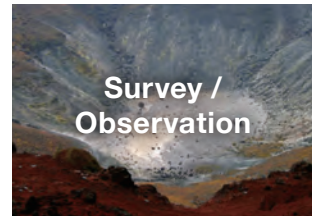## Possible Usages

Disaster response
- Earthquake
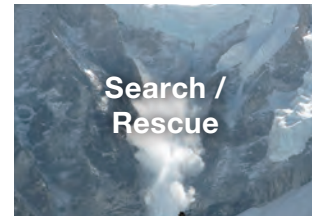- Flood damage (flood / tsunami / flood of river)

Utility inspection
- Factory / Equipment
- River / Dam

Survey / Observation
- Civil engineering survey
- Spacial information / Map information

Search / Rescue
- Ocean
- Mountains

Hazardous area
- Construction sites
- Disaster sites

Agriculture forestry fishery
- Pesticide application / Fertilizer application
- Crop management

Transportation / Logistics
- Emergency transportation
- Medical goods transportation

Security / Monitoring
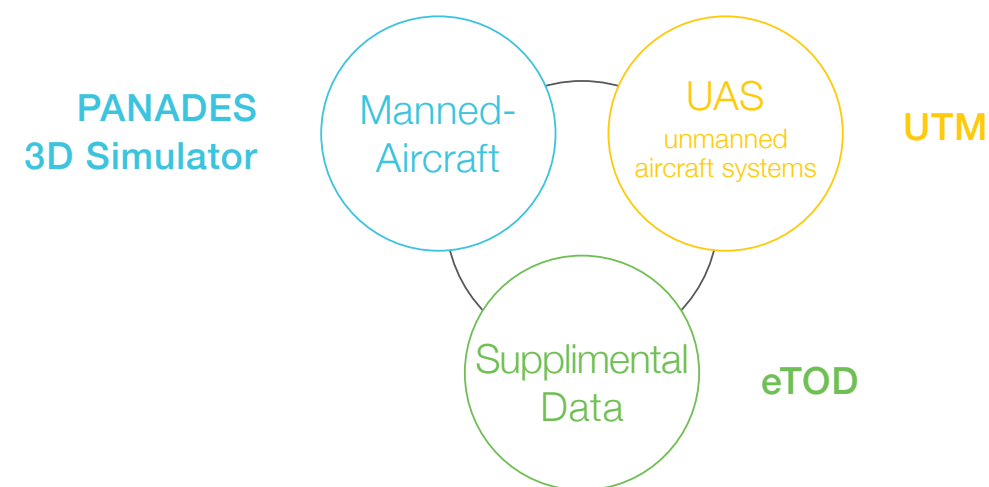- Building / Factories
- Harbor / Gulf / Coast

About Us

For more than 40 years, NTT DATA has provided systems in the field of aviation. With the establishment of the "airpalette" brand and its products, NTT DATA succeeded in flexibly meeting various needs all over the world.

NTT DATA now provides the "airpalette UTM" for easy operability and high safety in drone operations. In the recent years, due to the innovation in technology, drones became relatively easier to obtain and handle, which led to the increase in usages of drones in many business scenes. NTT DATA will continue to meet various needs flexibly both for manned and unmanned aircrafts.

Product Line Up of "airpalette"

PANADES 3D Simulator

Manned-Aircraft

UAS unmanned aircraft systems

UTM

Supplimental Data

eTOD

airpalette UTM

NTT DATA Corporation
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airpalette UTM

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

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

Various related institutions exist regarding drone operations (such as drone users, business-specific applications, operation management system, external input information, network infrastructure, drone makers, traffic management system, ATM, etc.). Among those institutions, providing high quality drone operation system and airspace management system has been considered the most important matter as of now. airpalette UTM provides a solution to such matter, realizing better drone management methods.

airpalette UTM consists of 2 parts; FOS and UTM core.

To safely and efficiently manage multiple flying drones, both drone operators and UTM service providers become very important. Drone operators fly drones according to the flight plans they created. UTM service providers manage and support such drone operators.

In order to carry out each other's duties, each airpalette UTM system, FOS and UTM core will be provided to drone providers and UTM providers separately.

FOS (Flight Operation System)

FOS is a system for operators operating single/multiple drones remotely at the same time.
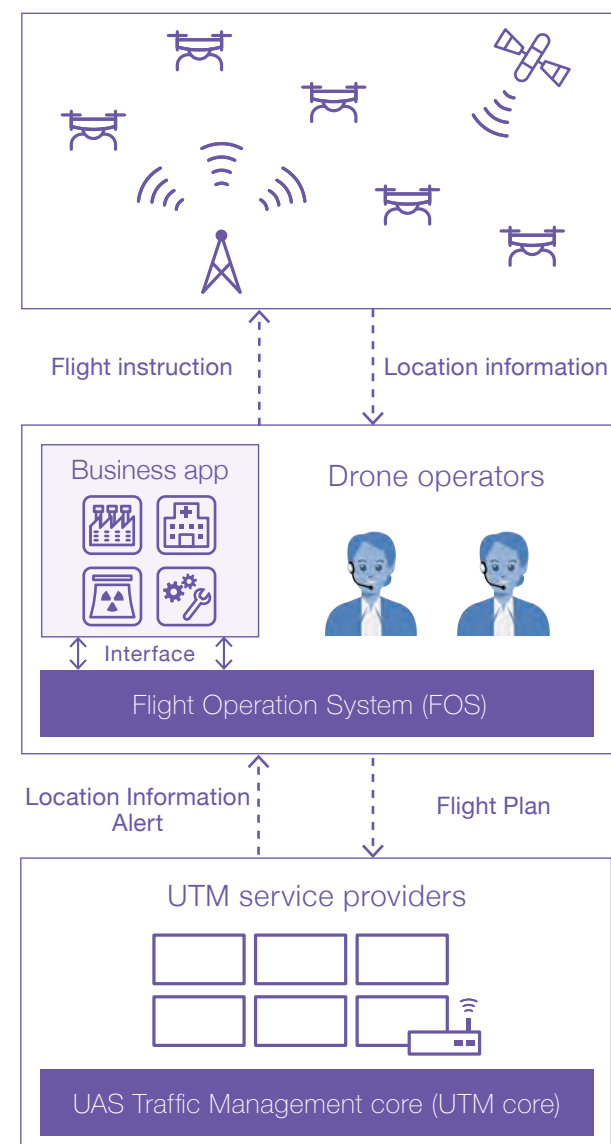
Main functions：
• Flight management (e.g., flight planning and validation taking weather, obstacles, etc. into account)
• Command flights and monitor statuses using various types of networks

