NTT Communications

Transform. Transcend.

NTT Communications Corporation

www.ntt.com

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NTT Communications

Transform. Transcend.

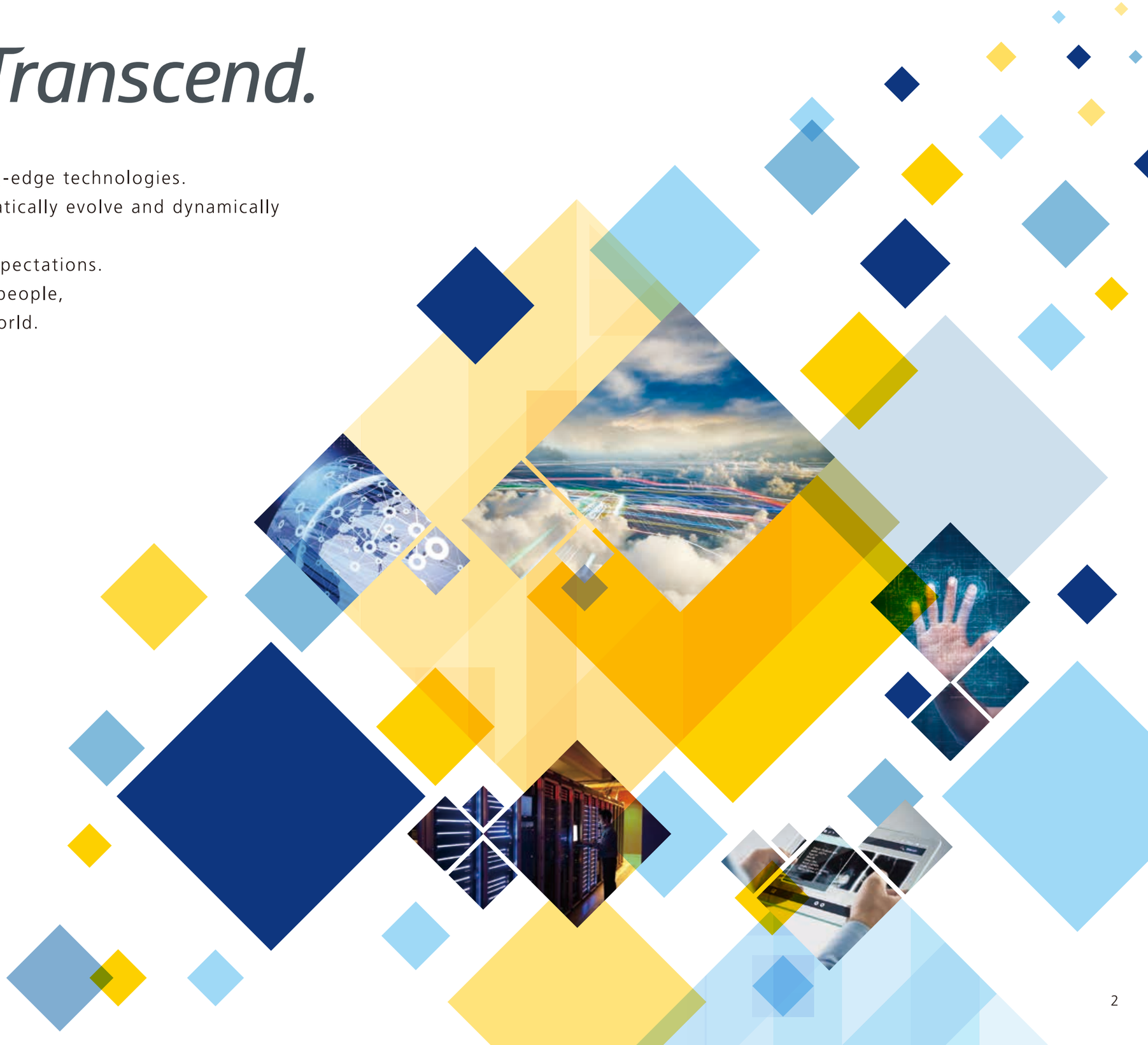
Corporate Profile 2017

Transform your business, transcend expectations with our technologically advanced solutions.

Transform. Transcend.

We provide innovative services and cutting-edge technologies.
These services and technologies will dramatically evolve and dynamically transform business, markets, and society.
They will create new value that exceeds expectations.
By transcending the boundaries that limit people,
they will realize a seamlessly-connected world.

NTT Communications
Transform. Transcend.



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Globally from Asia. Globally to Asia.

NTT Communications has offices in more than 110 cities in over 40 countries/regions, connecting networks to 190 countries /regions around the world. We have established a strong reputation in Asia as a network service provider. Emphasizing rapidly expanding markets in Asia with proactive initiatives, we provide seamlessly connected services at home and abroad for Asian companies that are operating internationally as well as U.S. and European companies that are expanding their business in Asia. NTT Communications provides ICT solutions with a Japanese commitment to quality to help global companies execute their growth strategies.

One of my mottos is based on a quote by Mario Andretti, the legendary race driver, who once said: "If everything seems under control, you're not going fast enough." NTT Communications will provide reliable, innovative services with first-in-class speed.

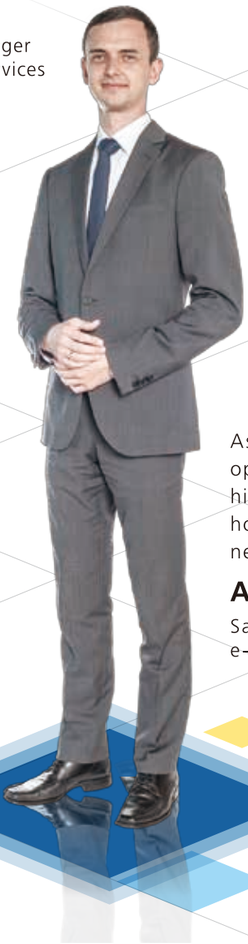
Tetsuya Shoji
President & CEO,
NTT Communications

Customers should focus on business expansion. We are your IT operations team.

Silvia Ponce
Training Program manager
NTT Com Managed Services

In today's competitive business environment, exceeding client expectations is the key to success.

Sohinee Chattopadhyay
Business Development Manager
Netmagic



As one of the leading data center operators in Europe we provide highly secure environments for housing and connectivity of IT and network systems.

Aleksej Frank
Sales Engineer
e-shelter

We protect customer networks with tried-and-true technologies 24/7, 365 days a year.

Hisayuki Hoshi
Operation Manager
NTT Com Engineering

Leading-Edge Services for Global Companies

Our leading-edge services range from networks to operations with the goal of addressing the multifaceted needs of companies that operate in global markets.

Network Innovation

Constructing a global cloud network with a Japanese commitment to quality network innovation

NTT Communications has a portfolio of innovative technologies. We support global businesses with services that make a high-quality, highly reliable cloud network seamlessly available worldwide.

Cloud Services

Global cloud services on top of world-class infrastructure

A single source for comprehensive cloud services that are unique to a telecommunications carrier, NTT Communications brings together data centers, networks and servers. We are also able to flexibly connect with the cloud services of other providers.

IoT Platform

IoT Platforms that solve customer problem areas through end-to-end business solutions

We provide secure communications via private networks and the cloud, and have formed an ecosystem with partner companies that lead in their respective industries to provide end-to-end packages that solve customer problem areas.

Global Services

NTT Communications provides world-class services that enable comprehensive solutions. Guided by our "Transform. Transcend." business vision, we will dramatically and dynamically transform customer businesses, society, and markets to create new value that exceeds expectations and imagination and a connected world that transcends all barriers.

ICT Consulting

An array of ICT solutions for business themes

Let NTT Communications provide a cloud framework that empowers innovation. We offer ICT for transforming bimodal operations that is secure and highly reliable and also highly adaptable and nimble.

Managed Services

Managed services that integrate ICT system management

We provide one-stop services to enable total ICT system management. Integrates not only the legacy systems we deliver, but also services provided by other companies.

ICT Operations

Easy-to-use Business Portal and API Gateway for operating IT environments

Our portal allows customers to change configurations and accesses necessary services on demand. API Gateway enables efficient operation of customer and partner ICT.

NTT Communications Named a "Leader" in Gartner's Magic Quadrant for Network Services, Global Report

NTT Communications was named a "Leader" by leading U.S. advisory company Gartner in its Magic Quadrant for Network Services, Global report for its ability to execute and completeness of vision.

