

MEN Mikro Elektronik GmbH

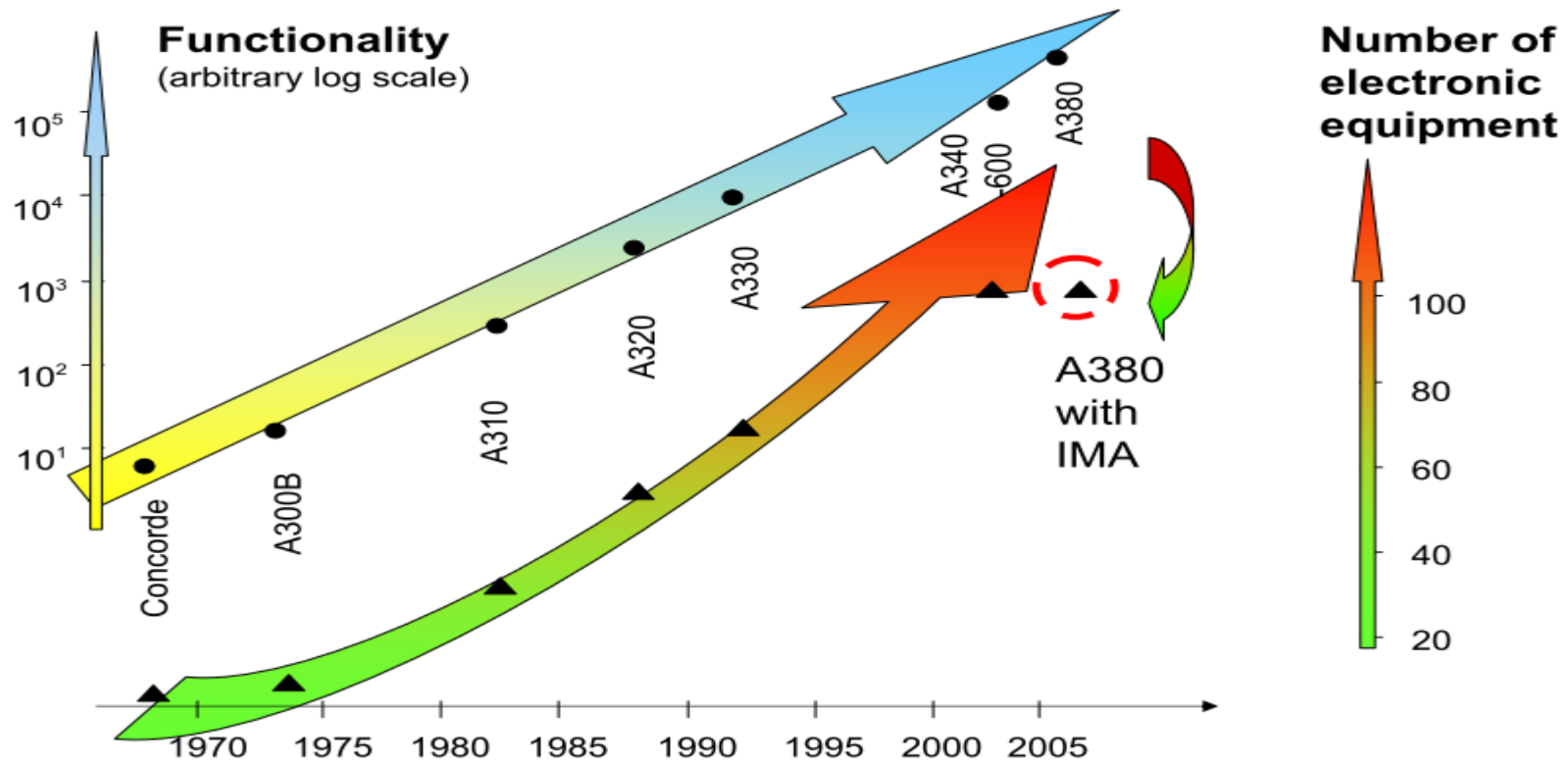
Rugged Computer Boards and Systems for Harsh, Mobile and Mission-Critical Environments.



