

# NTT Group: Contributing to the Realization of a Smart World

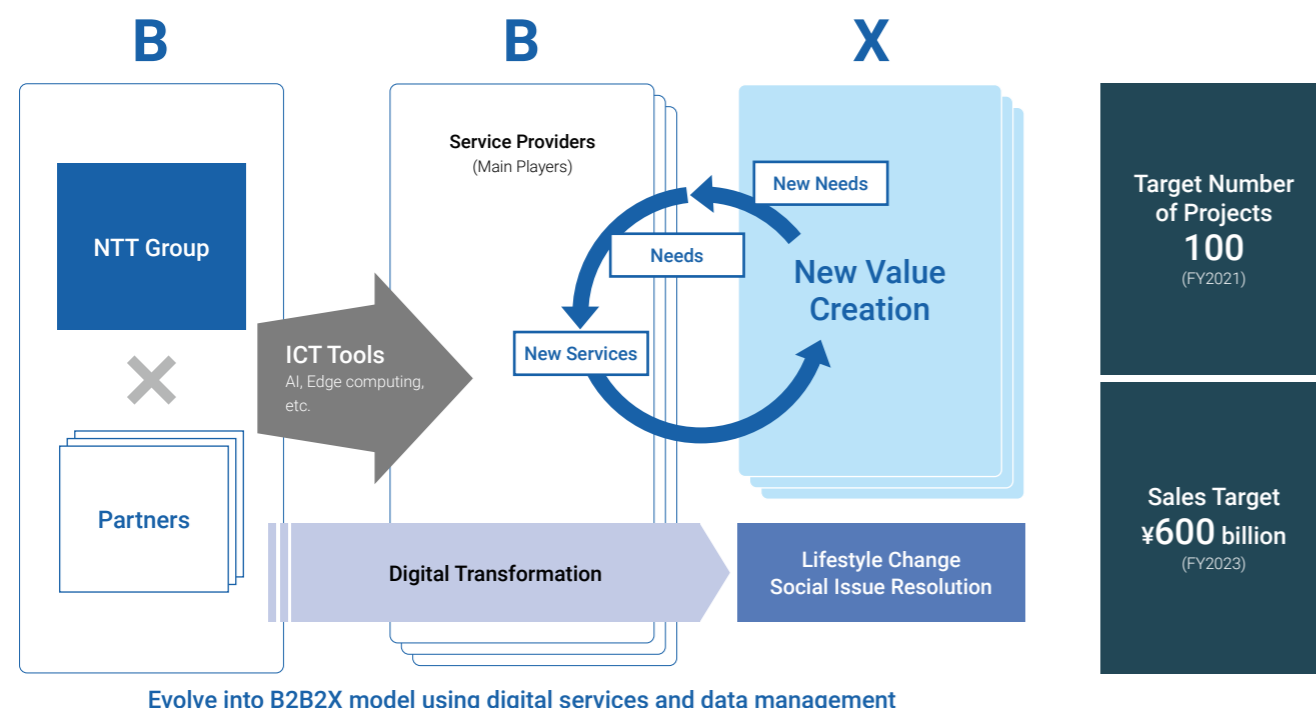
## Promote the B2B2X Model

NTT Group will accelerate the B2B2X model and provide value to end users (X) by supporting the digital transformation of the “Center B,” a service provider in various fields, while leveraging digitization of information, IoT, AI, and other social and technological trends. As of June a year earlier, representing smooth progress toward our target of taking part in 100 projects by the fiscal year ending March 31, 2022.

NTT’s B2B2X models are divided into four categories in line with the following objectives:

- Evolution of industrial value chains
- Invigoration of local economies and improvement of public safety and other city functions through the realization of smart cities
- Enhancement of customer contact point platforms (evolution of customer responses with regard to distribution, services, financing, etc.)
- Development of mobile and cross-data platforms (enhancement of services and creation of businesses by combining mobile data with companies’ data)

In order to further advance the B2B2X model, we have established the B2B2X Strategy Committee to formulate strategies, manage targets, and promote the business of NTT Group. Under this committee, we aim to increase the number of projects by promoting collaboration among the Group companies. For the foreseeable future, the Group will focus on developing new products. At the same time, however, we intend to improve profit margins by evolving digital technologies and increasing the economic feasibility of the scale and scope of digital data utilization.

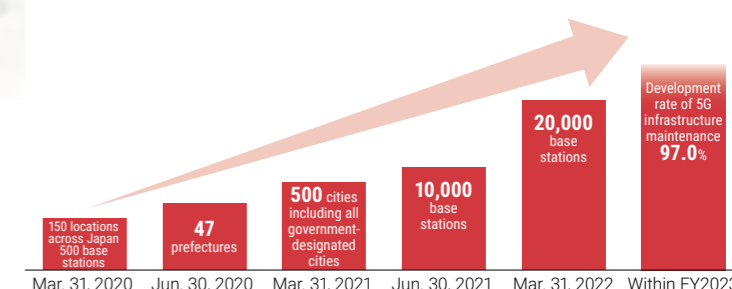


Evolve into B2B2X model using digital services and data management

## Roll Out 5th-Generation Wireless Systems

Infrastructure for the commercial 5G services launched in March 2020 had been installed in 92 cities across Japan as of June 30, 2020. NTT will expand upon this infrastructure going forward, working to install infrastructure in 500 cities, including all ordinance-designated cities in Japan, by March 2021, and then to build 20,000 base stations throughout Japan by March 2022. Through the installation of this infrastructure, we will spread use of 5G, a new transmission frequency that can offer high-speed, high-capacity communications. One characteristic of 5G services is their low latency. We aim to achieve this low latency by employing multi-access edge computing (MEC) and other technologies for reducing latency throughout network structures, including wired portions. NTT also intends to utilize network slicing technologies that can flexibly supply low latency and other 5G benefits on an individual application and service basis.

