There is an urgent demand for information and communication technology (ICT) to meet the needs of industrial and social systems. These systems include the management of rapidly increasing devices and diverse digital services. In this article, we introduce NTT Group’s approach to fully automated, autonomous, and self-evolving life-cycle management of ICT resources, including the deployment and optimization of such resources, to provide applications and solutions.

NTT Group’s Initiatives Regarding Food and Agriculture

Agriculture is a key industry in rural areas of Japan; however, it faces various problems such as long-term decline in the working-age population, aging of the population, natural disasters due to climate change, and securing sales channels. To solve these problems, AgriTech—which uses biotechnology, the Internet of Things, big-data analysis, artificial intelligence, and robots in the field of agriculture—is attracting attention. Since its privatization in 1985, NTT has been required to have a mission with both public and corporate aspects. In consideration of this dual mission, NTT is striving to create a smart world to solve social issues through its business activities. With agriculture positioned as a priority, we are working to create Smart Agri by using information and communication technology developed for telecommunications business to solve problems faced by the agricultural industry through cooperation with leading partners. The direction of initiatives by the NTT Group, specific examples, and future plans are introduced in this article.

Overview

NTT is promoting the Innovative Optical and Wireless Network (IOWN) to provide an information and communication technology infrastructure that brings about various benefits. The company is pursuing research and development of key technologies to implement IOWN in 2030. Now that the entire world has been hit by an unprecedented situation due to the coronavirus (COVID-19) pandemic, expectations for NTT’s efforts based on its philosophy of contributing to society are growing. We talked with Katsuhiko Kawazoe, NTT Senior Vice President, Head of Research and Development Planning Department, about the attitude of his department—which ought to be called the “brain of NTT”—to tackle this crisis and the sense of value of NTT researchers.

Approach to Cognitive Foundation® for the Innovative Optical and Wireless Network (IOWN)

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