airpalette

NTT DATA

airpalette UTM
Flight Operation System

Next Generation Fleet Management System
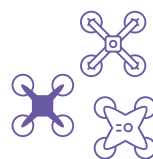### Enabling Operation of Multiple UAS

airpalette UTM (UAS Traffic Management) is a software package that supports the management and operation of UAS (Unmanned Aircraft System) based on the principles of safety, security, and risk management.
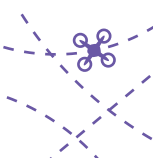
Easy Customization

Allows various types of business applications to be added onto the software.

High Adjustability

Target domain is not specified, which enables the product to be applied to various types of UAS.

Multiple UAS Operation

Regulating multiple drones at the same time using various types of networks enables wide flight coverage and improves work efficiency.

Easy Flight Planning

Design flight plans with the consideration of forbidden airspace, weather, topography information, and etc.

About Us

In the recent years, due to the development of technology the possible application of UAS to business usage expanded. As result, the demands for UAS have increased. In response to this current situation, NTT DATA provides a software package called the airpalette UTM, utilizing all the knowledge and technology that has been cultivated in the field of aviation for over 40 years.

Various institutions exist related to drone operations. Among those institutions, providing high quality drone operation system has been considered the most important and urgent matter. airpalette UTM's FOS (Flight Operation System) function provides a solution to such matters, realizing a better drone management method than before.

Future Concepts

- Remote operation of drones using Wi-Fi
- Flight planning function (flight date and time; latitude, longitude, and altitude information of takeoff, passing, and destination points; air speed; etc.)
- Drone self-position display function
- Map, restricted airspace, weather, and topographic information display and management function
- Interfacing with business software or other external information (map information, weather information, information of other nearby drones, etc.)

- Remote operation of drones using various types of networks such as mobile phone network and satellite network
- Simultaneous control of multiple drones
- Drone and user information management function

- Flight plan application function
- Manned and other aircraft position information, NOTAM (notice to airmen), and radio wave coverage area information display function
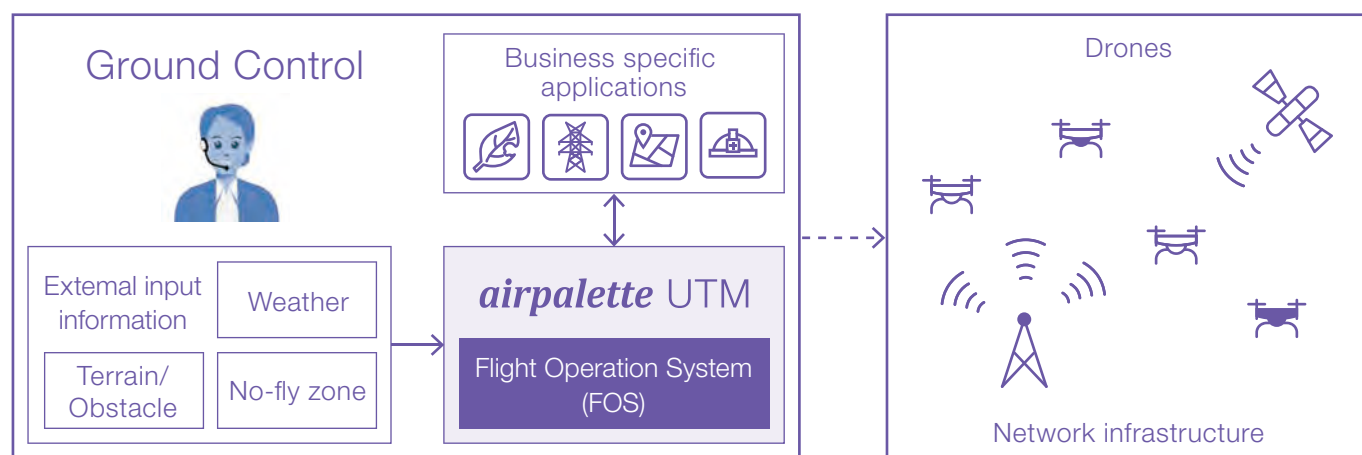
NTT DATA Corporation

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1 Disaster Response

The picture below shows a case where multiple multicopter drones inspect damage of disaster area, while a fixed-wing drone acts as a network hub for the multicopter drones. In such a case, NTT DATA's flight operation system (FOS) can simultaneously control multiple types and numbers of drones from remote location.

Drone as network hub for other drones

Inspect damage of disaster area

Flight Operation System

drone station

drone station

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2 Inspection

The picture below shows a case where multiple multicopter drones inspect damage of power lines and utilities, while a fixed-wing drone checks for vegetation encroachment. In such a case, NTT DATA's flight operation system (FOS) can simultaneously control multiple types and numbers of drones from remote location.