*Gartner, Magic Quadrant for Network Services, Global Neil Rickard, Bjarne Munch et al; February 13, 2017

Reference: Gartner's Magic Quadrant
A Gartner Magic Quadrant is a culmination of research in a specific market, giving you a wide-angle view of the relative positions of the market's competitors.
http://www.gartner.com/technology/research/methodologies/research_mq.jsp

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World Communication Awards 2016

NTT Communications was named the **Best Global Operator**, receiving recognition as a telecommunications company with outstanding comprehensive capabilities in the global telecommunications industry ranging from service coverage and customer support to business strategy.

Secure, Cloud Conscious Enterprise Network with World-Class Quality

Bringing together innovative technologies, NTT Communications' enterprise network service adds flexibility and agility to your business.

Network Innovation

Seamless connection to different cloud services

Our secure network extends to third-party cloud services, including Microsoft Azure™ and Amazon Web Services™

Network functions delivered on demand, as cloud-based capabilities

With network functions delivered "as a service," enterprises are free from industry limitations of long lead times and contract terms

One-stop solution for connecting any device, anywhere

We provide a variety of connectivity options to support the increasingly distributed business ecosystems of on-site and remote employees, business partners and customers

Customer web portal with single sign-on

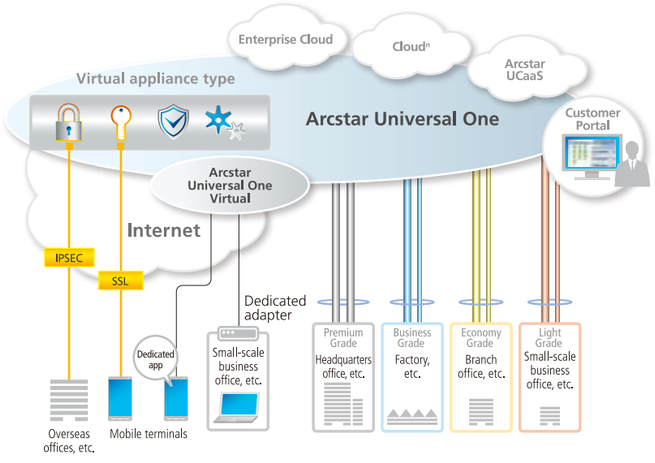
Our Business Portal gives enterprises better visibility and control of their network, with features including service order entry, status tracking, traffic reports, trouble ticket entry and some on-demand features

A global network optimized for the cloud utilizing NFV[1] and SDN[2] technology

Arcstar Universal One

With operations in over 190 countries/regions worldwide, NTT Communications' highly reliable enterprise network services comprise VPN services, Hybrid WAN, Internet and cloud connectivity. We offer four different service grades, which customers can select per site, depending on cost and service quality requirements. Our world-class enterprise services are managed and monitored 24/7 to ensure secure and seamless network transmission.

High compatibility with cloud services

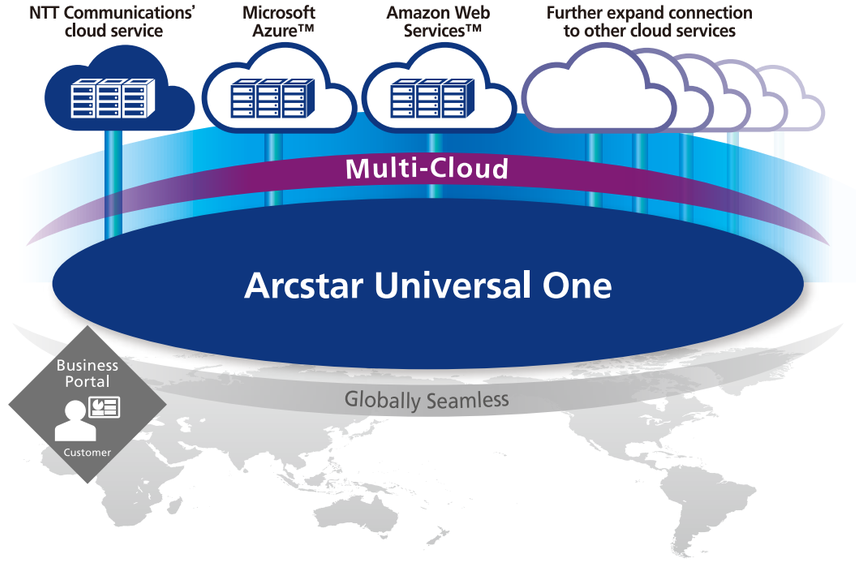


Notes:
1. NFV: Network Function Virtualization
   Originally the name of an ETSI Industry Specification Group, but now often used to describe the concept of consolidating various network functions on general-purpose servers by utilizing virtualization technology.
2. SDN: Software-Defined Networking
   A common term for emerging technology that controls networks via software.

Optional services using world-leading virtualization technology

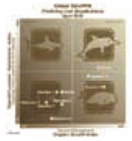
Multi-Cloud Connect

This service allows secure and direct connection to a closed area from Arcstar Universal One to access NTT Communications' cloud, as well as to other clouds such as Microsoft Azure™, Microsoft Office 365™ and Amazon Web Services™. Multi-Cloud Connect also allows secure use of public clouds rendered unusable by security issues because they were accessed via the Internet. New network equipment is not necessary, and the service can be used the same day after an application via Business Portal. We will extend this service globally.



Advanced Option (Virtual Appliance Type)

We accelerate applications and virtualize secure Internet gateways, IPSEC VPN gateways, and SSL-VPN functions in the cloud using NFV technology and provide them from a platform deployed at over 40 bases worldwide. Our ability to handle all demands from service introduction to configuration changes via our Business Portal shortens delivery time and greatly reduces launch and operating costs.



Arcstar Universal One has ranked **number one** in overall customer satisfaction for six consecutive years in the **Global Customer Satisfaction Survey** of U.K. company **Ocean82**.

Global cloud service with world-class infrastructure

Our global cloud service leverages our advanced technologies and expertise in software-defined networking and Openstack as well as world-class infrastructure, network and colocation services.

Cloud Services

A comprehensive hybrid cloud environment for enterprise customers

Our hosted private cloud environment consists of a dedicated bare metal server and an Openstack based multi-tenant cloud environment that offers a highly flexible private network.

A single-pane view of a multi-cloud environment

Our Cloud Management Platform enables customers to ensure visibility and governance over a multi-cloud environment.

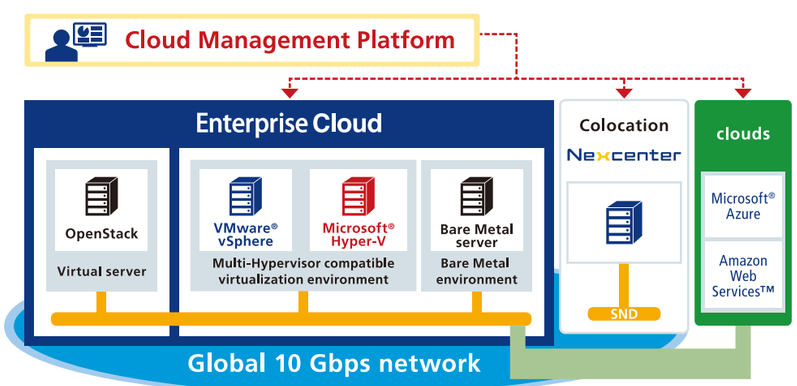
Provisioned and Secured multi-cloud connectivity

Our Cloud Management Platform enables customers to ensure visibility and governance over a multi-cloud environment.

A comprehensive platform for both traditional and cloud-native ICT infrastructure serves global enterprises in their IT transformation journeys

Enterprise Cloud

Enterprise Cloud is a globally standardized cloud service that is available in 14 locations in 11 countries/regions. This service leverages NTT Communications' capabilities, such as software-defined network (SDN) technology to enable cloud unification and connection to world-class data centers and networks. Enterprise Cloud provides both a hosted private cloud environment consisting of a dedicated bare metal server and an Openstack based multi-tenant cloud environment that offers a highly flexible private network. This helps customers with seamless migration to the hosted private cloud from any on-premise site, and/or easy development of backup sites for on-premise infrastructure. Customers also have access to NTT Communications' one-stop, automated and globally seamless management services for their entire ICT environment including both on-premise and off-premise infrastructure with industry-leading practices that leverage NTT Communications' worldwide capabilities. NTT Communications also provides integrated risk management services.



Telecom Asia Awards 2016

Our Enterprise Cloud was recognized as the **Best Cloud-Based Service** because it uses SDN technology and promotes automation and efficiency.

