

IOWN INTEGRAL

NTT R&D FORUM 2024

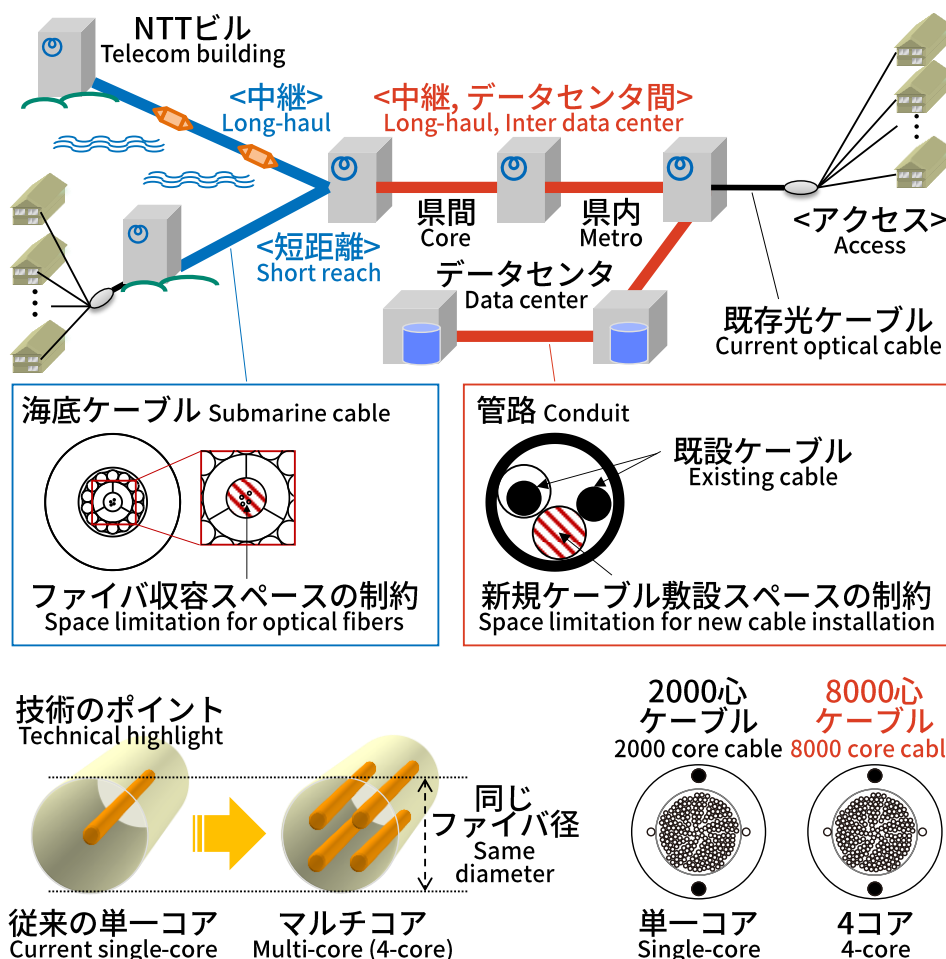
RESEARCH

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Space-division multiplexing optical fiber cable technology

Multi-core optical fiber technology allows telecom carriers to economically increase network capacity

#Business Resilience



///Technical Issue

Increasing communication demand necessitates higher network capacity, but conventional technology cannot achieve this due to equipment space constraints.

///Research Goal

Reduce network construction costs by 200 million yen per year, a 40% decrease from current levels, by introducing multi-core optical fiber technology.

---Technology

By utilizing NTT's multi-core optical fiber design technology to optimize the refractive index distribution and core pitch, and applying characteristic estimation for fiber bending, crosstalk is controlled to achieve the necessary performance for the network.

---Applicable Business

Information and communications industry

Can be used for submarine networks and terrestrial networks between data centers.

Scheduled service launch date: 2027/1Q

---Novelty

- Achieves four times the space efficiency with the same thinness as conventional optical fibers.
- Maintains the optical characteristics of conventional optical fibers.