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## View from the Top

### Yutaka Sasaki, President and Chief Executive Officer, NTT DATA Group Corporation

#### ▼Abstract

NTT DATA is providing information technology services to clients in over 50 countries and regions worldwide. To help create a more affluent and harmonious society, it offers various services for transforming business using digital technology and solving social issues. We talked with Yutaka Sasaki, president and chief executive officer of NTT DATA Group Corporation, about the business strategy of NTT DATA under the new organizational structure and his aspirations for the new fiscal year.



## Feature Articles

### Keynote Speeches at NTT R&D FORUM 2024 - IOWN INTEGRAL

### Akira Shimada, President and Chief Executive Officer, NTT Corporation

#### ▼Abstract

This article presents NTT's research and development efforts to address social challenges through the Industry AI (artificial intelligence) Cloud powered by the Innovative Optical and Wireless Network (IOWN). It is based on the keynote speech given by Akira Shimada, NTT president and chief executive officer, at the "NTT R&D FORUM 2024 - IOWN INTEGRAL" held from November 25th to 29th, 2024.



## Regular Articles

### 5G Throughput-prediction Technology for 28-GHz Channels Using Physical-space Information

#### ▼Abstract

Advances in wireless communications, such as the 5th-generation mobile communication system (5G), have enabled a wide variety of devices to be connected to wireless networks. In 6G, all physical entities will be connected to wireless networks, and their physical-space information, such as position and velocity, will be available for new mobile services. NTT's Innovative Optical and Wireless Network (IOWN) will accelerate to obtain the physical-space information from various sensors. Therefore, mobile traffic is growing rapidly toward 6G. The use of the millimeter-wave (mmWave) bands is promising to increase the capacity of mobile networks. However, the mmWave link quality (LQ) is strongly affected by surrounding objects. To stably use mmWave bands, an effective solution is to predict future LQ and adaptively control wireless communication. This article introduces 5G throughput-prediction technology that is based on deep neural networks using physical-space information and an automated 5G measurement environment using humanoid robots for deep-learning evaluations.

