IOWN INTEGRAL

NTT R&D FORUM 2024

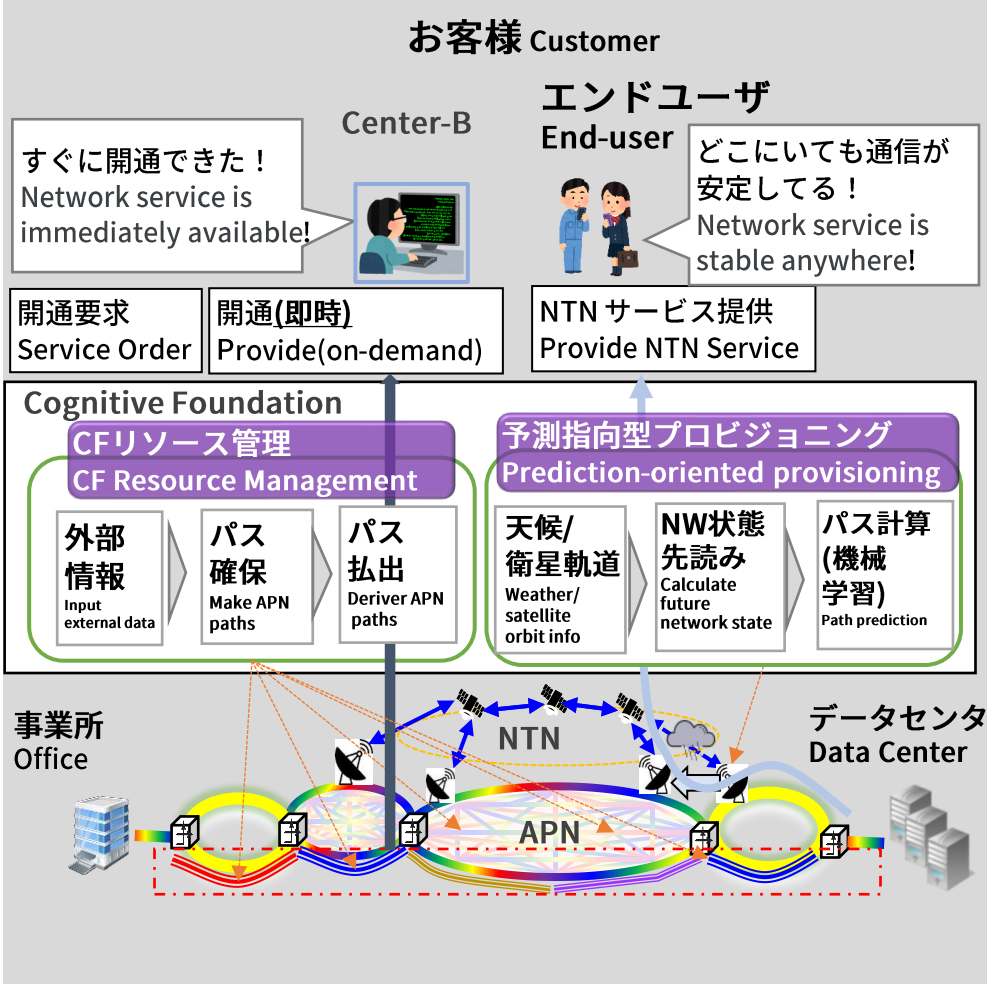
RESEARCH

γ10-12

Proactive network management methods for APN/NTN

Provides dynamic network service on-demand and stable by predictive resource management

#Customer Experience Value Creation



///Technical Issue

- Since it takes time to design and configure, it cannot be provided immediately.
- Network connections are unstable due to weather conditions and satellite positioning.

///Research Goal

- Provide APN service immediately upon service orders from users.
- Provides stable communication over Non-Terrestrial Network in dynamic environments.

---Technology

- Configuring high-demand APN paths in advance by running simulations using data such as population.
- Path prediction in NTN using pre-calculated future network states based on satellite orbits and weather forecast.

---Novelty

- Provide APN paths in real time, compared to conventional reservation which provide in week.
- Enables route updates in minutes according to weather by reducing control messages by more than 90% compared to existing routing methods.

---Applicable Business

Provide stable and on-demand network services even in case of burst traffic due to events or emergency demand during large-scale disasters.(CF Resource management on APN: Service start on FY2028. Prediction-oriented provisioning on NTN: established by the end of FY2027).

Exhibitors= NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Contact URL