Checks for vegetation encroachment

Inspect transmission tower

Flight Operation System

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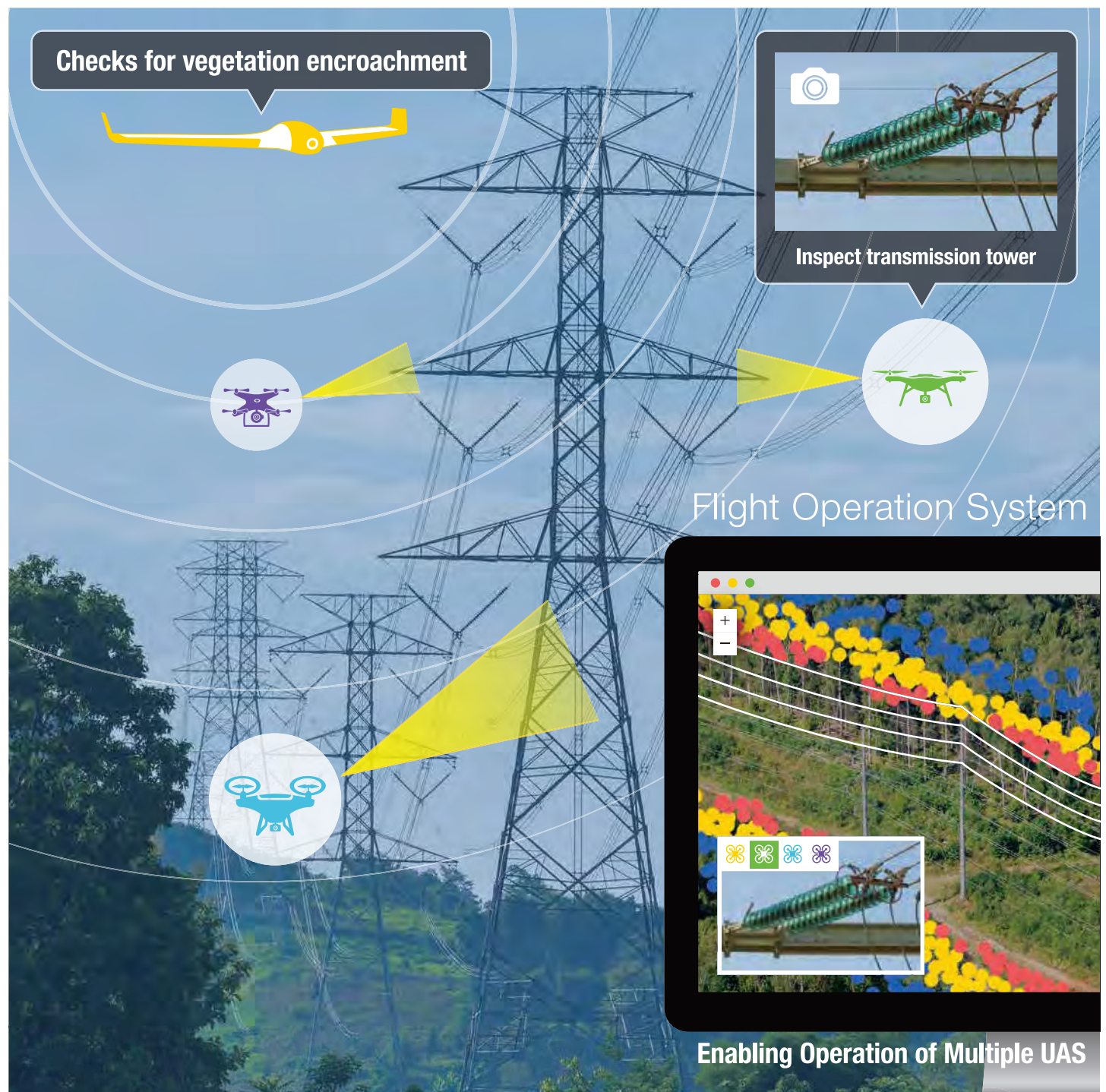
3 Agriculture

The picture below shows a case where a multicopter drone inspects health of vegetation and an unmanned helicopter sprays pesticides in low growth area after the inspection. In such a case, NTT DATA's flight operation system (FOS) can control multiple types and numbers of drones from remote location.

Monitor vegetation growth

Spray pesticide in low-growth area

Flight Operation System

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🌿 **PLANT HEALTH**

	11%		24%
	16%		29%
	20%		

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