### 5G Area Construction



### Major 5G Initiatives in Fiscal 2020

- ▶ Development of the world’s first real-time live video distribution cloud system compatible with 360-degree 8K virtual reality, 8K wide, and multi-angle viewing to provide new video viewing experiences for the 5G era (February 2020)
- ▶ Announcement of launch of 22 solutions as a co-creative initiative through the DOCOMO 5G Open Partner Program
  - Commencement of provision of comprehensive manufacturing equipment analysis solution for supporting productivity improvements and automation in equipment failure prediction and image inspection (June 2020)
  - Launch of remote work support solution offering real-time support to workplaces from offices via augmented reality smart glass (July 2020)
- ▶ Release of a new function for 5G-compatible smartphones that allows multiple channels to be viewed at once through the TV services of NTT DOCOMO (June 2020)
- ▶ Japan’s first virtual communication experience event using 5G technologies and *Magic Leap 1* wearable devices held at special event site in front of Takanawa Gateway Station (July 2020)
- ▶ Start of verification test of Japan’s first commercial 5G-powered system for supporting remote surgeries performed by specialists while viewing high-definition video of surgeries (July 2020)

## Enhance Competitiveness in Global Business

NTT Group’s growth strategies for enhancing competitiveness in its global business entail leveraging the strength of its capacity for one-stop supply of everything spanning from solutions to communications infrastructure to provide comprehensive solutions for supporting the evolution of customer businesses and to promote innovation with cutting-edge technologies. The Group is also building platforms for concerted efforts as a united “One NTT.” For example, operations are being integrated into the global operating company, NTT Ltd. and its structures are being reformed to grow sales through the supply of high-value-added, high-margin services. Specifically, we are promoting sales of remote solutions in preparation for the period after the global COVID-19 pandemic and strengthening our hybrid cloud-related capabilities through partnership with Microsoft Corporation.



Research and Development

NTT Group aims to contribute to the resolution of social issues by helping drive the shift from electronics to photonics.

IOWN

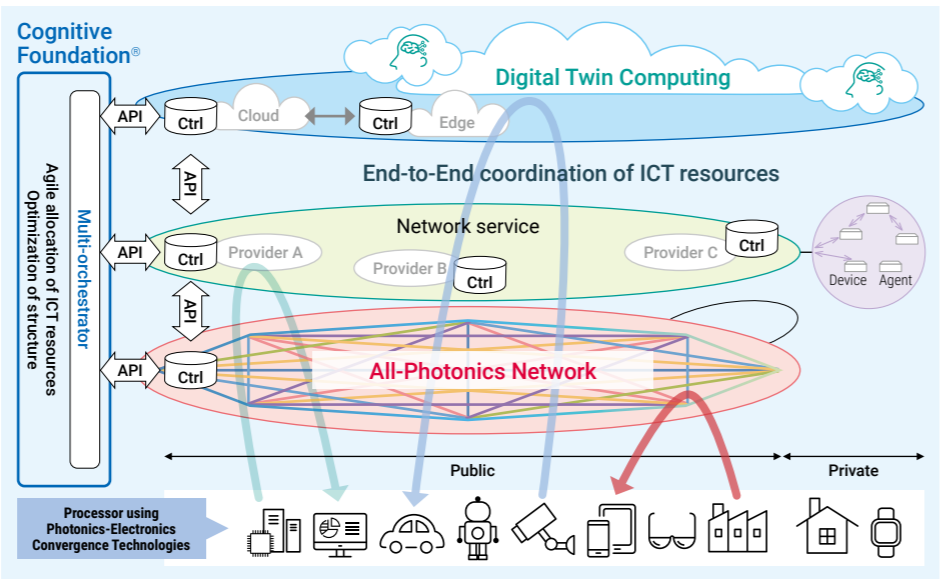
NTT R&D is envisaging the arrival of new smart societies that are not yet possible with today's internet, with features such as mobility as a service (MaaS) for extreme failsafe systems and entertainment services offering deep immersion. To realize such smart societies, we will require innovation that cannot be achieved merely by extending the trajectory of current technologies; we will need to realize ultralow power consumption, high-speed signal processing, and the fusion of virtual worlds that can equal or surpass reality with sophisticated prediction technologies. NTT Group has proposed the "Innovative Optical and Wireless Network" (IOWN) concept to realize new smart societies, and we are making a committed effort to realize this concept.

What's IOWN?

