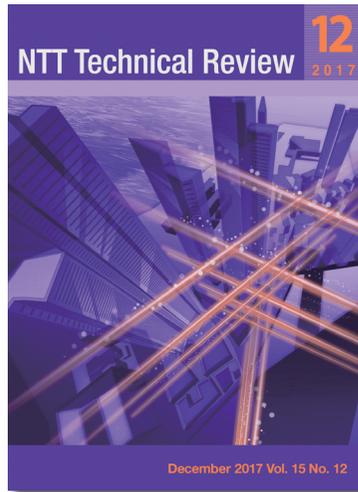


<https://www.ntt-review.jp/archive/2017/201712.html>



December 2017 Vol. 15 No. 12

## Feature Articles Creating Immersive UX Services for Beyond 2020

- ▶ Creation of Immersive UX Services
- ▶ Free-viewpoint Video Synthesis Technology for a New Video Viewing Experience
- ▶ A 120 fps High Frame Rate Real-time Video Encoder
- ▶ Surround Video Stitching and Synchronous Transmission Technology for Immersive Live Broadcasting of Entire Sports Venues
- ▶ Powerful Sound Effects at Audience Seats by Wave Field Synthesis
- ▶ Smooth Motion Parallax Glassless 3D Screen System that Uses Few Projectors
- ▶ Real-time Extraction of Objects with Arbitrary Backgrounds
- ▶ Real-time Moving Object Detection Technology and Trial of Stone Location Delivery at a Curling Venue

## Regular Articles

- ▶ Initiatives Concerning Development of Applications Utilizing Blockchains
- ▶ Virtual Machine Management Technology for Operating Packet Switching System in a Virtualization Environment

## Global Standardization Activities

- ▶ Report on ITU-T Study Group 15 Meeting

## Practical Field Information about Telecommunication Technologies

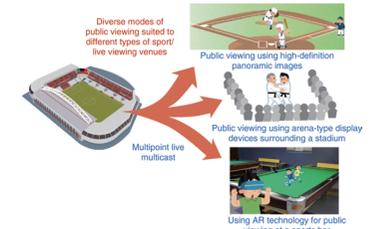
- ▶ Case Studies of Problems in Digital Cordless Phones

## Feature Articles Creating Immersive UX Services for Beyond 2020

### Creation of Immersive UX Services

#### ▼ Abstract

The NTT Group is researching and developing communication technology and media processing technology amid growing expectations for the creation of services that provide users with a highly realistic experience of events such as sports matches and live entertainment shows. We are also working with various corporate partners to conduct feasibility studies and service trials aimed at creating new value. This article describes the direction of our research and development aimed at evolving the key technologies needed to implement immersive user experience (UX) services, and presents an overview of our efforts to create entirely new immersive UX services.

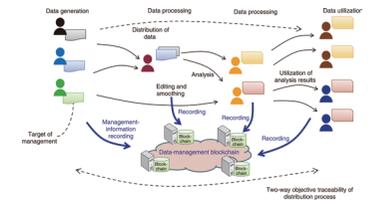


## Regular Articles

### Initiatives Concerning Development of Applications Utilizing Blockchains

#### ▼ Abstract

The development of services utilizing blockchains is increasing. In this article, we explain issues related to the design of applications using blockchains that require further investigation and use cases that exploit the advantages of blockchains. The use cases focus on the distribution management of management targets, namely, data managed by blockchains. Development of a common-function module for supporting development of applications is also described.



### Virtual Machine Management Technology for Operating Packet Switching System in a Virtualization Environment

#### ▼ Abstract

NTT Network Service Systems Laboratories is developing infrastructure technology for operating virtualized packet switching system service functions with the aim of realizing a network control infrastructure providing safe and secure services. In this article, we introduce virtual machine management technology for sharing hardware resources in a virtualization environment and onboarding and operating packet switching system service functions in conjunction with OpenStack.

