

Guidelines of Medium-Term Str

Premise for medium-term strategy formulation

Under the medium-term objectives formulated in October 2014, we have been striving forward, advocating profit recovery, growing smart life profits and promoting cost efficiency improvements. As a result, we achieved all management objectives a year ahead of schedule. In addition to recouping profits, we managed to take an even greater leap forward via network acceleration, promotion of co-creation through “+d,” and other initiatives.

Review of Measures for Previous Medium-Term Goals

	Initiative	Achievement / forward progress
Early recovery of telecommunications business	Encourage enrollment in billing plan, “Kake-hodai & Pake-aeru” and “docomo Hikari”	<p>“Kake-hodai & Pake-aeru” subscriptions increased to 37.07 million as a result of new billing plans in accordance with the needs of long-term customers, high-usage customers, young and senior customers, etc., and by improving customer satisfaction.</p> <p>For “docomo Hikari,” in addition to the launch of “docomo Hikari Denwa” and “docomo Hikari TV Option,” various promotional campaigns were also favorably received. As a result, subscriptions increased to 3.40 million.</p>
	Network acceleration (LTE-Advanced)	With the introduction of new advanced technologies, we launched a telecommunications service with reception speeds of up to 682 Mbps, the fastest in Japan. Also, the number of LTE base stations increased to 161,900, and the number of PREMIUM 4G base stations increased to 69,700.
	Maintaining cost efficiency improvements	Due to network and marketing-related cost efficiency improvements, by FY2016 we had implemented cumulative cost efficiency improvements of ¥470 billion, and surpassed our previous medium-term objective of ¥400 billion.
	Improving efficiency of capital expenditures	Through initiatives to reduce equipment costs, including the introduction of new technology and new equipment and utilizing know-how for infrastructure development, we kept costs to ¥597.1 billion in FY2016 – below the previous medium-term goal of ¥650 billion.
Value creation through strengthening and co-creation in the smart life business and other businesses segment	Accelerating dmarket initiatives	We worked to enhance the dmarket lineup by offering new services closely aligned with customer health and lifestyles, and thereby increased the number of dmarket subscriptions to 16.08 million.
	“+d” expansion	By partnering with many companies and municipalities, we have steadily increased our number of partners to 236.
	Co-creation of social value	We are currently promoting co-creation of social value by strengthening business directly linked to solving social issues in multiple sectors including primary industries, education and healthcare.

Strategy 2020 “Declaration beyond”

Based on the slogan of “connecting dreams, for a richer future with 5G,” we announced “Declaration beyond” expressing three pursuits: “beyond as in time, to the future beyond 2020,” “beyond the expectations of customers and partners” and “beyond for ourselves, to transform and climb to new heights.” Also, as the basis for realizing the six declarations, we will continue to engage in service creation/evolution, business evolution with “+d” and reinforcement/evolution of all foundations.

■ Overview of Medium-Term Strategy 2020 “Declaration beyond”

beyond

Connecting dreams, for a richer future with 5G





■ Guidelines of Medium-Term Strategy

A medium-term strategy that makes clear the world that DOCOMO aspires to, and the 5G networks that support this strategy

Kiyohiro Omatsuzawa

Executive Vice President
General Manager of Corporate Strategy and Planning Department,
Responsible for Mobile Society Research Institute

Q

Your medium-term strategy features six declarations. Could you give us specific examples of the initiatives you will pursue under each of these declarations?

A

The underlying message of Medium-Term Strategy 2020 “Declaration beyond” is encapsulated in the slogan “connecting dreams, for a richer future with 5G.” In order to take the next step forward, “Declaration beyond” clarifies the kind of world that DOCOMO should be helping to create and outlines the kind of values to strive for in such a world. DOCOMO will tie together multiple vectors into a single large force that will propel us toward 2020 and beyond, into the prosperous future we hope to build.