IOWN is a concept for realizing new smart societies that are not yet possible with today's internet. IOWN comprises three main technology components: "all-photonics network" that uses optical processing on not only networks but also device processing; "digital twin computing" that enables high-speed, real-time interaction between things and people in cyberspace; and Cognitive Foundation®, in which these and various other ICT resources are efficiently managed.

The all-photonics network incorporates new optical technologies at every level, from networks to devices, and even inside chips, to enable ultralow power consumption, ultrahigh speed processing that has not been possible until now.

By allocating different wavelengths to different functions in a single optical fiber, it becomes possible to provide multiple functions that support social infrastructure without mutual interference, including information communication functions such as internet and sensing functions.



Low power consumption	Large capacity, high quality	Low Latency
100 times electrical efficiency*	Transmission capacity 125 times	End-to-end latency 1/200*
<div>Transmission medium: Optical fiber cable</div> <div>Transmission equipment: Light (wavelength) passes through</div> <div>Information processing base: Opto-electronic elements</div> <div>Various information communication services are provided using 1/100th of power consumption.</div>	<div>Wavelength (optical signal) Independent</div> <div>Light → Light → Light →</div> <div>Wavelength Optical fiber</div> <div>1000 [Tbps/fiber]</div> <div>In an instant (0.3 sec), 10,000 two-hour movies can be downloaded (with 5G, one movie can be downloaded in three seconds).</div>	<div>Transmit by wavelength</div> <div>No waiting processing necessary</div> <div>No data compression necessary</div> <div>Wavelength A: Large-volume movie (uncompressed) No latency</div> <div>Wavelength B: Sound</div> <div>Video is transmitted in real-time without the latency experienced with digital TV or satellite broadcast.</div>

\* Target electrical efficiency for portion where photonic technologies are applied

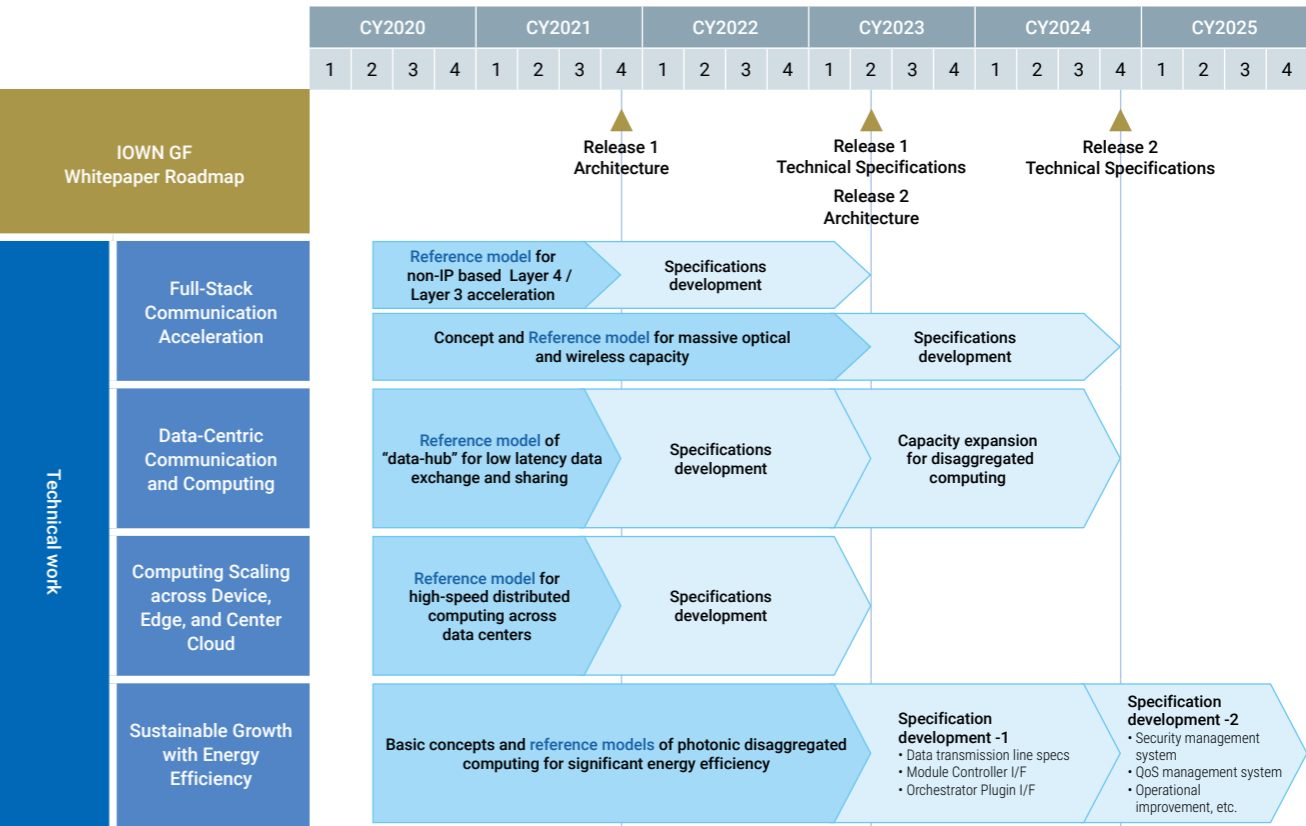
\* Latency target value in video traffic not requiring compression in the same prefecture

NTT Group aims to solve social issues by aiding the shift from electronics into the world of photonics.

