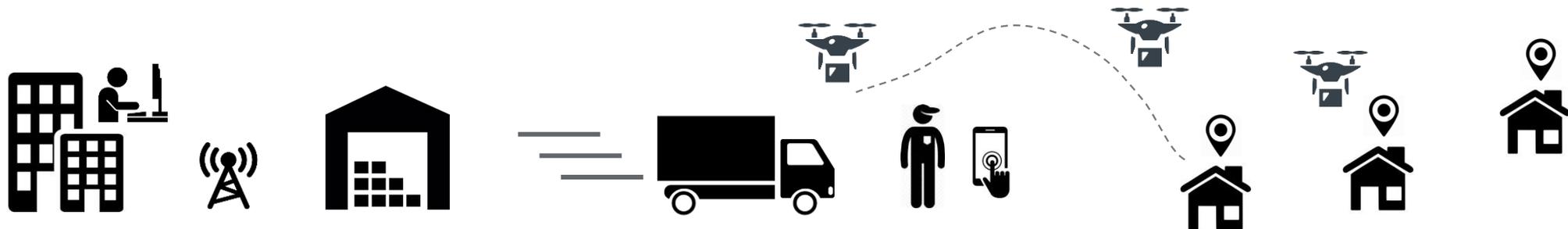# AiROS *a GE Venture Company*

A technology leader in the emerging market for UAV Airspace Management

Our Autonomous Services Platform provides for the, safe, authorized, secure and coordinated Integration of Unmanned Aerial Vehicles into National Air Service

Confidential. Not to be copied, distributed, or reproduced without prior approval.

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A Proposal for:
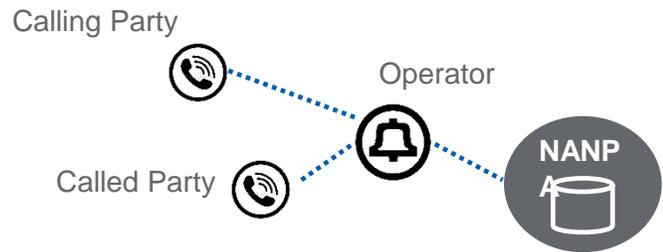## *An Authoritative Registry for Positive ID & Tracking*

Currently Identifying a UAV in the sky is nearly impossible and even more challenging to identify the owner Operator

The industry needs a reliable, globally harmonized standard for identifying a UAV i.e. an Authoritative Registry for Positive ID and Tracking of UAV's
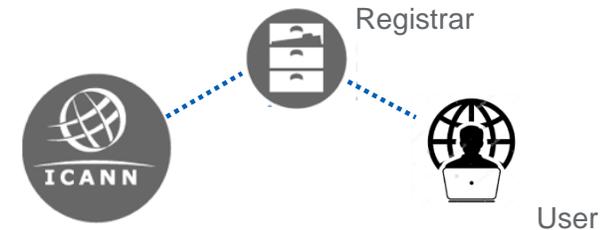
Authoritative Registry = Source of Truth

Authoritative registries have been used extensively and with great success within telecommunication and internet eco-systems.

100's Millions of telephone numbers

Millions of internet Domains (TLD's)

An Authoritative registry forms the foundation for:

- Establishing a standard and consistent method for assignment of a unique data-set Positive ID

- ID assignment and management for the lifecycle of the UAV

Adopting a similar approach and establishing a national authoritative drone registry would provide a highly scalable, efficient, and tamper resistant way of establishing Positive ID for the lifecycle of the drone.

Source of Truth for "The Three C's"

Registration will provide a means by which to quickly identify these small unmanned aircraft in the event of an incident involving a UAV.

Conforming — Registration provides an opportunity to educate UAV owners on safety requirements before they begin operating

Careless — Registration provides an opportunity to identify and address those who may need additional education or training

Criminal — For the minority who engage in criminal behavior a registry provide law enforcement alternate options
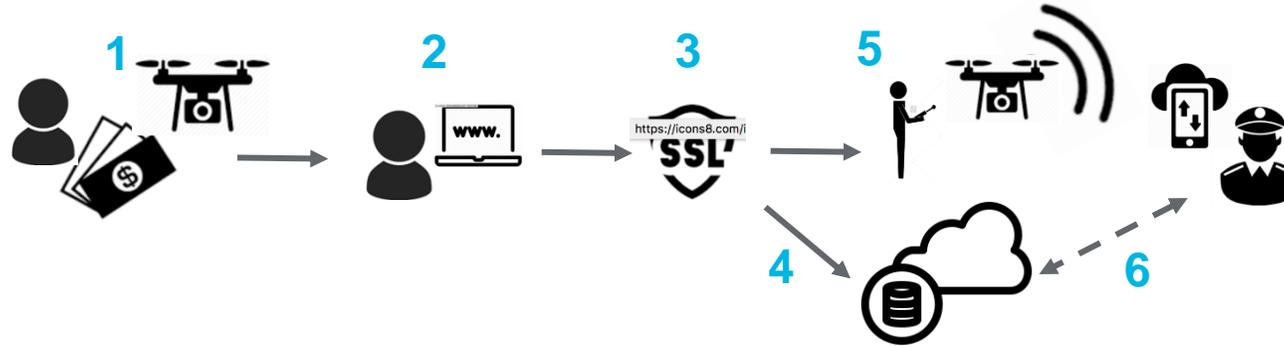
Requirements for a Authoritative Registry:

Reliable, scalable and a globally harmonized standard for assigning of a unique identifier for Positive ID and tracking of a UAV

- Scales to meet needs of the exponential growth of UAVs

- Establishes a standard, consistent and tamper-resistant method for assignment of a public facing unique data-set

- Provide a high degree of privacy protection for the UAV operator/owner

- Optimizes speed to market while minimizing costs by leveraging of existing technologies

- Funding though Established and maintained by private industry funding

- Enables near real-time ID for emergency situations via an authorized interface for Public Safety & Law Enforcement needs.

- Provides a glide path to UTM future-proof

Authoritative Drone Registry Solution for Positive ID

How it works

1. Drone is purchased

2. Drone is registered online at a Authoritative Drone Registry with serial number and owner data

3. Unique Data set (Public Key; SSL or Oauth etc.) issued and associated with UAV and additional owner information

4. Authoritative Drone Registry is updated with owner operator data and associated with digital certificate information

5. Unique Data set (Public Key) downloaded to drone enabling flight, and Public key is broadcast over the air and/or networked in future case of UTM for ID and tracking.

6. Unique Data set (Public Key) number provides law enforcement and other stake holders information needed to positively ID UAS and identify owner/operator based on tiered access.

Why This Option Works

- Provides the most economic, reliable drone registration and positive ID system,

- Minimizes hardware be added to the drone

- Leverages existing infrastructure, capabilities and technologies (digital certs, ADS-B, Wi-Fi)

- Allows for industry wide adoption and standardization, minimizes impact on OEM

- Maintains consumer privacy while allowing access to law enforcement authorities and other agencies to identify unlawful owners and operators

- Scales to accommodate demand and coverage for millions of drones,

- Provides consumers with additional protections in the event of a lost or stolen UAV

Positive ID should be required for all UAVs and is a foundational element for UTM