



enabling the future of airspace

Drone Enable
5-7 December 2023

Highlights

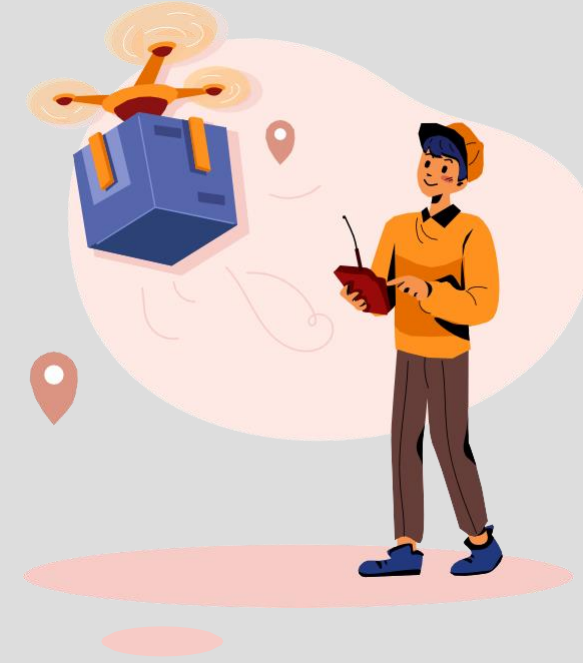
- AstraUTM is a global pioneer in Unmanned Traffic Management (UTM).
- Drones at scale require management of shared airspace - AstraUTM delivers this with one of the most advanced solutions on the market today.
- AstraUTM has deployed POCs to full-scale commercial implementations in United States, Canada, UAE, Finland, Australia.
- National level deployments in USA, Finland and UAE.



Going from DynaTAC to Uber on iPhone

As an industry evolving at a rapid pace - Drones are already generating billions of dollars in business across Infrastructure, Agriculture, Transport, Security, Media & Entertainment, Insurance, Telecom & Mining industries.

However, the drone industry is at a nascent stage and unlocking BVLOS drone flights at scale will drive adoption exponentially.

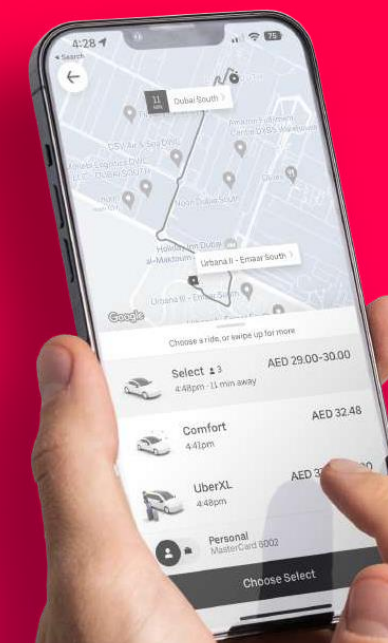


Almost all drone flights today are VLOS (Visual Line of Sight).

Pilots have to keep the drone in sight as per regulations.



Real utility of Drones is in BVLOS (Beyond Visual Line of Sight) applications - saving Billions of \$ across industries.



