource allocation

2030 Environmental Targets

NTT has established the 2030 Environmental Targets, a set of environmental targets to be accomplished by the fiscal year ending March 31, 2031, that is meant to guide us in realizing the future described in NTT Group Environmental Statement.

The 2030 Environmental Targets comprise goals related to the environmental issues prioritized by NTT Group, including those regarding climate change, energy, resources, and ecosystems. To help realize a low carbon future, we have defined targets for our contribution to reductions in society's CO₂ emissions, the electrical efficiency of NTT Group's businesses, and the extent to which we help address climate change. For implementing closed loop recycling, we have set a target for the final disposal rate for waste. Furthermore, we have established targets for ecosystem preservation activities to guarantee that we are able to continue receiving the blessings of nature on into the future.



* Zero emissions: NTT Group defines zero emissions as a final disposal rate of 1% or less.

Overview of NTT Group's Environmental Impact

To reduce the environmental impact of its business activ the greatest extent possible, NTT Group is taking steps and analyze what types of resources and energy it is us what type of environmental impacts are occurring through business activities.

In addition to the direct environmental impact of NTT business activities, the Group also calculates and disclo information on greenhouse gas emissions from across t chain (Scope 3 of the Greenhouse Gas Protocol), includ such indirect emissions as those from ICT service provis

In the fiscal year ended March 31, 2017, greenhouse emissions applicable under Scope 3 amounted to 17.16 million tons. Of these emissions, more than 85% came from category

The NTT Group's Material Balance* (Fiscal Year Ended March 31, 2017)





* Relationship between volume of resources and energy required for business activities and associated waste and emissions production

ivities to s to track sing and ughout its	1 (purchased goods and services), category 2 (capital goods), and category 11 (use of sold products). We are promoting the introduction of products with low environmental impact based on our Guidelines for Green Procurement and pursuing initia- tives aimed at encouraging the use of energy-saving devices by our customers.
oses the value ding ision. e gas	 * Scope 1: Greenhouse gas emissions generated directly; Scope 2: Greenhouse gas emissions generated indirectly in conjunction with energy use; Scope 3: Greenhouse gas emissions generated indirectly over the whole value chain ** Categories: 15 subdivisions categorizing activities from portions of the value chain covered under Scope 3 (activities not conducted directly by a company) including activities related to products and services purchased by the company (upstream) and activities
6 million	related to products and services sold by the company (downstream)

Over

Strategy

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Contributions to Reducing Society's CO₂ Emissions

INTT Group's Contribution to Reducing Society's CO₂ Emissions ICT contributes to the reduction of the environmental impacts of our lives Emissions through ICT Services* and society in various ways, including making our lives and work more efficient and providing alternatives for moving goods and people. For example, the digital distribution of books, music, movies, and other content cuts back on the energy consumed in transporting the books, CDs, DVDs, and other physical media that are normally used to distribute such content.

For the fiscal year ending March 31, 2031, NTT Group has established the target of contributing to a reduction in the CO₂ emissions of society through the provision of its services and technologies that is at least 10 times greater than NTT Group's own emissions.

In the fiscal year ended March 31, 2017, the reduction in CO₂ emissions from society achieved in this manner was 8.9 times the amount of emissions of NTT Group. The outcome was a result of increased use of services, such as video streaming services, in conjunction with the spread of smartphones and the development of high-speed, large-capacity networks as well as our ability to reduce the environmental impact to a degree that exceeded the amount of energy consumed by the Group in providing telecommunications services.

NTT Group will continue contributing to the reduction of society's environmental footprint in various fields by utilizing ICT.

□ Reduction of the Group's CO₂ Emissions through Energy-Saving Equipment

The reduction of CO₂ and other greenhouse gas emissions. which are known causes of climate change, is an important issue for international society. In the ICT field, a primary area of business for NTT Group, the advancement of technologies brings concerns for the rises in electricity consumption that accompany the need for processing larger volumes of data and cooling massive servers. For this reason, ICT companies are increasingly being expected to make their operations more energy efficient in order to lower emissions.

NTT Group provides data center services and various other ICT services, and the use of electricity purchased to supply such services accounts for over 95% of the Group's CO2 emissions. We are therefore implementing energy-saving initiatives, realizing that these initiatives will also contribute to reductions in CO₂ emissions

NTT Group uses large amounts of electricity, with purchased electricity amounting to more than 8.0 billion kWh a year. Due to

CO₂ Emissions from Business Activities (Million t-CO₂)



(Fiscal year ended March 31)

NTT Group's Contribution to Reducing Society's CO2

(Million t-CO₂)

CO2 emissions from NTT Group Reduction in CO2 emissions from society



1. The reduction in CO2 emissions from society is calculated by converting the energy conservation benefits of supplied ICT services into CO2. In converting energy conservation tion benefits into CO₂, the Company referenced the calculation methods included in the Telecommunication Technology Committee's Methodology for the Assessment of the Environmental Impact of Information and Communication Technology Goods, Networks and Services (JT-L1410) and Life Cycle Assessment Society of Japan's Guideline for Information and Communication Technology (ICT) Eco-Efficiency Evaluation. 2. Data collected from operations in Japan only

the rise in the price of electricity as a result of the start of the feed-in tariff scheme for renewable energy. NTT Group faces a large risk that it will be affected financially. Accordingly, reductions in CO₂ emissions through the use of energy-saving equipment are also being pursued from a financial standpoint. Measures conducted in the fiscal year ended March 31, 2017, included consolidating telecommunications equipment, making equipment more energy efficient, and introducing new technologies, such as optimal air-conditioning control systems and direct current (DC) power transmission systems. These measures for reducing CO2 emissions from electricity consumption were conducted through an investment of approximately ¥8.6 billion and contributed to a decrease of approximately 920.0 million kWh in electricity consumption. By advancing such efforts, we are contributing to the realization of a low carbon society while simultaneously mitigating financial risks for the Group.

Breakdown of CO₂ Emissions from NTT Group

End of year / month		2013/3	2014/3	2015/3	2016/3	2017/3
CO2 from electricity (Millions of t-CO2)		4.17	4.61	4.84	4.67	4.38
(Breakdown)	Electricity use (Billions kWh)	8.56	8.52	8.95	8.74	8.36
	Emission coefficient (kg/kWh)*	0.488	0.541	0.540	0.534	0.524
CO ₂ from gas and fuel consumption (Millions of t-CO ₂)		0.164	0.164	0.159	0.139	0.134
CO ₂ from company vehicles (Millions of t-CO ₂)		0.059	0.055	0.047	0.042	0.038
CO ₂ from heating (Millions of t-CO ₂)		0.016	0.020	0.026	0.027	0.029
Total CO ₂ emissions (Millions of t-CO ₂)		4.41	4.85	5.07	4.87	4.58

* Weighted average of emission coefficients announced annually by each power company weighted according to the amount of electricity from each company used by NTT Group Note: Data collected from operations in Japan only

* Excludes emissions of greenhouse gases other than CO2

Electricity Efficiency in Telecommunications Operations Improvement of Electricity Efficiency

NTT Group has set the target for the fiscal year ending March 31, 2031, of increasing electricity efficiency at data centers and other facilities in telecommunications operations to at least 10 times higher than the levels seen in the fiscal year ended March 31, 2014. Electricity is essential to the continuity of telecommunications operations. Realizing more efficient use of electricity in these operations is thus both a means of mitigating business continuity risks and of preventing climate change.

In the fiscal year ended March 31, 2017, electricity efficiency in telecommunications operations was 2.7 times higher than in the fiscal vear ended March 31, 2014. This feat was accomplished by introducing energy-saving equipment in accordance with the NTT Group Energy Efficiency Guidelines and improving network structure efficiency.

* Telecommunications operations contained within the scope of calculation for energy efficiency include the domestic operations of NTT East, NTT West, NTT Communications, NTT DOCOMO, and NTT DATA.

Energy Saving at Data Centers

NTT Communications offers data centers with power usage effectiveness (PUE)*1 of less than 1.2, and NTT COMWARE CORPORATION offers data centers with PUE of less than 1.1, which are at the world's highest level for energy efficiency. We are striving to enhance PUE for our other data centers as well by introducing five-star equipment with the highest level of energy efficiency in accordance with the NTT Group Energy Efficiency Guidelines. In addition, NTT FACILITIES has been developing higher-efficiency technologies for electrical power units and air-conditioning systems to reduce energy consumption at NTT Group communications buildings and data centers as well as central data center air-conditioning control systems for data centers. Furthermore, we began introducing highvoltage direct current (HVDC) rectifiers*2 at NTT Group communications buildings and data centers in the fiscal year ended March 31, 2015, to reduce energy consumption at these facilities. As of March 31, 2017, these rectifiers had been installed at approximately 400 facilities, contributing to improved energy efficiency and reduced costs for NTT Group as a whole. Going

Promotion of HVDC Rectifier Introduction

HVDC power transmission systems boast lower costs than AC uninterruptable power supply systems in terms of total lifetime costs, including post-introduction operation. NTT Group developed low-cost HVDC rectifiers as part of a drive to promote the introduction of these systems, and sales of these rectifiers were commenced in October 2016.

Going forward, NTT Group will continue to reduce the price of peripheral equipment and other components of HVDC power transmission systems. At the same time, we will coordinate with vendors to propose bundles that package HVDC systems with ICT equipment to help customers leverage the full benefits of these systems. We will also promote the introduction of HVDC systems at the data centers outside of the Group and in the server rooms of other companies in order to contribute to energy savings in all areas of the ICT field.





forward, NTT Group will promote the introduction of HVDC rectifiers in order to realize energy savings throughout the ICT field.

We are also operating some data centers using renewable energy and have installed a 5 kW solar power generation system at NTT East's Komagome Data Center. Solar power systems have also been set up at NTT East's Chiba Data Center; NTT West's Osaka Data Center; NTT Communications' Tokyo No. 2, No. 4, and No. 5 data centers; and the Takamatsu No. 2 Data Center in an effort to promote energy savings at these facilities.

- *1. Power usage effectiveness: PUE is calculated by dividing the total electricity consumption of a data center by the electricity consumption of the servers and other IT equipment it houses. It is a figure larger than 1, with higher efficiencies represented by values approaching 1
- *2. HVDC rectifiers: Power supply systems that allow for reductions in the number of times AC electricity supplied from outside a data center is converted between AC and DC during the course of powering ICT equipment within the center, thereby improving the power conversion efficiency of the entire data center. The use of high-voltage power enables power to flow smoother, thereby allowing for power lines to be made thinner and contributing to savings in both energy and resources



* Calculated based on 200 m² server room with 75 racks using 450 kW

Initiatives for Addressing Material Issues 3—Development of Frameworks for Encouraging of Participation by Diverse Human Resources

NTT Group believes that enabling employees to realize their full potential is an important management issue needing to be addressed in order to become a "Value Partner" that customers continue to select by responding to rapidly changing markets and diversifying customer needs. To this end, we are advancing initiatives for (1) the promotion of diversity, (2) the reform of work styles, and (3) the improvement of procedures for developing, evaluating, and assigning human resources.

Promotion of Diversity

Basic Policy

Aiming to become a "Value Partner" that customers continue to select, NTT Group has positioned diversity management as an important element of its management strategies. We thereby aim to enhance our powers of innovation and corporate strengths by being receptive toward and utilizing diverse human resources. To this end, we are endeavoring to establish workplaces at which a diverse range of people can actively participate, regardless of their gender, age, race, nationality, mental or physical limitations, sexual orientation, or gender identity. In October 2007, the Diversity Management Office was established at NTT, the holding company, and by April 2008 diversity promotion supervisors were in place in Group companies. Since that time, the Diversity Management Office and diversity promotion supervisors have worked together to assist employees' work-life management efforts, provide career development support for our diversifying employee base, and conduct educational activities aimed at reforming the corporate culture and ingrained practices of the Group. In addition, discussions on diversity within the Group are included in the training curriculum for senior managers, which is administered regardless of nationality. We thereby aim to help encourage

Empowerment of Women in the Workforce

At NTT Group, steps are taken to nurture female leaders, support the balancing of work with child-rearing, promote workstyle reforms, and conduct other measures based on the circumstances at each Group company. In the fiscal year ended March 31, 2017, we continued to advance such initiatives as the provision of Company information to employees on childcare leave, the training of employees on childcare leave and those preparing to return to work after childcare leave, the establishment of on-site day-care centers, and the use of e-learning programs to promote understanding of diversity.

To put the ideas and values of diverse individuals to use in our management and services, we announced a plan in December 2013 to double the ratio of our female managers at the level of section manager or above in Japan, seeking to increase this ratio from the level of 2.9% in the fiscal year ended March 31, 2013, to 6.0% by the fiscal year ending March 31, 2021. We have since intensified efforts to train and promote female employees to management positions in 41 NTT Group companies.* As a result of efforts to hire and promote female employees, women occupied 4.6% of management positions and comprised 30% of new graduates joining NTT Group in the fiscal year ended March 31, 2017. We have published these figures on the website launched by the Cabinet Office Gender Equality Bureau for tracking statistics on the empowerment of women in the workforce. Furthermore, NTT East, NTT West, and NTT Communications received the highest rating (Rank 3) in the "Eruboshi" certification mark program for recognizing excellent

participation by diverse human resources throughout the Group. We also hold semiannual diversity promotion conferences to enable individual Group companies to share their initiatives with the whole NTT Group, and we monitor female manager ratios, the status of the hiring of people with limitations, and other numerical diversity management indicators.

Employment Data



*1 Estimated number of employees of 907 consolidated companies for NTT Group as of March 31, 2017

*2 As of March 31, 2017, total number of employees of NTT, directly affiliated companies in Japan, and their affiliated companies in Japan (total of 41 companies) *3 Section manager level or higher

companies under the Act to Promote the Active Participation of Women in the Workplace, which took effect in April 2016.

NTT Group companies also hold joint forums and training sessions to promote networking among management-level female employees and motivate them to nurture newer female employees.

* 41 NTT Group companies: NTT, companies in Japan directly controlled by NTT, and their major subsidiaries (59 companies at the time of plan formulation, 41 companies at present)

Ratio of Female Managers



Male managers Female managers Ratio of female managers

Notes: 1 Numbers of managers at NTT, companies in Japan directly controlled by NTT, and their major subsidiaries (41 companies at present)

2 Ratio of our female managers at the section manager level or above in Japan

Employment of Non-Japanese Employees

NTT Group considers diversity management to be critical to its management strategies and actively seeks to create workplaces where diverse human resources can realize their full potential, irrespective of race or nationality.

We apply the same conditions to the hiring and promotion of non-Japanese employees as we do to our Japanese employees, and we allow non-Japanese candidates to be interviewed or give presentations in English. Of the 1,504 people hired by major NTT Group companies in Japan in the fiscal year ended March 31, 2017, 79 (approximately 5.3%) were non-Japanese.

Consideration for Members of the LGBT Community and Other Sexual Minorities

With regard to diversity management, we have been working to promote women's careers and the hiring of persons with special needs by setting up dedicated organizations (such as the Diversity Management Office) at major NTT Group companies since 2007. In addition, we have recently begun to pursue initiatives related to the LGBT community and other sexual minorities in view of expanding social awareness.

NTT Group endeavors to develop its organization and realize a society in which everyone can live and work based on who they are, regardless of their sexual orientation or gender identity. We therefore strive to create a working environment that motivates our employees to appreciate diversity and maximize their abilities and that allows for efficient work styles. In April 2016, NTT Group announced that its support systems related to important life events are applicable to same-sex partners. These systems include leave, monetary payments, and telegrams to congratulate employees, such as in the case of

Expansion of Employment of Individuals with Disabilities

NTT Group has established special-purpose subsidiaries* to As of June 30, 2017, the ratio of differently abled individuals actively recruit individuals with disabilities and expand hiring at NTT was 2.43%. For major NTT Group companies in Japan, this ratio was 2.32%, while the entire Group had a ratio of opportunities for them while also endeavoring to create pleasant workplaces. These special-purpose subsidiaries engage in 2.16%. initiatives that utilize the unique capabilities of individuals with * Subsidiaries that give special consideration to the employment of individuals with disabilities in disabilities, including performing web accessibility diagnosis and order to promote and stabilize the employment of individuals with disabilities conducting training for fostering sensitivity toward such individuals. In addition, individuals with disabilities take part in certain areas of NTT Group's value chain, including equipment-related work at NTT East.



Number of newly hired non-Japanese employees Ratio of non-Japanese employees among new hires

* Number of newly hired non-Japanese employees, including new graduates, mid-career hires, and non-full-time employees who have been converted to full-time

marriage, or to offer condolences, such as in the case of the passing of a family member.

As a result of these efforts, NTT was recognized in PRIDE INDEX 2016, receiving the highest rating of gold. This index is compiled by work with Pride to recognize initiatives by companies for supporting the LGBT community and other sexual minorities. In addition to NTT, 16 NTT Group companies were also included in this index.





