Mobile Networks as a BVLOS Enabler

Etc. AT BT Group

Dave Pankhurst

BT Group - Drones Director

BT Group

180

Countries we work with top multinational companies in

68%

UK population covered by our 5G network

14m

UK households served

10

Years EE has been voted best UK network

1.2m

Business customers

999

We've built the most reliable, high volume UK call handling service

450

Retail Stores

30m

Consumers

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Create
Amplify
Invest

Etc.fintech

Etc.healthtech

Etc.drones

Etc.factory

Create
Amplify
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Etc.healthtech

Etc.drones

Etc.factory

As remote operations increase, the role of a Telco becomes more relevant

Now

- Majority flown in visual line of sight
- Often in private / campus locations
- Recreational drones in public spaces

Next

- Remote drones for search, surveillance & survey
- Delivery operate to last mile depot or docking station
- Drones BVLOS on “drone highways”
- Drones in residential and urban areas for last mile delivery (single-operator)

Later

- Drones in residential and urban areas for last mile delivery (multi operator)
- Long range delivery & movement of people
- Growth of services providing drones / data as a service

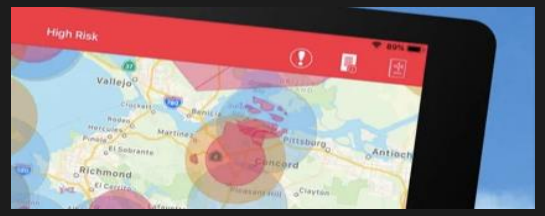
Services aligned to a Telco core, for our future in the drone industry

DRONE CONNECT

Providing reliable connectivity for operators to conduct their missions

- Drone SIM
- Drone Devices
- Insight & Analytics

DRONE FLIGHT



Managing access to airspace safely, enabling operators to fly easily

- Approval Services
- Air Space Management

DRONE DETECT

Allowing security teams to assess risks from drones

- Counter Drone
- Detection as a Service

DRONES ON DEMAND

Gives companies access to dependable, repeatable insight

- Drones as a Service
- Piloted Flight

Ed Hunter

Etc. at BT Group - Drone Connect

Etc.
AT BT Group

R&D / Innovation, 10+ Years Telco,
7 Years
Drones, 3 Years

Etc.
AT BT Group

Mobile Networks as a BVLOS Enabler

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What is a BVLOS enabler?

Something that allows an operator to fly their UAS further, for longer and safer than you can under visual line of sight conditions.

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As an enabler the of the shelf the mobile network is looking pretty good…

- National coverage
- Low latency data link
- 24/7 availability
- Operational framework
- Secure communications

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That is until you mention;

Etc.
AT BT Group

That is until you mention;

- Drones

Etc. AT BT Group

That is until you mention;

- Drones
- Ofcom

Etc. AT BT Group

That is until you mention;