A system for
integrating and
managing drones
in the airspace
- at scale

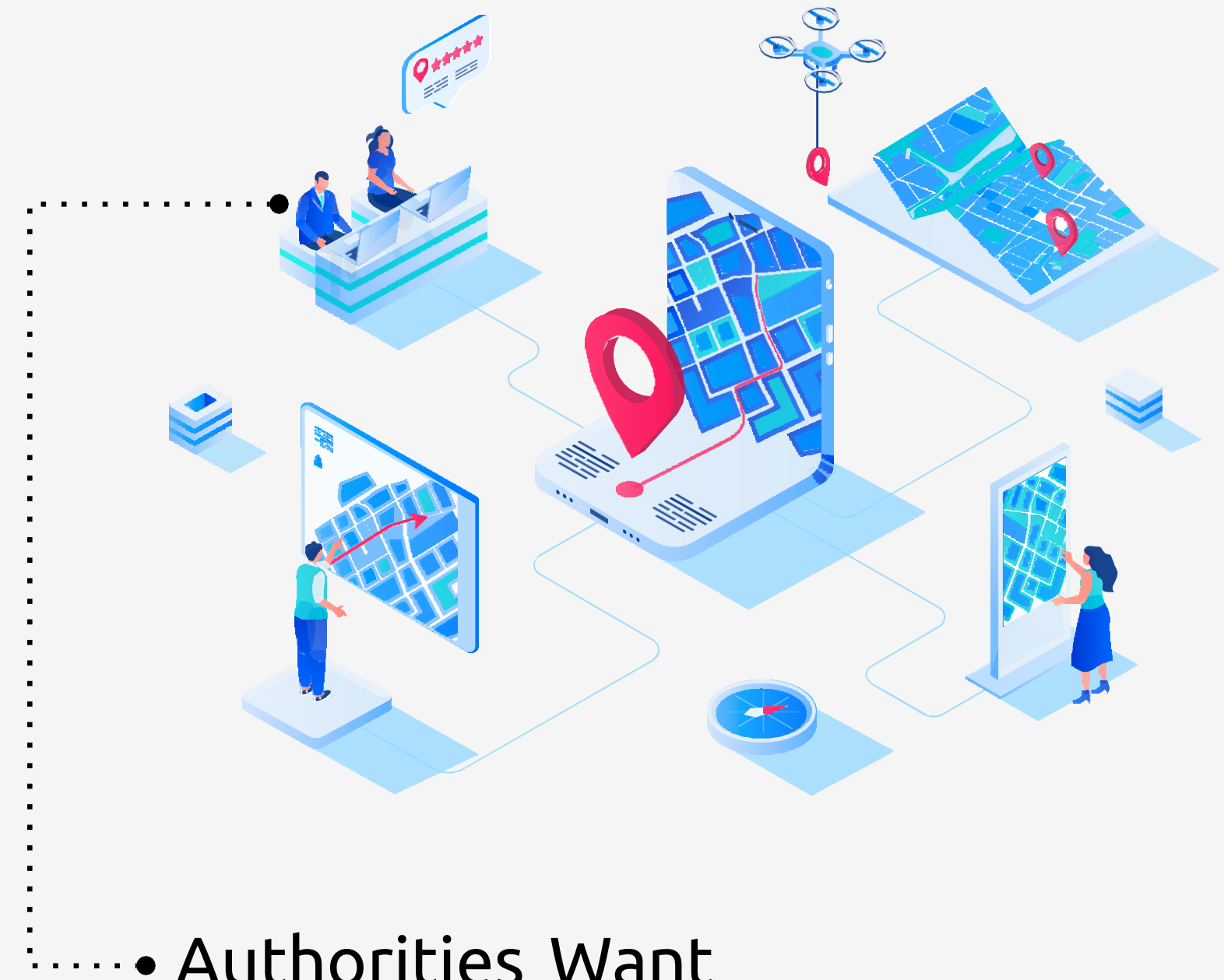
The Stakeholders

Regulators/
Authorities
Drone
Operators
End Users



Drone Operators Need

- On-Demand/Adhoc Flight Authorisation
- Access to Airspace Information (Available Flight Routes)
- Situational Awareness (Weather, Air Traffic, etc.)
- Deconfliction with other active drones



Authorities Want

- Registration of Operators and Drones
- Flight Plans
- Separation from Manned Air Traffic
- Tracking and Monitoring of Drone Flights
- Compliance and Conformance for Safety & Security



AstraUTM for Drone Operators

Main Features

- Operator Registration
- Drone Registration
- Flight Request & Authorisation
- Flight Charges & Fees
- Real-Time Situational Awareness

Registration

Create Account
Create an account so you can manage your flights

PERSONAL ENTERPRISE

First Name

Last Name

Email

+971 Mobile Number

Password

Terms and Condition

CONTINUE

Already have an Account: Login Now!

Select Flight Area

Drag any point to update flight area.