Promotion of Work Style Reform Initiatives Basic Policy

NTT Group seeks to create new value through innovation. In order to accomplish this goal, there is a strong need for all NTT Group employees to break away from traditional work styles to adopt more efficient practices and thereby exercise greater levels of independence and creativity. We are also aware of the importance of supporting this shift by cultivating a deeper understanding of work-life management throughout workplaces and fostering a corporate culture that accepts the diverse work

UWork Style Reform through Promotion of Working-from-Home System Use

We are reforming the work styles of all NTT Group employees and actively promoting the use of the working-from-home system and other teleworking systems as well as flextime

Encouragement of Employees to Take Annual Paid Leave

In addition to work style reform, NTT Group is promoting a change in the practice of taking leave in an effort to facilitate the work-life management efforts of each employee. We encourage employees to take their annual paid leave in conjunction with long major holidays, such as Golden Week, end-of-year and New Year holidays, and summer vacation, and conduct awareness-raising campaigns aimed at promoting extended leave acquisition. We thereby aim to create an environment that is conducive to taking leave. Others measures to facilitate leave

Promotion of Child-Rearing and Family Care Support Systems

NTT Group believes in the importance of balancing careers with private lives and offers childcare and family care benefits that go beyond legally mandated levels. To assist employees raising children or providing long-term care to family members, we offer a robust lineup of support systems. These include leave systems, shortened working hours, personalized shifts, re-employment systems for employees who leave work to raise children or provide long-term care to family members, a life plan leave system that enables employees to accumulate and use paid leave days that would have otherwise expired, reimbursement for hiring babysitters, and discounts for using long-term care services. We are constantly striving to improve upon these systems, through such means as making it possible to use them more flexibly, in order to support the efforts of a diverse range of employees and respond to the needs of employees and the expectations of society. In April 2008, NTT was awarded "Kurumin" mark certification by the Ministry of Health, Labour and Welfare in recognition of the use of its child-rearing support systems. Following the revision to the Act on Advancement of Measures to Support Raising Next-Generation

styles of each individual employee. From this standpoint, in June 2017 NTT Group made a work style reform declaration, which represented the shared sentiment of all NTT Group managers and employees. We are currently pursuing improvements in overall work processes together with business partners while advancing initiatives for helping employees maintain good physical and mental health and for encouraging reforms in the work styles of individuals.

systems as an ICT provider. We thereby aim to realize more efficient and flexible work styles.

acquisition include implementing more lenient guidelines for counting paid leave consumption in order to make it easier for employees to take so-called life plan leave for purposes such as childcare, long-term care of family members, or volunteer activities. In the fiscal year ended March 31, 2017, the average number of paid leave days taken at major NTT Group companies in Japan was 18.7 days, and the utilization ratio for paid leave was 93.3%.

Children, NTT acquired new "Kurumin" mark*1 certification in August 2015. Each Group company has also acquired new "Kurumin" mark certification as well.*2 With regard to family care support, the Ministry of Health, Labour and Welfare created the "Tomonin" symbol mark in November 2014 to encourage the establishment of working environments for balancing work and family care. NTT has been actively using the mark to publicize its initiatives and promote the development of a working environment in which employees can achieve a balance between work and family care.

*1 "Kurumin" mark

Companies that have developed an action plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children and achieved the goals set out in the plan while also meeting certain standards can apply to be recognized as childcare-supporting companies by the Minister of Health, Labour and Welfare and awarded "Kurumin" ma certification.

*2 Companies that have acquired either "Kurumin" mark or new "Kurumin" mark certification: NTT, NTT East, NTT West, NTT Communications, NTT DOCOMO, NTT DATA, NTT URBAN DEVELOPMENT, NTT FACILITIES, NTT COMWARE, etc. total of 22 companies

Initiative for Promoting Use of Child-Rearing and Family Care Support Systems

On-Site Day Care Centers

NTT DATA set up the Egg Garden day care center in its head office building (Kotoku, Tokyo) in 2011, while NTT East established the DAI★KIDS HATSUDAI on-site day care center in its head office building (Shinjuku-ku, Tokyo) in 2012. By creating

an environment in which employees can return quickly from childrearing holidays or leave and participate fully at work, these companies are strengthening support for employees in leveraging their strengths and engaging in highly productive work, even when their life stage changes, such as due to childbirth or childrearing.



Interior of DAI * KIDS HATSUDAI

Rehiring of Employees Who Left Their Jobs for Child-Rearing or Family Care Reasons

We have established a system for rehiring employees that had worked for three consecutive years prior to leaving their job to look after a child that has not yet completed the third grade or to care for a family member. If employees request such a reemployment, we will decide whether or not to rehire them after conducting interviews and health examinations.

Improvement of Procedures for Developing, Evaluating, and Assigning Human Resources



Human Resource Development

NTT Group is committed to establishing human resources development system that enable all of its employees to make the most of their abilities through their work and deliver high value.

Employees formulate their own career plans based on the special skills necessary for each job. Skills are then improved

Support for Training to Improve Capabilities

In addition to Group training and on-the-job training for enabling also offer a training curriculum for cultivating experts in the security field in order to respond to the recent rise in security risks. To develop future management leaders, we have selected approximately 300 individuals from the executive manager and section manager levels to take part in a training curriculum meant to help participants develop leadership skills and engage in interpersonal exchanges. With an eye to the globalization of Furthermore, we actively support employee career developthe Group's business, we also send employees to study at overseas graduate schools or participate in overseas work experience programs in order to nurture personnel capable of

employees to gain necessary skills in their respective fields of business, we provide many other opportunities for employees who are eager to get ahead, including distance learning, e-learning, in-house certification of skill levels to evaluate the results of educational programs, and support for acquiring qualifications. ment in various ways, including having superiors meet with their subordinates at the start of the year, mid-year, and year-end to discuss career plans and review performance, and providing performing in the global market. management training to employees tapped for promotion. We

Programs for Cultivating Management Leaders and Globally Capable Employees

	Goal	Program	
ion of leaders to fill future anagement positions		Mentoring program	This program officer from wi manager level program inclu- sions with me
	Development of leaders for the entire NTT Group	Group leader development program	This program laboration betw a mind-set foor relocations to
		MAC Management Workshop	The purpose of restricted to the personal network external lecture
	Fostering of globally	Global Leadership Development Program	The Global Le generation of sense of leade one-week cur
	capable human resources	GLDP Leadership Excellence and Accelerating Diversity	This extension them acquire Participants an where they tak



1. Human Resource Development Support for training to improve capabilities

> 2. Employee Evaluations Fair evaluation process, human resource management and salary systems

through the implementation of the plan-do-check-act (PDCA) cycle. At Group companies, we have taken steps to establish a variety of systems related to human resource development, such as instituting a framework for defining specialized fields in line with business characteristics and work details and certifying skills.

entails assigning a mentor, usually a senior executive vice president or corporate vithin the Group, to new directors and young management candidates (section el) to teach them the frame of mind required of a manager. The curriculum for this udes individual work and group work based on selected themes as well as discusentors, results presentations, and lectures by external experts.

n is designed to help the young managers who will be responsible for promoting coltween NTT Group companies gain experience, broaden their perspective, and develop ocused on advancing cross-Group businesses. This is accomplished through periodic other Group companies and exchanges of opinion with managers.

of this program is to cultivate managers with broad perspectives that are not the Company, to foster a sense of solidarity within NTT Group, and to enhance works. The curriculum consists of four management workshop courses conducted by irers over a period of seven months.

eadership Development Program (GLDP) aims to broaden the horizons of the next f managers who will be responsible for developing global businesses, cultivate a lership within them, and help them form personal networks. The program includes a rriculum of study at an overseas business school.

n of the GLDP is targeted at senior managers in Japan and overseas, aiming to help leadership skills and otherwise cultivate global leaders within NTT Group. are submitted to a one-week curriculum of study at an overseas business school. ake part in discussions on leadership and diversity, among other curriculum items.
Employee Evaluations

NTT Group operates an in-house qualification system that puts priority on performance and sets behavior and performance targets tailored to each qualification rank. Our human resource management system is designed to encourage employees to think and act for themselves in the execution of their work duties through the steady implementation of an evaluation process that incorporates the setting of targets and the provision of feedback to employees.

Fair Evaluation Process

We endeavor to enhance the fairness and objectivity of our evaluation process. To this end, we have taken steps to prevent inappropriate evaluations due to subjective and arbitrary elements by having all of the evaluators in the same business unit hold evaluator meetings to align their evaluation criteria and perspectives.

Human Resource Management and Salary Systems

In October 2013, we reconstructed our human resource management and salary systems. The new systems, which reflect the distinctive business characteristics of NTT Group, are designed to better reward employees who perform the roles and produce the results expected of them by introducing evaluation-based compensation and expanding results-based awards.

Enhancement of Employee Satisfaction

NTT Group strives to understand the obstacles to making working environments more comfortable for employees. As part of these efforts, we regularly conduct surveys of employees at Group companies and use the results to improve working environments. Results of the survey conducted at Group companies in the fiscal year ended March 31, 2017, showed the level of employee satisfaction at 3.83 out of 5.00 points.

Placement of the Right	People in the Right Jobs
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NTT Group's businesses extend over a wide range of areas. To smoothly advance these various businesses, it is important to place the right person in the right job so that all employees can work to their full potential. From this perspective, we implement periodic human resource rotations with consideration for the status of each employee's skill development status and career plan.

In-House Recruitment Program

We raise motivation and promote networking within the Group by providing ambitious employees with opportunities to seek new challenges in a wide range of fields through our NTT Group Job Challenge in-house recruitment program. In recent years, to raise the number of employees across the whole Group who are capable of working globally, we have been actively providing opportunities for employees to transfer to global posts by creating new global posts and increasing recruit numbers. In the fiscal year ended March 31, 2017, 453 employees used the Job Challenge program, with 167 transferring as a result to their desired workplace.

Fiscal years ended March 31	2015	2016	2017
Employee Satisfaction (Out of 5.00 points)	3.69	3.88	3.83

Turnover Rate

Human resources play a crucial role in the economic growth of companies and the advancement of corporate strategies, and the ability to secure talented human resources is vital for a company to achieve sustainable growth.

We collect data on the turnover rate at major NTT Group companies in Japan (including their affiliated companies). In the fiscal year ended March 31, 2017, the turnover rate was 7.0%.*

The average length of service was 15.1 years for female employees and 22.4 years for male employees.

* Including employees retiring at the mandatory retirement age

Respect for Human Rights

NTT Group is expanding its global business in accordance with the Medium-Term Management Strategy "Towards the Next Stage 2.0." As our business grows more global, it is crucial that we act in compliance with global expectations for human rights with regard to the rights of our employees worldwide as well as the various other people connected to NTT Group's value chain.

The NTT Group's Human Rights Charter

NTT Group realizes that one of its social responsibilities is to of Human Rights, and the eight core conventions of the ILO respect the human rights of employees and all of its other Declaration on Fundamental Principles and Rights at Work. stakeholders. In 2014, the NTT Group's Human Rights We expect all Group companies to observe these standards. Charter was established to make clear our commitment to As a new initiative in the fiscal year ended March 31, 2017, fulfilling this responsibility. This charter incorporates the ideals human rights management surveys were conducted with of such standards as the Guiding Principles on Business and regard to human rights. Human Rights, which were approved by the United Nations We will also continue efforts to ensure that the contents Human Rights Council in 2011. and principles of the NTT Group's Human Rights Charter are

The human rights needing to be respected are defined in the charter as "internationally recognized human rights." We thus believe that the basis for standards of universal human rights is represented by the standards described in the Universal Declaration of Human Rights, the International Bill

The NTT Group's Human Rights Charter

We recognize that the respect for human rights is a corporate responsibility and aim to create a safe, secure, and rich social environment by fulfilling our responsibility.

- pany activities.
- appropriately when negative impacts on human rights occur.
- 3. We aim to not be complicit in infringing human rights, including being involved in discrimination, directly or indirectly.
- Group, we will expect the business partners to respect human rights and not to infringe on them.

*1 "We" means NTT Group and its officers and employees.

- and specifically refer to the following.
- United Nations (the Universal Declaration of Human Rights and the two Covenants on human rights) The Universal Declaration of Human Rights (adopted by the United Nations General Assembly in 1948)
- International Covenant on Economic. Social and Cultural Rights and the International Covenant on Civil and Political Rights (adopted by the United Nations General Assembly in 1966. in force from 1977)
- International Labour Organization (eight core conventions of the ILO Declaration) • ILO Declaration on Fundamental Principles and Rights at Work (adopted at the 86th International Labour Conference in 1998) core conventions: Forced Labour Convention, Right to

Measures for Strengthening Human Rights Management

actual human rights issues that the Group faces. Based on the findings of these assessments, we began conducting human rights management surveys based on the Guiding Principles on Business and Human Rights, in the fiscal year ended March 31, 2017. These surveys are part of our efforts to construct frameworks for preventing human rights viola-As one facet of its activities to understand its impacts on tions. Our next step will be to supplement these internal surveys with surveys conducted through coordination with specialized external organizations (human rights impact assessments). We thereby plan to implement even more rigorous risk assessments in order to develop an understanding of actual and potential human rights issues inherent in NTT Group's business activities and to formulate measures for addressing these issues.

A company that develops its business on a global scale must consider the impacts of its activities on the human rights of various stakeholders. To ensure that such consideration is entrenched throughout the organization, it is essential for a company to be aware of how its activities can and do impact the human rights of stakeholders. human rights. NTT Group conducted human rights risk assessments during the fiscal year ended March 31, 2016. These assessments targeted specific businesses that Group companies are developing overseas (business process outsourcing services and data centers) and specific regions (China and India). The goal of these activities was to form an understanding of the conditions in the global society as it pertains to NTT Group's business in order to identify the

understood and entrenched throughout the Group. At the same time, the Group will share this commitment to human rights with its various partners, working together with them to promote respect for human rights on a global basis.

1. We*1 respect internationally recognized human rights*2, including the Universal Declaration of Human Rights in all com-

2. We responsibly respect human rights by efforts to reduce any negative impacts on human rights holders. We respond

4. When negative impacts on human rights are done by a business partner and are linked to a product or service of NTT

*2 "Internationally recognized human rights" are rights included in declarations and rules that form the basis for international standards of universal human rights throughout the world

Organise and Collective Bargaining Convention, Freedom of Association and Protection of the Right to Organise Convention, Equal Remuneration Convention, Abolition of Forced Labour Convention, Discrimination (Employment and Occupation) Convention, Minimum Age Convention, and Worst Forms of Child Labour Convention



Expanding Collaboration with Service Providers in Other Industries under the Hikari Collaboration Model

With regard to the Hikari Collaboration Model, the number of service providers to which NTT Group provides wholesale services was approximately 550 companies at the end of the fiscal year ended March 31, 2017, as NTT Group further expanded collaborative projects with business operators in the communications, energy, real estate, security, and other industries as well as with business operators in diverse industries including the housing industry and media industry in the fiscal year ended March 31, 2017.

Furthermore, in the housing industry, new use cases were born, including providing total lifestyle support after home purchases, which involves a combination of this model and home energy management system services (HEMS) and lifestyle-related services. As a result of these initiatives, the number of fiber-optic access service subscriptions using this model was 8.74 million on March 31, 2017.

Continuously Reducing Costs and Raising Efficiency in Capital Investment

With the development of the Hikari Collaboration Model, NTT Group worked to continuously reduce marketing costs. Furthermore, by simplifying and streamlining networks and further increasing the use of existing facilities, we sought to make capital investment more efficient.

Expanding Wi-Fi Service Coverage Areas

As companies and local governments are proactively promoting the use of Wi-Fi as a powerful information service tool, in various regions NTT Group continuously worked to improve convenience for the increasing number of visitors to Japan by expanding the coverage area of Wi-Fi, resulting in the number of Wi-Fi area owners reaching 557 on March 31, 2017.

Number of Subscriptions for Major Services (as of March 31, 2017)



Note: The figures for FLET'S Hikari, Hikari Denwa, and FLET'S TV include the number of subscriptions for wholesale services provided to service providers through the use of the Hikari Collaboration Model by NTT Fast and NTT West.

Collaboration with the Housing Industry PICK UP

In the housing industry, the Hikari Collaboration Model provided by NTT East and NTT West is being utilized to assist the spread of the "Smart House," which allows household power consumption to be visually represented and home appliances to be regulated through ICT.



Provision of System That Supports Local Governments in Times of Disaster to Facilitate a Quick Return to Normal Life

When a disaster strikes in Japan, victims must receive a certificate of disaster damage issued by a local government agency if they wish to apply for support programs designed to help them return to a normal life. However, there are some problems with this method, such as the amount of time required for certificates to be issued and the unfairness that arises from differences in disaster damage survey procedures NTT East offers a system that supports the procedures of local governments in order to facilitate a guick return to normal life for disaster victims.

lation, standardization of building damage certification surveys via standard survey forms, and management of support measures for helping Normal Circumstances (Presa victims return to a normal life by means of victim registries. When Typhoon No. 10 triggered

 Developed rules and systems for shared use throughout prefecture
Conducted training for local severe landslides in Iwate Prefecture in August governments spearheaded by Iwate prefectural governmen Accordingly, certificates of disaster damage were Domestic Farthquake

No preparations

Today, numerous local governments are considering adopting this system. Looking ahead, NTT Group aims to help build a society that is resilient to disasters through ICT.