Building a 5G network is, of course, an essential step toward achieving “Declaration beyond,” but before this, we will step up our initiatives under each of the declarations.

Take returns to customers for example. To cater to increasingly diverse customer needs regarding minutes of use, usage volume and the like, we have introduced new subscriber plans: “Simple Plan,” “Ultra Share Pack 30” and, for customers who intend to use the same handset for a long time, “docomo with.” We want to further expand our range of billing options and introduce into society various other propositions to give customers a tangible sense of value and convenience. To this end, we are also striving to make the necessary cost efficiency improvements. These improvements are being driven forward by the dedicated efforts of DOCOMO’s employees, each of whom understands that they have a role to play in this area. While monitoring progress in

the cost efficiency strategy, we will reinforce our customer network by delivering returns to customers in a manner that reflects their feedback.

To further raise customer satisfaction, we will increasingly adopt an omnichannel approach with a view to providing safe, secure and comfortable support to customers. In an effort to minimize customer wait times, docomo Shops have already started using tablets to facilitate optimal response to customer requests. However, we understand that DOCOMO’s customer touchpoints lie not only in its real-world shops but also in its telecommunications itself. In other words, we also recognize how important it is to customers to always have their mobile phone at hand and to be connected to DOCOMO 24 hours a day, 365 days a year. Accordingly, we plan to introduce simpler user interfaces and chat services that customers can use to carry out certain procedures online. We will also use an automatic reply function in the information center and introduce various other state-of-the-art technologies.

These initiatives correspond to “Declaration 1: Market leader” and “Declaration 3: Peace of mind and comfort support,” and as such, we will pursue each of them under the framework of the relevant declaration to achieve “Declaration beyond.”

Note: This feature section also describes the other initiatives of “Declaration beyond.”
For Outline of Medium-Term Strategy 2020 “Declaration beyond”

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Q

Please tell us about the 5G networks that will support “Declaration beyond.”

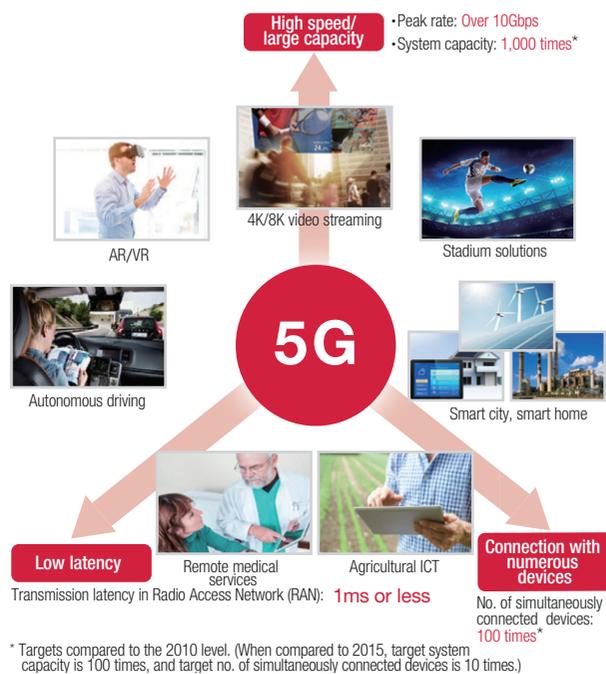
A

First of all, let me explain the position of 5G in our medium-term strategy. FY2017 will be an epoch-making year for the new 5G technology, a year in which international standardization will progress dramatically. The potential of 5G networks has

finally begun to take shape. We have thoroughly analyzed this potential and, after discussing the findings, resolved that we should adopt the slogan I mentioned earlier, that is, “connecting dreams, for a richer future with 5G.”

5G features high speed, large capacity, low latency and massive device connectivity. It also holds the potential to lead to the expansion of various industries and creation of new ones.