Flight Planning

Select Date and Time

April 2022

18 19 20 21 22 23

Start Time

HOURS MINUTES AM PM

08 10

Duration 180 Minutes

April 21, 2022

08:10 am 24°F ☁

423 hpa 8 mph 4 km 71%
Pressure Wind Visibility Humidity

09:10 am 24°F ☀

10:10 am 24°F ☁

Billing & Fees

Subscription

MY PLANS ALL PLANS

AED 20.00 /week UNSUBSCRIBE

BVLOS Flights

Valid From 01 Aug 2022 Valid To 30 Sep 2022

Operation BVLOS Operator Commercial

Activity Type
Photography, Film & TV, Drones
Mapping, Drone Transportation,
Healthcare, Drones Surveying, Search
& Rescue, Delivery / Fulfillment
View Less

Flight Approval

View Details

Reservation No. 753
10 April 2022 11:00 2hrs

Operation Type VLOS Altitude 125ft

Purpose Survey Mapping

Approvers

Name Astra Admin Status APPROVED

Insurance AIG | \$44.11

Safety 5 Score

Estimated Fee \$15.3

Drone Detail

Irfan's Drone - Mavic Pro

Model Name Phantom 4 Type Multi-Rotor Manufacturer DJI Sr. Number 5648994897

10 April 2022

Other Informations

Flight Payload Camera Flight Category BVLOS Flight Duration 50 Minutes

START FLIGHT CANCEL

Real-Time Situational Awareness

Altitude 0.0m AGL Distance 0.0m Speed 0.0m/s

Max. Alt. 95m AGL Start 08:25 End 17:25

Sunny 24°F Pressure 423hpa Wind 8 mph Visibility 4 km

Safety Alerts

10:26:49

Altitude 125ft Speed 1.0m/s Distance 100m

423 hpa 8 mph 4 km 71%
Pressure Wind Visibility Humidity

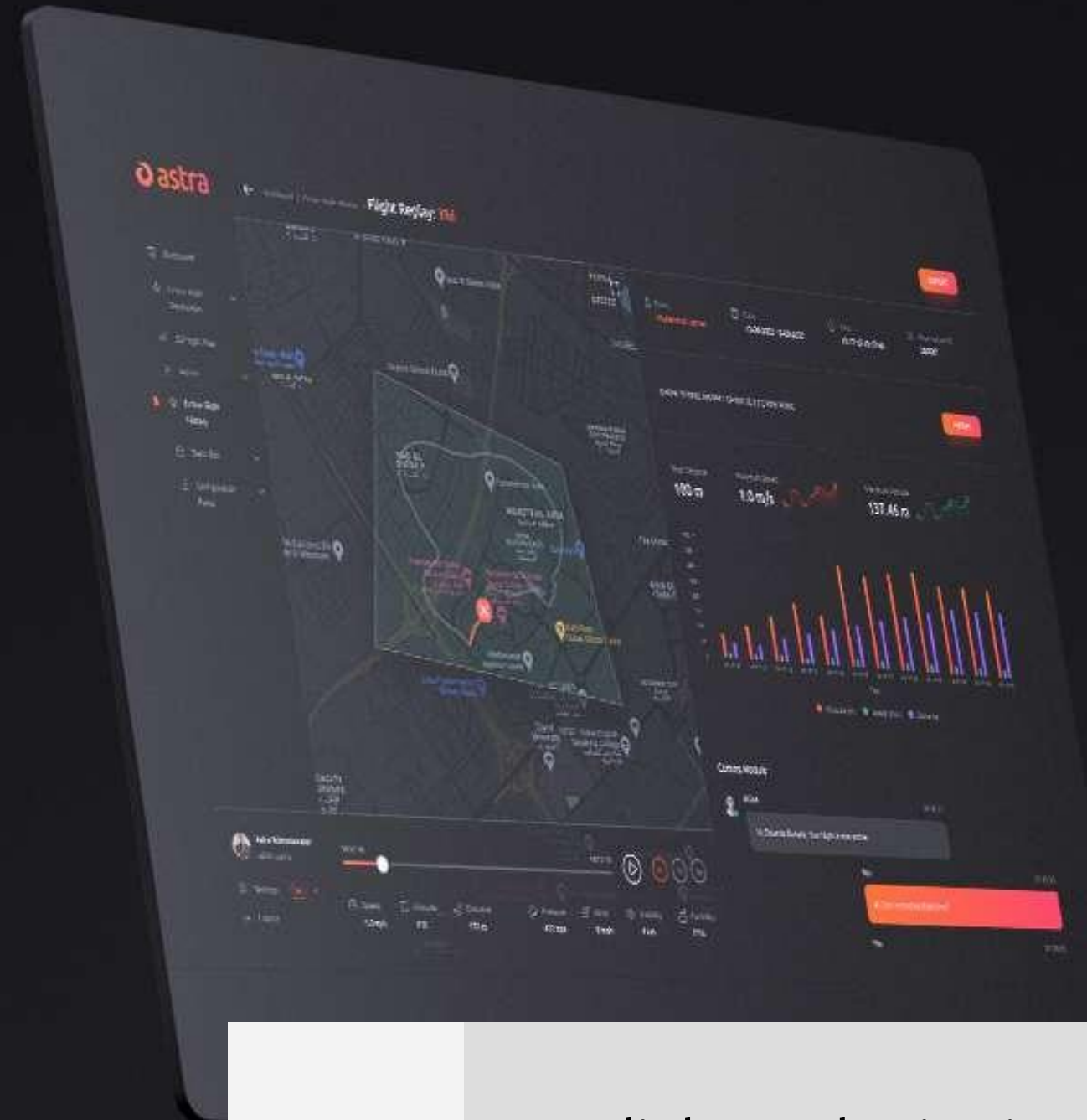
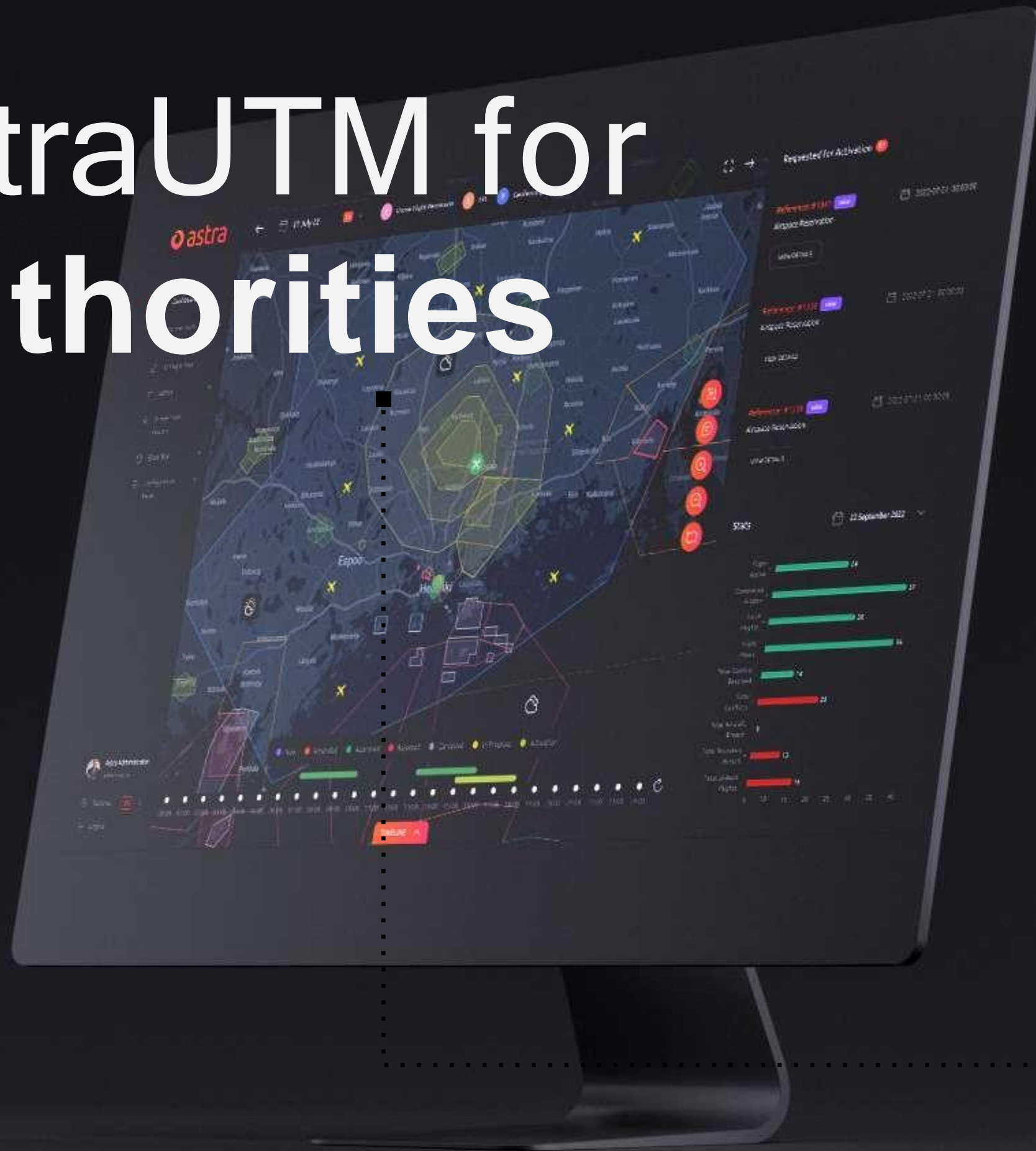
Reservation No. 18832