A single-pane view and provisioned connectivity help customers take control over the management of their multi-cloud environment

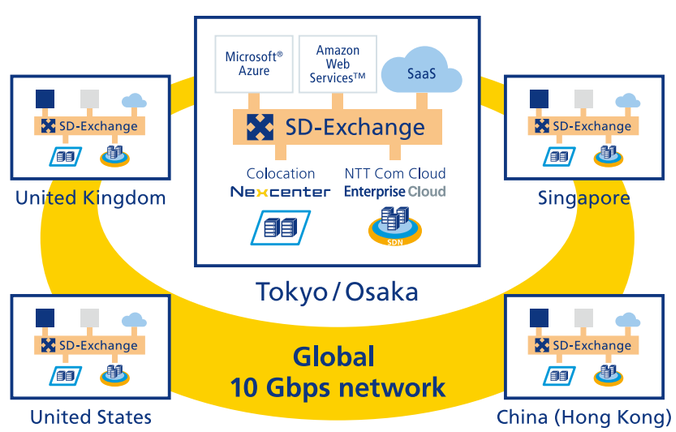
Cloud Management Platform

Cloud Management Platform (CMP) offers customers using multiple clouds efficient management and unified control of both Enterprise Cloud and third-party provider cloud solutions including Amazon Web Services (AWS) and Microsoft Azure with a single-pane view. CMP also enables management and operation of hybrid clouds and meets the ICT governance, cost control, security management and automated ICT operational requirements needed to successfully execute a cloud-first digital transformation strategy companywide.

SD-Exchange

SD-Exchange uses SDN technology to connect Enterprise Cloud, Nexcenter colocation, and other cloud services. We eliminate the complexity of individually procuring lines to connect colocation and multiple cloud services. This eases the burden of deploying a multi-cloud environment and enables secure and on-demand connectivity.

SD-Exchange also provides broadband connectivity among data centers and cloud services worldwide as well as flexible system construction and operation.



Public cloud service with scalable APIs*

Cloud^n

Our public cloud service offers high scalability and low-cost pricing, starting from 450 yen (486 yen including consumption tax) per month. It features over 300 types of rich APIs and allows users to manage and control all settings on demand via a customer portal. The service is ideal for use in cases such as web application development and content distribution sites that require scalability.

*API: Application Program Interface. A set of protocols used to define how a program can request and use functions from another program.

Virtual desktop service on a cloud platform

Enterprise DaaS

Enterprise DaaS offers a virtual desktop service on NTT Communications' cloud platform so that customers can use the same desktop environment as in their company, anytime, anywhere. Two types, desktop virtualization and application virtualization, are available to accommodate the different needs of customers. Desktop virtualization is mainly for remote access and strengthening the security of in-house personal computers. Application virtualization is mainly for enhancing the security of the Internet connection environment by virtualizing browsers to limit the Internet connection to browsers.

Cloud-based mail service for business

Enterprise Mail

A cloud-based e-mail service that provides high quality and high stability. We provide VPN connections, audits and archiving, prevention of incorrect transmissions, migration support from on-premise environments and other services. NTT Communications utilizes its data centers worldwide to offer secure, device free e-mail infrastructure that only a telecommunications carrier can provide.

Cloud-based unified communication service supporting workstyle innovation

Arcstar UCaaS

Arcstar UCaaS integrates various communication features such as IP telephony, instant messaging, presence, and audio/video/web conferencing. It can increase the productivity of employees, reduce TCO with pay-as-you-go plans, and help to globalize your business. This service is available in 169 countries/regions* worldwide.

*As of January 31, 2017

Named a Leader in IDC ITMarketScape Worldwide UCaaS Service Provider Vendor Assessment:

NTT Communications was named a leader in the IDC ITMarketScape's benchmarking report for Worldwide UCaaS Service Provider based on its capabilities and strategies. The report highlights the strength of NTT Communications' robust UCaaS offering with a global delivery and sales capabilities.

Source: IDC ITMarketScape: Worldwide UCaaS Service Provider 2015 Vendor Assessment, # US40612315_JP, December 2015

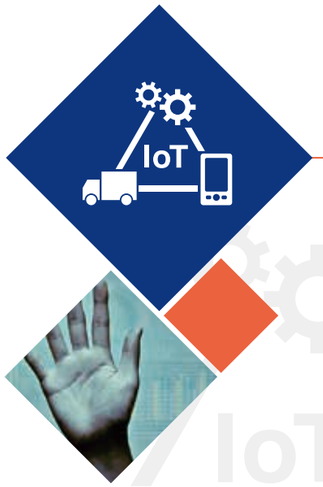
Cloud-Based Conferencing Services

Arcstar Conferencing

Arcstar Conferencing includes audio conferencing, web conferencing, video conferencing, and online events with full support from specialists. NTT Communications' cloud-based conferencing services enhance collaborations beyond the barriers of time and space. Training, job interview, quality control, these use cases are increasing in addition to ordinary meeting scenes.

IoT Designed for Immediate Use

End-to-End Infrastructure Solution for Deploying IoT.
We Make IoT Innovation Easy.



IoT Platform

IoT Infrastructure in Bundles
We help customers get started quickly without having to develop new systems

Deploy IoT at Lower Cost
Customers can start small, then expand as their business grows

Build a Secure Private Cloud
We provide secure data communication without the Internet

Total Support for Global Deployment
We enable smooth remote monitoring of overseas bases and factories

IoT Platform for Digital Transformation

Feature 1: Secure

NTT Communications protects valuable customer data with unique IoT services that enable direct connection to a private cloud without using the Internet. Information leakage and cyber attacks are cause for concern – survey data* show that security is the leading barrier to IoT introduction. NTT Communications therefore offers a closed-loop IoT platform independent of the Internet that enables safe communication of data and personal information from devices using a private cloud. We also plan to expand our IoT-specific security menu.

*MM Research Institute Co., Ltd. "IoT (Internet of Things) Domestic Market Size Survey" News Release, January 20, 2016

Feature 2: Global

We deploy our global coverage to support the ability of customers to build their businesses internationally. We provide total support in Japan and around the world with network services in more than 190[1] countries and regions and over 140[2] data centers.

1. As of August 31, 2016
2. As of March 31, 2016

Feature 3: Managed

NTT Communications is a single source for customer IoT solutions. We bundle the network, cloud and application resources that IoT requires and provide integrated help desks. We will leverage our partner ecosystem to expand our lineup of packages that solve customer problem areas.

● IoT Platform Services

Factory Package	Seamless and secure manufacturing process monitoring for groups of production facilities
Machine Cloud	Remote industrial equipment monitoring, maintenance and usage analysis
Vehicle Manager	Simple and secure fleet operation management

ASPIC Cloud IoT Award 2016

Our factory package of IoT platform services received the **Platform Gran Prix** in the **IoT Category** in recognition of the excellence of our cloud and IoT services in Japan and their benefits to society.

ICT Accelerates Innovation

Clients can take advantage of our comprehensive ICT solutions and consulting service for their global expansion, enterprise optimization, and AI- and IoT-based business transformation.

ICT Consulting

As an innovation launcher
Cloud-based enabler of SoE, SoR and workspaces

Global one-stop service
Integrated service delivery not only in Asia but around the world

Hybrid infrastructure of multi-clouds
Integration at will of private clouds, public clouds, collocation and on-premises

From efficiency to engagement
ICT optimization for both cost-effective infrastructure and business creation

An ICT blueprint for 2020 and beyond

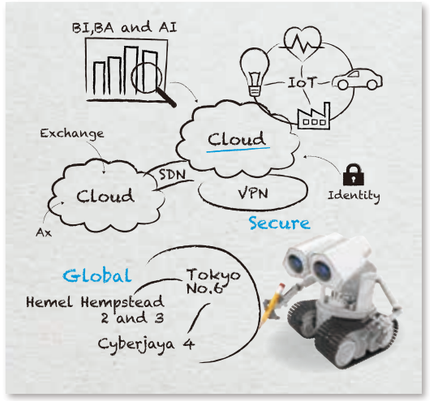
The era of selecting a single cloud service is over. Clients now demand integration of multiple clouds and one-stop management.

Our consulting service designs each client's global ICT strategy and defines the process of its implementation, migration and operation. We propose hybrid cloud infrastructure solutions to support applications such as:

- Enterprise mission-critical systems including ERP,
- omnichannel customer experience
- and communication and collaboration.

Our cloud-based ICT infrastructure together with AI and IoT platforms can meet client requirements for both traditional systems and systems for digital transformation.