Mobile communications use complex technology to establish comfortable communications between base station antennae and customer devices (which today are usually smartphones), resulting in processing delays. When large amounts of data are being exchanged by a huge number of devices, the issue of the upper limits to wireless capacity cannot be realistically ignored. Furthermore, there are also issues with concurrent connectivity when there are many IoT devices that simply connect without continuously transmitting data. A 5G network will be able to resolve all three issues of processing delays, capacity and concurrent connectivity. Because mobile communications connect wirelessly, the freedom to connect anytime, anywhere will immediately expand their range of possibilities. Therefore, 5G is an immensely powerful asset underlying the new medium-term strategy.



Q Can you talk about DOCOMO's strengths in 5G network construction?

A DOCOMO's R&D team members are central players in the standardization of world mobile communications, and have been the most globally active of participants from Japan. In practice, the format advocated by DOCOMO up until now has been accepted for international standardization. Regarding 5G implementation as well, we have led the global telecommunications industry in proactively promoting standardization activities and proof-of-concept with each company. In light of this leadership in standardization efforts, DOCOMO's strength is its thorough knowledge of the 5G format.

While capital investment is needed to introduce 5G, the investments we are currently making are being leveraged against our accumulated know-how to smooth the introduction of 5G. As we are implementing these as a continuation of initiatives from LTE, we are able to investment in only the necessary amounts, items and areas to make sure the intro-

duction of 5G does not require extremely large investments.

While the 3-to-6 GHz and 28 GHz frequency bands are being considered for 5G use when it is first introduced, DOCOMO has been allocated the 3.5 GHz frequency band, and has been utilizing it for LTE. We are already promoting network development in this frequency band, the radio properties of which DOCOMO understands. By wholeheartedly advancing such network construction in anticipation of 5G, we will steal a march on our rivals.

We also set up a 5G trial site in May of this year, and are conducting technical verification of 5G in a commercial environment, while working to develop a new industry.

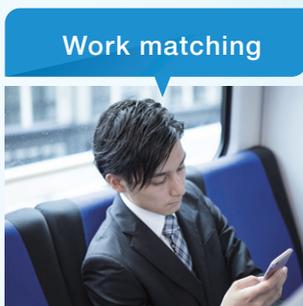
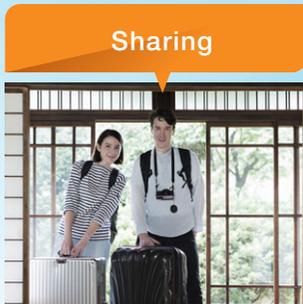
Lastly, 5G truly holds the energy and power to be the foundation of a more prosperous future. Please keep an eye on our efforts as we move forward with this revolutionary technology.

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	2016	2017	2018	2019	2020
Actions toward 5G standardization	Examine technical requirements		Call for standards proposals		IMT2020 standardization
	Basic examination of 5G standards	3GPP 5G standardization (Release 15)	3GPP 5G extensibility standardization (Release 16)		
DOCOMO's initiatives	5G commercial system development		5G commercial services		
	5G trial site (Odaiba, Asakusa area)				

[Declaration 2] Style Innovation

9 Challenges for Style Innovation



* AR (Augmented Reality): Technology that presents a real-world environment and augments this environment by adding computer-generated sensory input.

The 5G network, which features high speed, large capacity, low latency and massive device connectivity, will break new ground and open up unprecedented possibilities. Leveraging the strengths of 5G and applying technologies such as VR, AI, and IoT, DOCOMO will work with its partners to deliver “Experience innovation,” “Lifestyle innovation,” and “Workstyle innovation.” We will pursue these initiatives under the company-wide project “empower+d challenge” (empowered challenge) with the aim of energizing 5G innovation and with an eagerness for groundbreaking challenges through “+d” initiatives.