10 April 2022 11:00 UTC 2hrs

Drone Name Irfan's Drone - Mavic Pro

Altitude 0.0ft Speed 0.00m/s

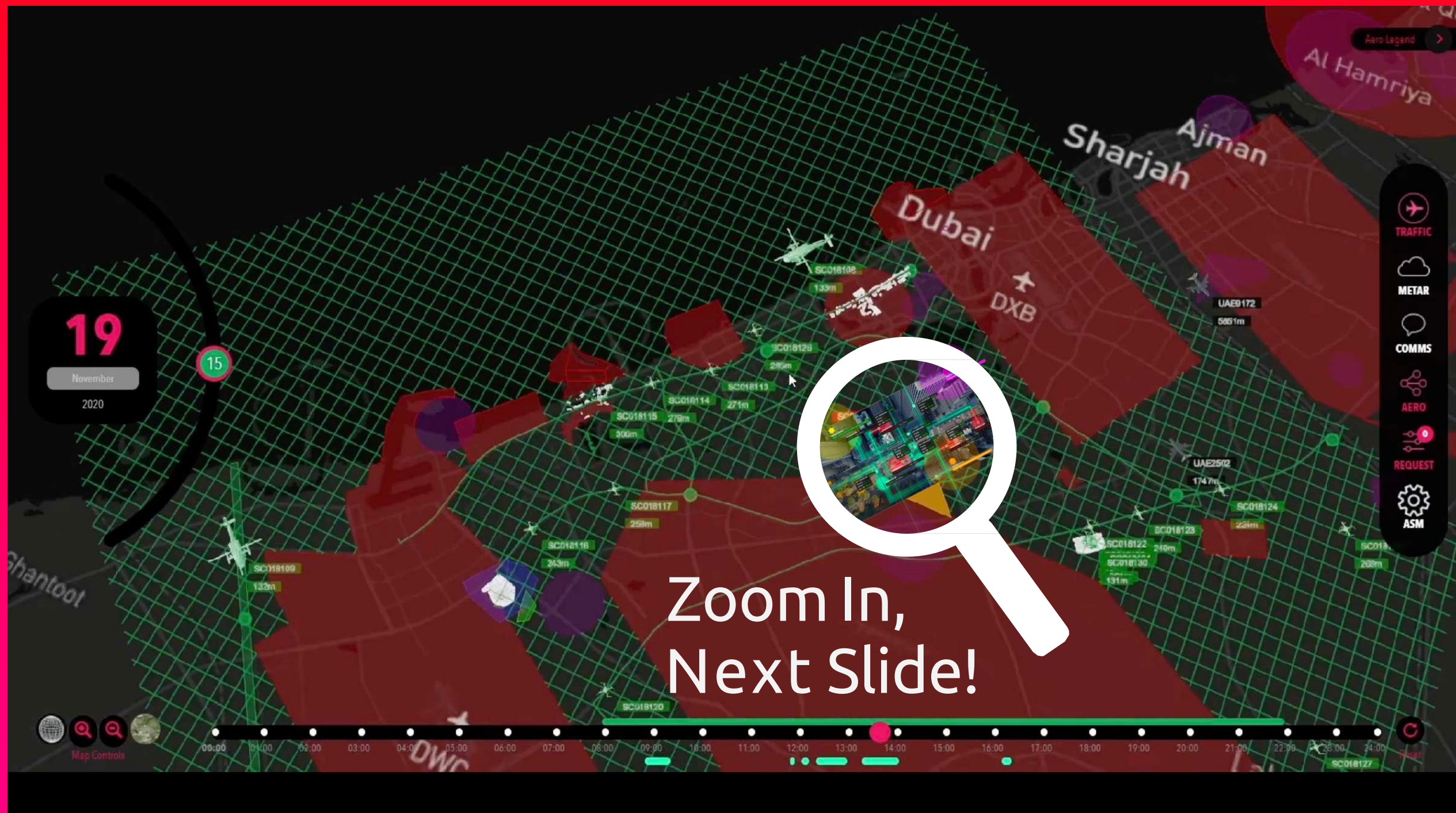
AstraUTM for Authorities



Main Features

- Flight Authorisations
- Tracking & Monitoring
- Alerts and Communications
- Real-Time Airspace Situation

The Scale of Drone Future



Drones Vs Conventional Aviation

22,000

No. Of Commercial Maned Aircraft In Operation Globally

\$818 Billion In 2019.

The Airline Industry Market Size Prior To Covid-19 Pandemic

2,000,000

No. Of Drones Registered In In The United States

4,000,000

Total No. Of Drones Sold Globally

Drones Will Exist At A Different Scale Than Conventional Aviation



Weather Station
OMDB 150800Z 26012KT CAVOK 32/18 Q1015 NOSIG

Vertiport 21/B
Available / Ops. Status: Active

UAV 1985/AK/EK Landing
Priority 1D
MTOW 12KG
AR 2 GR 3 BVLOS

Vertiport 21/B
Occupied For Landing / Ops. Status: Active

UAV 1985/AK/EK Enroute
Priority 1D
MTOW 12KG
AR 2 GR 3 BVLOS

Radar Station
Target Count 32 CIS Status: Connected

UAV 1985/AK/EK Enroute
Priority 1D
MTOW 12KG
AR 2 GR 3 BVLOS

UAV 1985/AK/EK Landing
Priority 1D
MTOW 12KG
AR 2 GR 3 BVLOS

UAV 1985/AK/EK Enroute
Priority 1D
MTOW 12KG
AR 2 GR 3 BVLOS

UAV 1985/AK/EK Takeoff
Priority 1D
MTOW 12KG
AR 2 GR 3 BVLOS

UAV 1985/AK/EK Enroute
Priority 1D