Digital twin computing is a significant advance in existing digital twin technology. By performing calculations such as conversions, combinations, and replications for various digital twins representing things and people in the real world, and having those digital twins interact, this new paradigm allows for free interactions between people and things to be recreated and tested. This can be used to build virtual societies at a level of precision that has never been achieved before, enabling us to run predictions and testing on large-scale, highly accurate futures, and to provide high-level communications offering new value. The technology is expected to solve various social problems around the world and lead to the creation of innovative new services.

IOWN is set to change our world in new and exciting ways.

NTT has released a concrete technology roadmap for the development of its "Innovative Optical and Wireless Network" (IOWN) concept, and research and development are moving forward based on this roadmap. Starting in 2021, NTT will establish reference models for key IOWN constituent technologies, promote these to the IOWN Global Forum, accelerate examinations, and develop specifications. Specifically, four technological directions have been defined in the IOWN Global Forum whitepaper—full-stack communication acceleration; data-centric communication and computing; computing scaling across device, edge, and center cloud; and sustainable growth with energy efficiency. R&D projects are being advanced in accordance with these themes.



IOWN Global Forum, Inc., which was established together with Intel Corporation of the United States and Sony Corporation of Japan in January 2020, released a white paper describing four technological directions in April 2020. We have since commenced technological evaluations of these directions. As of September 10, 2020, the IOWN Global Forum, which is operated by IOWN Global Forum, Inc., had 29 member companies, including its three founders and 26 other companies from Japan and overseas. The first meeting of members of this forum was held in the form of an online conference in September. This meeting served as an opportunity for member companies from around the world to engage with each other and discuss use cases and technologies in working groups.

Going forward, NTT will continue to work with partners from various industries and regions with the aim of quickly making the IOWN concept a reality.



Research and Development for Realizing the IOWN Concept

4D Digital Platform™ Integrates Various Sensing Data in Real-Time and Enabling Future Predictions

In recent years, the remarkable advancement in IT technology enables the collection of large volume of IoT data and their analysis. Accordingly, the government of Japan as well as various companies are moving ahead with research and development for creating systems that merge cyber and physical spaces in a sophisticated manner, as advocated in the government's Society 5.0 vision. However, in the linkage of sets of statistical data or the matching of misaligned position and time data, there are cases in which the accuracy of future predictions cannot be heightened.

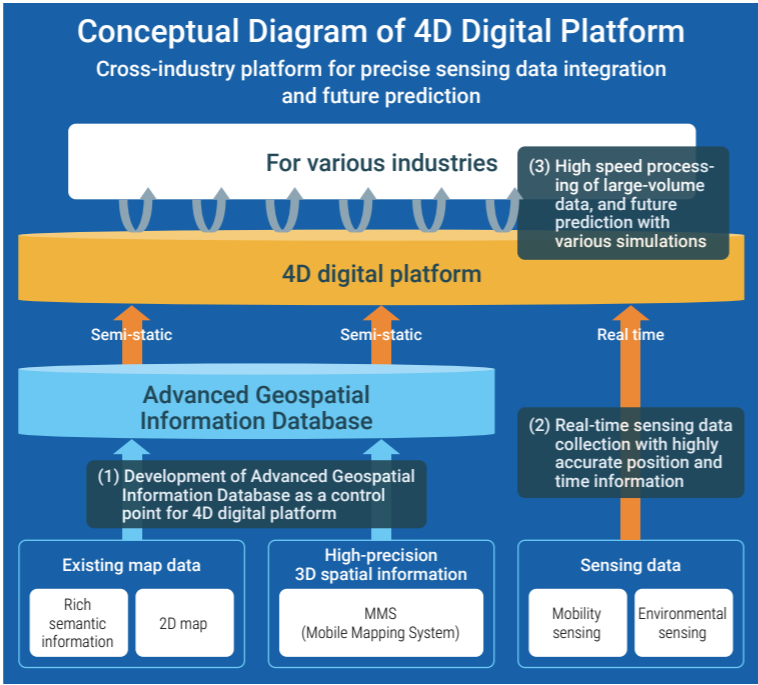
Our proposed 4D digital platform would resolve this by making it possible to precisely integrate position and time information from sensing data while also providing latitude, longitude, height and time data useful in future predictions.

By applying this platform to various industries, we could contribute to the resolution of social issues and the creation of value. The 4D digital platform™ integrates sensing data with highly precise position and time information in real-time into the Advanced Geospatial Information Database, jointly developed with ZENRIN Co., Ltd. to perform high-speed analyses and the construction of future prediction.

- (1) Development of the Advanced Geospatial Information Database as a control point for sensing data
- (2) Real-time sensing data collection with highly accurate position and time information
- (3) High-speed processing of large-volume data and future predictions with various simulations

By combining with various IoT data and industry platforms, it can offer various values such as increasing smoothness of road traffic flow, improving ease of use of urban assets, and enabling cooperative maintenance of social infrastructures.