With a view to achieving “Experience innovation,” “Lifestyle

innovation,” and “Workstyle innovation,” we will relentlessly pursue the nine challenges for style innovation and create services that innovate the various “styles” among customers and society at large. For “Experience innovation,” we will deliver exciting experiences through new entertainment, next-generation mobility, and sharing; for “Lifestyle innovation,” we will deliver new, frustration-free lifestyle propositions through AI agent, FinTech and Total healthcare; and for “Workstyle innovation,” we will use drone robotics, work innovation, and work matching to usher in new, vivacious workstyles, and deliver fun and astonishment.

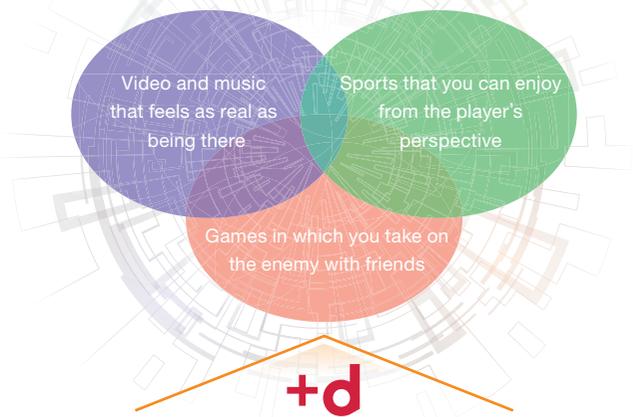
New Entertainment Experiences

From “watching and listening,” to thrilling experiences through “highly realistic sensations”

DOCOMO will create innovative services that combine content with 5G augmented reality/virtual reality technologies to bring new entertainment experiences to the world. For example, for video and music we aim to provide an experience that replicates the feeling of being in the live venue, and even let you experience the artists closer up than in reality. For sports you could experience the exhilaration of your fellow fans in the stadium, or see things from the point of view of the players or officials. In the realm of games, you could see the world of the game, not through a monitor, but with your own eyes, and share the experience of defeating enemies with your friends. This is the kind of world we are aiming for. Also, looking toward 2020, DOCOMO will strive to create new added value in the fields of sports and live performances.

Providing customers with unprecedented entertainment experiences

Integrating content, device, and space, to deliver new entertainment



Content

- Live streaming
- Creating new experience content

Technology

- AR/VR/MR*
- 5G • Kirari!

* MR (Mixed Reality): Spatial representation technology that merges real and virtual environments via a computer.

Evolution of Medium- to Long-Term Video and Music Businesses

We will build an environment that allows you to enjoy live concerts anytime, anywhere, in order to create advanced services that can offer new viewing experiences and develop them into peripheral businesses. By distributing 3D holographic images, we hope to provide an environment that allows even people in places far away from actual live venues to enjoy high-level realism and an immersive feeling,

as if they were at the actual venue. In addition, by using 5G high-speed communication to deliver augmented reality and virtual reality images in real time to smartphones and tablets, we will provide the best production possible depending on the customer’s environment.

In this way we aim to use cutting-edge technology to realize new ways to experience live concerts.