- Drones
- Ofcom
- Civil Aviation Authority

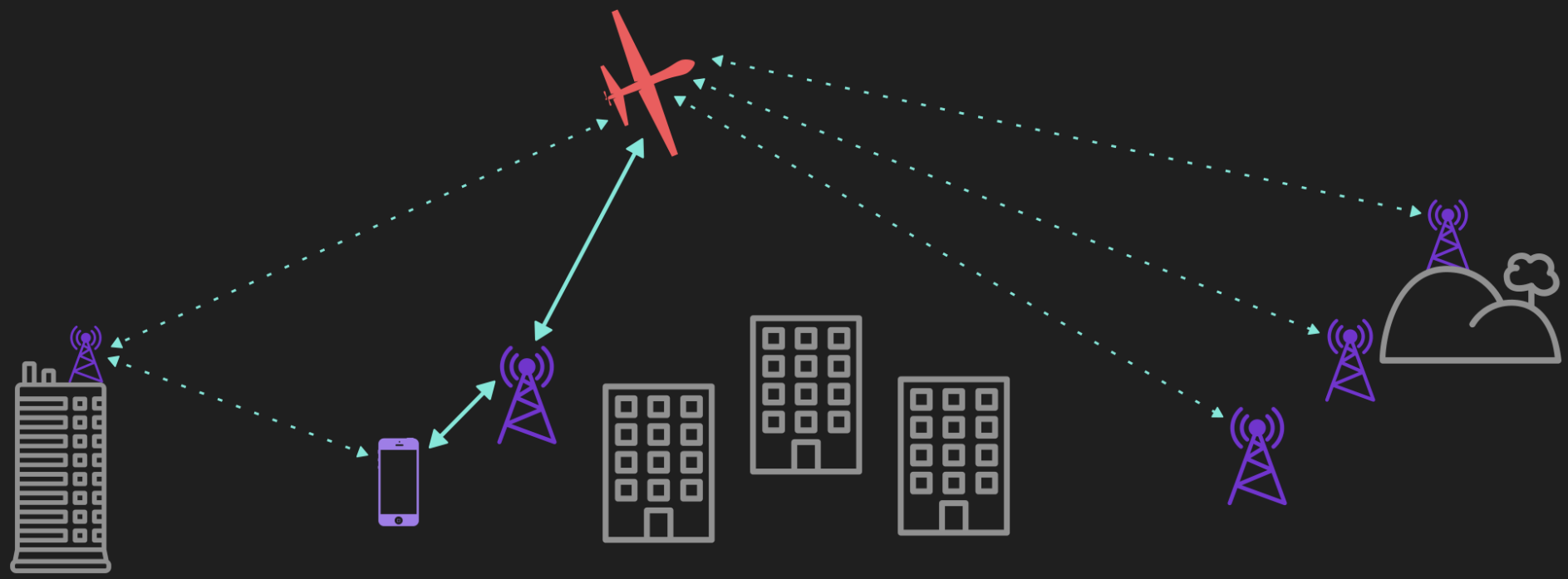
Etc. AT BT Group

What makes Drones different to a mobile network operator?

In the sky, not on the ground

Environment

Cellular Capability



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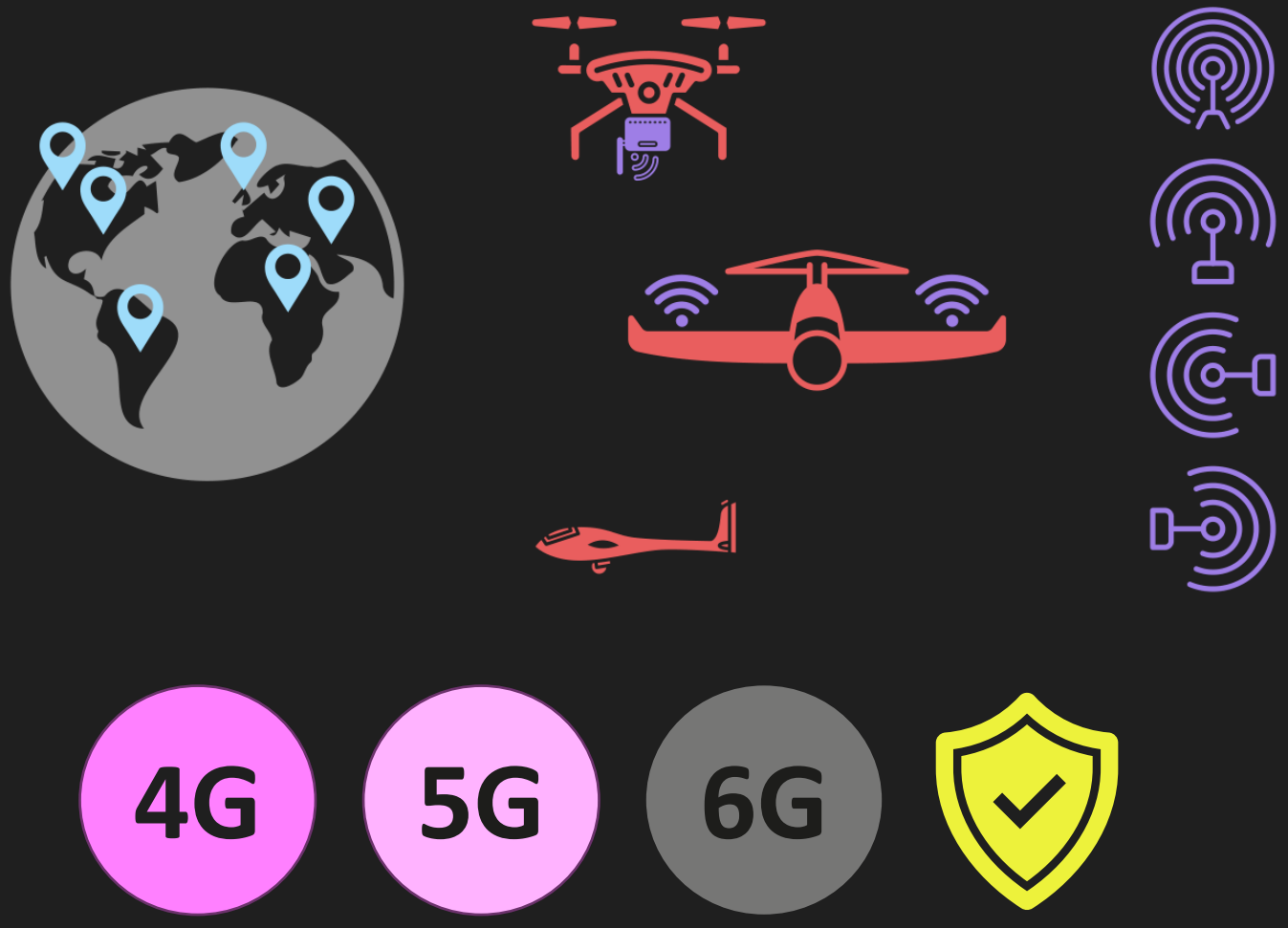