As a cross-industry platform supporting people's lives, and as the one of the key elements of Digital Twin Computing, a part of NTT's IOWN initiative, we intend to leverage NTT R&D and NTT Group technologies and assets toward sequential commercialization beginning in FY2021, with future expansion through ongoing R&D efforts.



Demonstration of All-Optical Switching toward Photonic Integrated Circuits for Ultrafast Information Processing

NTT and the Tokyo Institute of Technology have developed an ultrafast all-optical switching operation with the lowest energy consumption ever reported for all-optical switching at less than one picosecond (one trillionth of a second). Previously, it was reported that all-optical switches would have difficulty operating at such a high speed with low energy consumption. The current achievement combines an ultrasmall optical waveguide with a height and width of a few dozen nanometers called a plasmonic waveguide, with graphene, a material that shows great promise for nonlinear optics. Such ultrahigh switching speed cannot be achieved by electrical control. It is expected that this switch will be used in future photonic integrated circuits for ultrafast information processing. In addition, this development shows a promising possibility for applications of plasmonics.

Experimental Demonstration of Ultra-High Precision Optical Frequency Transfer via 240-km-Long Telecommunications Fiber

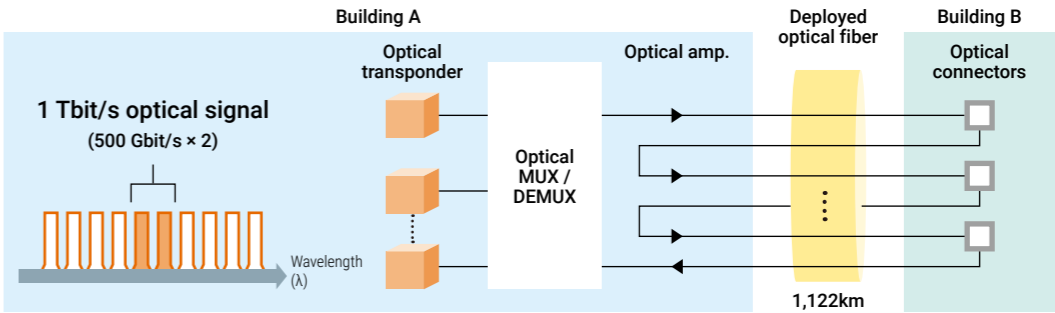
NTT, the University of Tokyo, RIKEN and NTT East have demonstrated experiments of ultra-high precision optical frequency transfer among multiple offices using a commercial optical fiber network over 200 km. This result shows that the optical frequency of optical lattice clock, which is one of the most accurate atomic clocks in the world invented by Professor Hidetoshi Katori of the University of Tokyo, can be distributed in the range of 200 km.

The technical point of this result is an optical frequency repeater that incorporates a quartz-based planar lightwave circuit (PLC). The optical frequency transmitted through the fiber suffers various noises due to temperature changes and vibrations. The repeater reproduces the received light and sends a part of the light to the previous office, where the returned light is used to detect and compensate the fiber noise. We have developed ultra-low noise optical interferometers manufactured on a small PLC chip, which can realize fiber transmission with minimal deterioration. In the future, we are planning to develop a new infrastructure such as "elevation difference measurement using relativistic effect (relativistic geodesy)" using the ultra-high accuracy of optical lattice clocks.

Long-Distance Transmission of 1 Tbit/s Ultra-High-Capacity Optical Signal

NTT and NTT Communications have successfully demonstrated long-distance transmission of a 1 Tbit/s optical signal in a commercial environment. A 1 Tbit/s optical signal using a wavelength division multiplexed technique was successfully transmitted over a world-record breaking distance of 1,122 km. This was achieved using a new large-core low-loss optical fiber cable deployed in NTT Communications' commercial environment, which reduces optical losses and non-linearity, and original NTT technologies including: (1) a precise calibration technology that compensates for imperfections in the optical transponder and enables high-quality multi-order modulation optical signals to be transmitted and received, (2) an optical transponder integrating a digital signal processor that implements the latest digital coherent technology, and high-bandwidth optical front-end circuits, and (3) transmission line design technology.

This result should lead to transmission speeds 10 times that of systems currently in use (100 Gbit/s per channel) and an 80% or greater reduction of power consumption per bit. As such, it is anticipated as a high-capacity communications network technology for the expansion of 5G services and realizing the IOWN concept in the future.



Initiatives for Realizing a Society Characterized by Remote Interactions

Highly Immersive 12K Wide Live Viewing of MLB Games Using Ultra Reality Viewing Technologies

NTT has concluded a multi-year partnership contract with Major League Baseball (MLB). Through this partnership, we are promoting the use of NTT's cutting-edge technologies for realizing next-generation baseball viewing experiences as a smart sports initiative. In October 2019, MLB and NTT conducted a verification test that used NTT's Ultra Reality Viewing technology for viewing of MLB postseason games. This was the first successful instance of highly immersive live viewing through synthesis and transmission of 12K wide video in the United States.