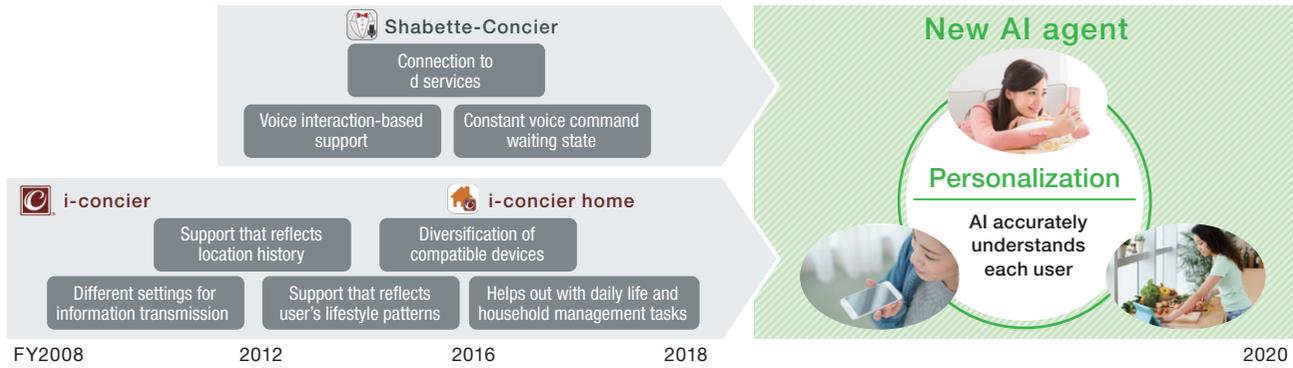


Providing the ultimate AI agent to all customers

We believe that we can achieve ultimate personalization through AI agents that understand each individual customer and can provide personalized value at the optimum timing. AI holds great potential for future development and distribution of services. And DOCOMO plans to further improve and evolve the AI agent learning function in order to develop: Natural Dialogue Communication that allows customers to be

better understood, a communication channel that connects customers and DOCOMO and enables us to propose usage scenarios that match personal characteristics, and a “+d” collaboration platform that makes it easy to develop agent services with our partners. Looking to 2020 and the 10 years beyond, we aim to provide the ultimate AI agent service.

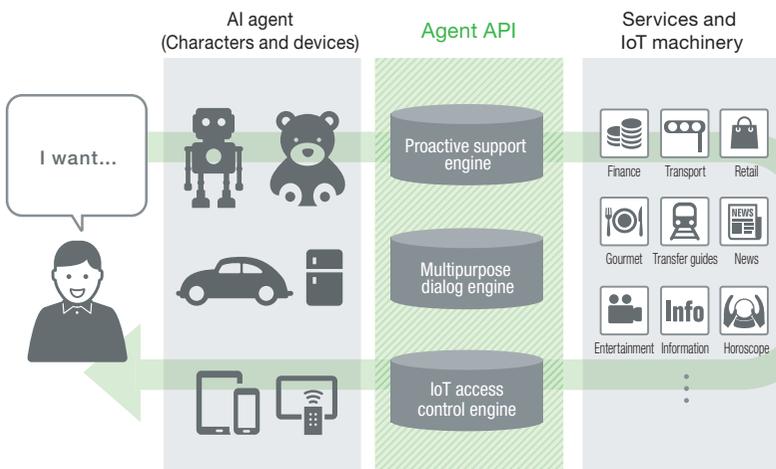
Evolution of Agent Service



Initiatives Relating to “+d” Partner Collaboration Platform

DOCOMO has worked to build foundational technology and know-how related to agent services, and has developed “i-concier” and “Shabette-Concier” to deliver information matching your lifestyle and living area at the optimum timing. For “Declaration beyond” we plan to evolve the service by strengthening contacts through engaging in further dialogue, utilizing big data and machine learning, and developing an agent

API, which is a core part of building an AI agent. Specifically, we will strengthen functions that aggregate technologies we have built up thus far, including a proactive support engine, a multipurpose dialog, and an IoT access control engine. By working with services and devices from partner companies, we will provide new AI agents that more closely align with each customer.



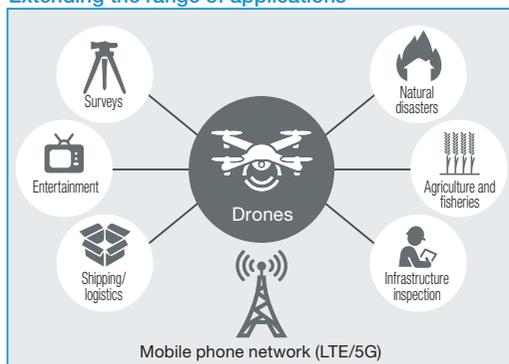
Creating social infrastructure based on drones