2016, this system was already in place.

return to normal life after the disaster.

able to be issued in a speedy manner and

support measures were able to be managed

thanks to victim registries, contributing to a quick





Creating New Value through Business Activities

This system contributes to the swift issuance of certificates of disaster damage through features including automatic survey form database compi-

Comparison of Certificate of Disaster Damage Issuance Procedures after Typhoon No. 10 in Iwate Prefecture and a Domestic Earthquake





Long Distance and International Communications Business

In the Long Distance and International Communications Business Segment, in addition to enhancing our provision capabilities for seamless ICT solutions combining network, security, and other services, we worked to strengthen our service provision capabilities in growth areas such as cloud services and IT outsourcing.

Financial Results for the Year Ended March 31, 2017



Details of Major Initiatives

Proactively Expanding Cloud Service Platform

To provide ICT solutions to corporate clients based on an even more reliable international network, in October 2016 NTT Group began operations of the Asia Pacific Gateway, NTT Group's high-bandwidth optical submarine cable network. Additionally, the Group sought to respond to demand for cloud services and data centers in various global regions. In the continuously growing market of the United States, we commenced service of the Virginia Ashburn 2 (VA2) Data Center and began construction of the Virginia Ashburn 3 (VA3) Data Center, which is designed to achieve strong security and high-level energy savings. In this manner, NTT Group is proactively expanding its cloud service platform by working to provide a wide variety of data centers.

As a result of these initiatives. NTT Group's data centers were ranked as top class in the world in terms of both total floor area and potential server installation floor area according to a report by U.S. TeleGeography (published in November 2016).

Stepping Up Provision of Services in Growth Fields

NTT Group received an IT outsourcing order from major U.K. insurance provider ReAssure UK Services Limited and began providing infrastructure services, including cloud services for the company's servers, and security monitoring services.

Number of Subscriptions for Major Services (as of March 31, 2017)



Reinforcement of Framework for Global Cloud Service Provision PICK UP



Launch of COTOHA® AI Engine That Responds to Customers in Natural Japanese

On October 31, 2016, NTT Group launched the COTOHA® artificial intelligence (AI) engine, which utilizes NTT Group's corevo® Al technology to realize natural conversations with people. This communication engine is capable of understanding the natural expressions used by people and can therefore be entrusted with customer response services to limit the need for human intervention to only those cases in which the engine is unable to furnish an accurate response. Moreover, by logging past conversation histories and incorporating this information into its responses, COTOHA® facilitates improvements in customer satisfaction. We anticipate that the introduction of COTOHA® will bring various benefits, including the automation of initial responses on corporate helplines as well as the accompanying rise in response rates and end user satisfaction and improvements in productivity.

With COTOHA®, we aim to utilize AI to address the social issues in Japan presented by the contraction of the workforce stemming from the declining birth rate and aging population. At the same time, NTT Group hopes to increase its global competitiveness by supplying this communication engine to other countries similarly experiencing birth rate decline and population aging.







Creating New Value through Business Activities

dimension data



Continuously Enhancing Billing Plans

In addition to continuing to promote the sales of Kake-hodai & Pake-aeru, a billing plan tailored to suit a customer's stage of life that offers more affordable rates to long-term users, we began offering the docomo Child Raising Support Program in November 2016 and implemented other initiatives to enhance returns to its customers. As a result, the number of subscriptions to Kake-hodai & Pake-aeru reached 37.07 million on March 31, 2017.

Promoting Sales of docomo Hikari

By utilizing the Hikari Collaboration Model from the Regional Communications Business Segment, NTT DOCOMO promoted the sales of the docomo Hikari Pack, which bundles fiber-optic access infrastructure services, Internet access services, and mobile services. As a result, the number of subscriptions to docomo Hikari reached 3.40 million on March 31, 2017.

Strengthening Profitability in the Smart Life Area

In order to strengthen profitability in the Smart Life area, NTT Group pursued the +d initiative, which was aimed at creating new added value through collaboration with various business partners, and expanded its content, finance, and settlement services. Specifically, NTT Group collaborated with Perform Group to begin providing the live sports service DAZN for docomo and also worked to expand the number of member stores for its d POINTs loyalty point program.

Number of Subscriptions for Major Services (as of March 31, 2017)



Provision of DAZN for docomo PICK UP

Together with Perform Group, provider of the revolutionary DAZN live sports service, NTT Group launched DAZN for docomo, a service that offers unlimited viewing of popular sports events from Japan and overseas, on February 15, 2017. This service gives users access to more than 7,500 matches from over 130 major sporting events from around the world, which can be viewed on multiple devices. Live viewing is available for people wanting to experience a match in the now along with catch-up viewing for those that joined a match late, but still want to view from the beginning. We will continue to collaborate with various stakeholders to contribute to the expansion of the sports industry into the future.

Creating New Value through Business Activities

Commencement of DOCOMO Drone Project

On October 19, 2016, NTT Group commenced the DOCOMO Drone Project. This project has three goals: providing dronepowered solutions to contribute to the resolutions of social issues, utilizing mobile technologies to establish an environment supporting the operation of drones, and applying platform technologies to the support of safe operation of drones that are out of evesight. We are currently moving ahead with investigations and verification testing together with partners with the aim of supplying new solutions for disaster response, agriculture, distribution, and other fields.

In terms of disaster response, a successful verification test of portable drone base stations, which are equipped with miniature relay stations capable of setting up temporary service areas, was conducted in Naganohara Town, Agatsuma District, Gunma Prefecture. In the agricultural field, a partnership agreement was concluded regarding a verification testing project in Niigata City that is expected to contribute to the management of rice crop cultivation and forest reserves. Meanwhile, a distribution field verification test of distribution systems using cellular drones, which take advantage of mobile phone networks, took place in Chiba City, and proved to be a success. Going forward, we will continue to investigate measures and conduct

verification tests with the goal of helping create a society in which customers can live more fulfilling lives that are safer and more secure.

döcomo

Number of dmarket
subscriptions

16.08 million





Expanding Business in the Global Market through M&A Activities

To increase its presence through the acquisition of a North America-focused operating base and to enhance cloud services and business process outsourcing (BPO) services, NTT Group acquired the businesses of Dell Services, which has been highly regarded by customers for providing digital solutions and BPO services tailored to the healthcare industry

Promoting Initiatives for Providing New Services to the Financial Industry

To create new, finance-related services through open innovation, together with venture firms and regional banks, we established the BeSTA FinTech Lab, and are working to provide new services utilizing FinTech through means including the verification testing of information distribution services that use location data.

Supplying the World's Highest-Resolution Global Geospatial Information

Aiming for the expanded use of global geospatial information, creation of new markets, and the stimulation of related industries, in April 2016 NTT Group began to offer AW3D® Global High-resolution 3D Map with compatibility for all global land spaces. This service is a source of geospatial information with the world's highest resolution that was developed together with the Remote Sensing Technology Center of Japan (RESTEC).

Improvement of Presence and Establishment of Global Brand through Acquisition PICK UP of IT Service Company Operations of Dell Inc. of the United States

In November 2016, NTT Group acquired Dell Services, after which Dell Services was integrated with existing organizations in North America to continue their operations as NTT DATA Services from April 1, 2017. NTT DATA Services boasts solid customer bases in the health insurance, medical institution, manufacturing, service, and financial industries as well as among federal government agencies. We therefore anticipate that NTT DATA Services will be a powerful asset for improving the presence of NTT Group in the North American market and establishing a global brand. Looking ahead, NTT DATA Services will focus on growing its business in the industries it serves and on enhancing its cloud and BPO services.

Benefits of Integration of Dell Services with Existing Organizations in North America

Improved presence in the North American market Expanded portfolio



Digital 3D Map of the Entire World Facilitating Global-Scale Natural Disaster Response Measures

At the end of the fiscal year ended March 31, 2016, we finished compiling a 3D map that encompasses the entire world through AW3D® Global High-resolution 3D Map, a digital map with the world's highest resolution that utilizes satellite images provided by NTT DATA and RESTEC. Use of this map is spreading, particularly in emerging countries, and it is currently utilized to provide various solutions in more than 70 countries around the world. AW3D® provides information on elevation differences for all land masses across the globe, making it a useful tool for conducting global-scale surveys for resource, environmental, disaster prevention, transportation, or other applications. For example, this map can be used to select candidate sites for wind power generation systems by evaluating extreme wind risks based on land shapes. In the area of disaster prevention, AW3D® has demonstrated, in Vietnam and Nepal, its ability to efficiently identify areas at particularly high risk of landslides.

Future initiatives will include expanding use of global geospatial information and contributing to the resolution of social issues through the expansion of our lineup of urban area 3D maps and other AW3D[®] services.

NTT DATA

Creating New Value through Business Activities





Real Estate Business

NTTUD

NTT Urban Development, which is the Group's only comprehensive real estate company, developed its office building and commercial facility operations, as well as residential operations, which are implemented principally through the Wellith brand. In addition, NTT Urban Development utilized the know-how that it has cultivated in these business fields to implement initiatives in such areas as global business and the hotel and resort business.



Finance Business

NTTFINANCE

As the core finance company of NTT Group, NTT FINANCE provided leasing, installment payment, financing, and other financial services that are compatible with diversifying needs, changes in the economic climate, and the progress of globalization. NTT FINANCE also provided billing and collection services for telecommunications service bills as well as credit card transaction settlement services.

Construction and Electric Power Business



NTT FACILITIES provided one-stop solutions for buildings and energy facilities, ranging from planning and design services to construction, maintenance, operation, and upkeep services. NTT FACILITIES also utilized its technologies in the fields of ICT, energy, and construction to the fullest extent and integrated these technologies to develop smart cities that employ natural energy and use limited energy resources in an efficient and waste-free manner and safe cities that are resilient to natural disasters and other risks.



Advanced Technology Development Business

🕐 ΝΤΤΑΤ ONTT Electronics \bigcirc NTT-TX

These companies primarily worked to apply the advanced technologies of NTT Laboratories in the design, development, maintenance, and operation of products and in the provision of services. Specifically, they offered technology consulting using combinations of network technologies, media processing technologies, and other advanced technologies from Japan and overseas. In addition, these companies worked in the development, production, and sales of communications-use custom large-scale integrated circuits (LSIs) and optical devices that are indispensable to the realization of high-capacity communications networks. Other initiatives included the provision of total solutions related to software design and development and information and communications networks.

System Development Business



NTT COMWARE developed its systems integration business, which targets NTT Group as well as other customers. In this business, NTT COMWARE leveraged the strengths of the superior technological prowess and expertise that it has used to support Japan's largest telecommunication carrier business as one of NTT Group's IT companies. With regard to customers outside of NTT Group, NTT COMWARE expanded the range of industries it serves to include the financial and distribution industries, among others, and also developed solutions utilizing Al, deep learning, and other cutting-edge technologies.



etc.

NTT Group's R&D

Under its Medium-Term Management Strategy, "Towards the Next Stage 2.0," which was launched in May 2015, NTT Group is accelerating self-transformation toward becoming a "Value Partner" that customers continue to select and embarking on a profit growth track while rapidly transitioning to a B2B2X model aimed at sustainable growth. NTT Group's R&D activities include development projects that support increases in cost efficiency, such as network simplification. Furthermore, we are striving to develop technologies to advance the creation of new value through collaboration with

Al and the IoT Targeted by NTT Group

Artificial intelligence (AI) and the Internet of Things (IoT) have recently been garnering attention as technologies that will transform society.

NTT Group does not aim for AI that emulates human intelligence or thinking but rather for AI that substitutes for and supports certain activities and that coexists and co-creates with people, thereby helping realize more fulfilling lifestyles.

We have defined four types of AI technologies that we will work with: Agent-AI, Heart-Touching-AI, Ambient-AI, and Network-AI. In addition, we have chosen *corevo®* as the brand name for the Group's AI technologies based on our desire to create revolutions with our AI technologies through collaboration with various leading players in the field.

NTT Group aims to utilize its AI technologies to resolve social issues and strengthen industrial competitiveness through joint efforts together with collaboration partners and local government agencies.

In terms of the IoT, the degree to which data and other information can be collected is of utmost importance. NTT Group has long been optimally utilizing an array of wired and wireless technologies for inter-equipment communications to respond to the needs of customers for communications among various pieces of equipment other companies and to implement leading-edge research with a focus on the future

Moreover, we will take advantage of the products of these R&D initiatives to advance a number of the priority measures. These include working toward the resolution of social issues facing Japan, such as the aging of the population, as well as strengthening industrial competitiveness and vitalizing local economies, which are objectives of the national government. Through these efforts, we aim to contribute to the development of society as well as to the growth of corporate value.

(e.g., meters, monitoring terminals, vending machines, security devices). Calling upon the track record and experience cultivated through this process, we will provide network technologies and solutions for the coming IoT era.

The advent of the IoT will no doubt necessitate the use of a substantially larger range of equipment than seen previously. The types of data needing to be collected will be equally varied, consisting of text and numerical data as well as images, voice recordings, and videos.

NTT Group seeks to provide customers with IoT networks that are optimally managed and operated to fulfill the communication conditions this era will require. To accomplish this goal, it will not be enough to simply offer access to communication lines. Rather, we must integrate technologies for managing IoT networks in their entirety as well as data distributed processing technologies, security technologies, and an assortment of various other IoT technologies. NTT Group possesses a wealth of technologies and experience that will enable it rise to this challenge, and we are committed to supporting customers looking to adopt the IoT with our expertise and systems.



corevo®: Co-revolution Revolution created through cooperation with various players

Agent-Al	Supports humans by interpreting the information they generate
Ambient-Al	Interprets human, objects, and the environment, and forecasts and controls the immediate future instantly
Heart-Touching-Al	Interprets human emotions and physical conditions, and understands the deep psyche, intellect, and instinct
Network-Al	Connects different types of AI into collective intelligence and optimizes the social system as a whole Realizes AI applications for networks

Creation of New Value through Collaboration

NTT Group aims to develop new businesses and markets by further increasingly large range of collaborative initiatives with partners from promoting the B2B2X model. In relation to R&D activities, this goal other industries, as such collaboration has the potential to create entails pursuing technological innovation by working together with unprecedented, new value the likes of which we could not previpartners outside of the Group to create new value based on the key ously imagine. word of collaboration. In particular, we hope to actively engage in an

Utilization of Security Technologies through Collaboration

Cybersecurity Technologies Supporting Safe and Secure Operation of Control Systems

Mitsubishi Heavy Industries, Ltd., and NTT have completed the joint development of a prototype of InteRSePT[®], a cybersecurity technology for critical infrastructure (social infrastructure) control systems. InteRSePT® realizes safe and secure system operation using real-time anomaly detection and response for unknown





attacks. MHI and NTT plan to apply the newly developed technology to thermal power generation facilities, chemical plants, and other facilities where continuous system operation is of high importance. (2) Control NMA based on detected abnormality information or operating state × Power plants 3 Control communications based on Transportation specific state rules systems **Network Monitoring** Application (NMA) B **Chemical plants** Various sensors

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Collaboration Taking Advantage of AI and IoT Technologies

Joint Field Test for Realizing New Levels of Convenience for Customers

Seven & i Holdings Co., Ltd., and NTT are carrying out a joint field test of a system designed to realize new levels of convenience for customers at convenience stores by using cutting-edge ICT. This system takes advantage of angle-free object search technology, one of the technologies under NTT's corevo® AI technology brand, to make it possible for customers to receive valuable information about products without even picking them up simply by pointing their smartphone at sandwiches or other items on product shelves.

The field test is meant to evaluate the ability of the system to recognize objects and retrieve information, the convenience it offers to customers, and the satisfaction it brings to customers. This information will be incorporated into the process of examining potential services for offering increased safety and security to customers in the future.



Development of ICT Platforms for Connected Cars

An agreement has been reached between Toyota Motor Corporation and NTT Group to combine their respective automobile-related technologies and ICT technologies in a joint project to develop, verify, and standardize technologies in the connected car field. Under this agreement, TOYOTA and NTT Group will utilize the big

NTTGroup ΤΟΥΟΤΑ Automobile Technologies ICT Technologies 1) Data collection, storage, and analysis platform 2 Data centers 2 IoT networks 3) 5G (4) Agents 3 Edge computing

oping technologies for providing customers with new mobility services. These efforts are anticipated to lead to the future realization of a sustainable, smart mobility society at the global level.

data collected from vehicles to tackle various issues plaguing

society, such as traffic accidents and congestion, while also devel-

- 1 Data collection, storage, and analysis platform Collection and storage of massive amounts of vehicle data • Transmission of massive amounts of data Real-time analysis of massive amounts of data
- IoT networks and data centers Optimal deployment of global infrastructure network topology and data centers
- (3) Next-generation telecommunications technologies (5G, edge computing) Verification and standardization
- of 5G connection technologies Applicability verification of edge
- computing technologies
- ④ Agents • Driving advice and voice guidance utilizing Al

NTTDATA O NTT

NTT Communicat

döcomo O NTT

O NTT

Potential Unlocked by Leading-Edge Research Results

Sports Brain Science Project for Strengthening the Brain to Claim Victory

In January 2017, NTT Communication Science Laboratories set up means of strengthening the brain supporting mental fortitude and the Sports Brain Science Project as one facet of NTT Group's techniques in order to help athletes claim victory. efforts to develop corevo® AI technologies. The goal of this project Collaborating with athletes of all levels, from junior and amateur is to establish new training methods for enhancing the mental fortiathletes to professionals, the Sports Brain Science Project will utilize tude and techniques of athletes. Playing sports is a marriage of wearable sensors, virtual reality, machine learning, and other one's mental fortitude, physical strength, and techniques. Of these cutting-edge ICT to elucidate the latent information processing factors, mental fortitude and techniques are directly linked to the mechanisms of athletes' brains. Other goals of the project include brain, which has yet to be fully explained by science. Focusing on gaining insight for supporting the cultivation of athletes, such as by assisting in developing their skills or identifying talent at an early this area, the Sports Brain Science Project seeks to identify the information processing mechanisms of brains to determine how the age, and establishing new training methods for strengthening brains of talented athletes regulate their mental states and control athletes' brains so that they may deliver higher performances. their bodily functions. Through this process, we hope to develop

Factors Contributing to Athlete Performance



Unprecedented Quantum Computing Mechanism Using Light to Solve Difficult Problems

choosing candidate compounds in drug discovery processes. The range of options grows exponentially as the scope of a problem increases, making it difficult for conventional computers to solve larger problems. The QMN is anticipated to be of use in solving real-world combinatorial optimization problems in fields such as bioinformatics, telecommunication network optimization, traffic control, and deep Combinatorial optimization problems involve selecting an optimal learning.

