



ICAO DRONE ENABLE/2 Symposium
Chengdu, China September 13, 2018

White Paper Presentation

A Decentralized Solution for Integrating Large Scale UAS Operations into Future Aviation System



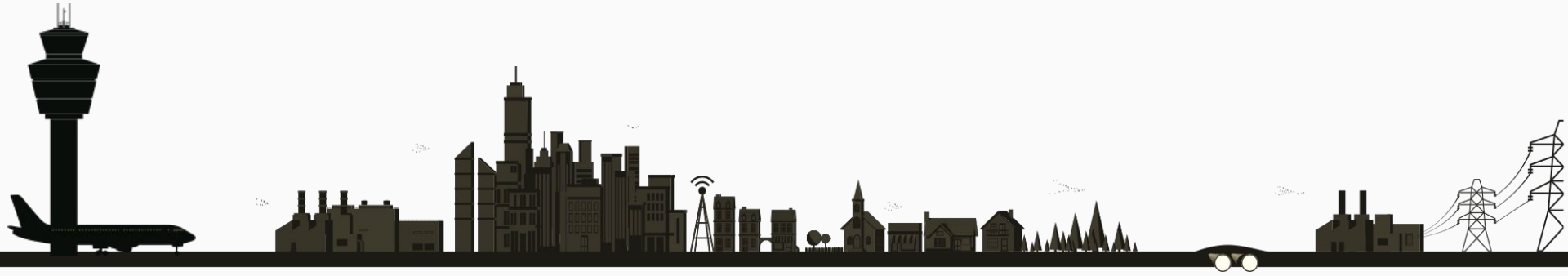
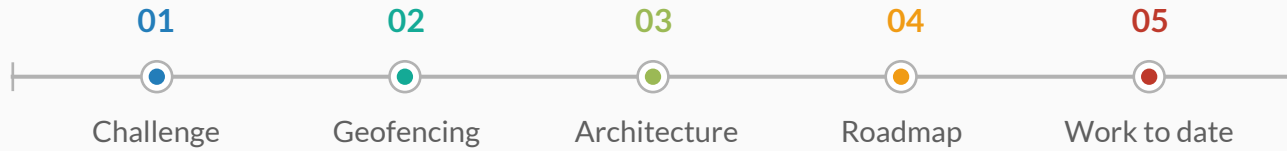
Presentation is Developed
in Technical Collaboration with

Distributed Sky  TERRAHUB



Contents

This presentation will discuss the following



The Challenge

—○ ATM = Centralized
UTM = Decentralized

—○ ATM = Restrictions
UTM = Geofencing & Communication

—○ ATM = Human in the Loop
UTM = Machine in the Loop

ATM



152M (500 FT)

UTM

122M (400FT)



CONTROLLED AIRSPACE
AND AIRPORTS

URBAN AIRSPACE

SUBURBAN AIRSPACE

RURAL AIRSPACE



Density / Risk
Demand for Automation

Geofencing & Communication

Boundaries

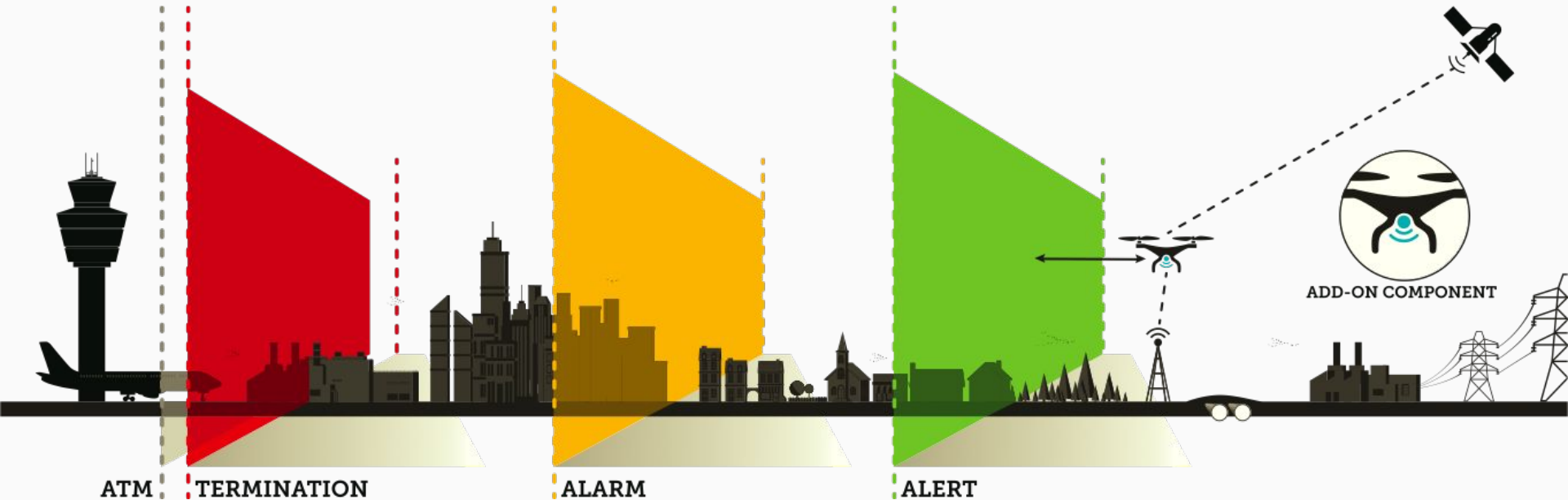
- Fixed & Temporary
- Customized Breach Action(s)

Ownership and Management

- Regulators
- Delegated Authority

Implementation

- Onboard & Remote Strategies
- Remote Access to UAS




UTM System Architecture

Distributed Solution Framework

- Unique Identifiers
- Performance Parameters


Authorization

Pilots




f\$s8!s8s8f8#ds13

UAS




f\$s8!s8s8f8#ds13

Data Providers



f\$s8!s8s8f8#ds13

USS



f\$s8!s8s8f8#ds13

...

