



**CYBERSECURITY  
AND RESILIENCE  
SYMPOSIUM**

PROTECTING AVIATION  
FROM CYBER ATTACKS

DOHA, QATAR | 6 - 8 NOVEMBER 2023

# Digital Trust in a Changing Civil Aviation Environment

# The world is changing

- Civil aviation is most commonly defined by what can be seen at and around an airport
  - Passenger jets – wide and narrow body
  - Air traffic control
  - CNS infrastructure
  - Private and general aviation
  - Maintenance
- There is now something else on the horizon...



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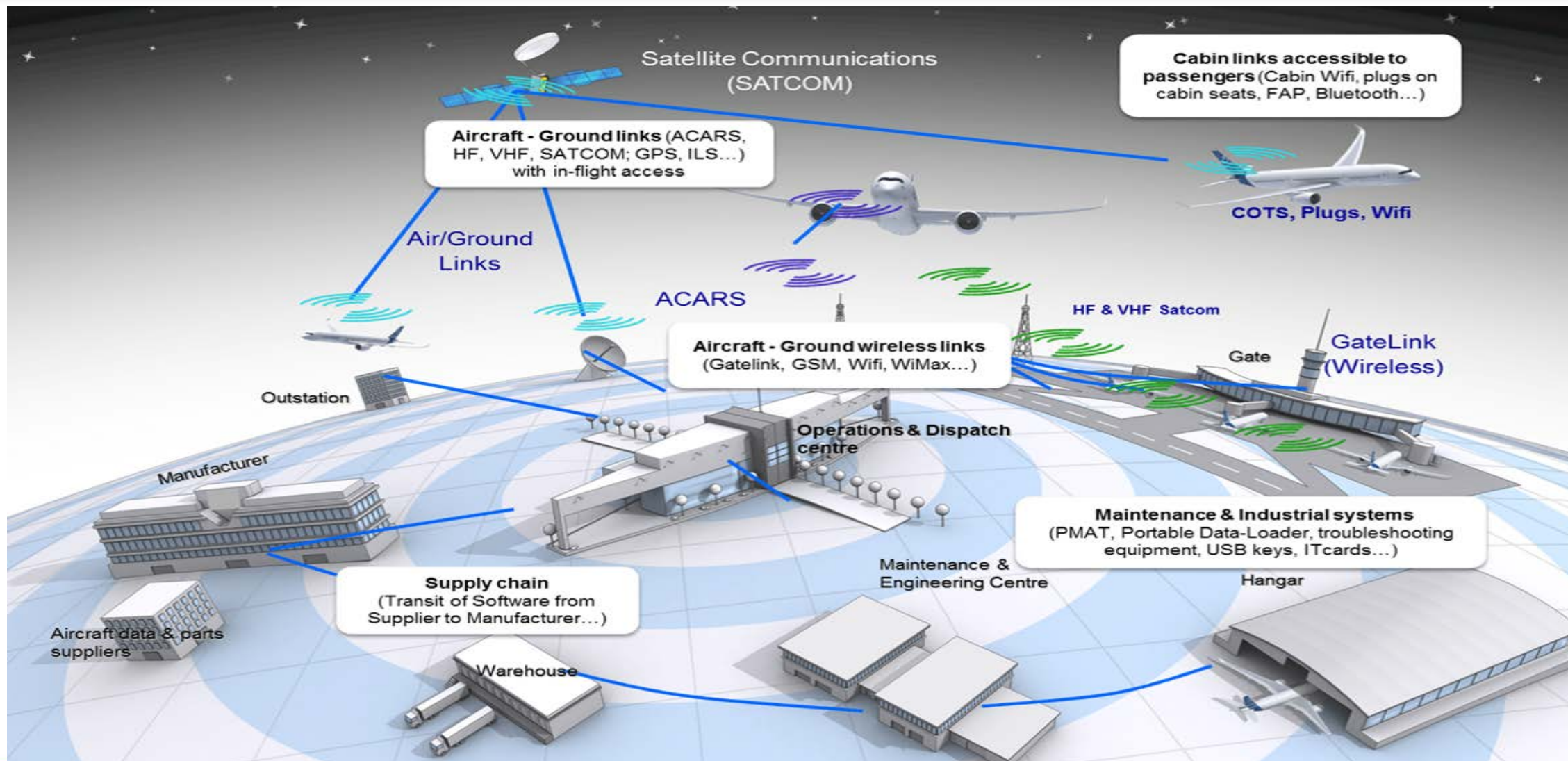
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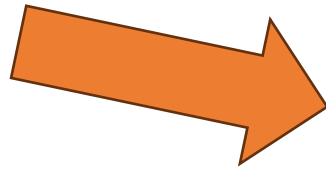
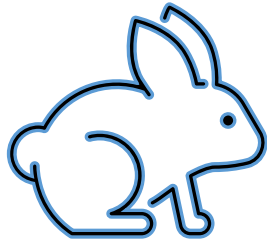


