Towards a large-scale UTM System deployment

The future of unmanned traffic management, applied today.
Collaboration is the key.

Safety is the most urgent challenge.
Software Architecture

MANNED AVIATION

END-USERS
- Drone operators
- Drone Pilots
- Additional service providers

AUTHORITIES
- Airspace Managers
- Air navigation service providers
- Police & local authorities

Unify Core

Unify API

UTM CLIENT
- Drone
- Tracker
- Ground station
UTM System – Core functionalities

- Drone Registration & Identification
- Dynamic Airspace Management
- Drone Surveillance & Tracking
- Dynamic Drone Flight Management
- Drone Flow Management
UTM System – Core functionalities for Authorities

- Reach out to your community
  - Easy access to readable information
  - No-fly zones map

- Manage access to the airspace
  - Publish no-fly zones in real time
  - Automated, instantaneous flight approval
  - Manual flight authorizations process flow
  - Send notifications to the pilots
  - Manage the database: registered pilots and drones, flights logbook, special authorizations, etc.

- Monitor flight traffic in real time
  - Real-time flights status and location
  - Visualize manned and unmanned flights

- Multiple levels of authorities
UTM System – Core functionalities for RPAS Operators

• Easy-to-use mobile & web applications
  ▪ Limited aviation knowledge required
  ▪ Complete and accurate national & local rules
  ▪ Readable no-fly zones map

• Plan & validate your operations
  ▪ Manage your operations, pilot crew & drone fleet
  ▪ Automated, instantaneous flight approval
  ▪ Manage your pilot crew and drone fleet, flights logbook, special authorizations, etc.

• Keep track of your flights
  ▪ Real-time flights status and location
  ▪ Visualize manned and unmanned flights
  ▪ Logbook and document management
Implementing a UTM system is phased approach
Implementing a UTM system is phased approach

1. Reach out efficiently to your community
   - Readable information
   - Easy-to-access channels
   - No-fly zones map
   - Instantaneous flight approval

2. Manage access to the airspace
   - Publish no-fly zones
   - Flight authorizations process
   - Notify the pilots
   - Manage the database

3. Monitor drone traffic in real time
   - Real-time flight status and tracking
   - Visualize both manned and unmanned flights
   - Conflict resolution

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[Images of various devices showing interfaces and maps]
Example of UTM solution with roles & responsibilities

- **Web-application for RPAS pilots**
- **NOTAM Parsing & Visualization**
- **Mobile application for RPAS pilots**

**Admin Regulator: CAA**
- Registration
- Special Authorizations

**Admin Supervisor: CAA, ANSP, DoT, airports, emergency services, ...**
- Map Manager
- Flight View

UNIFLY
What makes the Unifly solution unique?

- Safety is in our DNA
- Clear long-term vision
- State-of-the-art technology
- Unprecedented experience

Partnerships with DFS, Austro Control, NAVIAR, and HITACHI.