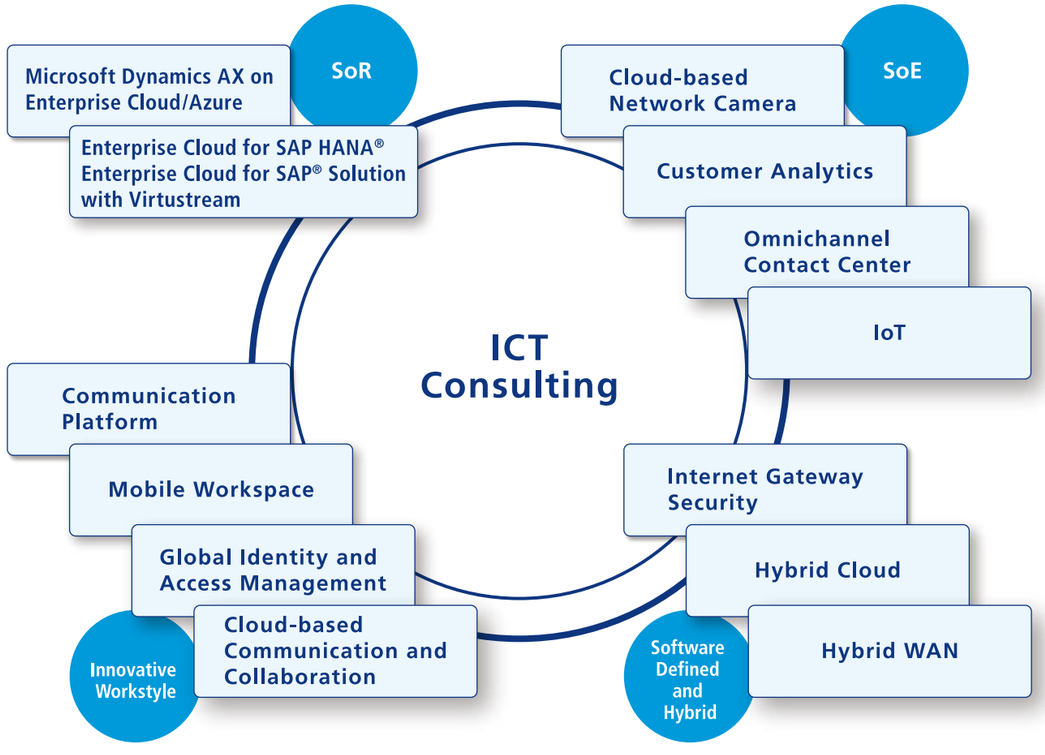
NTT Communications contributes to customers' global business through agile and flexible network operation and robust security measures for the SDx era, and by automating overall system operation and making it autonomous.



An array of versatile solutions that address enterprise business themes

Bimodal ICT supports customers' business

With globalized markets, omnichannel strategies, and acceleration of the speed of business, enterprises must invest efficiently in both SoE and SoR, or Bimodal ICT, to achieve business growth through digital transformation in an increasingly complex and competitive environment. Corporate management requires robust and highly reliable ICT for SoR to operate mission-critical systems consistently and in a well-organized manner, and handle highly confidential data. On the other hand, marketing and business development departments are eager to build agile andelastic ICT for SoE to ensure continuous development, improvement and deployment of applications, and smooth integration of data with third parties. Both modes are inseparable. Customers can enjoy balanced bimodal ICT through our professional consulting services and versatile solutions.



http://www.ntt.com/en/solutions.html

Convenient, Simple Cloud Manag ement

Minimize human error and costs for cloud operation by centralizing management of all of your ICT infrastructure.

Managed Services

Reduces operation costs and boosts system uptime

Reduce costs through offshore location and increase system uptime through automation

Creates solutions matching your needs

Customize your service by flexibly combining the packages you need

Supports the creation of new business opportunities

Resources can be allocated to new projects by the reduction of the burden on your ICT management department.

High-quality global IT governance

ISO 20000 compliant. Providing services with globally standardized processes

Integrated management of your entire ICT infrastructure

Global Management One

Global Management One is a one-stop, global seamless ICT management service. Based on industry best practices on ICT service management in accordance with ISO 20000, and leveraging the global resources of NTT Communications, it provides the values of a comprehensive management to your ICT environment on a global scale. As the culmination of our service portfolio, Global Management One makes NTT Communications your end-to-end ICT partner. From asset management (including personal computer services) to the visualization of network and operational consulting, we support the management of a wide range of your ICT systems.

Global Management One

Service menu

- IT governance & consulting service
- Security service
- Service desk
- End-user computing service
- Workplace service
- Application & platform service
- Data management & transformation service
- Data center service
- Network service

aca 2015 Winner

Asia Communication Awards 2015

NTT Communications named for **Best Enterprise Service** for its Global Management One service brand, which has continued to provide customers with one-stop, high-quality management services.

Total managed security service brand

WideAngle

WideAngle is a comprehensive, globally developed security and risk management service available in 14 countries worldwide and supported by approximately 1,400 security experts. It addresses the need for business to implement global information security measures in response to the rise of new types of viruses and malicious access.

Professional services include consultation with objective evaluation of your company's security measures in different regional offices and departments around the world, vulnerability assessment that visualizes weakness in your ICT environment and rescue service support when security incidents occur.

Managed security services employ multilayered defenses that combine a variety of security devices and correlation analysis of logs via our proprietary artificially intelligent auto analysis engine and highly skilled risk analysts. Coordinated defenses block communication with attackers immediately after they are detected and constantly monitor the corporate ICT environment to detect unknown cyber-attacks, including targeted attacks.

WIDE ANGLE
INFORMATION SECURITY AND RISK MANAGEMENT

NTT Communications Named a "Leader" in the U.S. Company IDC's Report Evaluating Managed Security Services in the Asia-Pacific Region

NTT Communications was named a "Leader", the highest designation, in recognition of its execution and strategy according to IDC ITMarketScape: Asia/Pacific Managed Security Services 2015 Vendor Assessment report (published May 2015) in a study of 16 managed security service providers.

Source: IDC ITMarketScape: Asia/Pacific Managed Security Services 2015 Vendor Assessment #AP251064, May 2015

The IDC ITMarketScape vendor analysis model provides an overview of IT competitiveness, telecommunications, and specialized suppliers in particular markets. It uses a rigorous scoring method based on both qualitative and quantitative criteria and shows each vendor's position in a specific market in one graphic. IDC ITMarketScape provides a clear framework that enables comparison of products, services, capabilities, strategies, and success factors in current and future IT, telecom, and specialized vendor markets. In addition, the framework offers highly transparent standards for technology buyers, allowing companies to independently compare the strengths and weaknesses of existing and potential vendors.

Telecom Service Provider Innovation Awards

The Telecom Service Provider Innovation (TSPI) Awards

NTT Communications' Global Management One service has been selected as a **"Most Innovative Enterprise Offering"** based on criteria including adoption benefits, degree of innovation, business convenience, benefits for customers, and market penetration.

Delivering Valuable Systems to Everyone

Enabling customers and partners to easily develop and utilize portal sites. Creating an interface that maximizes advanced ICT services.

ICT Operations

Centralized management of all services
Simple and integrated operation of all services

Allows visualization of multiple service functions
Easy-to-understand visualization of operations

Simple steps to change cloud settings
Easy ways to add, delete and configure resources

Smooth linkage through API Gateway
Improved collaboration with customers and partners, and increased business productivity, through automation

Customer on-demand self-service

NTT Communications Business Portal

Globally seamless ICT system management
ICT proactively supports new lifestyles and business opportunities. It also brings new complexity to operations at many corporations. NTT Communications' Business Portal is a customer portal that allows ICT managers to view the operation of all subscribed services including network, cloud, security, voice and application. Since the portal allows centralized control, there is no need for companies to assign an ICT manager at each regional office.

Cloud operation/management efficiency
Cloud resources can be added, deleted and changed on demand. This makes it much easier for businesses to expand, dramatically shortens lead time for introducing new services, and makes it easy to achieve cost reductions by optimizing systems.