# “Traditional” civil aviation wants to go digital

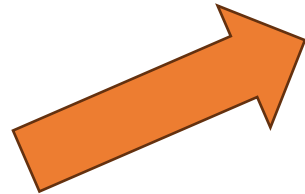
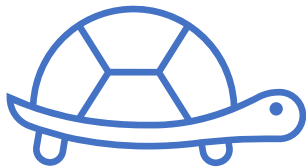
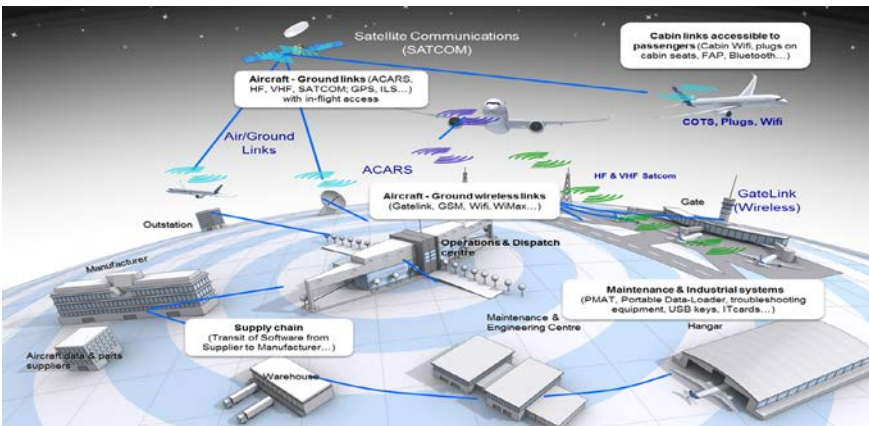
- “Digital Transformation” is all the rage
  - Electronic licenses
  - Electronic certificates
  - Electronic maintenance records
  - Remotely Piloted Aircraft Systems
  - System Wide Information Management
  
- All this will take time to achieve

# Different starts and speeds, same destination

Digital First



Digital Last

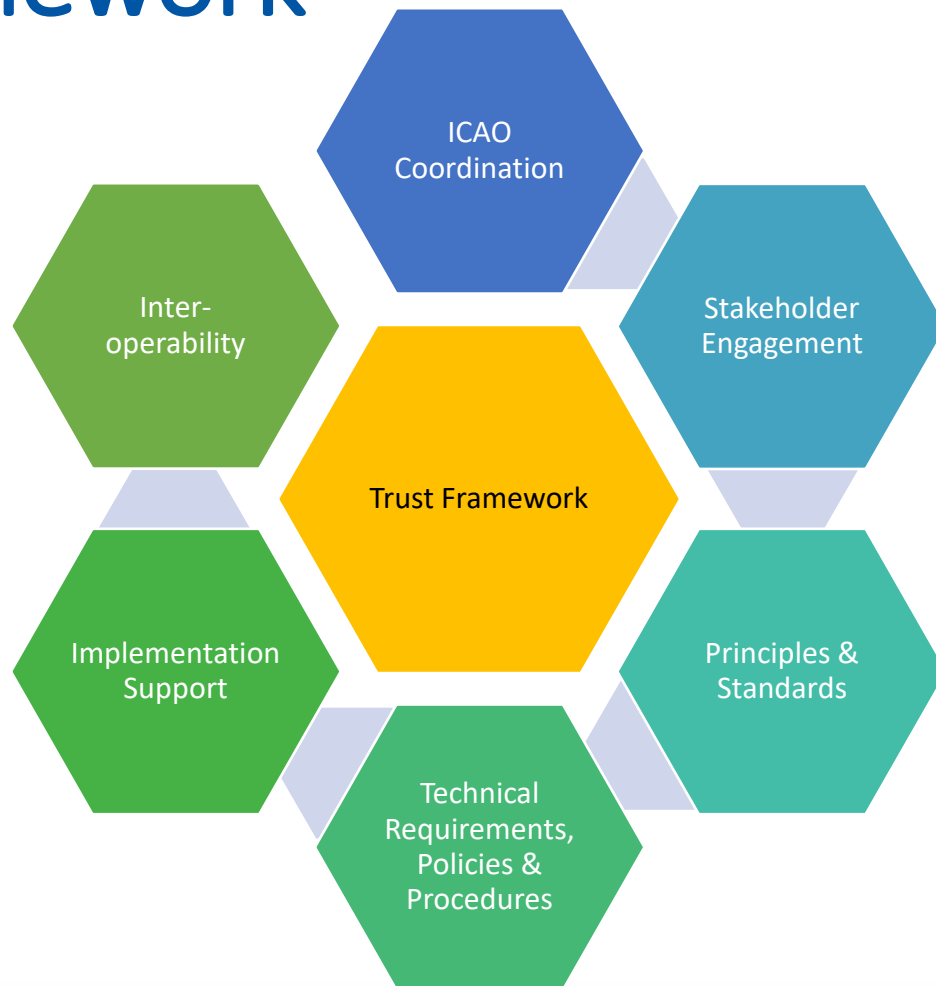




# The coming reality

- A fully connected digital civil aviation environment is an expectation
- Airspace users (human or machine) must be able to interact and interoperate rapidly and seamlessly
  - Translation: less human intervention
- This fully connected environment is predicated on knowing who you are communicating with, and that the information being communicated is trustworthy
- The “connected aircraft of the future” cannot function with a callsign or 24-bit address as its only means of identification

# The Trust Framework



# Why is ICAO getting involved in digital trust?

- Trust is the foundational principle of the civil aviation system
- Building trust has been a core function of ICAO since 1944
- ICAO can bring state, industry and others to the same table

# Digital identity is the cornerstone

- ICAO's Trust Framework Panel is working hard on developing the minimum requirements for trusted digital identities (people, systems and signatures) in a fully connected environment
- Engaging with new and "old" airspace users and stakeholders to make sure their needs are captured
- Coordinating with ICAO panels and other expert groups (e.g. IETF, ASTM, RTCA, EUROCAE, etc...)

# The road ahead for building digital trust

- The scope of the work is challenging and broad
- Traditional civil aviation has a certain level of “innovation inertia” to overcome
- New entrants and innovators operate at a completely different speed
  - Business cycles are short
  - Attention spans are even shorter
- ICAO is still the best forum to bring people together to build trust (real and digital), and make the civil aviation environment’s digital transformation a reality

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# THANK YOU

