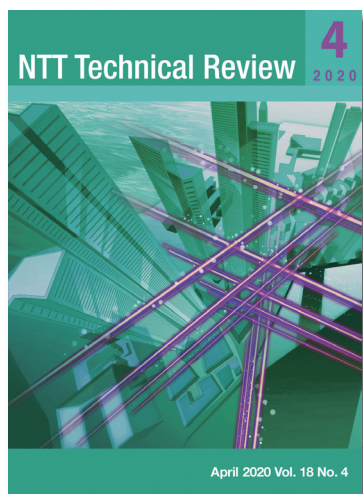


<https://www.ntt-review.jp/archive/2020/202004.html>



Front-line Researchers

- ▶ Shigeto Furukawa, Senior Distinguished Researcher, NTT Communication Science Laboratories

Feature Articles

R&D on Security Contributing to Creation of New Value

- ▶ R&D on Security Contributing to Creation of New Value
- ▶ The Future of Data Distribution and Its Security Technology
- ▶ The Forefront of Cyberattack Countermeasures Focusing on Traces of Attacks
- ▶ Cutting-edge Research on Cryptography Theory in Response to Changes in Computing Environments

Feature Articles

Keynote Speeches/Workshop Lectures at Tsukuba Forum 2019

- ▶ Working toward Sharing Social Infrastructure
- ▶ Pioneering a Prosperous Future with Regional Innovations
- ▶ Technical Trends in Infrastructure Maintenance Management
- ▶ Wireless Systems Technologies for Present and Future Services

Regular Articles

- ▶ Compact Silica-based 16 × 16 Multicast Switch with Surface Mount Technology for PLCs

Global Standardization Activities

- ▶ Activities of the APT/TTC BSG (Bridging the Standardization Gap) Working Group—Holding of Ideathons in Cooperation with Universities in Southeast Asia

Practical Field Information about Telecommunication Technologies

- ▶ Troubleshooting Case on Facsimile Communication by Analyzing IP and POTS Protocol

Information

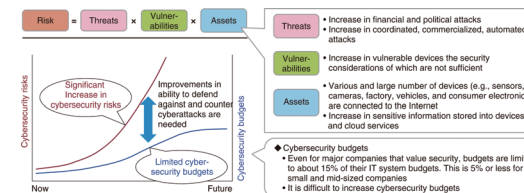
- ▶ Event Report: Tsukuba Forum 2019

Feature Articles

R&D on Security Contributing to Creation of New Value

▼Abstract

NTT Secure Platform Laboratories is engaged in research and development of security technologies required for a *smart world*. In this article, an information sharing platform of secure data utilization required for a smart world is described, and the efforts of NTT Secure Platform Laboratories to support that world are introduced from two aspects: security that protects the smart world and security that creates the smart world.



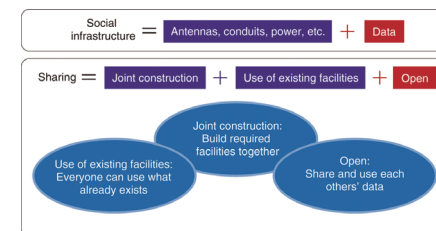
Feature Articles

Keynote Speeches/Workshop Lectures at Tsukuba Forum 2019

Working toward Sharing Social Infrastructure

▼Abstract

This article introduces initiatives for sharing the social infrastructure within the NTT Group, including concrete measures to resolve societal issues and other initiatives. It was prepared based on a keynote speech given by NTT Senior Executive Vice President Motoyuki Ii at the Tsukuba Forum 2019 held on October 31 and November 1, 2019.



Regular Articles

Compact Silica-based 16 × 16 Multicast Switch with Surface Mount Technology for PLCs

▼Abstract

We propose an electrical interconnection structure in which electrical connectors are directly soldered on a silica-based planar lightwave circuit using surface mount technology. A compact 16 × 16 multicast switch (MCS) having five electrical connectors was successfully demonstrated. We reduced the chip size to half that made with conventional wire bonding technology. We obtained satisfactory solder contacts and excellent switching properties. These results indicate that the proposed structure is suitable for large-scale optical switches including MCSs, variable optical attenuators, and dispersion compensators.