● NTT Communications Business Portal

Automatic connection with customer's systems

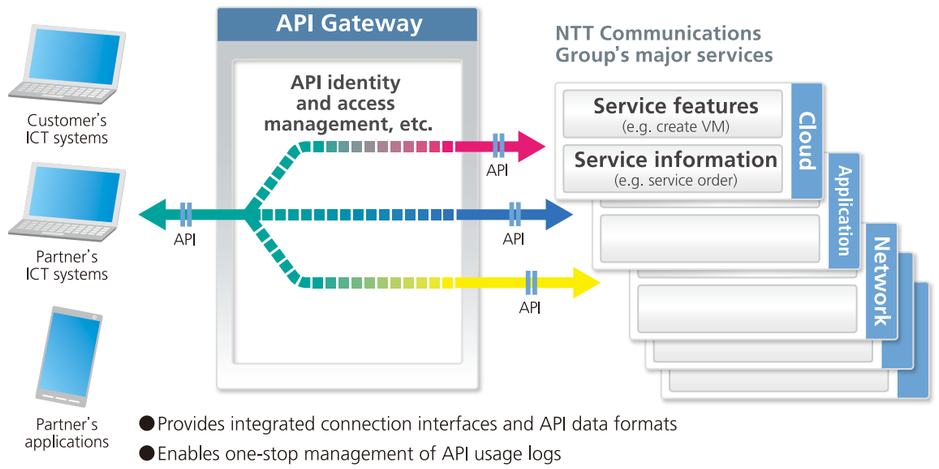
API Gateway

API Gateway enables customers/partners to coordinate with APIs of various NTT Communication services (network/cloud/voice/apps). It provides APIs that help reduce ICT operating costs by serving as unified formats for contracts and applications that can easily be integrated or developed to become consistent with the on-premise systems and applications of customers/partners.

● **Support for common usage of APIs**
API specs are consistent across all services through use of global-standard REST formatting and OAuth certification, enabling customers to incorporate them into their systems.

● **API logs that meet auditing needs**
API logs record all API transactions for easy data monitoring, usage tracking, and corresponding to compliance audits.

● **Easy and secure management of user resource access**
In the API, it is easy to manage user access to business resources by creating and managing users and groups, and authenticating users. Arcstar Universal One also provides more secure control of API connections.



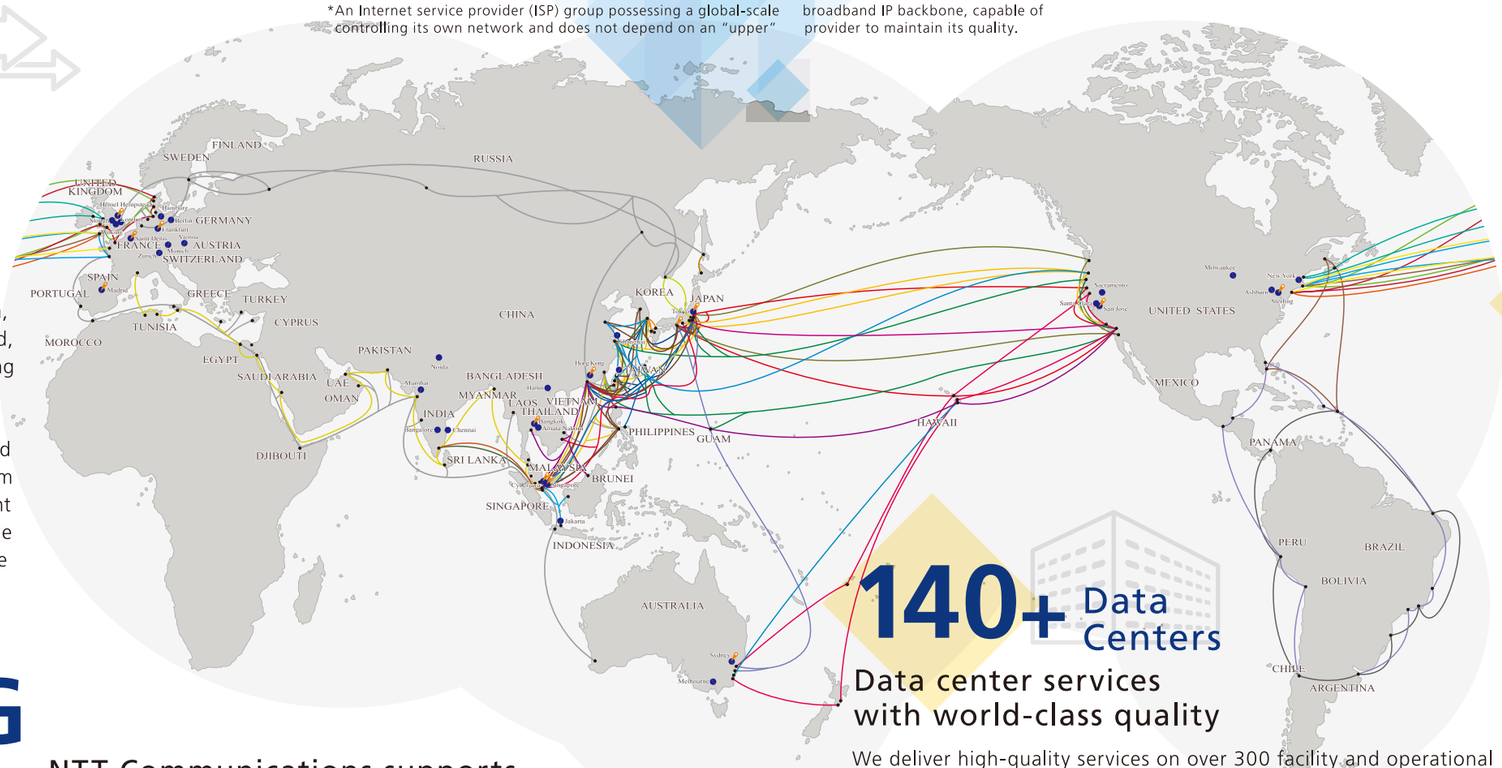
● Provides integrated connection interfaces and API data formats
● Enables one-stop management of API usage logs

World-Class Infrastructure

We are supporting the global cloud with world-class telecommunications infrastructure that includes submarine cables, data centers and IP backbone.

Global Tier 1* Provider

*An Internet service provider (ISP) group possessing a global-scale broadband IP backbone, capable of controlling its own network and does not depend on an "upper" provider to maintain its quality.



1,400 Gbps
2,387 Gbps

Our Global Tier 1 IP backbone supports expanding internet communication

We offer direct connection between major service providers in Asia, Oceania, the Americas and Europe via high-speed, high-capacity networks that boast among the world's highest bandwidths; 1,400 Gbps* between Japan and the United States, and 2,387 Gbps* within Asia and Oceania. Our single autonomous system (AS) network and service level agreement (SLA) allow us to maintain a comfortable communication environment and stable operation. *As of January, 2017

190+ Countries/Regions

Providing high-quality services worldwide

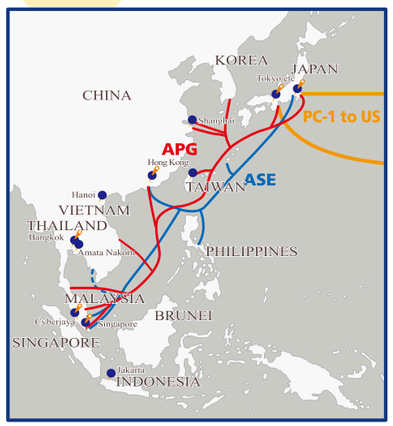
We provide global network services in over 190 countries/regions* worldwide.
*As of August 31, 2016

40+ Countries/Regions
110+ Locations

Our business is global

NTT Communications has offices in over 110 locations* in over 40 countries/regions* staffed by experts with deep knowledge of the ICT environments in the countries they serve.
*As of October 31, 2016

ASE/APG



NTT Communications supports the global cloud with international optical submarine cables

NTT Communications owns several high-quality optical submarine cables. This enables us to build fast, flexible networks and ensure redundancy. We also have a global infrastructure that can withstand disasters. This includes the Asia Submarine-cable Express (ASE) cable from Tokyo to Singapore that serves Asia, and the high-capacity PC-1 cable from Tokyo to Chicago that serves North America. These cables offer industry-leading low latency between these key city pairs. In addition, we increased the capacity of the PC-1 cable in 2013 by approximately 2.5 times to 8.4 Tbps to address ongoing growth in international traffic. In 2016, we also began operating the Asia Pacific Gateway (APG) optical submarine cable that features Asia's largest-class capacity. It complements the ASE cable to offer Asia large capacity, low latency and network redundancy.