Through the Cabinet Office's Impulsing Paradigm Change through Disruptive Technologies Program, NTT has developed a quantum neural network (QMN) that employs an unprecedented computing mechanism together with the National Institute of Informatics, Osaka University, and the University of Tokyo. The QMN makes use of light to rapidly solve combinatorial optimization problems, which are difficult to tackle using conventional computers. option from a set of numerous options. An example would be

Primary Targets of **Prior Sports Science Projects**

Targets of Sports Brain Science Project



10-Year Financial Summary

Nippon Telegraph and Telephone Corporation and its subsidiaries Fiscal years ended March 31

										Billions of ye
	2008	2009	2010	2011	2012	2013	2014	2015	2016	201
Profit and loss (For the year)										
Operating revenues	¥10,680.9	¥10,416.3	¥10,181.4	¥10,305.0	¥10,507.4	¥10,700.7	¥10,925.2	¥11,095.3	¥11,541.0	¥11,391.
Operating expenses	9,376.3	9,306.6	9,063.7	9,090.1	9,284.4	9,498.8	9,711.5	10,010.8	10,192.8	9,851.
Operating income	1,304.6	1,109.8	1,117.7	1,214.9	1,223.0	1,202.0	1,213.7	1,084.6	1,348.1	1,539.
Other income (expenses) ⁽¹⁾	17.7	(4.6)	2.4	(39.1)	16.4	(4.3)	80.5	(17.9)	(18.9)	(12.
Income before income taxes and equity in earnings (losses)										
of affiliated companies ⁽¹⁾	1,322.3	1,105.2	1,120.1	1,175.8	1,239.3	1,197.6	1,294.2	1,066.6	1,329.3	1,527.
Income tax expense ⁽¹⁾	531.7	371.3	452.9	474.6	583.2	474.0	486.5	397.3	354.8	468.
Equity in earnings (losses) of affiliated companies ⁽¹⁾	41.9	(0.7)	14.7	0.7	(7.6)	(16.1)	(50.8)	5.9	5.8	(0.
Net income ⁽¹⁾⁽²⁾	832.5	733.2	681.9	701.9	648.6	707.6	756.9	675.2	980.2	1,059.
Less—Net income attributable to noncontrolling interests ⁽¹⁾⁽²⁾	197.4	194.5	189.6	192.2	180.9	185.7	171.4	157.1	242.5	259.
Net income attributable to NTT ⁽¹⁾⁽²⁾	¥ 635.2	¥ 538.7	¥ 492.3	¥ 509.6	¥ 467.7	¥ 521.9	¥ 585.5	¥ 518.1	¥ 737.7	¥ 800.
Cash flows (For the year)										
Net cash provided by operating activities	¥ 3,090.8	¥ 2,514.1	¥ 2,817.8	¥ 2,830.9	¥ 2,508.3	¥ 2,453.7	¥ 2,727.9	¥ 2,391.8	¥ 2,711.8	¥ 2,917.
Net cash used in investing activities	(1,990.6)	(2,269.7)	(2,308.9)	(2,052.2)	(1,971.2)	(1,776.3)	(2,106.8)	(1,868.6)	(1,759.8)	(2,089.
Net cash provided by (used in) financing activities	¥ (726.4)	¥ (353.3)	¥ (651.3)	¥ (249.6)	¥ (948.1)	¥ (745.2)	¥ (622.4)	¥ (678.0)	¥ (707.6)	¥ (981.
Balance sheet (At year-end)	V(40,005,0	V40.004.5	V/10.057.5	N 0 000 0	V 0 000 4	V 0 770 7	V 0 000 7	V 0 004 5	V 0 554 0	× • = • •
Net property, plant and equipment	¥10,385.6	¥10,201.5	¥10,057.5	¥ 9,900.6	¥ 9,806.4	¥ 9,776.7	¥ 9,839.7	¥ 9,801.5	¥ 9,551.9	¥ 9,719.
Total assets ⁽¹⁾	18,518.8	18,796.4	18,939.1	19,665.6	19,389.7	19,549.1	20,284.9	20,702.4	21,035.9	21,250.
Total current liabilities	3,911.9	3,694.2	3,588.3	3,689.1	3,494.3	3,499.4	3,676.8	3,721.7	3,741.1	4,131
Total long-term liabilities ⁽¹⁾	5,332.1	5,956.6	5,579.9	5,895.6	5,847.7	5,527.7	5,657.4	5,902.7	6,009.6	5,560
Interest-bearing debt	4,677.2	4,899.3	4,491.7	4,553.5	4,274.0	4,036.0	4,200.0	4,406.7	4,163.3	4,088
Capital stock (common stock plus additional paid-in capital)	3,779.0	3,779.0	3,776.9	3,772.0	3,770.1	3,765.6	3,765.0	3,784.7	3,817.5	3,800
Total NTT shareholders' equity ⁽¹⁾⁽²⁾	7,410.8	7,298.1	7,788.2	8,020.7	7,882.6	8,231.4	8,511.4	8,681.9	8,833.8	9,052
Noncontrolling interests ⁽²⁾	1,864.0	1,847.5	1,982.7	2,060.2	2,165.1	2,290.6	2,413.5	2,368.0	2,406.3	2,455.
Total equity ⁽¹⁾⁽²⁾	¥ 9,274.8	¥ 9,145.6	¥ 9,770.9	¥10,080.9	¥10,047.7	¥10,522.0	¥10,924.8	¥11,049.8	¥11,240.1	¥11,507.
Other financial data										
Capital investment (For the year) ⁽³⁾	¥ 2,128.9	¥ 2,145.1	¥ 1,987.1	¥ 1,870.1	¥ 1,946.6	¥ 1,970.0	¥ 1,892.8	¥ 1,817.5	¥ 1,687.2	¥ 1,700.
Research and development expenses (For the year)	271.1	268.2	278.1	268.2	267.9	269.2	249.3	233.8	213.4	211.
Employees (Thousands) (At year-end)	193	196	195	219	224	227	240	242	241	27
Performance indicators										
EBITDA margin ⁽³⁾	33.8%	32.5%	31.9%	31.9%	30.8%	30.3%	29.3%	27.6%	28.4%	27.9%
ROE (%)	8.7%	7.3%	6.5%	6.4%	5.9%	6.5%	7.0%	6.0%	8.4%	8.9%
Per share of common stock (Yen) ⁽⁴⁾										
Weighted average number of shares outstanding ⁽⁵⁾	2,755,122,724	2,690,604,822	2,646,524,966	2,646,346,778	2,551,038,800	2,423,761,538	2,299,516,428	2,187,360,018	2,105,782,828	2,046,678,14
				2,040,340,778 ¥ 192.58						
Net income attributable to NTT ⁽¹⁾⁽²⁾⁽⁵⁾	¥ 230.54	¥ 200.21	¥ 186.00		¥ 183.34	¥ 215.34	¥ 254.61	¥ 236.85	¥ 350.34	¥ 390.9
Cash dividends, applicable to earnings for the year ⁽⁵⁾	¥ 45.00	¥ 55.00	¥ 60.00	¥ 60.00	¥ 70.00	¥ 80.00	¥ 85.00	¥ 90.00	¥ 110.00	¥ 120.0

NTT has retroactively applied the equity method of accounting to prior years for an affiliate investment as a result of the acquisition by NTT Group of additional shares of the affiliate during the fiscal years ended March 31, 2008 and 2014. The amounts in the table above for the fiscal years ended March 31, 2008, to March 31, 2013, have been adjusted accordingly.
With the application of the accounting pronouncement issued by the Financial Accounting Standards Board ("FASB") in December 2007, relating to noncontrolling interests in the consolidated financial statements, starting from the fiscal year ended March 31, 2010, the name of this line item was changed.
Please refer to Reconciliation of Capital Investment and Reconciliation of EBITDA Margin on page 94.
Capital investment is on an accrual basis for the acquisition of property, plant and equipment.

• From the fiscal year ended March 31, 2017, the method for calculating EBITDA has been revised.

EBITDA margin = (Operating income + Depreciation and amortization + Loss on sales and disposal of property, plant and equipment + Impairment loss) / Operating revenues × 100

(4) Financial data per share of common stock for the fiscal year ended March 31, 2008 have been adjusted to reflect the 100-for-1 stock split conducted in the fiscal year ended March 31, 2009.

(5) Adjusted for the 2-for-1 stock split with an effective date of July 1, 2015.

Overview

Strategy

ESG

Operation

Innovation

Segment Data

Total Operating Revenues



Total Operating Income



Major Subsidiaries' Data

NTT East

(JAPAN GAAP)

											Billions of yen
Fiscal year ended March 31	2	800	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating revenues	¥2,00)2.7	¥1,952.9	¥1,928.6	¥1,957.1	¥1,851.5	¥1,831.7	¥1,773.8	¥1,765.4	¥1,722.3	¥1,672.2
Operating expenses	1,95	57.7	1,916.2	1,881.0	1,879.9	1,801.2	1,766.7	1,707.0	1,655.5	1,560.4	1,483.1
Operating income	4	4.9	36.6	47.6	77.1	50.3	65.0	66.7	109.8	161.8	189.1
Non-operating revenues	6	6.1	69.2	61.6	53.8	58.4	60.1	58.0	23.7	17.5	20.2
Non-operating expenses	4	3.7	40.5	37.5	34.9	33.5	36.3	32.9	11.5	5.9	4.9
Recurring profit	6	67.4	65.3	71.7	96.0	75.2	88.8	91.7	122.0	173.4	204.4
Net income	¥g	96.8	¥ 77.5	¥ 50.5	¥ 52.3	¥ 32.1	¥ 52.8	¥ 53.9	¥ 69.5	¥ 118.7	¥ 149.6

NTT West

(JAPAN GAAP)

																		Billio	ns of yen
Fiscal year ended March 31	20	800	20)9	2010		2011		2012		2013		2014		2015		2016		2017
Operating revenues	¥1,90	1.2	¥1,824	.3	¥1,780.8	¥1	,758.0	¥1	,676.3	¥1	,627.9	¥1,5	39.6	¥1	,574.2	¥1,	,528.0	¥1,	479.0
Operating expenses	1,88	7.3	1,816	.5	1,762.3	1	,708.4	1	,639.3	1	,608.7	1,5	73.2	1	,538.5	1,	,453.9	1,	383.8
Operating income	1:	3.9	7	.7	18.4		49.6		37.0		19.2		16.3		35.6		74.0		95.1
Non-operating revenues	59	9.4	52	.1	51.1		49.8		44.6		42.7		41.6		6.0		5.7		2.9
Non-operating expenses	48	3.5	40	.3	39.3		36.4		39.3		33.6	;	31.9		12.8		12.7		9.9
Recurring profit	24	4.8	19	.5	30.3		63.0		42.3		28.3	:	26.0		28.8		67.1		88.1
Net income (loss)	¥ (3	7.7)	¥ 15	.4	¥ 24.8	¥	49.0	¥	20.4	¥	20.9	¥	18.7	¥	13.9	¥	72.4	¥	59.7

NTT Communications

(JAPAN GAAP)										Billions of yen
Fiscal year ended March 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating revenues	¥1,154.5	¥1,127.1	¥1,079.2	¥1,033.4	¥981.0	¥944.8	¥944.0	¥909.9	¥918.3	¥923.8
Operating expenses	1,049.7	1,026.3	981.7	940.1	875.2	826.6	830.5	816.8	827.1	831.3
Operating income	104.7	100.8	97.5	93.2	105.7	118.1	113.4	93.1	91.1	92.5
Non-operating revenues	35.1	32.3	25.0	23.7	23.7	24.7	27.4	30.1	27.1	20.7
Non-operating expenses	27.8	19.6	14.0	13.3	10.4	13.1	8.3	8.4	8.1	7.8
Recurring profit	112.0	113.5	108.5	103.6	118.9	129.7	132.5	114.8	110.2	105.4
Net income	¥ 62.7	¥ 89.0	¥ 60.6	¥ 68.9	¥ 58.3	¥ 65.3	¥ 88.9	¥ 77.2	¥ 72.3	¥ 85.0

NTT DOCOMO (Consolidated)

(U.S. GAAP)

										Billions of yen
Fiscal year ended March 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating revenues	¥4,711.8	¥4,447.9	¥4,284.4	¥4,224.2	¥4,240.0	¥4,470.1	¥4,461.2	¥4,383.4	¥4,527.1	¥4,584.6
Operating expenses	3,903.5	3,617.0	3,450.1	3,379.5	3,365.5	3,632.9	3,642.0	3,744.3	3,744.1	3,639.8
Operating income	808.3	830.9	834.2	844.7	874.5	837.2	819.2	639.1	783.0	944.7
Non-operating income (loss)	(7.6)	(50.5)	1.9	(9.4)	2.5	(3.8)	13.9	4.8	(5.0)	4.8
Income before taxes	800.6	780.4	836.1	835.3	877.0	833.3	833.0	643.9	778.0	949.6
Net income attributable to NTT DOCOMO	¥ 491.2	¥ 471.8	¥ 494.7	¥ 490.4	¥ 463.9	¥ 491.0	¥ 464.7	¥ 410.1	¥ 548.4	¥ 652.5

NTT DATA (Consolidated)

(JAPAN GAAP)

(JAPAN GAAP)										Billions of yen
Fiscal year ended March 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Net sales	¥1,074.4	¥1,139.0	¥1,142.9	¥1,161.9	¥1,251.1	¥1,301.9	¥1,343.7	¥1,511.8	¥1,614.8	¥1,732.4
Cost of sales	813.3	861.9	870.5	882.3	941.8	980.5	1,031.2	1,147.3	1,216.7	1,293.6
Gross profit	261.0	277.1	272.3	279.6	309.2	321.4	312.5	364.5	398.1	438.8
Selling, general and administrative expenses	165.1	178.6	190.6	201.3	228.8	235.7	249.9	280.4	297.2	321.7
Operating income	95.9	98.5	81.6	78.3	80.4	85.6	62.5	84.0	100.8	117.1
Non-operating income (loss)	(1.5)	(2.9)	(5.9)	(2.5)	(4.8)	(3.8)	(0.4)	(6.1)	(2.7)	(4.1)
Ordinary income	94.3	95.5	75.7	75.7	75.5	81.8	62.1	77.9	98.1	112.9
Net income attributable to owners of parent	¥ 30.4	¥ 48.3	¥ 35.6	¥ 37.3	¥ 30.4	¥ 43.5	¥ 23.2	¥ 32.1	¥ 63.3	¥ 65.6



* D/E ratio = Interest-bearing debt / Shareholders' equity x 100

Reference Information

Reconciliation of Capital Investment

					Billions of yen
	2013	2014	2015	2016	2017
Payments for property, plant and equipment	¥1,538.1	¥1,486.7	¥1,444.9	¥1,265.6	¥1,301.7
Payments for acquisition of intangible fixed assets	446.6	416.6	358.2	371.9	400.1
Acquisition of intangible assets and other assets	_	_	—	_	-
Total	¥1,984.7	¥1,903.2	¥1,803.1	¥1,637.5	¥1,701.8
Differences between capital investment	14.7	10.5	(14.4)	(49.7)	1.8

Reconciliation of EBITDA Margin

· · · · · · · · · · · · · · · · · · ·					Billions of yen
	2013	2014	2015	2016	2017
Operating income	¥ 1,202.0	¥ 1,213.7	¥ 1,084.6	¥ 1,348.1	¥ 1,539.8
Depreciation	1,899.2	1,880.3	1,828.0	1,766.3	1,462.2
Loss on Sales of Property, Plant and Equipment	106.2	98.3	108.6	130.7	107.4
Impairment Loss	36.8	11.9	42.2	32.7	73.9
EBITDA	3,244.2	3,204.2	3,063.4	3,277.9	3,183.3
Operating revenues	10,700.7	10,925.2	11,095.3	11,541.0	11,391.0
EBITDA margin	30.3%	29.3%	27.6%	28.4%	27.9%

Average monthly revenue per unit (ARPU)

Average monthly revenue per unit, or ARPU, is used to measure average monthly operating revenues on a per subscriber (user) basis. In the case of NTT Group's fixed-line business. ARPU is calculated by dividing revenue items included in the operating revenues of NTT Group's Regional Communications Business Segment (i.e., fixed-line (telephone subscriber lines plus INS-Net subscriber lines) and FLET'S Hikari) by the number of Active Subscribers to the relevant services. In the case of the mobile communications business, ARPU is calculated by dividing communications services revenue items included in operating revenues from NTT Group's Mobile Communications Business Segment, such as revenues from LTE (Xi) mobile phone services, FOMA mobile phone services, and docomo Hikari services (with certain exceptions), by the number of active users to the relevant services. The calculation of these figures excludes revenues that are not representative of monthly average usage, such as telecommunications equipment sales, activation fees, and universal service charges.