- Distributed Ledger
- Smart Contracts
- Transfer of Liability

Business Logic

f\$s8!s8s8f8#wew
2#e8!s8s83232lgj
[...]{.....}[...]
[...]{.....}[...]
[...]{.....}[...]



Smart Contract(s)

2#e8!s8s83232lgj
f\$s8!s8s8f8#wew
[...]{.....}[...]
[...]{.....}[...]
[...]{.....}[...]



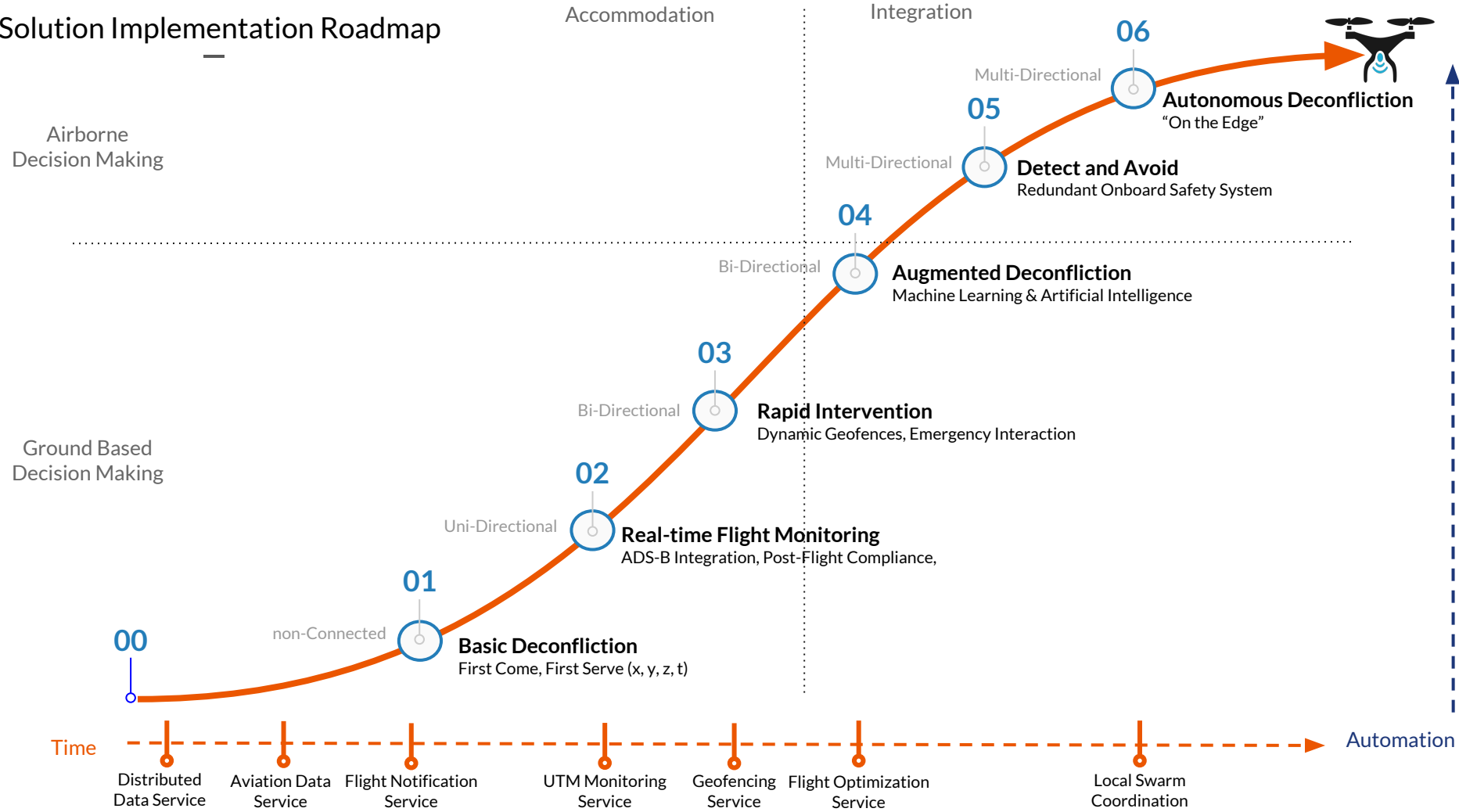
f\$s8!s8s8f8#wew
2#e8!s8s83232lgj
[...]{.....}[...]
[...]{.....}[...]
[...]{.....}[...]

- Storage
- Monetization

Technical Infrastructure



Solution Implementation Roadmap



Solution Summary



Communication

Reliable Channels



Trust

Single Source of Truth



Accountable

Transfer of Liability



Lindsay Mohr
AirMarket Inc.
CEO

Andrei Morozov
simlabs.
CEO



Work to Date

Distributed Sky



Delivering the Vision

