CELTIC-NEXT
Project Proposal Pitch

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Digital Plane Safe

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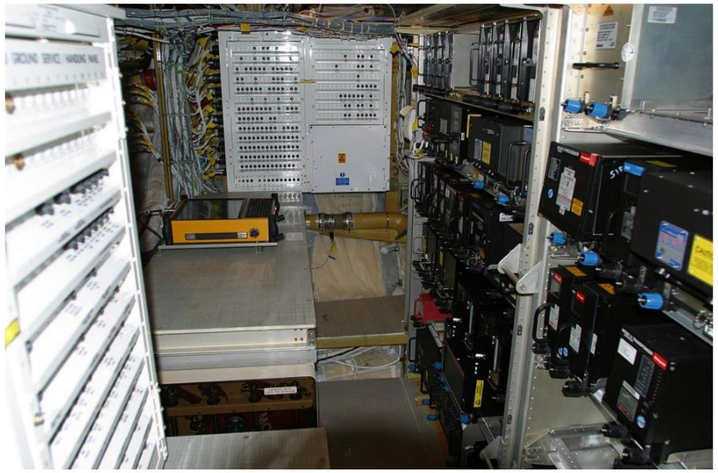
Teaser

- What if we replace the custom aviation equipment with off-the-shelf systems?
- What if we treat an aircraft as an Edge Cloud?
- What new features are possible?
- What is the impact on safety and can features such as 5G slicing, trust, confidential computing mitigate this?

Organisation Profile

- The **University of Jyväskylä** is a research university in Jyväskylä, Finland.
- 14,000 students,
- 2,800 staff
- 222 Meur funding (2023)
- The faculty of IT is a multidisciplinary information technology specialist and one of the two largest university-level providers of IT education in Finland.
- The IT Faculty is engaged in active international cooperation both in the field of research and in teaching.

Proposal Introduction



- Seamless software updates (in real-time if necessary)
  - Potential for in-flight/mission optimisation ?
  - New passenger services ?
- Reduced cost of hardware & maintenance
- Reduced cooling (major fuel expense), space utilisation, failure modes

Devices, Infrastructure, Applications

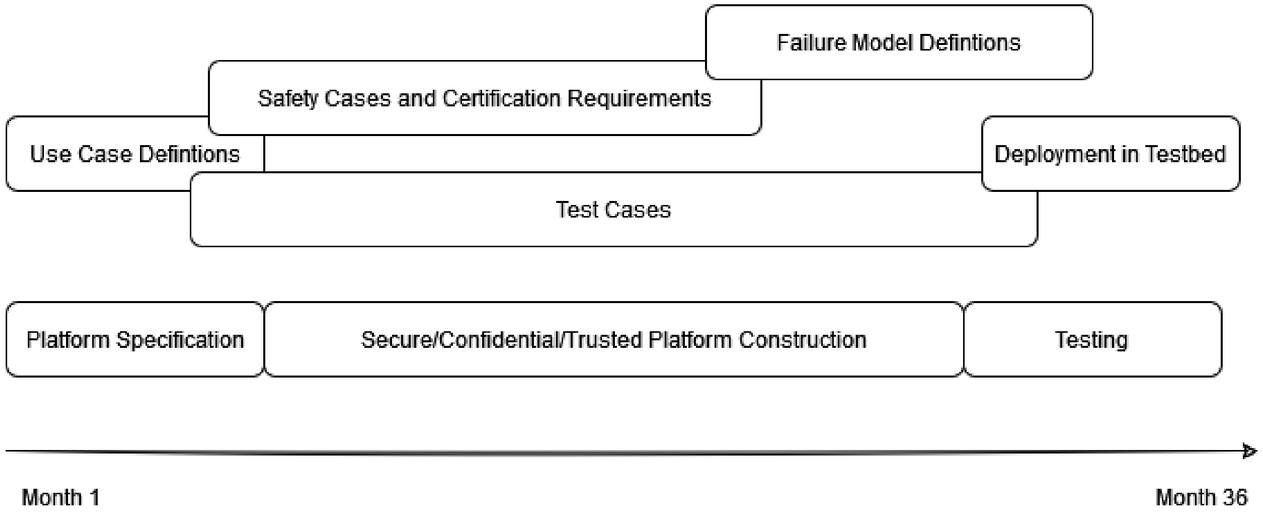
Proposal Introduction

Outcome

- Demonstration of edge cloud, networking (5G, 6G) and hardware/software-attestation for secure avionics and aerospace applications
- Platform requirements for future, off-the-shelf hardware for aerospace
- Cybersecurity, failure models, safety models for such operations

Impact

- Potential for massive cost savings in terms of hardware, standardisation, certification, fuel usage, space optimisation
- Weight, power consumption, performance, optimisation of flight services and avionics behaviours



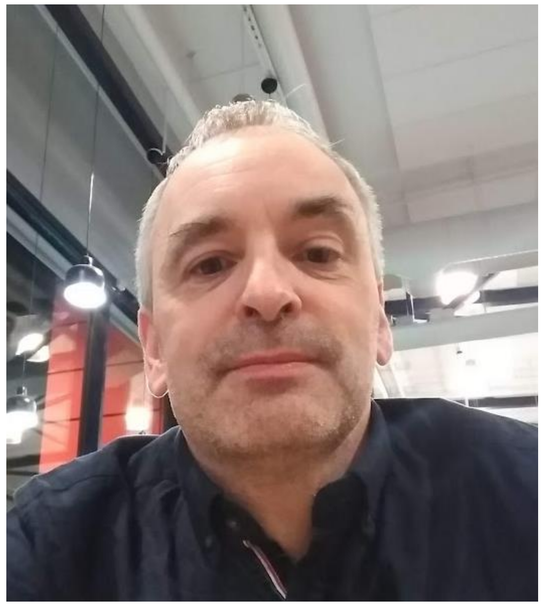
Partners

We are looking for:

- Aerospace (space, drone, aircraft) partners
- Aerospace application providers:
  - Infotainment, aircraft monitoring, flight control, FADEC, telemetry analysis
  - Flight planning, remote aircraft control, AI-based aviation control apps.
  - Identification, ACARS, RemoteID etc.
- Other partners with strict networking, hardware and software requirements brave enough to move to a generic cloud, 6G, containerised environment
  - Eg: Railways? Medical?

Contact Info

For more information and for interest to participate please contact:



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Presentation available via:

Join
Consortium Building Session

15th of March 14-14.30 CET

join here

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