NTT believes that its ARPU figures calculated in this way provide useful information regarding the monthly average usage of its subscribers. The revenue items included in the numerators of NTT Group's ARPU figures are based on its financial results comprising its U.S. GAAP results of operations.

Method of calculating ARPU

(a) NTT East and NTT West

NTT separately computes the following two categories of ARPU for the fixed-line business conducted by each of NTT East and NTT West, using the following measures:

- Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines): Calculated based on revenues from monthly charges and call charges for Telephone Subscriber Lines and INS-Net Subscriber Lines, which are included in operating revenues from Voice Transmission Services (excluding IP Services), and revenues from FLET'S ADSL and FLET'S ISDN, which are included in operating revenues from IP Services.
- FLET'S Hikari ARPU: Calculated based on revenues from FLET'S Hikari (including FLET'S Hikari optional services), which are included in operating revenues from IP Services and Supplementary Business, revenues from monthly charges, call charges, and device connection charges for Hikari Denwa, which are included in operating revenues from IP Services, and revenues from FLET'S Hikari optional services, which are included in Supplementary Business revenues.
- (1) FLET'S Hikari includes B FLET'S, FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus, and FLET'S Hikari WiFi Access provided by NTT East; B FLET'S, FLET'S Hikari Premium, FLET'S Hikari Mytown, FLET'S Hikari Next, FLET'S Hikari Light, and FLET'S Hikari WiFi Access provided by NTT West; and the Hikari Collaboration Model wholesale provision of services provided by NTT East and NTT West to service providers. FLET'S Hikari optional services include wholesale services provided to service providers by NTT East and NTT West.
- (2) Revenues from interconnection charges are excluded from the calculation of Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines) and FLET'S Hikari ARPU.

- ers is the number of subscribers for fixed-line services (telephone subscriber lines or INS-Net subscriber lines).
- than INS-Net 64. For this reason, one INS-Net 1500 subscription is calculated as 10 INS-Net 64 subscriptions.
- (6) Number of Active Subscribers used in the ARPU calculation of NTT East and NTT West is as below: FY Results: Sum of number of Active Subscribers for each month from April to March

(b) NTT DOCOMO

- NTT computes ARPU for NTT DOCOMO as follows: Aggregate ARPU = Voice ARPU + Packet ARPU + docomo Hikari ARPU.
- Packet ARPU: Packet ARPU-related revenues (flat monthly fees and packet communication charges) / Number of Active Users docomo Hikari ARPU: docomo Hikari ARPU-related revenues (basic monthly charges and voice communication charges) / Number of Active Users

The sum of Packet ARPU and docomo Hikari ARPU is referred to as "Data ARPU."

- (1) Number of Active Users used in the ARPU calculation of NTT DOCOMO is as below. FY Results: Sum of number of Active Users for each month from April to March Active Users = (number of users at end of previous month + number of users at end of current month) / 2.
- (2) The number of users used to calculate ARPU is the total number of subscriptions, excluding the subscriptions listed below: Number of active users = subscriptions
- Operators (MVNOs): and
- Xi or FOMA services in his / her name.

Revenues from communication module services, Phone Number Storage, Mail Address Storage, docomo Business Transceiver and wholesale telecommunications services and interconnecting telecommunications facilities that are provided to Mobile Virtual Network Operators (MVNOs) are not included in NTT DOCOMO's ARPU calculation.

(3) For purposes of calculating Aggregate Fixed-line ARPU (Telephone Subscriber Lines + INS-Net Subscriber Lines), the number of subscrib-

(4) In terms of the number of channels, transmission rate, and line use rate (base rate), INS-Net 1500 is in all cases roughly 10 times greater

(5) For purposes of calculating FLET'S Hikari ARPU, the number of subscribers is determined based on the number of FLET'S Hikari subscribers (including B FLET'S, FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus, and FLET'S Hikari WiFi Access provided by NTT East; and B FLET'S, FLET'S Hikari Premium, FLET'S Hikari Mytown, FLET'S Hikari Next, FLET'S Hikari Light, and FLET'S Hikari WiFi Access provided by NTT West), and Hikari Collaboration Model wholesale services provided by NTT East and NTT West to service providers,

Active Subscribers = (number of subscribers at end of previous month + number of subscribers at end of current month) / 2

Voice ARPU: Voice ARPU-related revenues (basic monthly charges and voice communications charges) / Number of Active Users

a. Subscriptions of communication module services, Phone Number Storage, Mail Address Storage, docomo Business Transceiver and wholesale telecommunications services and interconnecting telecommunications facilities that are provided to Mobile Virtual Network

b. Data Plan subscriptions in the case where the customer contracting for such subscription in his / her name also has a subscription for

Consolidated Balance Sheets

Nippon Telegraph and Telephone Corporation and its subsidiaries March 31

	Millions of	Millions of yen		
	2016	2017		
ASSETS				
Current assets:				
Cash and cash equivalents	¥ 1,088,275	¥ 925,213		
Short-term investments	33,076	63,844		
Notes and accounts receivable, trade	2,733,116	2,699,708		
Allowance for doubtful accounts	(45,236)	(48,626)		
Accounts receivable, other	473,192	505,145		
Inventories	414,581	365,379		
Prepaid expenses and other current assets	469,529	573,170		
Deferred income taxes	260,446	228,590		
Total current assets	5,426,979	5,312,423		
Property, plant and equipment:				
Telecommunications equipment	11,586,812	11,046,115		
Telecommunications service lines	15,870,097	16,064,732		
Buildings and structures	6,069,437	6,147,869		
Machinery, vessels and tools	1,996,898	2,032,389		
Land	1,273,209	1,292,685		

Land 1,273	,209 1,292,685
Construction in progress 382	,196 421,819
37,178	,649 37,005,609
Accumulated depreciation (27,626	,728) (27,286,588)
Net property, plant and equipment 9,551	,921 9,719,021

Investments in affiliated companies	515,716	484,596
Marketable securities and other investments	474,247	495,290
Goodwill	1,229,208	1,314,645
Software	1,212,482	1,209,485
Other intangible assets	391,977	453,918
Other assets	1,486,840	1,492,076
Deferred income taxes	746,561	768,871
Total investments and other assets	6,057,031	6,218,881
Total assets	¥21,035,931	¥ 21,250,325

LIABILITIES AND EQUITY Current liabilities: Short-term borrowings Current portion of long-term debt Accounts payable, trade Current portion of obligations under capital leases Accrued payroll Accrued taxes on income Accrued consumption tax Advances received Other Total current liabilities

Long-term liabilities:

edeemable noncontrolling interests:	
Total long-term liabilities	
Other	
Deferred income taxes	
Accrued liabilities for point programs	
Liability for employees' retirement benefits	
Obligations under capital leases (excluding current portion)	
Long-term debt (excluding current portion)	

Equity:

Nippon Telegraph and Telephone Corporation ("NTT") shareholders' equity Common stock, no par value-Authorized - 6, 192, 920, 900 shares Issued—2,096,394,470 shares in 2016 and 2017 Additional paid-in capital Retained earnings Accumulated other comprehensive income (loss) Treasury stock, at cost-255,269 shares in 2016 and 81,026,959 shares in 2017 Total NTT shareholders' equity Noncontrolling interests Total equity Commitments and contingent liabilities:

Total liabilities and equity

Millions	of yen
2016	2017
¥ 129,656	¥ 227,207
476,777	681,904
1,572,797	1,612,996
14,711	14,430
430,248	443,308
249,356	239,755
83,481	75,083
290,132	324,342
493,970	512,368
3,741,128	4,131,393
3,546,203	3,168,478
27,630	25,568
1,688,611	1,599,381
89,003	103,047
166,547	166,751
491,630	497,132
6,009,624	5,560,357
45,097	50,819

937,950	937,950
2,862,035	2,879,560
5,626,155	5,074,234
1,562	(57,055)
(375,223)	(883)
9,052,479	8,833,806
2,455,277	2,406,276
11,507,756	11,240,082
¥21,250,325	¥21,035,931

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Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

Nippon Telegraph and Telephone Corporation and its subsidiaries Year ended March 31

Consolidated Statements of Income

Consolidated Statements of Income	Millions of yen		
	2015	2016	2017
Operating revenues:			
Fixed voice related services	¥ 1,441,383	¥ 1,329,963	¥ 1,233,885
Mobile voice related services	872,062	837,818	865,293
IP / packet communications services	3,672,157	3,757,846	3,808,972
Sale of telecommunication equipment	996,996	953,022	806,493
System integration	2,691,766	3,063,501	3,041,587
Other	1,420,953	1,598,847	1,634,786
	11,095,317	11,540,997	11,391,016
Operating expenses:			
Cost of services (excluding items shown separately below)	2,434,870	2,458,057	2,487,588
Cost of equipment sold (excluding items shown separately below)	948,903	970,478	879,725
Cost of system integration (excluding items shown separately below)	1,900,319	2,197,506	2,161,007
Depreciation and amortization	1,827,998	1,766,325	1,462,235
Impairment losses			
Goodwill	3,464	4,719	53,294
Other	38,739	28,002	20,558
Selling, general and administrative expenses	2,856,458	2,767,761	2,786,820
	10,010,751	10,192,848	9,851,227
Operating income	1,084,566	1,348,149	1,539,789
Other income (expenses):			
Interest and amortization of bond discounts and issue costs	(44,016)	(41,670)	(37,761)
Interest income	18,398	17,708	17,753
Other, net	7,681	5,072	7,988
	(17,937)	(18,890)	(12,020)
Income before income taxes and equity in earnings (losses)			
of affiliated companies	1,066,629	1,329,259	1,527,769
Income tax expense (benefit):			
Current	364,845	457,674	472,711
Deferred	32,504	(102,849)	(4,341)
	397,349	354,825	468,370
Income before equity in earnings (losses) of affiliated companies	669,280	974,434	1,059,399
Equity in earnings (losses) of affiliated companies	5,889	5,772	(21)
Net income	675,169	980,206	1,059,378
Less-Net income attributable to noncontrolling interests	157,103	242,468	259,249
Net income attributable to NTT	¥ 518,066	¥ 737,738	¥ 800,129

	Shares or yen			
	2015	2016	2017	
Per share of common stock*:				
Weighted average number of shares outstanding (shares)	2,187,360,018	2,105,782,828	2,046,678,144	
Net income attributable to NTT (yen)	¥236.85	¥350.34	¥390.94	
Cash dividends to be paid to shareholders of record date (yen)	¥ 90.00	¥110.00	¥120.00	

* "Per share of common stock" figures for the fiscal years ended March 31, 2015 and 2016 have been adjusted to reflect the two-for-one stock split carried out on July 1, 2015.

Consolidated Statements of Comprehensive Income

	Millions of yen			
	2015	2016	2017	
Net income	¥675,169	¥ 980,206	¥1,059,378	
Other comprehensive income (loss), net of tax				
Unrealized gain (loss) on securities	76,308	(32,960)	12,308	
Unrealized gain (loss) on derivative instruments	2,903	(4,079)	495	
Foreign currency translation adjustments	129,863	(115,599)	(24,657)	
Pension liability adjustments	16,370	(208,644)	91,034	
Total other comprehensive income (loss)	225,444	(361,282)	79,180	
Total comprehensive income (loss)	900,613	618,924	1,138,558	
Less-Comprehensive income attributable to noncontrolling interests	209,281	196,771	278,358	
Total comprehensive income (loss) attributable to NTT	¥691,332	¥ 422,153	¥ 860,200	

Consolidated Statements of Changes in Equity

Nippon Telegraph and Telephone Corporation and its subsidiaries Year ended March 31

				Millic	ons of yen			
	NTT shareholders' equity							
	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss)	Treasury stock, at cost	Total	Noncontrolling interests	Total equity
Year Ended March 31, 2015								
At beginning of year	¥937,950	¥2,827,010	¥4,808,361	¥ 94,966	¥(156,933)	¥8,511,354	¥2,413,452	¥10,924,806
Net income			518,066			518,066	156,013	674,079
Other comprehensive income (loss)				173,266		173,266	50,943	224,209
Cash dividends			(199,770)			(199,770)	(96,100)	(295,870)
Changes in NTT's ownership interest in subsidiaries		17,421				17,421	(156,358)	(138,937)
Stock compensation transactions		2,292				2,292		2,292
Acquisition of treasury stock					(340,781)	(340,781)		(340,781)
Resale of treasury stock					12	12		12
At end of year	¥937,950	¥2,846,723	¥5,126,657	¥ 268,232	¥(497,702)	¥8,681,860	¥2,367,950	¥11,049,810
Year Ended March 31, 2016								
At beginning of year	¥937,950	¥2,846,723	¥5,126,657	¥ 268,232	¥(497,702)	¥8,681,860	¥2,367,950	¥11,049,810
Adjustments due to change in fiscal year end of consolidated subsidiaries			700	(9,702)		(9,002)	(595)	(9,597)
At beginning of year (as adjusted)	937,950	2,846,723	5,127,357	258,530	(497,702)	8,672,858	2,367,355	11,040,213
Net income			737,738			737,738	241,075	978,813
Other comprehensive income (loss)				(315,585)		(315,585)	(44,749)	(360,334)
Cash dividends			(200,182)			(200,182)	(105,568)	(305,750)
Changes in NTT's ownership interest in subsidiaries		28,666				28,666	(51,837)	(23,171)
Stock compensation transactions		4,171				4,171		4,171
Acquisition of treasury stock					(93,886)	(93,886)		(93,886)
Resale of treasury stock		8			18	26		26
Cancellation of treasury stock		(8)	(590,679)		590,687	-		-
At end of year	¥937,950	¥2,879,560	¥5,074,234	¥ (57,055)	¥ (883)	¥8,833,806	¥2,406,276	¥11,240,082
Year Ended March 31, 2017								
At beginning of year	¥937,950	¥2,879,560	¥5,074,234	¥ (57,055)	¥ (883)	¥8,833,806	¥2,406,276	¥11,240,082
Adjustments due to change in fiscal year end of consolidated subsidiaries			(214)	(1,454)		(1,668)	(1,408)	(3,076)
At beginning of year (as adjusted)	937,950	2,879,560	5,074,020	(58,509)	(883)	8,832,138	2,404,868	11,237,006
Net income			800,129			800,129	257,593	1,057,722
Other comprehensive income (loss)				60,071		60,071	20,389	80,460
Cash dividends			(247,994)			(247,994)	(113,167)	(361,161)
Changes in NTT's ownership interest in subsidiaries		(18,700)				(18,700)	(114,406)	(133,106)
Stock compensation transactions		1,175				1,175		1,175
Acquisition of treasury stock					(374,348)	(374,348)		(374,348)
Resale of treasury stock					8	8		8
At end of year	¥937,950	¥2,862,035	¥5,626,155	¥ 1,562	¥(375,223)	¥9,052,479	¥2,455,277	¥11,507,756

* Changes in the redeemable noncontrolling interest are not included in the table.