140+ Data Centers

Data center services with world-class quality

We deliver high-quality services on over 300 facility and operational standards through our global Nexcenter™ brand. We have also acquired stakes in companies in Thailand, the United States and Germany. We are expanding rapidly by building our own data centers and by acquiring equity in data center companies in Australia, the United Kingdom, India, Thailand, the United States, Germany and Indonesia. Our major centers worldwide are Nexcenter Connect™ Global 10 Gbps networks, and nearby centers in urban areas can connect with Nexcenter Connect™ Metro and with Enterprise Cloud for linked use. NTT Communications will add capacity primarily in the United States, Europe and Asia to operate more than 140 data centers with more than 370 thousand square meters worldwide. Nexcenter

Global Carrier Awards 2016
NTT Communications was named **Best North American Wholesale Carrier** in recognition of our achievements in providing 100 Gbps connectivity.

Datacenter Dynamics Asia Pacific Awards 2016
NTT Communications received awards in three categories including **The Service Provider Data Center Award** in recognition of the leading-edge ideas we use to support sophisticated, next-generation data center services.

Asia Communication Awards 2016
NTT Communications was named **Wholesale Operator of The Year** for having the most innovative business model in the telecommunications wholesale business.

Our Strength in Asia

Leading-edge Technology

NTT Communications provides services to leading global companies in Japan and around the world. We are taking on the challenge of new ICT innovations for the Tokyo Olympics and Paralympics in 2020, such as participating in the joint development of services within the NTT group.

Developing highly reliable services, from principle Asian markets to emerging markets

NTT Communications has locations in more than 62 cities in 18 Asia-Pacific countries,* excluding Japan. Furthermore, NTT Communications already has in place personnel who are accustomed to local markets and business practices, allowing us to provide optimized services for each region. In addition to strategic locations such as China, Singapore, Hong Kong and India, NTT Communications was quick to identify the Greater Mekong Sub-region in Southeast Asia as a region of dynamic growth, and has been collaborating with government agencies and businesses from each country to expand ICT services.

*As of March 31, 2015

◎**Cambodia**
The first Japanese company to acquire a telecommunications services license, NTT Communications began providing Internet connection services to businesses.

◎**Vietnam**
Through collaboration with a government organization (VNNIC), NTT Communications became the first foreign company to provide international Internet service.

◎**Laos**
Supporting the development of information and communication technology in cooperation with government agencies.

◎**Myanmar**
First foreign company to establish a branch office. NTT Communications provides ICT services to multinational companies.

◎**Brunei**
Recognized as an officially certified global Tier 1 ISP.

The Greater Mekong Sub-Region

This economic area naturally bounded by the Mekong River is drawing attention as a burgeoning economic bloc. It consists of six countries: Thailand, Myanmar, Cambodia, Laos (Lao People's Democratic Republic), Vietnam and the People's Republic of China (PRC, specifically Yunnan Province and Guangxi Zhuang Autonomous Region).

Supporting the success of companies

(In alphabetical order)

AGC
ANA Inspiration of JAPAN A STAR ALLIANCE MEMBER
Bank of America Merrill Lynch
Daiwa House Group
DNP
HONDA The Power of Dreams
IDS INDEPENDENT DATA SERVICES
ITOCHU
JPX JAPAN EXCHANGE GROUP
鹿島 KAJIMA CORPORATION
KOKUYO
KONICA MINOLTA
L'OCCITANE EN PROVENCE
Microsoft
NVIDIA
Santen
sh STEPHENSON HARWOOD
UNICARRIERS UniCarriers Corporation

An Objective Provider of Leading -Edge Technologies

Seven evangelists from NTT Communications share their expertise in navigating customers.

Evangelists

Researching the best ways to use the world's latest technologies

Customers want to leverage the latest information and communication technologies (ICT), but may not understand emerging technologies and solutions. These customers can rely on NTT Communications' evangelists and the outstanding expertise they offer. We objectively analyze issues including the impact that emerging technologies such as cloud, network, security, web applications and the Internet of Things (IoT) will have on corporate management and the global economy, and determine how they can benefit customers.

Cloud

Providing sophisticated, multidimensional solutions for businesses by leveraging cloud

Mamoru Murakami

Cloud Evangelist

- Core responsibilities: IaaS technologies & OpenStack
- Key affiliations:
  - VIOPS Virtualized Infrastructure Operators Group
  - Red Hat Enterprise User Group
- Key presentations:
  - VIOPS Virtualized Infrastructure Operators Group
  - Virtualized Infrastructure Workshop 04 – Cloud Day: "Cloud Operation and Management Techniques – Operation Case Studies for Resolving Issues"
  - Red Hat Open Source Virtualization Forum 2012: "Keynote Presentation"
  - Internet Week 2015: Emerging NFV / SDN Trends among Providers and Managers

Masayuki Hayashi

Cloud Evangelist

- Core responsibilities: All things cloud-related and digital technology
- Key affiliations:
  - Visiting Fellow, The Center for Global Communications (GLOCOM),
  - General Advisor, Cloud Utilization Promotion Agency
  - Member, Conference on Promotion of AI Network Society, Ministry of Internal Affairs and Communications
- Key publications:
  - An Introduction to the Open Cloud (Impress R&D)
  - An Introduction to Cloud Business (Sogensha)
  - Cloud Basics (SB Creative)
  - Smart Machines: The Age of Thinking Machines (Yosensha)
  - Enterprise Cloud System Construction Guide (co-author; Shoeisha)
  - Internet White Paper: The Cloud – 2011-2017 (Impress R&D)

Network

Building next-generation networks based on advanced virtualization technologies

Shin Miyakawa

Network Evangelist

- Core responsibilities:
  - Network technologies (high-speed, high-functioned, virtualized and secured)
- Key affiliations:
  - Sr. Researcher (visiting) at SFC Laboratories, Keio University,
  - Guest Lecturer at Tokyo Institute of Technology and Nagoya University,
  - Committee No. 192 – Cyber Security, Japan Society for the Promotion of Science,
- Key publications:
  - Guide to Increasing BSD Use by 256 Times (ASCII Corporation)
  - Quick Guide to PC-UNIX (Kyoritsu Publishing)
  - IETF RFC6888, 3769, 4241, 4925

Security

Proposing highly reliable global security to prevent cyber attacks

Satoru Koyama

Security Evangelist

- Core responsibilities: Security
- Key affiliations:
  - Member, National Center of Incident Readiness and Cyber Security Strategy
  - Member, IOT Security Working Group, Ministry of Internal Affairs and Communications
  - Member, Study Group for Appropriately Dealing with Cyber Attacks in the Telecommunications Industry, Ministry of Internal Affairs and Communications
  - Deputy Chairman, Cyber Crime Countermeasure Working Group, Tokyo Metropolitan Police Department
  - Chairperson, 2016 Steering Committee, MWS Anti Malware Engineering Workshop ICT-ISAC, Deputy Chairperson, Transportation Committee
  - Director, Institute of Digital Forensics
  - Secretariat, Japan Internet Providers Association
- Key publications:
  - IoT Security Guidelines Version 1.0

Fumitaka Takeuchi

Security Evangelist

- Core responsibilities: Security
- Key affiliations:
  - Member, various government-related cybersecurity research groups
- Key presentations:
  - Gartner Security & Risk Management Summit 2016
  - Effective and Sustainable and Organization for Countering Cyber Attacks and Steps to Restructure ICT

Web Application

Simplifying application development/ operation and supporting seamless user environments

Kensaku Komatsu

Web Application Evangelist

- Core responsibilities:
  - Web applications and WebRTC
- Key affiliations:
  - Manager, html5.experts.jp
  - Member, W3C (helps formulate standards)
  - Google Developer Expert
- Key publications:
  - Editor, Communication APIs in A Complete Guide to HTML5 API (Shuwa System)
  - Editor, Offline APIs in A Complete Guide to HTML5 API (Shuwa System)