Utilizing our full range of business assets, we aim to create new value with drones. Using the mobile phone network to communicate with drones securely and in real-time will extend the range of applications for drones. For example, it will enable drones to be controlled from remote areas and allow data to be collected during flight, which cannot be achieved with conventional drone communication. In the future, we look forward to working with various partners to provide new added

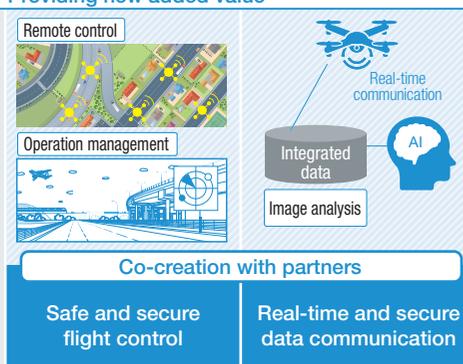
value with drones, believing that these efforts will contribute to solving social issues such as a declining labor force and aging infrastructure. After 2020, we will use the high-speed, large-capacity, and low-latency telecommunications made possible by 5G to further expand the range of applications for drones. In this way, we aim for a future in which drones form a part of the social infrastructure and revolutionize people's workstyles.

Future Outlook

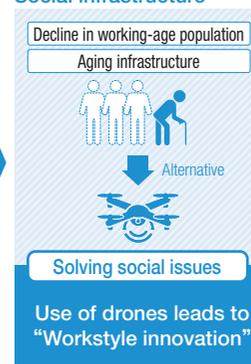
Extending the range of applications



Providing new added value

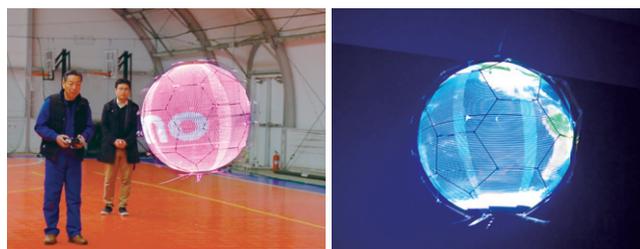


Social infrastructure



Initiatives in Entertainment and Media

This Spherical Drone Display comprises a spherical external frame, an internal LED frame, and a drone fitted inside the sphere. During flight, the LED frame spins rapidly, forming an afterimage effect that creates the illusion of a solid sphere of motionless LEDs. It is possible to use it to create dynamic performances at concerts and live venues as spherical displays that fly through the air, or as a floating advertising medium.