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Consolidated Statements of Cash Flows

Nippon Telegraph and Telephone Corporation and its subsidiaries Year ended March 31

	Millions of yen			
	2015	2016	201	
ash flows from operating activities:				
Net income	¥ 675,169	¥ 980,206	¥ 1,059,37	
Adjustments to reconcile net income to net cash provided				
by operating activities-	4 007 000	1 700 005		
Depreciation and amortization	1,827,998	1,766,325	1,462,23	
Impairment losses	42,203	32,721	73,85	
Deferred taxes	32,504	(102,849)	(4,34	
Losses on disposals of property, plant and equipment	104,718	107,474	105,79	
Gains on sales of property, plant and equipment	(34,191)	(20,364)	(15,63	
Equity in (earnings) losses of affiliated companies	(5,889)	(5,772)	2	
(Increase) decrease in notes and accounts receivable, trade	(126,476)	(72,575)	63,84	
(Increase) decrease in inventories	(12,044)	(47,569)	(73	
(Increase) decrease in other current assets	(86,809)	(63,107)	(30,14	
Increase (decrease) in accounts payable, trade and accrued payroll	(21,538)	(34,539)	52,87	
Increase (decrease) in accrued consumption tax	99,661	(64,596)	(7,25	
Increase (decrease) in advances received	(32,481)	46,191	36,92	
Increase (decrease) in accrued taxes on income	(133,894)	124,905	(8,93	
Increase (decrease) in other current liabilities	60,141	8,198	8,93	
Increase (decrease) in liability for employees' retirement benefits	38,753	49,360	7,13	
Increase (decrease) in other long-term liabilities	2,588	(1,965)	41,78	
Other	(38,601)	9,801	71,62	
Net cash provided by operating activities	2,391,812	2,711,845	2,917,35	
Cash flows from investing activities:			, ,	
Payments for property, plant and equipment	(1,444,917)	(1,265,622)	(1,301,69	
Payments for intangibles	(358,209)	(371,924)	(400,11	
Proceeds from sales of property, plant and equipment	54,424	83,521	24,92	
Payments for purchases of non-current investments	(31,097)	(56,641)	(40,34	
Proceeds from sales and redemptions of non-current investments	27,478	57,173	58,83	
Acquisitions of subsidiaries, net of cash acquired	(42,217)	(120,596)	(329,00	
Payments for purchases of short-term investments	(61,364)	(120,590)	(178,93	
Proceeds from redemptions of short-term investments	70,644	23,095		
			146,13	
Other	(83,321)	(82,263)	(69,10	
Net cash used in investing activities	(1,868,579)	(1,759,778)	(2,089,31	
Cash flows from financing activities:	615 050	200.240	200.46	
Proceeds from issuance of long-term debt	615,353	398,348	320,46	
Payments for settlement of long-term debt	(496,729)	(449,025)	(485,61	
Proceeds from issuance of short-term debt	5,931,664	4,460,110	4,987,79	
Payments for settlement of short-term debt	(5,889,243)	(4,659,686)	(4,897,02	
Dividends paid	(199,770)	(200,182)	(247,99	
Proceeds from sale of (payments for acquisition of) treasury stock, net	(338,399)	(93,924)	(374,43	
Acquisitions of shares of subsidiaries from noncontrolling interests	(175,088)	(15,718)	(155,90	
Other	(125,796)	(147,498)	(128,79	
Net cash used in financing activities	(678,008)	(707,575)	(981,51	
Effect of exchange rate changes on cash and cash equivalents	19,486	(7,419)	(6,95	
Net increase (decrease) in cash and cash equivalents	(135,289)	237,073	(160,42	
Cash and cash equivalents at beginning of year	984,463	849,174	1,088,27	
Increase (decrease) in cash and cash equivalents due to change in fiscal year end of consolidated subsidiaries	_	2,028	(2,63	
Cash and cash equivalents at end of year	¥ 849,174	¥ 1,088,275	¥ 925,21	
Cash paid during the year for:				
Interest	¥ 44,795	¥ 41,626	¥ 37,33	
Income taxes, net	543,354	342,431	468,35	
Ioncash investing and financing activities:	- ,			
	20,987	11,099	16,80	
Capital lease oplications incurred during the year				
Capital lease obligations incurred during the year Cancellation of treasury stock		590,687	-	

Operating and Financial Review

Operating Revenues and Expenses

Operating Revenues

NTT Group's operating revenues are divided into six service categories, comprising fixed voice related services, mobile voice related services, IP / packet communications services, sales of telecommunications equipment, system integration and other.

Operating revenues in the fiscal year ended March 31, 2017 decreased 1.3% from the previous fiscal year to ¥11,391.0 billion. This decrease was due to such factors as exchange rate fluctuations due to the appreciation of the yen, despite the increase in revenues from mobile communications services in the mobile communications business segment and continued expansion due to NTT Group's overseas business.

Operating revenues for each service category for the fiscal year ended March 31, 2017 are summarized as follows:

Fixed Voice Related Services

NTT Group's fixed voice related services include a portion of the services it provides in the regional communications business segment and long distance and international communications business segment, such as telephone subscriber lines, INS-Net, conventional leased circuits and high speed digital.

Fixed voice related revenues for the fiscal year ended March 31, 2017 decreased 7.2% from the previous fiscal year to ¥1,233.9 billion, accounting for 10.8% of total operating revenues. This was due to a continued decline in the number of subscriptions for telephone subscriber lines and INS-Net caused by the increased popularization of mobile phones and optical IP telephones, and an increase in free or low-priced communications services offered by OTT operators (content distribution services utilizing other companies' communications infrastructure, allowing a service provider to distribute services without owning its own communications infrastructure).

Mobile Voice Related Services

Mobile voice related services include a portion of the services NTT Group provides in the mobile communications business segment, such as LTE (Xi).

Mobile voice related revenues for the fiscal year ended March 31, 2017 increased 3.3% from the previous fiscal year to ¥865.3 billion, accounting for 7.6% of total operating revenues. This was due to, among other things, growth in Voice ARPU.

■ IP / Packet Communications Services

NTT Group's IP / packet communications services include a portion of the services it provides in the regional communications business segment, such as *FLET'S Hikari*, a portion of the services it provides in the long distance and international communications business segment, such as Arcstar Universal One, IP-VPN, and OCN, as well as a portion of the services it provides in the mobile communications business segment, such as LTE (*Xi*) packet communications services.

In the fiscal year ended March 31, 2017, revenues from IP / packet communications services increased 1.4% from the previous fiscal year to ¥3,809.0 billion, accounting for 33.4% of total operating revenues. This increase was due to, among other things, the increased use of packets under the *Kake-hodai & Pake-aeru* billing plan and an

Sales of Telecommunications Equipment

This category includes a portion of the services NTT Group provides in the regional communications business segment and the mobile communications business segment.

In the fiscal year ended March 31, 2017, revenues from telecommunications equipment sales decreased 15.4% from the previous fiscal year to ¥806.5 billion, accounting for 7.1% of total operating revenues. This decrease was primarily due to a decrease in the number of wholesale sales of handsets, such as smartphones, in the mobile communications business segment.

System Integration

NTT Group's system integration services include its data communications business segment and a portion of the services it provides in the long distance and international communications business segment and the regional communications business segment.

In the fiscal year ended March 31, 2017, revenues from system integration decreased 0.7% from the previous fiscal year to ¥3,041.6 billion, accounting for 26.7% of total operating revenues. This decrease was due to factors such as the impact of exchange rate fluctuations on overseas business, despite growth in both domestic and overseas business.

Other

Other services principally comprise building maintenance, real estate rentals, systems development, leasing activities and the Smart Life area in the mobile communications business segment.

In the fiscal year ended March 31, 2017, revenues from other services increased 2.2% from the previous fiscal year to ¥1,634.8 billion, accounting for 14.4% of total operating revenues. This increase was due mainly to an increase in revenues associated with operations in the Smart Life area in the mobile communications business segment.

Operating Expenses

Operating expenses in the fiscal year ended March 31, 2017 decreased 3.4% from the previous fiscal year to ¥9,851.2 billion. The reasons for the decrease are discussed below. Personnel expenses and expenses for purchase of goods and services and other expenses, described below, are included in cost of services, cost of equipment sold, cost of system integration, and selling, general and administrative expenses in the consolidated statements of income.

Personnel Expenses

Personnel expenses in the fiscal year ended March 31, 2017 decreased 1.0% from the previous fiscal year to ¥2,276.8 billion. This decrease was mainly due to a decrease in personnel expenses in the regional communications business segment due to employee retirements among other factors, despite the continued increase of personnel expenses in the data communication business segment.

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The fiscal year ended March 31, 2017, compared with the fiscal year ended March 31, 2016

		Billions of y	en	
Fiscal year ended March 31	2016	2017	Change	Percent change
Operating revenues:	¥11,541.0	¥11,391.0	(150.0)	(1.3)%
Fixed voice-related services	1,330.0	1,233.9	(96.1)	(7.2)%
Mobile voice-related services	837.8	865.3	27.5	3.3%
IP / Packet communications services	3,757.8	3,809.0	51.1	1.4%
Sales of telecommunications equipment	953.0	806.5	(146.5)	(15.4)%
System integration	3,063.5	3,041.6	(21.9)	(0.7)%
Other	1,598.8	1,634.8	35.9	2.2%
Operating expenses	10,192.8	9,851.2	(341.6)	(3.4)%
Operating income	1,348.1	1,539.8	191.6	14.2%
Other income (expenses)	(18.9)	(12.0)	6.9	36.4%
Income before income taxes and equity in earnings (losses) of affiliated companies	1,329.3	1,527.8	198.5	14.9%
Income tax expense (benefit)	354.8	468.4	113.5	32.0%
Equity in earnings (losses) of affiliated companies	5.8	(0.0)	(5.8)	_
Net income	980.2	1,059.4	79.2	8.1%
Less-Net income attributable to noncontrolling interests	242.5	259.2	16.8	6.9%
Net income attributable to NTT	737.7	800.1	62.4	8.5%

Expenses for Purchase of Goods and Services and Other Expenses

In the fiscal year ended March 31, 2017, expenses for purchase of goods and services and other expenses decreased 1.1% from the previous fiscal year to ¥5,612.0 billion. This decrease was mainly due to efforts to improve operational efficiency leading to reduced expenses in the regional communications business segment, long distance and international communications business segment, mobile communications business segment and elsewhere, despite an increase in the number of consolidated overseas subsidiaries.

Depreciation and Amortization Expenses

Depreciation and amortization expenses in the fiscal year ended March 31, 2017 decreased 17.2% from the previous fiscal year to ¥1,462.2 billion. This decrease was mainly due to the change in NTT Group's method for calculating depreciation of property, plant, and equipment from the declining-balance method to the straight-line method, in addition to improved efficiency in capital investments in the regional communications business and mobile communications business.

Operating Income

As a result of the foregoing, operating income for the fiscal year ended March 31, 2017 increased 14.2% from the previous fiscal year to ¥1,539.8 billion.

Other Operating Revenues and Expenses

Other Income (Expenses)

Other expenses for the fiscal year ended March 31, 2017 decreased to 4(12.0) billion, from 4(18.9) billion in the previous fiscal year.

Income before Income Taxes and Equity in Earnings (Losses) of Affiliated Companies

Net income before income taxes in the fiscal year ended March 31, 2017 increased 14.9% from the previous fiscal year to ¥1,527.8 billion for the reasons discussed above.

Income Tax Expense (Benefit)

In the fiscal year ended March 31, 2017, income tax expense increased 32.0% from the previous fiscal year to ¥468.4 billion. This increase in income tax expense was due to an increase in net income before income taxes, in addition to the reduction to "Income tax expenses (benefit): Deferred" that occurred in the fiscal year ended March 31, 2016 due to the decrease of the valuation allowance resulting from the change in the estimate of realizability of deferred tax assets by NTT West and NTT DOCOMO. As a result, effective tax rates for the fiscal year ended March 31, 2016 and for the fiscal year ended March 31, 2017 were 26.69%, and 30.66%, respectively.

Equity in Earnings (Losses) of Affiliated Companies

Equity in earnings (losses) of affiliated companies for the fiscal year ended March 31, 2017 was approximately equivalent to the previous fiscal year, decreasing to ¥(0.0) billion compared to ¥5.8 billion for the previous fiscal year.

Net Income and Net Income Attributable to NTT

As a result, net income for the fiscal year ended March 31, 2017 increased 8.1% from the previous fiscal year to ¥1,059.4 billion. Net income attributable to NTT (excluding the portion attributable to non-controlling interests) for the fiscal year ended March 31, 2017 increased 8.5% from the previous fiscal year to ¥800.1 billion.

Liquidity and Capital Resources

Financing, Capital Resources and Use of Funds

Net cash provided by operating activities during the fiscal year ended March 31, 2017 amounted to ¥2,917.4 billion, an increase of ¥205.5 billion from ¥2,711.8 billion in the fiscal year ended March 31, 2016. This increase was primarily the result of, among other things, an increase in the amount of accounts receivable collected in the fiscal year ended March 31, 2017 compared to the fiscal year ended March 31, 2016.

NTT Group used the net cash provided by operating activities mainly to acquire property, plant and equipment, acquire new subsidiaries and to complete stock repurchases.

Net cash used in investing activities during the fiscal year ended March 31, 2017 amounted to ¥2,089.3 billion, an increase of ¥329.5 billion from ¥1,759.8 billion in the fiscal year ended March 31, 2016. This increase was due to, among other things, a ¥64.3 billion increase in payments for property, plant and equipment and in intangible assets computed on a cash basis, in addition to a ¥208.4 billion increase in expenditures on acquisitions of subsidiaries.

The increase in payments for investments in property, plant and equipment and in intangible assets for the fiscal year ended March 31, 2017 resulted from, among other things, an increase in capital expenditures due to measures to consolidate facilities and increase existing facility capacity in the mobile communications business and the expansion of the scope of large-scale projects in the data communications business, despite a reduction in fiber-optic-related capital expenditures in the regional communications business. For the fiscal year ended March 31, 2017, capital investments amounted to ¥1,700.0 billion on an accrual basis, of which ¥583.4 billion was invested in the regional communications business and ¥597.1 billion was invested in the mobile communications business.

Net cash used in financing activities during the fiscal year ended March 31, 2017 amounted to ¥981.5 billion, an increase in payments of ¥273.9 billion from ¥707.6 billion in the fiscal year ended March 31, 2016. The increase in payments was due to, among other things, a net increase of ¥280.5 billion in payments due to stock repurchases in addition to a net increase of ¥140.2 billion in payments for the acquisition of shares of subsidiaries from noncontrolling interests, partially offset by a net decrease of ¥175.9 billion in expenses from the repayment of short-term and long-term debt. The capital raised from the issuance of long-term debt in the fiscal year ended March 31, 2017 includes ¥128.3 billion in net proceeds from corporate bond offerings and an aggregate of ¥192.2 billion in loans from financial institutions. As of March 31, 2017, the total balance of the interest-bearing debt of NTT Group was ¥4,088.2 billion, a decrease of ¥75.1 billion compared to the balance of ¥4,163.3 billion as of March 31, 2016. The ratio of interest-bearing debt to shareholders' equity stood at 45.2% as of March 31, 2017 (compared to 47.1% as of March 31, 2016). Interest-bearing debt as of March 31, 2017 comprises short-term debt and long-term debt as well as ¥10.6 billion in deposits received pursuant to depositary agreements.

NTT Group believes that the net cash it expects to generate from operating activities, financing made available to NTT Group from banks and other financial institutions and/or offerings of equity or debt securities in the capital markets will provide the requisite financial resources to meet NTT Group's currently anticipated capital investment and expenditure needs and debt service requirements. Management believes NTT Group's working capital is sufficient for its present requirements.

For the fiscal year ending March 31, 2018, NTT Group expects to make capital investments totaling ¥1.700.0 billion on an accrual basis. which represents a similar amount as for the fiscal year ended March 31, 2017, due to, among other things, an increase in capital investments due to effect of consolidating the Dell Services Division, which became a consolidated subsidiary of NTT Group during the fiscal year ended March 31, 2017, for the entire fiscal year and the expansion of the scope of large-scale projects in the data communications business, partially offset by, among other things, a decrease in capital investments related to network improvements in the regional communications business and improved efficiency in the construction of LTE base stations in the mobile communications business. The total amount of expected capital investments includes ¥555.0 billion by the regional communications business and ¥570.0 billion by the mobile communications business. The actual amount of capital investments may vary from expected levels, since capital investments may be influenced by trends in demand, the competitive environment and other factors. In addition, the actual amount of NTT Group's funding will depend on its future performance, market conditions and other factors, and is therefore difficult to predict.

Liquidity

s 1, As of March 31, 2017, NTT Group had cash and cash equivalents balance (including short-term investments with principal maturities of less than three months) of ¥925.2 billion, a decrease of ¥163.1 billion compared to the balance of ¥1,088.3 billion as of March 31, 2016. Cash equivalents represent a temporary cash surplus used to repay debts and make capital investments, among other things, and are used as working capital. Accordingly, the balance of cash equivalents fluctuates each fiscal year depending on particular funding and working capital requirements.

Risk Factors

In addition to the other information contained in this annual report, prospective investors should carefully consider the risks described below related to NTT Group's business environment, business strategy and operations, regulations to which NTT is subject and NTT's relationship with the Government. Additional risks not currently known to NTT or that NTT now deems immaterial may also impair NTT Group's business operations. This annual report also contains forward-looking statements that involve risks and uncertainties. NTT Group's actual results could differ materially from those anticipated in these forward-looking statements as a result of a number of factors, including the risks NTT Group faces as described below and elsewhere in this annual report.

Risks associated with the business environment and NTT Group's corresponding business strategies

NTT Group's business may be affected by both the global and Japanese economic situation.

NTT Group has operations all over the world. An economic slowdown or deceleration in the economic growth of any of these regions may have an adverse effect on the demand for the services that NTT Group provides or on its operations.

NTT Group also owns investment securities and other financial assets. If their asset value were to decline because of a recession in the stock and other financial markets, the resulting impairment losses may adversely affect NTT Group's results of operations. NTT Group pension investments may also be adversely affected by the global and Japanese economic situation.

In addition, although NTT Group evaluates its means of capital procurement, including issuing corporate bonds and obtaining loans, any substantial fluctuations in the financial markets may lead to increases in NTT Group's financing costs.

As a result, NTT Group's results of operations and financial condition may be adversely affected. In response to these risks, NTT Group established a risk management policy, and in accordance with this policy, hedges risks using derivative transactions including forward exchange contracts. In addition, NTT Group is working to diversify its procurement procedures and to secure low-interest and stable financing.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT Group's operating revenues may suffer from changes in market structure and increased competition.