UTM core (UAS Traffic Management core)

UTM core is a system for UTM service providers for managing multiple drones flying.

Main functions：
• Airspace management (e.g., no-fly zone management, collision avoidance alert, etc.)
• Traffic management (e.g.,unmanned-manned aircrafts location monitoring, congestion management, capacity management, information sharing among drone operators and ATM,etc.)
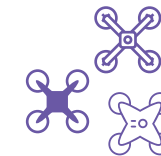
Flight instruction   Location information

Business app   Drone operators

Interface

Flight Operation System (FOS)

Location Information Alert   Flight Plan

UTM service providers

UAS Traffic Management core (UTM core)
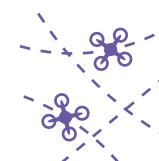
Features

Easy Customization

Platform like packaged software allows various 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.
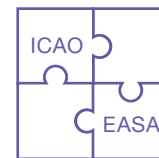
Multiple UAS Operation

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 no-fly zone, weather, topography information, and etc.

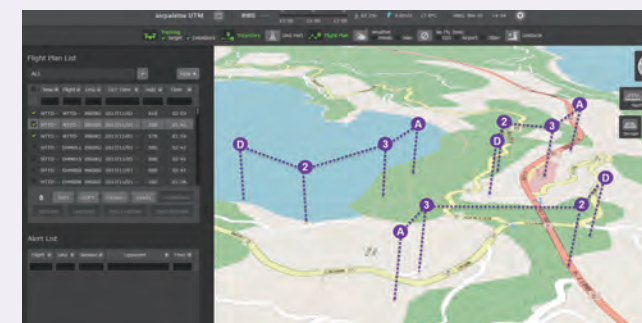### Regulatory Compatibility

ICAO   EASA

Product design compatible with the regulations defined by ICAO (International Civil Aviation Organization) and EASA (European Aviation Safety Agency).
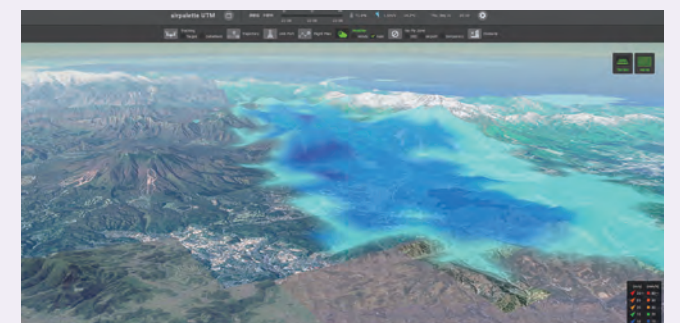
High Security

Using cloud/on-premises for data storage allows high level of security depending on the needs of the customer.
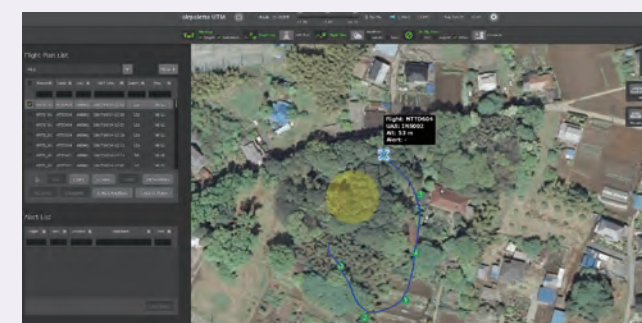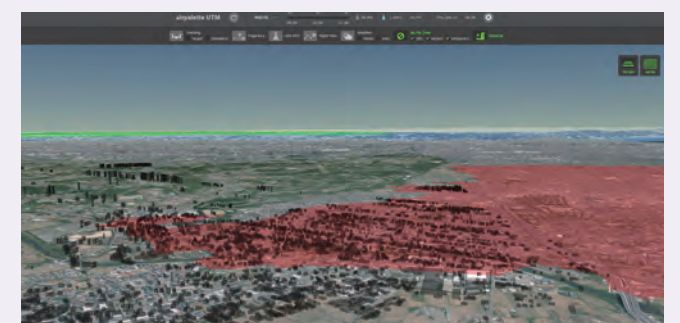
Screenshot

Flight Plan

Weather Information

Monitoring Flights

No-fly Zone