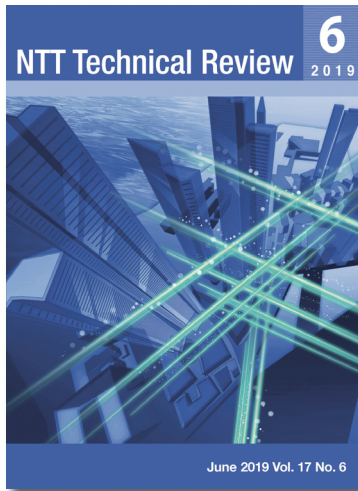


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Feature Articles

Network Technology for Digital Society of the Future—Research and Development of Competitive Network Infrastructure Technologies

- ▶ Network Technology Development for Digital Society of the Future
- ▶ FASA®: New Access System Architecture
- ▶ Positional Information Service with High Added Value Based on Cooperation between GNSS and Networks
- ▶ Carrier Edge Computing Infrastructure Technology for High-presence Virtual Reality Services
- ▶ Service-partner-oriented Network Slicing
- ▶ Guaranteed Transmission within Maximum Allowable Network Latency for Enhanced User Experience in Two-way Communication Applications
- ▶ Optimal Design and Control of Network Resources
- ▶ Video Delivery Technology with QoE Control
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- ▶ Per-device Policy Control Technology Using Artificial Intelligence
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- ▶ Optical Fiber and Optical Device Technology for Innovative Manufacturing
- ▶ Wildlife Detection System Using Wireless LAN Signals

Global Standardization Activities

- ▶ Versatile Video Coding: a Next-generation Video Coding Standard

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Short Reports

- ▶ World's Fastest 600-Gbit/s per Lambda (λ) Optical Transmission with 587-Gbit/s Data Transfer—Prospect for Realizing 600-Gbit/s/ λ Optical Network and Data Transfer Protocol

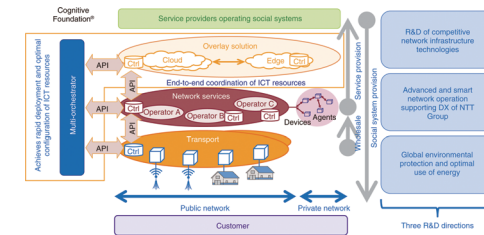
Feature Articles

Network Technology for Digital Society of the Future—Research and Development of Competitive Network Infrastructure Technologies

Network Technology Development for Digital Society of the Future

▼Abstract

As society moves toward digitization, the network supporting a digital society must likewise evolve. NTT has taken up the research and development (R&D) of a network infrastructure called Cognitive Foundation® in order to solve a wide variety of problems in our digital society. This article introduces specific R&D achievements based on the following R&D directions of network technology for the future digital society: (1) R&D of competitive network infrastructure technologies, (2) advanced and smart network operation supporting digital transformation of the NTT Group, and (3) global environmental protection and optimal use of energy.



Global Standardization Activities

Versatile Video Coding: a Next-generation Video Coding Standard

▼Abstract

The scope of Subcommittee (SC) 29 of ISO/IEC (International Organization for Standardization/International Electrotechnical Commission) Joint Technical Committee 1 is coding of audio, picture, multimedia, and hypermedia information. Working Group (WG) 11, part of SC 29, is standardizing video coding, media transmission, streaming, audio coding, image/video retrieval, and genomic information coding. In April 2018, WG 11 initiated standardization of next-generation video coding called Versatile Video Coding (VVC), which is aimed at achieving higher compression, in conjunction with ITU-T (International Telecommunication Union - Telecommunication Standardization Sector) Study Group 19. This article introduces the background, target, and recent development status of VVC.

Practical Field Information about Telecommunication Technologies

Examples of Wireless LAN Problems Caused by IP Packets and Wireless Encryption Scheme

▼Abstract

As wireless local area network (LAN) communication becomes more popular, the number of failures is increasing and the causes of failure are becoming more diverse. This article introduces two cases concerning problems with wireless LAN caused by IP (Internet protocol) packets and a wireless encryption scheme. This is the fifty-second article in a series on telecommunication technologies.