With the growing popularity of smartphones, tablets and high-speed wireless broadband services, the efficient use of signals and low latency, with specifications formulated by the 3rd Generation Partnership Project, the use of cloud services, AI, Big Data and IoT ("Internet

of Things," the concept that all things are connected wirelessly and can be controlled via the Internet) is expanding. At the same time, the structure of the telecommunications services market is changing dramatically as various new stakeholders join telecommunications operators in the market, services provided by over-the-top content ("OTT") (a content distribution service utilizing other companies' communications infrastructure, allowing a service provider to distribute services without owning its own communications infrastructure) providers expand, and competition increases on a global level. Additionally, the combination of fixed and mobile telecommunications services has accelerated the development of FMC (fixed-mobile convergence) services. Competition remains active among telecommunications providers, and the competitive environment in which NTT Group operates is becoming more rigorous.

NTT Group expects the solutions business to be a major area of growth in the information services market, and hardware vendors and other players are also focused on this business. Moreover, NTT Group conducts a variety of business activities in markets outside of the information and communications sector, and in each market, intense competition resulting from structural changes is increasing.

If NTT Group is unable to respond appropriately to increased competition and other changes in the structure of the markets in which it operates, its operating revenues may decline. In the information communications market, NTT Group's results of operations and financial condition could still be adversely affected if, despite these efforts, the number of subscribers that NTT Group acquires or retains fails to meet expected levels or if subscription ratios for various fee/discount services, trends in the number of subscription transfers to flat-rate services, or other initiatives do not proceed as expected.

Moreover, in the information services market, the growth of information service companies in rapidly developing nations, such as India and China, is bringing about global competition. Intensified competition resulting from new competitors' aggressive market entry may have an adverse effect on NTT Group's results of operations and financial condition.

Furthermore, it is possible that each of NTT Group's businesses in other markets will fail to achieve forecasted revenues, which may result in an adverse effect on NTT Group's results of operations and financial condition.

In response to these risks, NTT Group implemented measures to accelerate its self-transformation as a "Value Partner" and worked to place the entire NTT Group towards a profit growth track based on the medium-term management strategy "Towards the Next Stage 2.0" formulated and announced in May 2015. Specifically, NTT Group is seeking to expand and establish its global business as a cornerstone of its business operations, promoting efforts to enhance profitability of its domestic network businesses, and creating new markets through the expansion of its B2B2X businesses.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT Group's growth in its global business may be lower than anticipated.

NTT Group is expanding its global business as a cornerstone of its operations, and has also implemented initiatives to accelerate profit creation in this area. However, if these efforts do not progress as anticipated, or the cloud services market does not grow as anticipated, or revenues do not grow as expected due to increased competition or other factors, NTT Group's results of operations and financial condition may be adversely affected.

In response to these risks, and in order to deliver consistent growth of its overseas business operations, NTT Group will strengthen its sales force and marketing efforts, such as by expanding its global accounts and further promoting its up-selling and cross-selling efforts, while strengthening the entire NTT Group's services and products. In addition, stringent cost-efficiency initiatives are also underway in each of the Group's companies to, among other things, improve efficiency, optimize services and operations, and lower procurement costs.

NTT Group also monitors the progress of these initiatives on a regular basis and responds to any related developments promptly when the need arises.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT Group may not achieve anticipated cost savings.

NTT Group is working to generate profits by increasing capital expenditure efficiencies and reducing costs in the domestic fixed-line and mobile communications markets. However, it is possible that NTT Group will be unable to fully achieve the anticipated optimization of its capital expenditures or reductions in sales expenses, facility-related costs, and personnel and other costs due to changes in the competitive environment or due to the current state of progress in streamlining equipment or general business operations. Any such failure to achieve intended cost reductions could adversely impact NTT Group's results of operations and financial condition.

In response to these risks, and to improve capital expenditure efficiencies, NTT Group is working to simplify and streamline the network in each company, as well as further its efficiency in using its existing facilities and reduce procurement costs. Efforts are also being made to promote standardization by utilizing the latest technology. Meanwhile, NTT Group is continuously working to reduce costs and is working to ensure simple yet highly productive business operations based on initiatives such as the conversion to the B2B2X model.

NTT Group also monitors the progress of these initiatives on a regular basis and responds to any related developments promptly when the need arises.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT Group's international and domestic investments, acquisitions, alliances and corporate collaborations may not be successful, or NTT Group may be unable to exert the necessary control over its investments.

NTT Group engages in joint ventures, alliances and collaborations, as well as acquisitions and other strategic investments to expand its global business operations in particular in response to changes in market structure and customers' needs. However, NTT Group may not be able to maintain or enhance the value or financial performance of, or achieve sufficient synergies with, the domestic or overseas operations in which it has invested or agreed to invest or that it may in the future acquire. In addition, there may be occasions when NTT Group will suffer potential losses resulting from the dissolution or disposition of its investments, partnerships or other cooperative initiatives.

Furthermore, the recent increase in the number of foreign subsidiaries within NTT Group may result in increased fragmentation within the Group and render a common understanding difficult to achieve. There may be occasions when it is difficult for NTT to exert the control over its overseas subsidiaries necessary to oversee their business and operations. In addition, there is a risk that factors related to cross-border business, such as legal restrictions relating to investment and competition, differences in tax systems, differences in business customs including contract practices, labor relations, and international politics, may pose challenges to NTT Group's management of its overseas business activities. If such risks materialize, NTT Group's results of operations and financial condition may be adversely affected.

In response to these risks, NTT Group is proactively striving to expand its global business operations, and has worked to achieve expected returns from these endeavors by carrying out periodic post-acquisition monitoring of its investments. In addition, NTT Group is taking initiatives to enhance its group governance and risk management.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT Group may be unable to obtain the licenses for third-party intellectual property necessary for the operation of its business, may be subject to claims related to the infringement of the intellectual property from other companies, or may be unable to protect its own intellectual property rights, all of which could adversely affect its business operations and financial position.

In order for NTT Group and its business partners to carry out their business operations, they at times need to obtain licenses and other rights to use the intellectual property and other rights of third parties. NTT Group and its business partners have entered into the necessary intellectual property licenses, and based on their experience as well as industry practice, NTT Group believes that it will continue to be able to obtain such licenses on reasonable terms. However, if NTT Group is unable to reach or maintain agreements with the holders of such rights on commercially acceptable terms or at all, NTT Group and its business partners may not be able to provide certain technologies, products or services to its customers.

Further, as NTT Group's global business expands, particularly through overseas acquisitions, claims of intellectual property infringement and other claims against NTT Group, particularly by foreign corporations in jurisdictions in which it has completed acquisitions, may increase as it develops new products, services and technologies, and acquires companies that may be subject to ongoing or future intellectual property litigation.

If NTT Group is subject to claims of infringement of intellectual property rights, it may be required to expend considerable time and costs to reach a resolution. If such claims are determined adversely to NTT Group, it may be required to pay substantial damages or royalties to third parties, or may be subject to a temporary or permanent injunction preventing certain NTT Group companies from offering certain products or services and required to develop non-infringing products or technologies, which could result in a loss of revenues from businesses related to such rights. Further, any improper use by third parties of NTT Group's intellectual property and other rights could result in a decrease in NTT Group's contemplated license revenues and compromise NTT Group's competitive advantage.

The occurrence of any of these risks could adversely affect NTT Group's results of operations and financial condition.

In response to these risks, NTT Group strategically acquires intellectual property rights, and periodically conducts assessments of intellectual property rights, including measures to properly identify intellectual property rights held by NTT Group and by third parties. However, there can be no assurance that NTT Group's efforts will

ultimately prove to be successful.

NTT Group may be unable to hire or retain necessary personnel, which could have an adverse effect on NTT Group's results of operations and financial condition.

A number of companies both in Japan and abroad have entered the information and telecommunications market, in which the diversity and sophistication of services and technology have rapidly increased, and where changes in the market, with a focus on cloud services in particular, are expected to accelerate even further going forward. In this environment, NTT Group's ability to hire and retain highly skilled personnel significantly affects the success of its business. If the hiring or retention of such key, highly skilled personnel by NTT Group does not proceed as expected, it could adversely affect NTT Group's ability to develop new technologies, design new products, enhance its existing products and execute its growth strategy, which could negatively impact its results of operations and financial condition.

In response to these risks. NTT Group implemented measures to strengthen employee training, in addition to providing training in collaboration with the government, other businesses and educational institutions. In addition, NTT Group works to understand each employee's work responsibilities, work environment, compensation and benefits and career goals by arranging regular meetings with employees, to enable NTT Group to implement preventive measures promptly as necessary to retain its employees.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

Risks associated with business management

Cyberattacks could cause service interruptions or cause the quality of NTT Group's service to decline, which may affect NTT Group's results of operations and financial condition.

In recent years, as threats related to information security have become increasingly sophisticated and diversified, causing incidents such as damage due to cyberattacks and information leaks to emerge as social problems, developing information security countermeasures for smartphones, cloud services and other new ICT services has become an increasing concern. Given these circumstances, service interruptions or disruptions in the quality of NTT Group's services due to cyberattacks, such as targeted attacks or unauthorized access of NTT Group's communication networks, servers or other equipment, or the leakage, tampering or loss of information due to intrusions into company networks, could occur, which could harm NTT Group's credibility and corporate image and thereby adversely affect NTT Group's results of operation and financial condition.

In response to these risks. NTT Group has been promoting the introduction of the latest research results, continuously strengthening network security, and strengthening its efforts to train highly-skilled personnel in the security field.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

System disruptions, network disruptions, disruptions to business operations or issues with system architecture that occur as a result of natural disasters may affect NTT Group's results of operations and financial condition.

NTT Group has operations both domestically and abroad, and supports society and business activities through its communications networks and information systems. In addition, NTT Group provides a multitude of services that serve as necessary lifelines that ensures people's safety in their everyday lives.

With respect to the provision of these services, natural disasters such as earthquakes, tsunamis, typhoons and floods, pandemics such as new strains of influenza, and other issues including a largerthan-expected increase in telecommunication traffic, terrorism, armed action, regional conflict and various other events could cause system and network failure or threaten the safety of NTT Group employees. As a result, there may be occasions when disruptions in NTT Group's business operations make it impossible to provide reliable services, which may lead to NTT Group being held liable for related damages. potentially damaging NTT Group's credibility and corporate image.

A large-scale disaster in particular could not only severely damage NTT Group's telecommunications networks, but could also harm NTT Group employees or cause damage to systems that could take a long time to restore, and the resulting emergency electricity use restrictions could hinder NTT Group's ability to provide reliable services. These events may lead to reductions in income and substantial repair costs.

In response to these risks, NTT Group has implemented a variety of measures, including strengthening the durability and water resistance of exchange offices, re-assessing its transmission lines, and making capital investments in its network facilities to strengthen network resilience, accelerate response time in the event of malfunctions and conduct safety confirmation drills for its employees in preparation for disasters. Through these various efforts, NTT Group is taking steps

towards ensuring safe and secure operations of its networks and systems which are essential to the provision of services.

NTT Group also provides and delivers systems and services to customers in the system integration business, which typically operates under a service contract model in which services are completed from the receipt of orders through the delivery dates. As a result of this model, NTT Group generally assumes full contractual responsibility at all stages, but there is a possibility that a deviation from initial estimates or problems in project management at the development stage could result in cost overruns or losses due to delivery delays.

In response to these risks, for projects that are above a certain size, NTT Group has a review committee review cost estimates and the feasibility of project plans, and also monitors the progress of projects after they have been commissioned.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT's reputation and credibility may be affected by fraud or misconduct in Japan or abroad, or by inappropriate use or leaks of confidential business information and personal information.

NTT Group is subject to a wide variety of laws and regulations, as the scope of its business encompasses a variety of products and services both in Japan and abroad. As a result, some of NTT Group's business activities require licenses, notifications, and permit approvals. In addition, it is possible that NTT Group's growing business operations, especially outside of Japan, could be subject to additional burdens stemming from, among other things, the local rules and regulations of the countries in which NTT operates, or the lack thereof, the unpredictable nature of commercial and judicial interpretations of such local laws, the adoption of new laws and the revision of existing laws. With respect to laws and regulations, it may not always be possible to eliminate compliance risk and reputational risk from loss of credibility. including, for example, in the case of an employee's improper personal behavior. The occurrence of any of the risks described above could adversely affect NTT Group's business, including its reputation and credibility, as well as NTT Group's ability to obtain new subscribers or its eligibility to secure governmental contracts, which could in turn adversely affect NTT Group's results of operations and financial condition.

In response to these risks, based on NTT Group's understanding that legal compliance is an extremely important corporate responsibility. NTT Group is working towards further strengthening its compliance systems in light of the recent tightening of bribery and anti-corruption laws in foreign countries, particularly the United States and the United Kingdom.

There is increasing societal demand to ensure the protection of confidential information, such as customers' personal information, as well as increasing requirements to protect such information from a legal standpoint. However, given the further sophistication of criminal activities aimed at obtaining personal information and other confidential information, it is possible that NTT Group will be unable to eliminate the risk of a leak or misuse of confidential information.

In response to these risks, NTT Group has historically made efforts to protect confidential information, such as its customers' personal information, and NTT Group has also implemented the "NTT Group

Information Security Policy." which requires enhanced internal information management, training and awareness-raising for officers and employees. NTT Group expects to continue being able to ensure the proper management of confidential information in accordance with this policy.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

■ Misuse of products and services offered by NTT Group may have an adverse impact on NTT Group's credibility and corporate image and could expose NTT Group to liability.

NTT Group's products and services may be inappropriately used by users. For example, if cybercrimes, such as unsolicited bulk e-mails, illegal money transfers made through online banking, or bank transfer scams, are perpetrated using NTT Group's services, or if NTT Group customers experience incidents of unsolicited bulk e-mails being sent through its servers, NTT Group customers may be harmed as a result of these actions. Further, there has been a wide range of debate regarding minors' access to illegal or harmful websites, and the effectiveness of filtering services intended to restrict minors from accessing such harmful sites.

In addition, there are also concerns over the increasing incidence of accidents caused by the use of mobile phones while operating vehicles or bicycles, as well as issues with increasing occurrence of problems caused by the use of mobile phones while walking. In addition, there are issues concerning the high fees charged for the excess use of paid content by subscribers and the leaking of private information by fraudulent applications and software. Such issues may adversely affect the credibility of NTT Group's products and services, adversely impact customer satisfaction, and tarnish NTT Group's corporate image, which may result in an increasing number of cancellations among current subscribers and an inability to acquire the anticipated number of new subscribers, which could adversely affect NTT Group's results of operations and financial condition.

In response to these risks, NTT Group has worked to provide products and services that can be used comfortably and securely, including providing locks on smartphone use while users are walking, filtering and other functions, and has promoted awareness activities to improve knowledge and personal behaviors with respect to its products and services.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT Group may be subject to unfavorable decisions in litigation or other proceedings, which could have an adverse effect on its operations.

Because NTT Group operates through a large number of sites both domestically and abroad, and offers a wide array of goods and services, it is possible that NTT Group will become a party to various types of litigation, disputes, or claims for damages. If NTT Group were to become party to any such litigation, dispute, or claim for damages, in addition to the possibility of a potential financial burden, an unfavorable decision could harm NTT Group's credibility and corporate image, and thereby adversely affect NTT Group's results of operation and financial condition. In response to these risks, NTT Group monitors litigation, disputes and claims against all NTT Group companies,

including currently active claims and pending claims, and responds to any related developments promptly when the need arises.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

Risks associated with the Government, including rules, regulations and others

Changes or decisions regarding telecommunications regulations may affect NTT Group's business.

The regulation of the Japanese telecommunications industry has evolved in many areas, including amendments to telecommunications laws aimed at promoting competition, protecting service users and other purposes. Decisions relating to Government regulations and the resulting changes in the telecommunications industry may affect NTT Group's results of operations and financial condition. In response to these risks, NTT Group is taking appropriate steps to obtain necessary information on developments relating to the Government's information and telecommunications policies and regulations, and has also presented its views through public comments and hearings.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

The frequencies that NTT Group can use are limited, and it is possible that it will not be able to secure adequate frequency spectrum for its operations.

NTT Group has limited frequencies available for its services. While the number of subscribers and the traffic per subscriber are expected to increase in conjunction with the expanded use of devices such as smartphones and tablets, if NTT Group were unable to obtain the frequency spectrum required for unhindered operation or if the start of operations on a different band frequency did not progress as planned, NTT Group may suffer degradation of service quality and incur additional costs.

In addition, NTT Group may face constraints in providing wireless services or lose subscribers to competitors, which could have a material adverse effect on NTT Group's results of operations or financial condition. In response to these risks, NTT Group is working to obtain new frequencies and implementing carrier aggregation with respect to its mobile communications networks to improve the efficiency of frequency usage.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

NTT Group may be impacted by laws, regulations and systems relating to the environment, such as those relating to reduction of greenhouse gas emissions.