IoT

Navigating new business opportunities through effective IoT use

Akira Sakaino

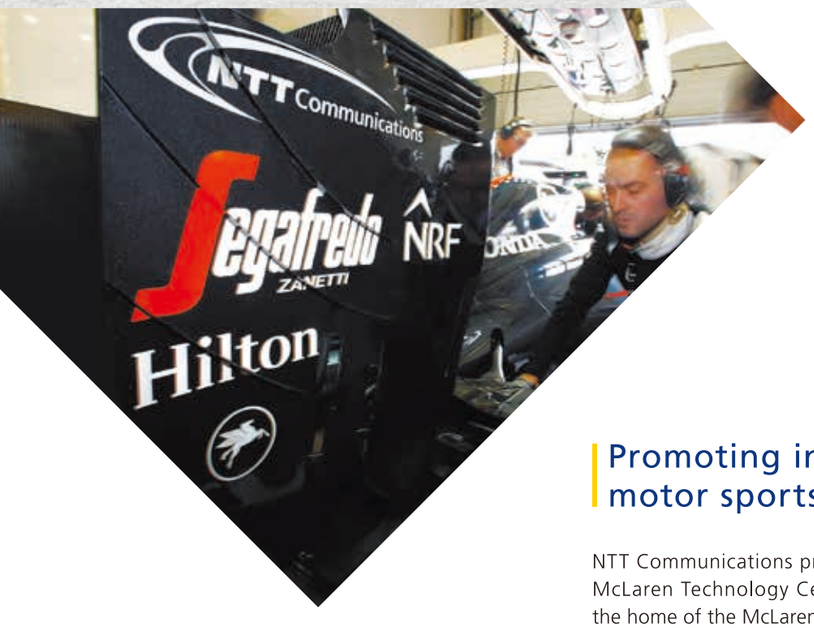
IoT Evangelist

- Core responsibilities:
  - IoT and Machine to Machine (M2M)
- Key affiliations:
  - Member and Auditor, Virtual Engineering Community (VEC)
  - Registered, Member, MECHATROLINK Members Association
  - Regular Member, Connected Consumer Device Security Council
  - IoT Business Review Working Group, IoT Promotion Committee, Internet Association Japan, Industrial Value Chain Initiative (IVI)
  - Robot Revolution Initiative Council (RRI)
  - e-F@ctory Alliance
  - CC-Link Association
  - Smart IoT Acceleration Forum, IoT Human Resource Development Subcommittee IoT Special Study Group, Institute of Industrial Science, The University of Tokyo
- Key presentations:
  - DNet Japan × Tech Republic Japan Authentication Security Seminar CPS / IoT Exhibition CEATEC JAPAN 2016 (Lecturer at NTT booth)
  - Instrumentation Control Technology Conference 2016
  - Technology Strategy Committee, Information and Communication Technology Subcommittee, Information and Communication Council, Ministry of Internal Affairs and Communications
  - 2017 Information Communication Management Workshop, Institute of Electronics, Information and Communication Engineers

Faster Innovation

NTT Communications is an Official Technology Partner of the McLaren Honda F1™ team. While providing the ICT infrastructure for the team to optimize F1™ racing performance, we will jointly research and develop advanced technologies that bring new innovation to motor sports.

Breaking boundaries:
NTT Communications teams up with McLaren Honda



Promoting innovation in motor sports

NTT Communications provides Arcstar Universal One to the McLaren Technology Center (MTC) in the United Kingdom, the home of the McLaren Group, and to McLaren Group bases around the world. It integrates multiple networks that had been built by each group company. We also enable coordination with various cloud services such as Enterprise Cloud while improving availability and ease of maintenance. Arcstar Universal One plays a significant role as a network for gathering huge amounts of data collected from F1™ machines and feeding back MTC data analysis to the circuit in real time. We will continue to help improve the performance of the McLaren Racing Team by providing stronger ICT infrastructure in ways such as reinforcing ICT management and security.

Advanced ICT infrastructure R&D to support the F1™ team

McLaren needs to analyze the large amount of digital data it acquires from the F1™ circuit and from running F1™ cars, and needs to quickly and securely share this data with sites worldwide. NTT Communications is partnering with McLaren Honda to create and reinforce ICT infrastructure to support the F1™ team using networks, cloud, IoT, and leading-edge technology for using data. We are researching and developing borderless ICT infrastructure that enables instant, reliable collection and analysis of race data.

The McLaren Honda F1™ Team

Since joining F1™ in 1963, McLaren Racing has been one of the most successful teams in Grand Prix history. They have created innovative cars that symbolize F1™. McLaren was established in New Malden, Surrey, United Kingdom. Bruce McLaren gathered a few elite craftsmen to design and manufacture F1™ cars, and started to create the race cars that bear his name. Today, more than 3,000 employees work at the McLaren Technology Centre in Woking, managing all aspects of the team. In 2017, McLaren Honda is taking on the challenge of winning the world championship with MCL32 car driven by Fernando Alonso, who won the world championship in 2005 and 2006, and exciting new driver Stoffel Vandoorne, who excelled in Japan's Super Formula in 2016.

NTT Communications Group CSR

Fundamental CSR Policy

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

●Contributions to society

We shall contribute to the resolution of social issues in Japan and overseas through the development and provision of innovative ICT, while providing highly reliable services for the sustained development of society.

As a group of companies that provides key infrastructure that supports society and protects our lifestyles, we shall provide secure environments for communications that are fortified against cybersecurity threats and resilient to natural disasters.

●Contributions to the global environment

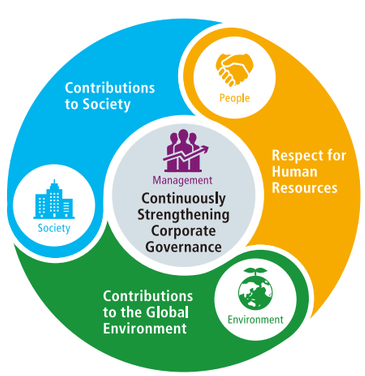
We shall endeavor to solve environmental problems on a global scale through initiatives to use ICT to reduce the impact of society on the environment, while lightening the environmental burden of our business activities as a Group.

●Respect for human resources

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

●Continuously strengthening corporate governance

While valuing opportunities to communicate with all our stakeholders, we shall contribute to the sustainable development of society by engaging in business with high ethical standards and respect for human rights.



New environmental statement and Eco Strategy 2030

We aim for sophisticated, global environmental management to achieve harmony between people and our planet. Three themes will guide our initiatives: realizing a low-carbon future, implementing closed-loop recycling and planning a future of natural harmony. Under Eco Strategy 2030, we will implement initiatives to reduce environmental load by providing the most sophisticated technologies and services available.

Sports promotion activities

ShiningArcs is a rugby team sponsored by NTT Communications in Japan's professional Top League. The team provides rugby classes and is involved in cleanup activities aimed at strengthening community relations and promoting social responsibility among youths. By supporting these efforts, NTT Communications hopes to spread the joy of sports and empower people to pursue their personal dreams.

Disaster Recovery Policy

NTT Communications believes that information and communication networks are one of the foundations for realizing an affluent society. The Great East Japan Earthquake that occurred on March 11, 2011 affected facilities mainly in the Tohoku region. Two of three domestic junction cable routes and a portion of an international submarine cable were damaged. However, we had decentralized relay transmission lines in accordance with our disaster response policy and quickly restored service by shifting over to other routes to ensure the communication services that are a lifeline for our customers.

Our three core policies are to enhance network reliability, ensure key communications when a disaster strikes, and restore service as quickly as possible. Learning from recent disasters, we will build even stronger networks to provide customers with safety and peace of mind.

Three core disaster response policies

●Enhance network reliability

We are enhancing reliability by decentralizing relay transmission lines, adding infrastructural redundancy and security, and ensuring access to electricity so that affected portions of the telecommunications grid do not affect others.

●Ensure key communications

From the standpoint of a designated public institution, we are collaborating with administrative agencies and local governments to ensure communication with institutions directly involved in saving lives, disaster relief, and lifelines.

●Restore service as quickly as possible

We are preparing to restore affected communication facilities and services as quickly as possible in ways such as establishing a disaster prevention system, conducting regular drills and deploying equipment for disaster countermeasures.

Please visit http://www.ntt.com/saitai/ for additional details.

Support for BCP countermeasures

Drawing on our disaster response policies, we provide solutions for system storage and network disaster recovery to protect critical business systems and data from disasters such as earthquakes, tsunami, wind and flood damage, fire, blackouts, and pandemics.

Enterprise DaaS supports work-at-home and other BCP measures

Enterprise DaaS offers a virtual desktop service on NTT Communications' cloud platform so that customers can use the same desktop environment as in their company, anytime, anywhere. Since data is not stored in the client terminal, this service supports a mobile workforce and is gaining popularity in various industries as a BCP solution that assures solid security.

Biz Safety Confirmation/Simultaneous Alert Service to accurately grasp employee status

This service supports corporate BCPs by gathering information to confirm the safety of employees in the event of an earthquake or other disaster. It enables employees to contact the company via various means of communication including mobile phones, smartphones, PCs and fixed-line phones.