Real-time transmission of the game from Tropicana Field in Tampa Bay to MLB Studios in New Jersey

Verification of Network Technologies for Realizing Fully Autonomous Agricultural Equipment via Remote Monitoring through Collaboration with Hokkaido University and Iwamizawa City

In May 2020, a joint experiment agreement was formed between Hokkaido University, Iwamizawa City, SmartLinkHOKKAIDO Inc., NTT, NTT East, and NTT DOCOMO in relation to joint experiments for realizing smart agri-cities centered on smart agricultural equipment. Under this agreement, we will advance verification tests on technologies for predicting fluctuations in connection quality and automatically adjusting the network to which autonomous agricultural equipment is connected accordingly. Goals of this undertaking includes reducing the labor requirements of agricultural work by allowing agricultural machinery to be operated in an unmanned manner and helping address global food shortages.

Joint Experiment Fields

1	High-Precision Positioning Technology	Technologies will be developed to allow for high-precision positioning even in areas in which satellite transmissions cannot be received directly due to reasons such as signals being reflected.
2	Next-Generation Network Technology	Exceptionally safe, autonomous operation of agricultural equipment will be pursued through the development of technologies for predicting the quality of connections to multiple networks and automatically changing networks accordingly.
3	AI Platforms	AI analyzes field sensors, weather information, and agricultural machinery operation information, and an AI platform automatically schedules agricultural work and makes it possible to create an optimal agricultural work plan.

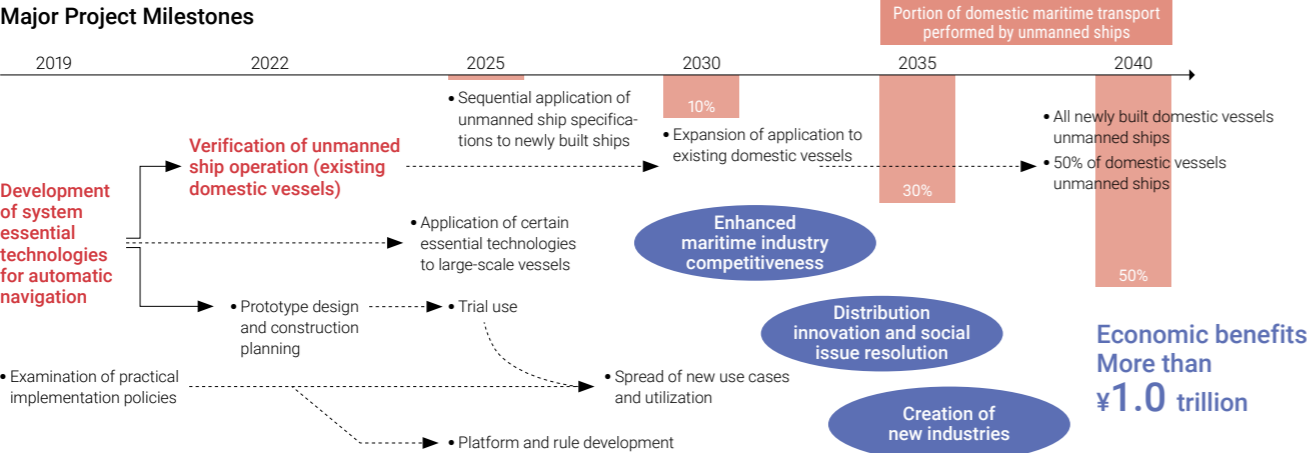
Joint Research for Advancing World's First Unmanned Ship Verification Test

NTT has concluded a joint research contract with MTI Co., Ltd., a research subsidiary of Nippon Yusen Kabushiki Kaisha, for the advancement of the Designing the Future of Full Autonomous Ship Project,\* the world's first verification test of unmanned ships in crowded areas of the ocean. Under this agreement, MTI will design the system concept necessary for unmanned ships and develop and explore the related technologies. Meanwhile, NTT will look into the application of its IOWN concept. In this manner, the strengths of both companies will be utilized to complete a successful verification test by the fiscal year ending March 31, 2022, to demonstrate the future potential of unmanned ships.



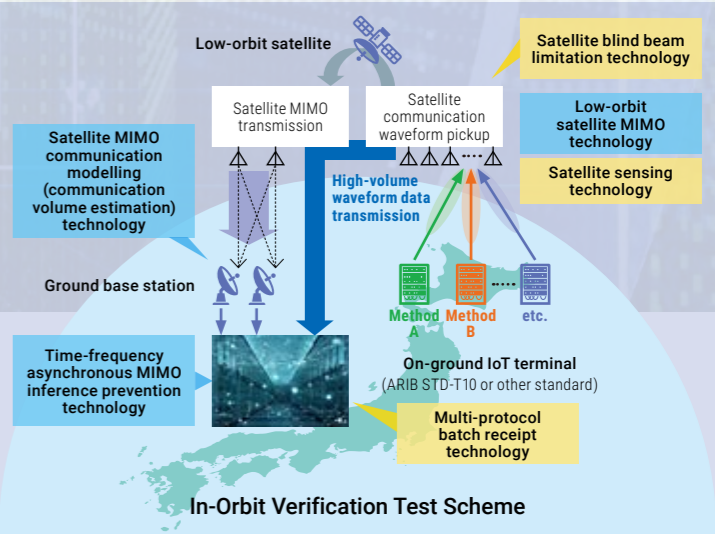
\* A verification test project advocated by the Nippon Foundation as part of its MEGURI2040 unmanned ship project