NTT Group is subject, both in Japan and overseas, to laws and regulations relating to the environment, such as those governing the reduction of greenhouse gas emissions, energy conservation, waste disposal and harmful substance removal. In the event that stricter laws and regulations and societal demands with respect to the environment materialize in the future, or new laws and regulations are introduced, costs may increase, which may impact NTT Group's financial condition and results of operations. In response to these risks, NTT Group is working to reduce the environmental burden on society by implementing a variety of forward-looking measures,

such as introducing highly efficient power supplies and reusing and recycling telecommunications facilities, in order to comply with such laws and regulations relating to the environment.

However, there can be no assurance that NTT Group's efforts will ultimately prove to be successful.

The Government owns enough NTT Shares to give it considerable influence over whether resolutions at NTT shareholder meetings are adopted, and rules and regulations in Japan provide the Government with regulatory authority over NTT Group companies.

The Government, through the Minister of Finance, currently owns 32.39% of NTT's issued Shares (33.70% of NTT's outstanding Shares excluding treasury stock), which equates to 33.74% of the voting rights, calculated on the basis of issued Shares minus treasury stock and less-than-one-unit shares. The Government, in its capacity as a shareholder, votes at NTT shareholder meetings and, by virtue of its statutorily mandated position as the largest shareholder, has the power to exert considerable influence over decisions made at such meetings. In 1997, in a statement at the Diet, the Government stated that it did not intend to actively use its position as a shareholder to direct the management of NTT. In fact, the Government has not historically used its power as a shareholder to direct the management of NTT.

Investors may have difficulty enforcing judgments under the laws of foreign countries, including the U.S. securities laws regarding the civil liabilities of NTT.

NTT is a limited liability, joint-stock corporation established under the laws of Japan. All of NTT's directors and management reside in Japan. All or a substantial portion of the assets of such persons or NTT are located in Japan. As a result, it may not be possible for investors to effect legal service of process outside Japan upon such persons or NTT or to enforce against them judgments predicated upon the laws of foreign countries, including the civil liability provisions of the U.S. securities laws, in federal or state courts in the United States or other foreign courts. NTT has been advised by its Japanese counsel that there is uncertainty as to the enforceability, in actions originated in Japan, of liabilities predicated solely upon the laws of foreign countries, including the U.S. securities laws, and as to the enforceability in Japan of judgments of federal or state courts in the United States or other foreign courts obtained in actions predicated upon the laws of foreign countries, including the civil liability provisions of the U.S. securities laws.

Consolidated Subsidiaries

As of March 31, 2017

Company	Capital	Voting rights r
Consolidated subsidiaries	Millions of yen	%
REGIONAL COMMUNICATIONS	BUSINESS	SEGMEN
NIPPON TELEGRAPH AND TELEPHONE EAST CORPORATION	335,000) 100.00
NIPPON TELEGRAPH AND TELEPHONE WEST CORPORATION	312,000) 100.00

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Dimension Data Holdings	USD388.52 million	100.00
NTT Security Corporation	25,249	100.00
NTT America	USD1,893.02	100.00
	million	
NTT EUROPE	GBP153.83	100.00
	million	
Lux e-shelter 1	EUR403.20	86.70
	million	
Arkadin International	EUR165.93	92.68
	million	
RagingWire Data Centers	USD420.41	100.00
	million	
Virtela Technology Services	USD513.53	100.00
	million	
NETMAGIC SOLUTIONS	INR7,428.91	74.00
	million	
GYRON INTERNET	GBP93.00	84.97
	million	
NTT Plala Inc.	12,321	95.39
Spectrum Holdings	USD4,101.93	100.00
	million	

S MOBILE COMMUNICATION	S BUSINESS SEGI	MENT
NTT DOCOMO, INC	949,679	66.66

DATA COMMUNICATIONS E	SUSINESS SEGME	INT
NTT DATA CORPORATION	142,520	54.21
NTT DATA	USD4,537.90 million	100.00
NTT DATA Services	USD2,070.43 million	100.00
EVERIS PARTICIPACIONES	EUR117.9 million9	100.00
NTT Data International	USD4,558.06 million	100.00

OTHER BUSINESSES		
NTT URBAN DEVELOPMENT CORPORATION	48,760	67.30
NTT FINANCE CORPORATION	16,770	100.00
NTT FACILITIES, INC	12,400	100.00
NTT COMWARE CORPORATION	20,000	100.00
NTT ADVANCED TECHNOLOGY CORPORATION	5,000	100.00

Other 918 companies

ENT	
00	Provision of intra-prefectural communications services in the eastern part of Japan. NTT (Holding Company) is making long-term capital loans to NTT East.
00	Provision of intra-prefectural communications services in the western part of Japan. NTT (Holding Company) is making long-term capital loans to NTT West.
	TIONS BUSINESS SEGMENT
00	Provision of inter-prefectural communications services, international communications services, and Internet-related services. NTT (Holding Company) is making long-term capital loans to NTT Communications.
00	IT system building and maintenance support for corporations
00	Provision of professional security services
00	Provision of ICT services in North America
00	Provision of ICT services in Europe
70	Provision of data center-related services in Europe
68	Provision of teleconference, web conference, and video conference services
00	Provision of data center-related services in North America

66 Provision of mobile communication services and smart life area services

Management of Dimension Data Holdings plc's subsidiary companies in Europe

Provision of data communications systems services and network system services Consulting, system design, and development in North America

Consulting, system design, and development in North America

Consulting, system design, and development

Provision of network services

Provision of data center-related services in India

Provision of data center-related services in the LIK

Provision of Internet connection and video distribution services

Responsible for NTT DATA's operating subsidiaries in North America

Real estate acquisition, construction, management, and leasing Lease and installment sales of telecommunications-related devices, and billing and collection of charges for communications and other services Design, management, and maintenance of buildings, equipment, and electric power facilities Development, production, operation, and maintenance of information communication systems and software

Technology transfer, technical consulting, and design and development of systems

Glossary of Terms

Explanations of specialized terms as used in this annual report

General Terms

Artificial Intelligence

Application

Software developed and used for specific functions and purposes.

AR (Augmented Reality)

Technologies for altering how reality is seen by augmenting sensory information with other information via computers.

ARPU (Average Revenue Per User)

Monthly average telecommunications revenue per subscriber.

B2B2X

A business that supports and promotes the customer-based businesses of other companies. "B" represents the company and "X" represents customers, such as individuals, corporations, employees, and government agencies.

B2C (Business to Consumer)

Business operations in which companies conduct transactions with general consumers

Big Data

A constellation of data so vast in guantity and complex in structure that it becomes difficult to manage and process with traditional technology.

BPO (Business Process Outsourcing)

The entrustment of part of a company's business processes to an external specialist company.

Cloud / Cloud Services

Type of service whereby software and hardware can be used through a network. The service can be used on an on-demand basis without the need to purchase hardware, such as a server, or software.

Connected Cars

Vehicles which have ICT device functionality.

Cross-Selling

Marketing method in which NTT Group companies collaborate to meet their clients' needs by combining their services to propose and sell.

Cyber-Attack

Attack that causes the functionality of the target system to fail as well as unauthorized access of a target computer or network resulting in theft, destruction, or alteration of data.

Data Center

Facility entrusted with servers and other systems by customers that provides operation and management services, including Internet connectivity.

DDoS (Distributed Denial of Service) Attack

Attack in which large numbers of computers distributed over multiple networks generate connection requests at the same time for a specific network or computer in order to crash that network or computer through a traffic overload.

Digital Signage

Collective name for the system which uses electronic signage devices such as displays to distribute information in various locations including stores, public spaces, and public transportation.

Drone

Small pilotless aircraft flown by remote control.

Edge Computing

Technology that reduces distances to servers and minimizes latency by distributing edge servers close to end users.

ERP (Enterprise Resource Planning)

Method of comprehensively managing and allocating the various resources of a company (personnel, funds, facilities, materials, information, etc.) to increase operational efficiency and optimize management on an overall basis.

FinTech

Term combining "Finance" and "Technology." Fintech creates new financial services by integrating ICT and finance.

FTTH (Fiber To The Home)

Method of fiber-optic communications access using optical fiber as the transmission trunk line connected directly to general consumer residences.

HEMS (Home Energy Management System)

Collective name for the system providing visualization and integrated management of energy including the amount of power used in the home.

ICT (Information and Communications Technology)

Collectively refers to technologies related to information and communications, including hardware and software used for information and communications functions of computers, and technologies used in IT systems and data communications

IoT (Internet of Things)

Equipping not only information and communications devices such as computers, but also all everyday objects with communication functions to connect to the Internet and communicate among themselves for functions such as automated recognition, automated operation, and remote measurement.

IT Outsourcing (ITO)

The complete entrustment of operation and maintenance of systems to an external specialist contractor or similar organization.

KPI (Key Performance Indicator)

Indicator that has been designed as key to evaluating performance in relation to the goals of an organization.

■ I GBT

Acronym for "lesbian, gay, bisexual, and transgender," used as a general term for sexual minorities whose preferred partner is of the same sex or not only of a different sex, or who experience a mismatch between their assigned sex and gender identity.

LTE (Long Term Evolution)

Telecommunications standard with features including high transmission speeds, large capacity, efficient use of radio waves, and low delay. Achieves high-speed telecommunication in a mobile phone at speeds on a par with optical fiber.

M&A (Merger and Acquisition)

General term for business mergers and acquisitions.

Network Topology

Term referring to the structure in which various pieces of equipment are connected in a network.

Open Innovation

The creation of innovative products or business models by combining technologies and ideas from a wide range of sources, both inside and outside the company.

OTT (Over-The-Top) Operators

Companies other than telecommunications operators that provide messaging, voice, and video content through Internet circuits.

Packet Telecommunications

Method of computer telecommunication in which data is sent and received as individual small packets

SDGs (Sustainable Development Goals)

Set of 17 goals needing to be addressed leading up to 2030 that were approved at the UN Sustainable Development Summit held in September 2015

SDN (Software-Defined Networking)

Technology for the use of software to implement integrated control of the operation of network equipment.

Seamless

Not having seams.

Smart Stadiums

A new stadium scheme which allows fans to easily connect to Wi-Fi while also enjoving in-stadium content and services by using ICT and connecting them to local areas outside the stadium.

Society5.0

National vision described in the Cabinet Office's 5th Science and Technology Basic Plan for creating an ultra-smart society in which economic development can be achieved while resolving social issues to enable people to live comfortably and with a feeling of empowerment.

Solution

Identification of issues faced by customers and the provision of systems, etc., that can resolve those issues.

System Integration

Implementing the construction and operation of information communications systems in an integrated manner, tailored to clients' operations.

Upselling

Marketing method in which a product from a higher category is recommended to a customer considering the purchase of a certain product.

■ User Experience (UX)

The experience and satisfaction level of the user when using the product, system, or service, also used as a guideline for improvement in system and service development.

VPN (Virtual Private Network)

Service that enables the use of public circuits as if they were a customer's private network by limiting the devices that can be connected and encrypting intermediate routes to offer high security.

VR (Virtual Reality)

Technologies for creating virtual worlds with computers that can be experienced as though they were real.

Wi-Fi

Technology for wireless connection to a network.

Terms Related to NTT Group Services

Arcstar Universal One

VPN service for clouds provided by NTT Communications that enables flexible packaging of different telecommunications layers and access line qualities. http://www.ntt.com/en/services/network/virtual-private-network.html

dmarket

Smartphone content marketplace operated by NTT DOCOMO.

d POINT

A point service provided by NTT DOCOMO with no sign-up or annual fees that anybody can become a member of under a personal name. https://www.nttdocomo.co.jp/english/service/dpoint/index.html

FLET'S Hikari

B FLET'S, FLET'S Hikari Next, FLET'S Hikari Light, FLET'S Hikari Lightplus, and FLET'S Hikari WiFi Access by NTT East and B FLET'S, FLET'S Hikari Premium, FLET'S Hikari Mytown, FLET'S Hikari Next, FLET'S Hikari Light, and FLET'S Hikari WiFi Access by NTT West. https://flets.com/english/ http://flets-w.com/english/

FLET'S TV

Service provided by NTT East and NTT West that enables subscribers to receive terrestrial / BS digital broadcasts using FLET'S Hikari optical fiber.

Hikari Collaboration Model

Model in which FLET'S Hikari and other NTT East and NTT West services are offered to various service providers on a wholesale basis.

Hikari Denwa

A value-priced IP- and optical fiber-based telephone service using ELET'S Hikari

Hikari TV

A service that allows users to enjoy multi-channel broadcasting, video, karaoke, and other services by connecting FLET'S Hikari links to their TVs. https://www.hikarity.net/english/

Kake-hodai & Pake-aeru

Service provided by NTT DOCOMO that combines a discount with a basic plan and a Packet Pack. https://www.nttdocomo.co.jp/english/charge/new plan/index.html

An Internet connectivity service provided by NTT Communications that stands for Open Computer Network.

Stock Information (As of March 31, 2017)

Corporate Information

Company name	NIPPON TELEGRAPH	AND
	TELEPHONE CORPOR	ATION
Date of establishmen	it April 1, 1985	
Head office	Otemachi First Square,	East Tower, 5-1,
	Otemachi 1-Chome, C	hiyoda-ku, Tokyo
	100-8116, Japan	
Telephone	81 (3) 6838-5111	
Common stock		¥937,950,000,000
Total number of share	es authorized to	
be issued by NTT		6,192,920,900 shares
Total number of share	es issued	2,096,394,470 shares
Aggregate voting right	nts	20,127,221
Number of sharehold	lers	
(including holders o	f fractional shares)	867,301

Stock Exchanges on Which the Company Is Listed

Tokvo (Stock Code: 9432)

New York (Ticker Symbol: NTT)*

* NTT submitted an application to delist its American depositary receipt from the New York Stock Exchange on March 21, 2017, and the delisting took place effective April 3, 2017. NTT will maintain its ADR program in the United States and its ADRs will continue to be traded on the U.S. over-the-counter market (ticker symbol: NTTYY).

Investor Relations

http://www.ntt.co.jp/ir/contact_e/ Telephone: 81 (3) 6838-5481

Depositary for NTT American Depositary Receipts ("ADRs")

JPMorgan Chase Bank, N.A. 4 New York Plaza, Floor 12. New York, NY 10004, U.S.A.

Inquiries-

JPMorgan Service Center P.O. Box 64504 St. Paul, MN 55164-0504, U.S.A. Telephone: 1-800-990-1135 (General) 1-651-453-2128 (From outside the U.S.A.)

NTT's Share Price on the Tokyo Stock Exchange



Notes: 1 NTT's stock price and TOPIX Index are the simple average closing prices on the last trading day every month. 2 NTT's trading volume refers to the number of NTT shares traded every month 3 NTT conducted a 100-for-1 stock split of its common stock, with an effective date of January 4, 2009, and a 2-for-1 stock split of its common stock, with an effective date of July 1, 2015. NTT share prices have been adjusted to reflect the impact of these stock splits.

Principal Shareholders

Name	Number of shares held (Thousands)	Ratio of the number of shares held to the total number of shares issued (%)
The Minister of Finance	679,123	33.70
Japan Trustee Services Bank, Ltd. (Trust Account)	89,022	4.42
The Master Trust Bank of Japan, Ltd. (Trust Account)	70,946	3.52
JPMorgan Chase Bank 380055	47,369	2.35
Japan Trustee Services Bank, Ltd. (Trust Account 5)	29,108	1.44
Moxley & Co. LLC	27,079	1.34
Japan Trustee Services Bank, Ltd. (Trust Account 9)	26,709	1.33
Japan Trustee Services Bank, Ltd. (Trust Account 1)	21,548	1.07
Japan Trustee Services Bank, Ltd. (Trust Account 2)	21,343	1.06
JPMorgan Chase Bank 385632	20,654	1.02

Notes: 1. Number of shares held is rounded down to the nearest thousand.

2. NTT's holdings of treasury stock (81,026,959 shares) are not included in the above table

3. Equity ownership percentages do not include treasury stock.

Breakdown of Shares by Shareholder

The number of shares is rounded down to the nearest thousand. The figures in parentheses represent percentage of total shares owned for each category of shareholder.



National and Local Governments	679,144	33.70
Financial Institutions	377,711	18.74
Financial Instruments Business Operators	22,039	1.09
Other Corporations	23,780	1.18
Foreign Corporations, etc.	602,604	29.90
Individuals, etc.	310,087	15.39

Notes: 1. NTT's holdings of treasury stock (81,026,959 shares) are not included in the above. 2. The percentages represent the ratio of shareholders' shares to the total number

of issued shares excluding treasury stock. 3. "Other Corporations" above includes 29 thousand shares in the name of Japan Securities Depository Center.

Restrictions under the NTT Act

The NTT Act requires the government to own at least one-third of the total number of issued shares*. Pursuant to the NTT Act, the proportion of voting rights of foreign nationals and foreign corporations is limited to less than one-third of the total voting rights.

If the proportion of voting rights of foreign nationals and foreign corporations should exceed one-third, pursuant to the NTT Act, NTT is prohibited from registering ownership of shareholders in excess of such limit.

As of the end of March 2017, 6,025,841 of the voting rights were owned by foreign nationals and foreign corporations.

* For the time being, pursuant to Article 13 of the NTT Act, any increase in the number of shares attributable to the issuance of new shares is not included in calculating the total number of issued shares for the purposes of the NTT Act.