Initiatives in Logistics and Shipping

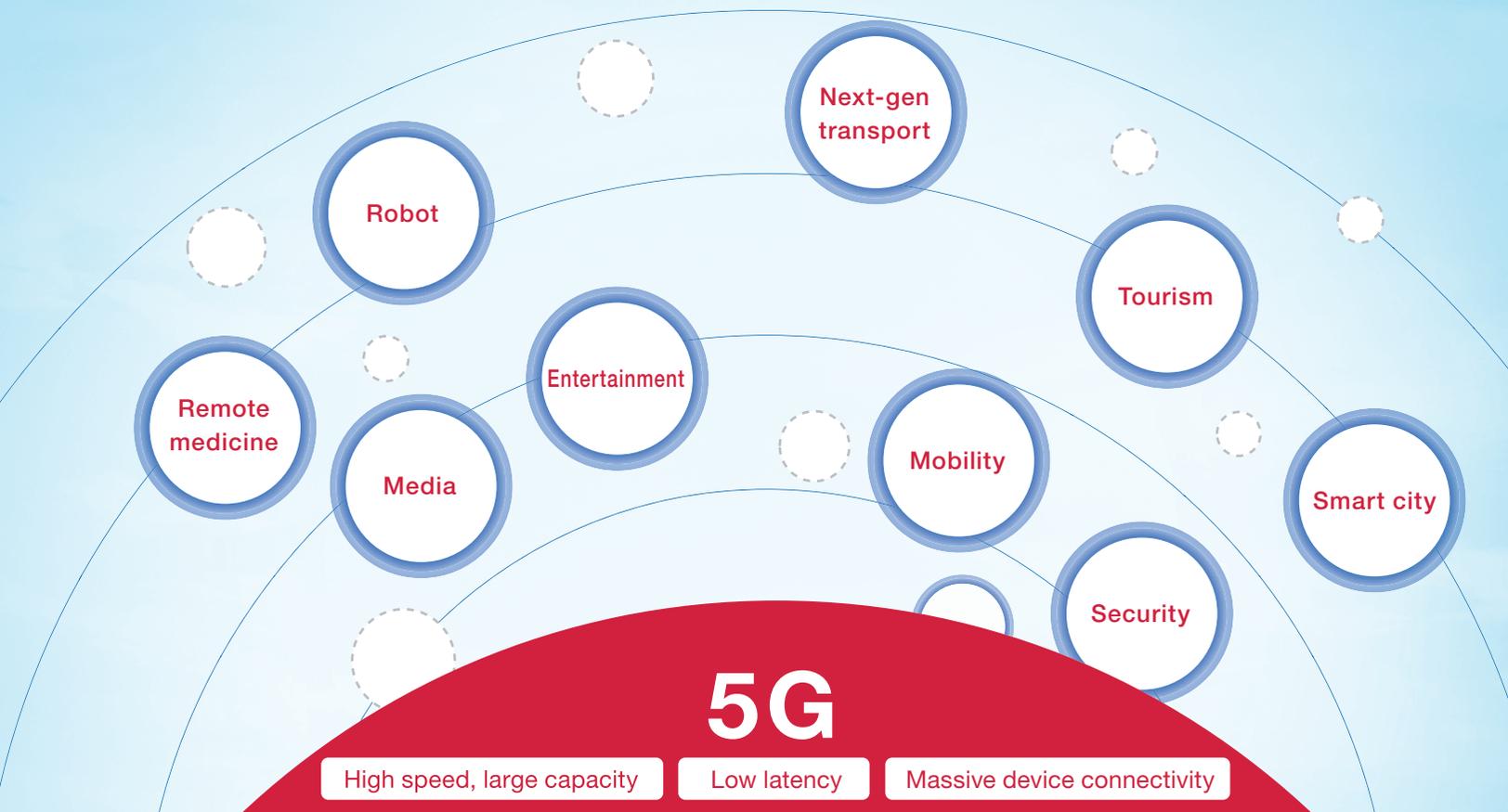
With the support of Fukuoka City, we conducted verification trials for a drone-based delivery system in Fukuoka City in November and December 2016. In the trials, which we jointly conducted with two other companies (MIKAWAYA21 Co., Ltd. and ENROUTE CO., LTD.), we operated a drone via a cellular network, flying it between Nokono Island and mainland Kyushu. The purpose of the trial was to examine the potential for a proxy shopping service that helps the elderly with shopping, a growing social issue as the population ages, and to test the drone's connection quality in flight as well as its impact on above-ground mobile phone networks.



[Declaration 4] Industry Creation

Contribute to social and industrial development through 5G technologies

By allowing partners to utilize superior 5G networks that feature high speed, large capacity, low latency and massive device connectivity, not only will partners' businesses grow, but the initiative will also contribute to the creation of an environment in which various industries can expand and new industries be created.