Major Project Milestones



In-Orbit Verification of Low-Orbit Satellite MIMO Technologies

In May 2020, NTT submitted a technology verification proposal in response to the No. 3 open application bid by Japan Aerospace Exploration Agency (JAXA) for verification of revolutionary satellite technologies. This proposal, which was adopted, was for the realization of communications with speeds exceeding 20 Gbps between low-orbit satellites and ground facilities and ultrawide range IoT data collection. Based on this theme, NTT will conduct verification tests on the world's first low-orbit satellite multiple input, multiple output (MIMO) technology and on satellite sensing technologies. Our future plans include launching miniature verification-use satellites in the fiscal year ending March 31, 2023, and exploring and verifying essential technologies and designing and developing satellite equipment for technology verification tests leading up to the fiscal year ending March 31, 2024. In addition, we will seek to realize high-capacity communications (with speeds exceeding 20 Gbps) between low-orbit satellites and ground facilities and develop low-cost sensing technologies for use in areas across the world, including those without on-ground communications networks.



Alliance with Intel

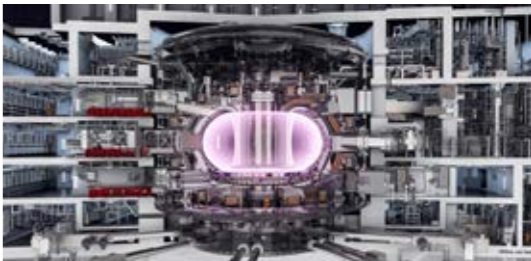
NTT has concluded a joint research contract Intel Corporation, set to conclude in April 2023. The resulting alliance is aimed at the co-creation of technologies for the IOWN. Through this alliance, NTT and Intel will conduct research for advancing the development of technologies that can meet the massive increases in data processing capacity necessary for realizing a smart connected society.

Joint Research Fields

1	Photonics / Photoelectric Merging Technology	Development of new computing platforms using photoelectric merging technology will be pursued to expand the application of optical technologies out from the conventional long-distance signal transmission applications and introduce these technologies into the signal processing components of processor chips coordinated with electronic circuits.
2	High-Speed Decentralized Computing	Computing infrastructure will be developed to fully utilize future high-capacity, low-latency communications infrastructure; link ground, edge, and cloud systems; and efficiently process the massive amounts of real-time data received from the physical world.
3	Open Frameworks	An open software framework will be developed to use AI computing devices, which are growing ever more diverse and evolving at an accelerated pace, through the aforementioned high-speed decentralized computing infrastructure.

Cooperation with the ITER Organization

In May 2020, NTT concluded a comprehensive cooperation agreement with the ITER International Fusion Energy Organization (ITER Organization), which is working to be the first in the world to verify the effectiveness of fusion energy. NTT is promoting innovation through research and development and the reduction of environmental impacts through its business activities with the goal of lowering its environmental footprint to zero. As one facet of these activities, we are contributing to the plans of the ITER Organization with our IOWN and other advanced R&D projects as well as our global infrastructure development capabilities. Specifically, we look to offer technical support for information distribution and control platforms. These platforms will be utilized for ultrahigh-speed, ultralow-latency connections between the fusion reactor and control centers through all-photonic networks that use photonic (light)-based technologies for everything from networks to terminals. Another application of the platforms will be fusion reactor control simulations, using digital twin computing for projecting future trends by comparing the physical world with digital models.



ITER Tokamak Machine and Plant



ITER construction site in Provence in the south of France

### Alliance with NEC for Joint Research and Development and Global Rollout of ICT Products Utilizing Innovative Optical and Wireless Technologies

NTT and NEC Corporation formed a capital and business alliance in June 2020 for the purpose of joint research and development and the global rollout of ICT products utilizing innovative optical and wireless technologies. The companies aim to improve their corporate value by expanding sales of products applying jointly developed technologies. In addition, through these initiatives, the companies will contribute to the enhancement of the industrial competitiveness of Japan and to the improvement of the safety and reliability of communications infrastructure, playing leading roles in working with numerous communications equipment vendors.

To promote open architectures such as O-RAN and to give form to the IOWN concept, NTT and NEC will set up a research and development structure and focus their efforts on the following objectives.

- By developing and utilizing cutting-edge technologies, the companies will develop and sell globally a compact digital signal processing circuit—featuring both world-leading performance and low power consumption as well as quality that meets market needs and greater convenience from the customer point of view—plus optical information communications equipment incorporating this digital signal processing circuit.
- Working with global operators and communications equipment vendors, the companies will promote O-RAN Alliance specifications while developing and selling globally competitive products compliant with such O-RAN specifications. In the future, the companies aim to attain top global market shares under NEC's leadership. Moreover, the companies' development efforts will be aimed at realizing ultrahigh-speed processing, ultralow latency, and ultralow power consumption in these products at a level that has never been attained before, by applying innovative devices utilizing optical and wireless technologies to base station equipment.
- The companies will develop innovative technologies and optical and wireless devices contributing to the realization of NTT's IOWN concept. As part of the development project, the companies will seek to enable greater-capacity, higher-functionality, and lower-costing submarine cable systems; high-capacity, low-latency, and automatic and autonomous space communication; and more sophisticated technologies to ensure infrastructure network security.