MTOW 12KG
AR 2 GR 3 BVLOS

Vertiport 21/B
Occupied For Landing / Ops. Status: Active

Vertiport 18/B
Occupied For Landing / Ops. Status: Active

Vertiport 21/B
Available / Ops. Status: Active

Vertiport 19/B
Occupied For Takeoff / Ops. Status: Active

Weather Station
OMDB 150800Z 26012KT CAVOK 32/18 Q1015 NOSIG

Snapshot: The Drone Future

- Planned Aerial Corridors
- Toll Roads In The Sky
- Priority Based Traffic
- Performance Based Access
- Connectivity Based Monitoring
- Hyper-Local Weather
- Digital Surface Model
- Counter-Drone Integration
- Automated Capacity Management
- Automated Contingency Management



Approved by FAA (Federal Aviation Administration)
as LAANC UAS Service Supplier in the United States of America

ACCESS TO CONTROLLED AIRSPACE AUTHORISATIONS
ACROSS UNITED STATES



Achieved ISO Certifications for
ISO 9001-2015, ISO 27001-2013, ISO 20000-1-2018



Compliant with ASTM Standard
ASTM F3411 - Standard Specification for Remote ID and Tracking



Customer Implementations



Dubai Civil Aviation Authority
United Arab Emirates



Enav
Italy



DGCA
India



Airmarket
Canada



Fintraffic
Finland



Expo2020 Dubai
United Arab Emirates



UvI Robotics
United States



Airseair Rpas
Colombia



Vtt
Finland



Uav Latam
Peru



Skylink Uas
Australia

Customer Implementations

