## Non-Contact failure inspection technology for large structures

# IOWN Evolution Smart Infrastructure



#### Background

Offshore wind power, one of the renewable energy sources, is expected to be the main power source in the future. In order to achieve these targets, it is important to improve the utilization of facilities and the efficiency of maintenance operations.

#### Summary

By applying radio technology and drone flight technology, we will realize non-stop inspection of wind turbines for wind power generation and contribute to carbon neutrality by increasing the amount of renewable energy generated.



Figure. Images of technology utilization

#### **Features**

- Two drones are equipped with technology that utilizes weak radio and software-defined radio
- By changing the radio transmission/reception distance and frequency in the sky, the Fresnel zone, which is the space where radio propagates, is formed as intended
- Detects damage to large structures in the Fresnel zone

### Future benefits

Two drones will fly autonomously over the ocean, making non-stop inspections of offshore wind power generation commonplace, thereby realizing a decarbonized society.

Exhibiting Company

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Contact

rdforum-exhibition@ml.ntt.com