### Establishment of Space Environment and Energy Laboratories

The Space Environment and Energy Laboratories is a research facility established in July 2020 with the purpose of developing innovative technologies to help regenerate the global environment and realize a sustainable and inclusive society. This facility is the first NTT laboratory to have the word “space” in its name. Despite this name, however, the Space Environment and Energy Laboratories will not research space itself; rather, it will reevaluate the sun and other aspects of the space environment from earth to research means of regenerating the global environment and adapting to this environment from a dynamic perspective.

In the field of next-generation energy, the Space Environment and Energy Laboratories will research nuclear fusion together with the ITER Organization as well as space photovoltaic power generation. Meanwhile, the facility will target the creation of energy systems that improve environmental value through local consumption and production of energy in the field of energy control technologies that optimize energy distribution. As the first step of these efforts, we aim to complete development of a resilient electricity supply system based on direct current microgrid utilization within the fiscal year ending March 31, 2023. In addition, the Space Environment and Energy Laboratories is advancing a project in the field of CO<sub>2</sub> conversion technologies, which entail absorption and fixation of CO<sub>2</sub> in the atmosphere. This project has the goal of commencing a verification test on technologies for improving the efficiency of the artificial photosynthesis technologies developed by NTT in the fiscal year ending March 31, 2023. This facility is also engaged in R&D projects in the field of environmental adaptation technology, which is used to respond to sudden natural disasters. Specifically, the Space Environment and Energy Laboratories is working to develop a system that uses drones and other aerial equipment to attract lightening to prevent lightening damage to communications equipment and other social infrastructure. The goal is to start a verification test in the fiscal year ending March 31, 2023.

In this manner, the Space Environment and Energy Laboratories is a research facility with a penchant for tackling ambitious research themes that have never before been imagined. Going forward, this facility will proactively collaborate with external research and other institutions through means such as joint research in a diverse range of fields.

## New Business and Regional Revitalization Initiatives

### New Business Initiatives

#### Urban Solutions Business

NTT Urban Solutions, Inc. is the sole developer of NTT Group's real estate business. The company utilizes NTT Group's telephone exchanges and other real estate while laterally drawing on the Group's real estate- and energy-related personnel and technologies. Moreover, the Group makes maximum use of its assets in a concerted effort to advance collaborative urban development projects with companies and municipal authorities. Through these initiatives, we aim to grow the sales of the urban solutions business to ¥600 billion by the fiscal year ending March 31, 2026. Urban development projects in Japan are targeting the resolution of local issues across the country in areas such as Sendai and Fukuoka. Overseas, we are developing the River Valley Project housing sales project in Melbourne, Australia as well as a housing development project in Dallas, Texas in the United States. Having generated operating revenues of ¥426.0 billion in the fiscal year ended March 31, 2020, we are making smooth progress toward the aforementioned target.

#### Smart Energy Business

NTT Anode Energy Corporation, NTT Group's energy business operating company, announced its medium-term vision in November 2019. Guided by this vision, the company will seek to contribute to the realization of a sustainable society through the creation of new energy distribution frameworks that complement existing alternating current networks. These frameworks will be designed to address social issues pertaining to the environment and energy, such as global warming and the need to secure emergency power sources in preparation for large-scale natural disasters. Specifically, NTT Anode Energy will develop five businesses, including green power generation and backup power businesses, in the three fields of power generation; power transmission, distribution, and storage; and power retail and wholesale. Through these businesses, we will provide new value, such as improved energy efficiency and enhanced disaster resiliency in relation to coping with such eventualities as power blackouts during disasters.

NTT Group aims to double operating revenues from its energy-related businesses to ¥600.0 billion by the fiscal year ending March 31, 2026. This target will be pursued via smart energy business initiatives advanced through investment in NTT Group as well as through capital and business alliances with and investments in wide-ranging business partners. Operating revenues in the fiscal year ended March 31, 2019 were ¥257.0 billion, and we are making progress toward achieving the target.

### Regional Revitalization

#### Agricultural Field

In July 2019, NTT Group established NTT AgriTechnology Corporation, the Group's first company devoted to combining agriculture and ICT. This company was created with the aim of contributing to local communities and economic invigoration through next-generation facility horticulture. To accomplish this objective, NTT AgriTechnology will produce agricultural products at its own farm using IoT and AI technologies while accumulating know-how and improving the quality of its solutions. Future endeavors by this company will include utilizing cutting-edge technologies to seek out new value and possibilities in the agricultural field in a quest to invigorate local economies and contribute to urban development.



#### E-Sports Field

NTTe-Sports, Inc. was established in January 2020 with the goals of promoting community building and making contributions to society and to economic invigoration through e-sports. This company develops a wide range of businesses founded on its reliable, high-quality communications networks and state-of-the-art ICT. Examples of these businesses include e-sports facility operation, support and education, platform provision, event solutions, and regional revitalization consulting. NTTe-Sports will continue its efforts to combine ICT with e-sports going forward as it seeks to create new experiences and connections along with new cultures and societies.