■ Trial Sites: Joint Ventures That NTT DOCOMO is Considering with Our Partners

Partner company	Outline of joint venture under consideration
TOBU RAILWAY CO., LTD.	Tour guide contents and live streaming service using VR, etc.
SOHGO SECURITY SERVICES CO., LTD. (ALSOK) / NEC Corporation	Sophisticated security service using cutting-edge technology
TOPPAN PRINTING CO., LTD.	High-quality VR tour content
Japan Display Inc.	Cutting-edge multimedia services (4K/8K ultra HD video, VR, etc.) combining 5G and next-gen display technology
Fuji Television Network, Inc.	Technological verification trials, including remote control of transmission devices and content of new entertainment experiences that utilize the strengths of 5G
Continental Automotive Corporation	Expansion of connected car infotainment system, joint demonstration using 5G and other cellular V2X (vehicle to everything) technology
Komatsu Ltd.	Verification trials, including the remote control of construction equipment by utilizing the strength of 5G
Panasonic Corporation	Trial transmission of high-presence, high-resolution video (e.g., 360 degree video) using 5G, etc.
Crescent, Inc.	Free viewpoint real-time video transmission system

Collaboration with partners who co-create 5G services

Case 1 TOBU RAILWAY CO., LTD.

The world's first 8K live video distribution using an experimental 5G signal

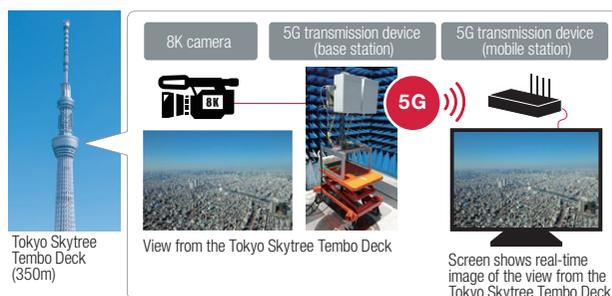
In May 2017, in collaboration with Tobu Railway, we succeeded in transmitting 8K video over an experimental 5G signal for the first time in the world, broadcasting live images from the Tokyo Skytree Tembo Deck. We were able to use 5G to transmit 8K video in an actual communications environment, something that would be possible with LTE only in an ideal communications environment. 8K video transmission is ideal for customers who want more realistic live images of sports and music. In combination with technologies like augmented reality and virtual reality, it has the potential to change the way we enjoy these things in the future.

We broadcasted 180 degrees of live video from six 4K cameras placed on the observation deck, to three large LCD monitors set up as a viewing space in the east yard of Tokyo

Solamachi. In this way, customers were able to experience the powerful images made possible by the high speeds and large capacity of 5G.

Special characteristics

- An 8K screen showed a real-time image relayed wirelessly from an 8K-resolution camera via an experimental 5G device
- Enabled smooth, lag-free video at 16 times the resolution of HDTV.



* Tokyo Skytree is the registered trademark of TOBU RAILWAY CO., LTD. and TOBU TOWER SKYTREE CO., LTD.

VOICE

Kenji Shimada,

General Manager of Corporate Planning Department of TOBU RAILWAY CO., LTD.

In May 2017, TOBU RAILWAY and NTT DOCOMO successfully conducted a joint demonstration of 5G at TOKYO SKYTREE, an iconic landmark of the capital.

I believe that the practical application of 5G will generate many new kinds of services in rail and bus transportation, as well as in the tourism industry.

In the future, we will work with DOCOMO and many other partners to conduct further demonstrations, using places like Asakusa, Tokyo Skytree Town, and Nikko as cutting-edge technological showcase areas. Through these demonstrations, we will contribute to technological progress in Japan.



Case 2 Komatsu Ltd.

The future of construction sites opened up by 5G

In collaboration with Komatsu, we began demonstration experiments in May 2017 utilizing 5G to develop remote control systems for construction and mining machines (hereinafter referred to as construction machines). Specifically, we verified that real-time images captured with multiple cameras mounted on construction machines, and control signals for construction machines, could be transmitted bi-directionally in

real time with low latency using high-speed communications. Up until now, Komatsu has collected information on various construction sites using IoT and used this electronic data to implement construction control services (construction visualization). Utilizing 5G makes possible on-site construction services and management services that allow users to grasp the situation on-site in real time even from remote offices, enabling accurate and efficient construction.