In the sky not on the ground
Environment

Cellular Capability

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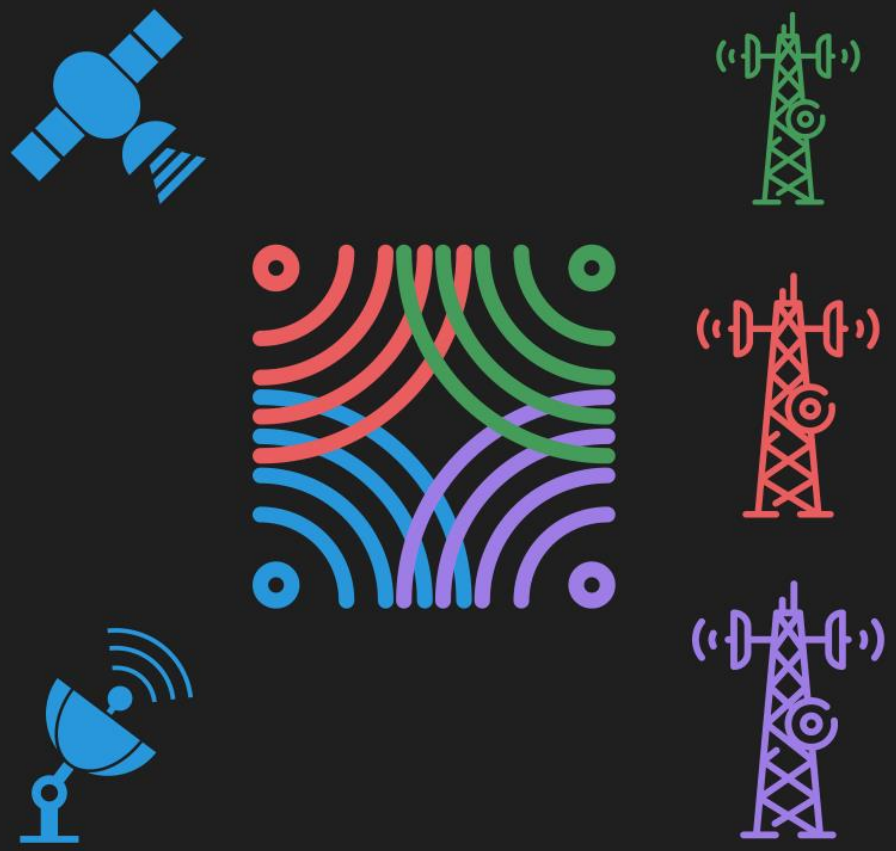
Why do Ofcom care?



Spectrum Management

Licencing

Etc.
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Why do Ofcom care?

