IOWN INTEGRAL

NTT R&D FORUM 2024

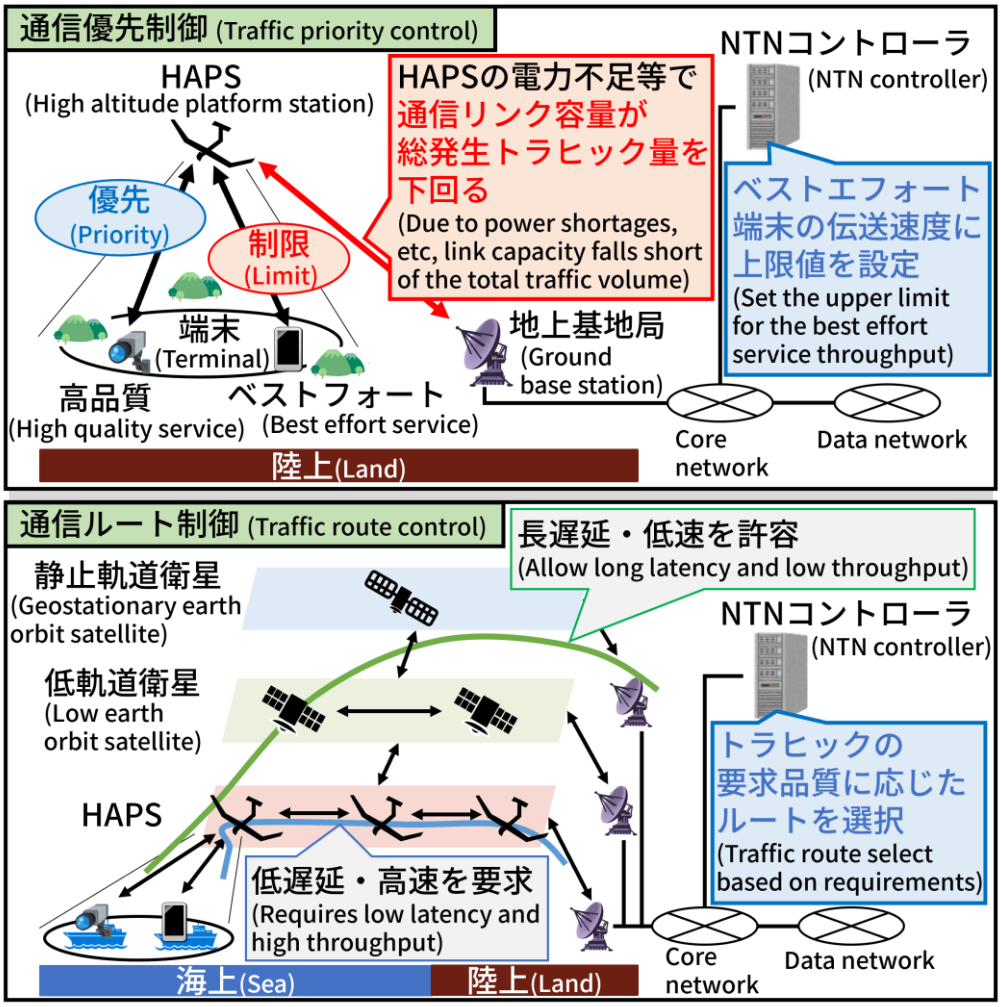
DEVELOPMENT

δ 05-03

Technology for improving service quality in non-terrestrial networks

Improving the quality of mobile communications services with expanded coverage using HAPS and satellites

#Customer Experience Value Creation #Business Resilience #Regional Revitalization



///Technical Issue

In non-terrestrial networks, service quality is degraded due to fluctuations in link capacity caused by rainfall and delays that vary greatly from link to link

///Research Goal

By utilizing non-terrestrial networks, we will expand the service area and improve the quality of mobile communications, thereby cultivating new demand

---Technology

For non-terrestrial networks, our unique technology controls the maximum transmission speed and communication route for each user terminal (session) according to the network conditions and the required quality of service

---Novelty

Using network status and service information collected by the controller, communication priority control and communication route control are implemented according to the required quality of service, following link capacity fluctuations due to weather effects, etc., to increase traffic that meets the required quality

---Applicable Business

In the information and communications industry, this technology is applied to mobile communication services that use non-terrestrial networks. It enables the provision of services by forming communication areas from the sky in areas where it is currently difficult to provide mobile communication services, such as at sea or in disaster-stricken areas. This technology improves the quality of mobile communication services provided to these areas（Establishment of technology：2027）[Market size：Approximately 18 billion yen]

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