When the Kumamoto Earthquake occurred in April 2016, more than 100,000 people used this system and processing of automatic e-mail requesting safety confirmation sent out in response to an earthquake with a major seismic intensity of 7 was completed in about 3 minutes, enabling us to contribute to the business continuity of our customers.

Decentralization of data via data centers and the Cloud

A virtual network can connect all of our data centers around the world, enabling true decentralization of critical customer data. In combination with cloud service, this decentralization solidly supports corporate BCP in the event of a disaster.

NTT Communications named a "Leader" in Gartner's 2015 Magic Quadrant for Disaster Recovery as a Service (DRaaS) Report

NTT Communications was recognized for its cloud-based disaster recovery services and positioned as a "Leader" in the Magic Quadrant for Disaster Recovery as a Service (DRaaS) report* issued by Gartner Inc., a major U.S. IT advisory firm. NTT Communications was named a "Leader" in Gartner's 2015 Magic Quadrant for Disaster Recovery as a Service (DRaaS) report for its ability to execute and completeness of vision.

*Gartner, Magic Quadrant for Disaster Recovery as a Service
John P. Morency, Christine Tenneson; April 21, 2015

Reference: Gartner's Magic Quadrant
A Gartner Magic Quadrant is a culmination of research in a specific market, giving you a wide-angle view of the relative positions of the market's competitors.
http://www.gartner.com/technology/research/methodologies/research_mq.jsp

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Our Presence Worldwide

NTT Communications around the World

Domestic Subsidiaries

As of January 1, 2017

- NTT Com Engineering Corporation
- NTT Com Online Marketing Solutions Corporation
- NTT Com Solutions Corporation
- NTT Com Marketing Corporation
- NTT Smart Trade Inc.
- NTT Resonant Inc.
- NTT Com CHEO Corporation
- NTT BizLink, Inc.
- NTT World Engineering Marine Corporation
- NTT Worldwide Telecommunications
- NTT Plala Inc.
- NTT PC Communications, Inc.
- X-LISTING Co., Ltd.

Overseas Subsidiaries

As of December 31, 2016

America

North America

- NTT America, Inc.

South America

- NTT do Brasil Telecomunicações Ltda.

Other Group Companies

- PC Landing Corporation
- RagingWire Data Centers
- Virtela Technology Services Incorporated

Asia Pacific

East Asia

- NTT Com Asia Limited
- NTT Korea Co., Ltd.
- NTT Communications China Co., Ltd.
- NTT Taiwan Ltd.
- Shanghai NTT Telecommunications Engineering Co., Ltd.

Other Group Companies

- HKNet Company Ltd.

Southeast/South Asia

- NTT Singapore Pte. Ltd.
- NTT Communications India Private Limited
- NTT Communications (Thailand) Co., Ltd.
- NTT Communications (Vietnam) Limited
- NTT MSC SDN. BHD.
- PT. NTT Indonesia
- PT. NTT Indonesia Nexcenter

Other Group Companies

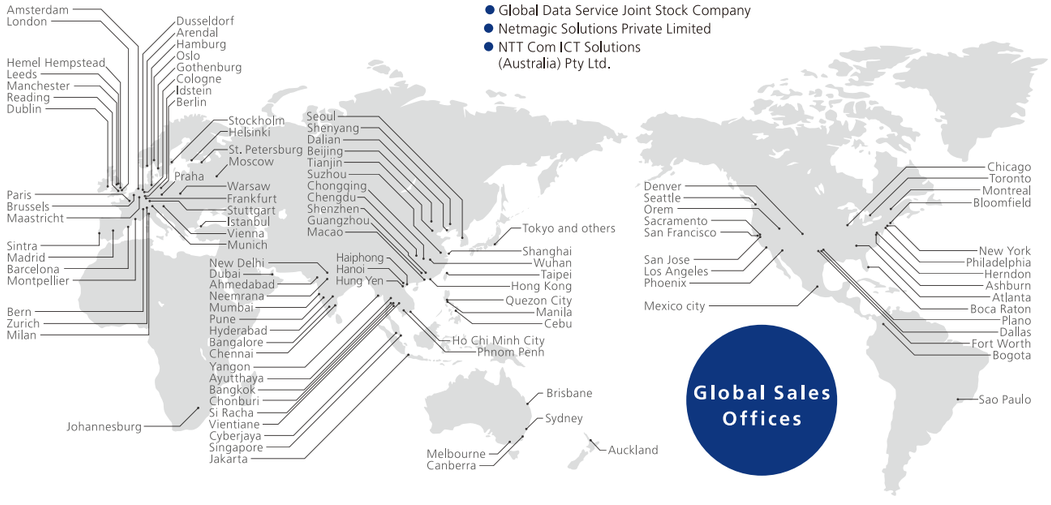
- DTSI Group Holdings, Inc.
- Emerio GlobeSoft Pte. Ltd.
- Global Data Service Joint Stock Company
- Netmagic Solutions Private Limited
- NTT Com ICT Solutions (Australia) Pty Ltd.

Europe

- NTT Europe Ltd.
- NTT Communications Russia LLC

Other Group Companies

- Arkadin International SAS
- NTT com Managed Services, S.A.U.
- Gyron Internet Ltd.
- Lux e-shelter 1 S.a.r.l



Corporate Information

Our Company

Corporate Overview

As of March 31, 2016

Name	NTT Communications Corporation
Head Office	1-1-6 Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-8019, Japan Phone: +81-3-3500-8111
President & CEO	Tetsuya Shoji
Established	July 1, 1999
Capital	211.7 billion yen
Employees	6,450 (NTT Communications Group employees: 21,700, as of March 2016)
Business Domains	Domestic and International Telecommunications Services

- ○Voice & video communications services
  Domestic/international telephone, toll-free dial, navigation dial, IP phone, video/voice conference, unified communication services
- ○Network services
  IP-VPN, Ethernet broadband, exclusive line, packet communication, Internet connection, IP transit, mobile/remote access
- ○Application & content services
  Mail & Web, content provision, e-commerce, SaaS applications, marketing solutions, authentication/billing/clearing
- ○Cloud SI services
  Data center, hosting, Content Delivery Network (CDN), managed security, outsourcing/server operations, network operation, contact center/CRM communications, etc.

Financial Results of NTT Communications Group

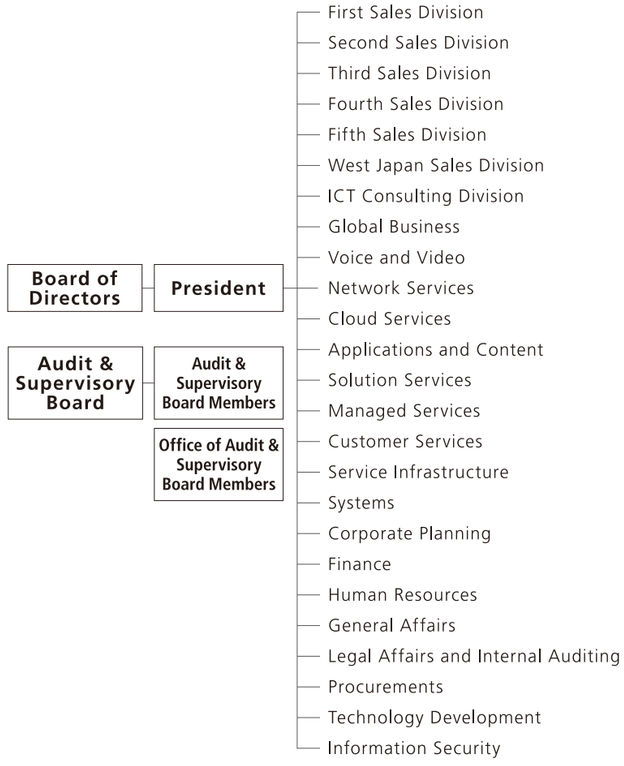
As of March 31, 2016

Operating Revenues	1,319.1 billion yen
Operating Income	118.2 billion yen

Board of Directors

As of December 31, 2016

President & CEO	Tetsuya Shoji
Senior Executive Vice Presidents	Tetsuya Funabashi Katsumi Nakata
Executive Vice Presidents	Toru Maruoka Eiichi Tanaka
Senior Vice Presidents	Kazuhiro Gomi Denji Sakurai Takashi Ooi Masaaki Moribayashi Ken Kusunoki Hidemune Sugahara Tetsutaro Nakamura Takanobu Maeda Akira Arima Masanori Ozawa
Statutory Auditors	Satoshi Shinoda Yoko Kobayashi Nobuhiro Takeuchi

Our Organization

As of January 2017