Spectrum Management

Licencing

£75 Per annum
Permission from Mobile Network
Band 7 blocking

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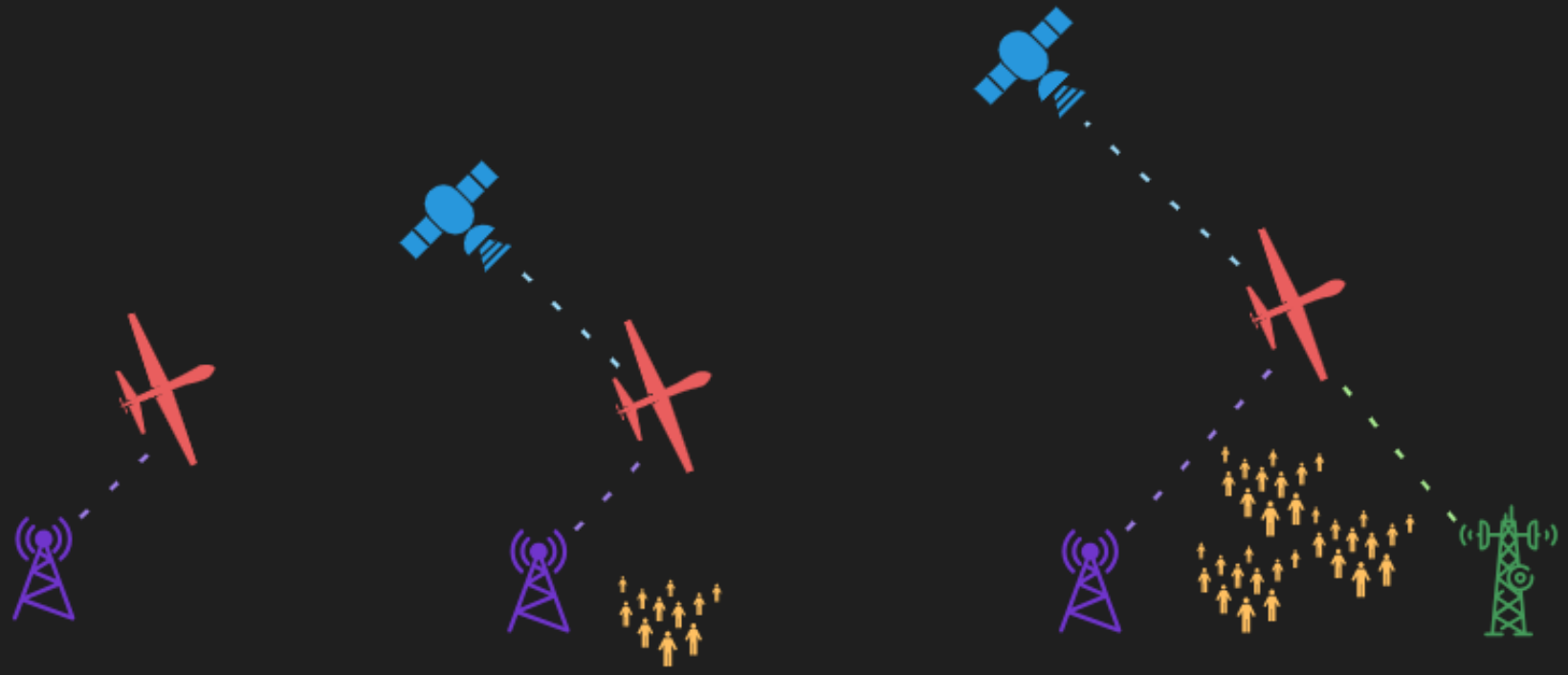
What's important to the CAA?

Risk Based Approach

Safety



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What's important to the CAA?

Clarity

Insights

Risk Categories

Tools

Risk Based Approach

Safety

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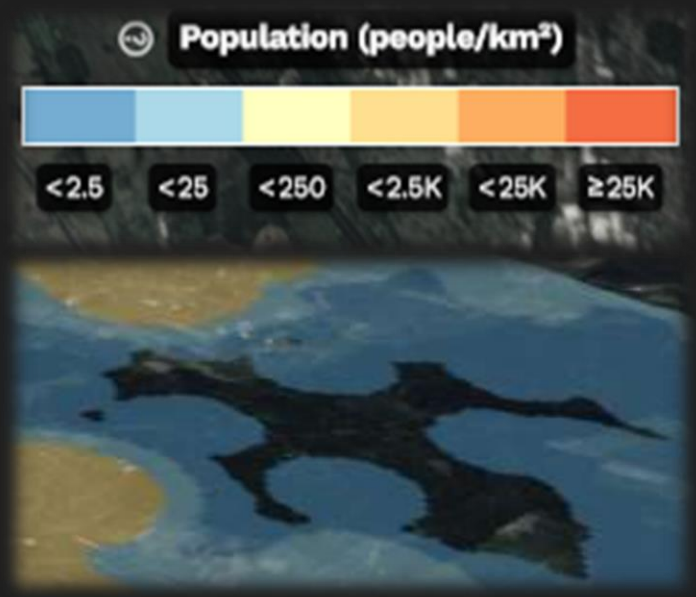
Our role as an enabler



Provide simple, Certified & Trusted Solutions

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Beyond an enabler

Accurate positioning
SORA alignment
Robust device certification
Standardisation
5G SA/6G

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More than just BVLOS

1st time mission success
Interactive inspection
Data resiliency

Etc.
AT BT Group

Thank you

Any questions?

/edhunteretc

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