Safe Communication for Inflight Systems

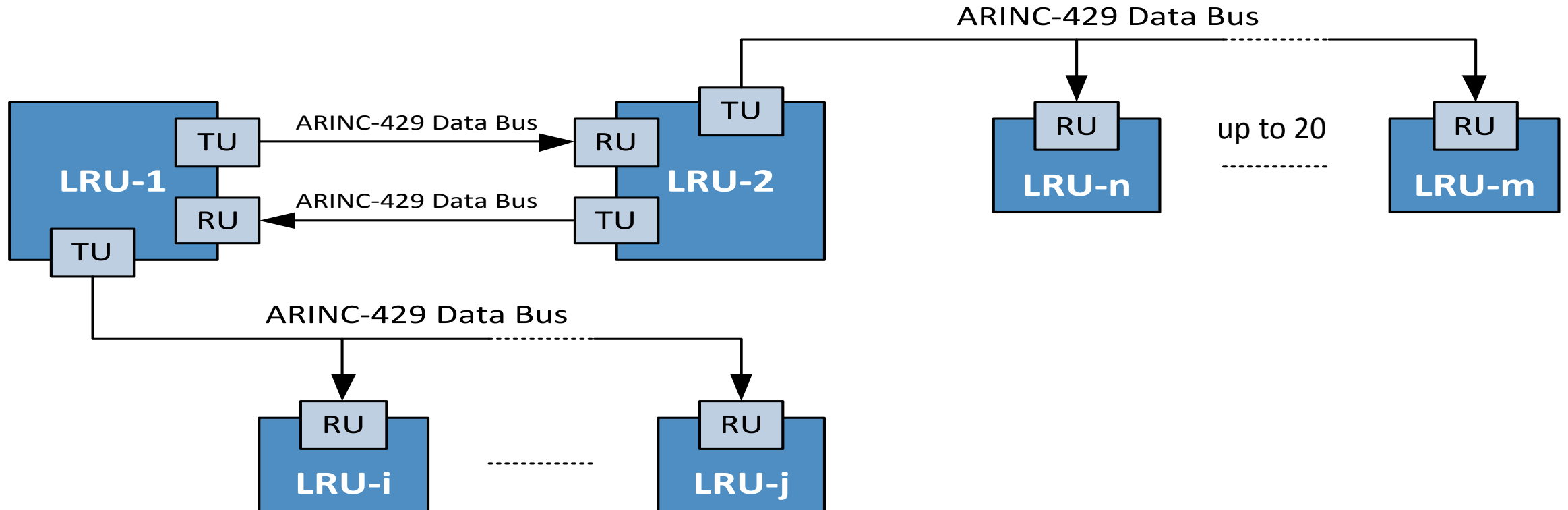


“Moore’s Law” for Aviation Systems

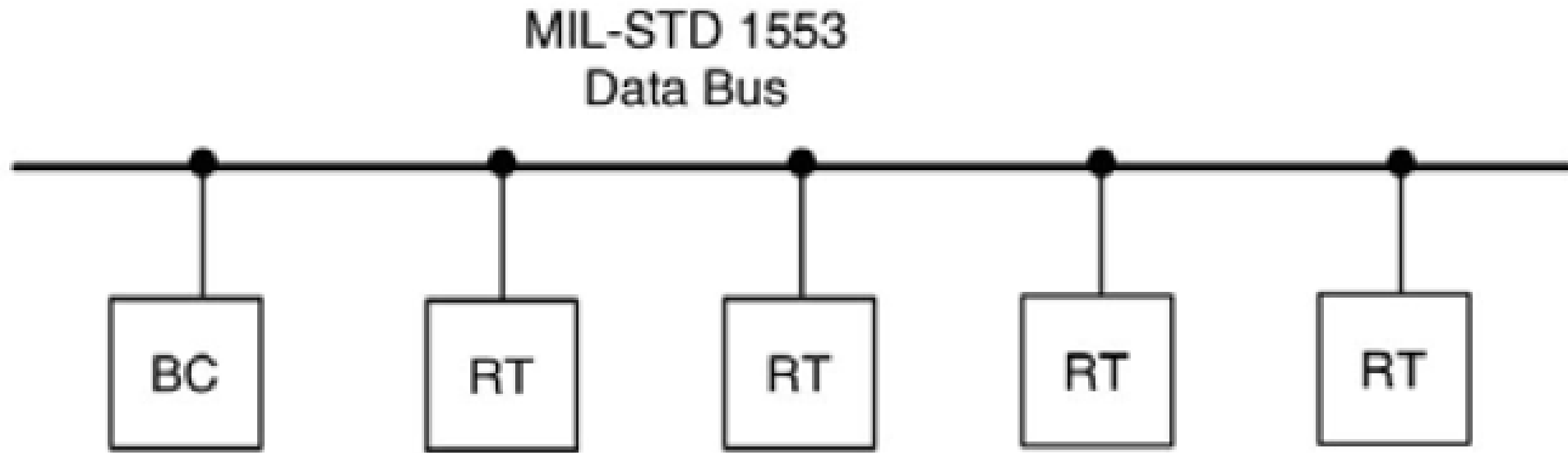


Legacy Architecture is at it's Limit

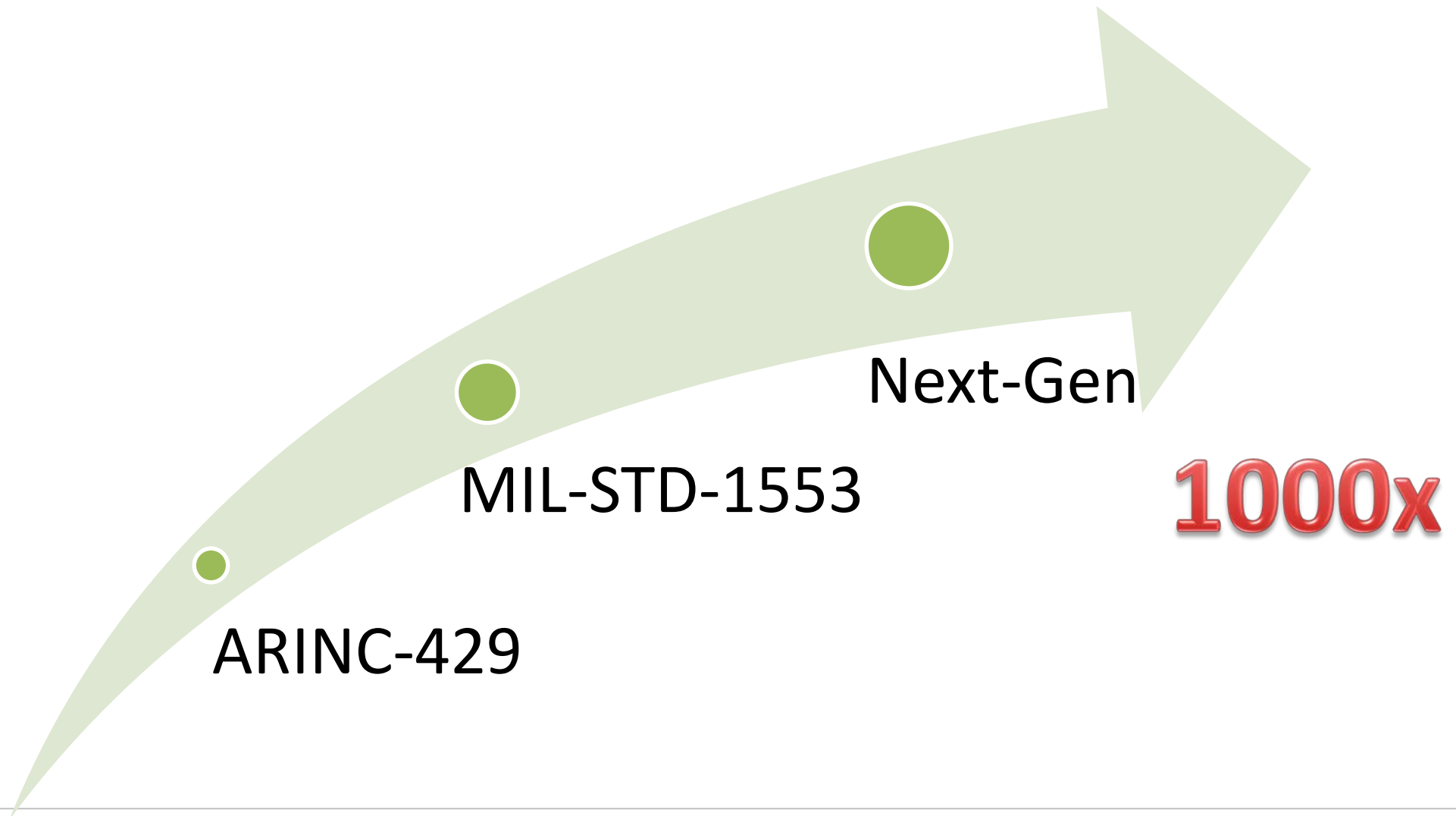
Where We Come From: ARINC-429 (Aircrafts of the 80s)



MIL-STD-1553



Performance



What do You Expect from a Next-Gen Interface



Next-Gen

IEEE 802.3 standard Ethernet Technology

*Deterministic
Timing*

**Guaranteed
Bandwidth**

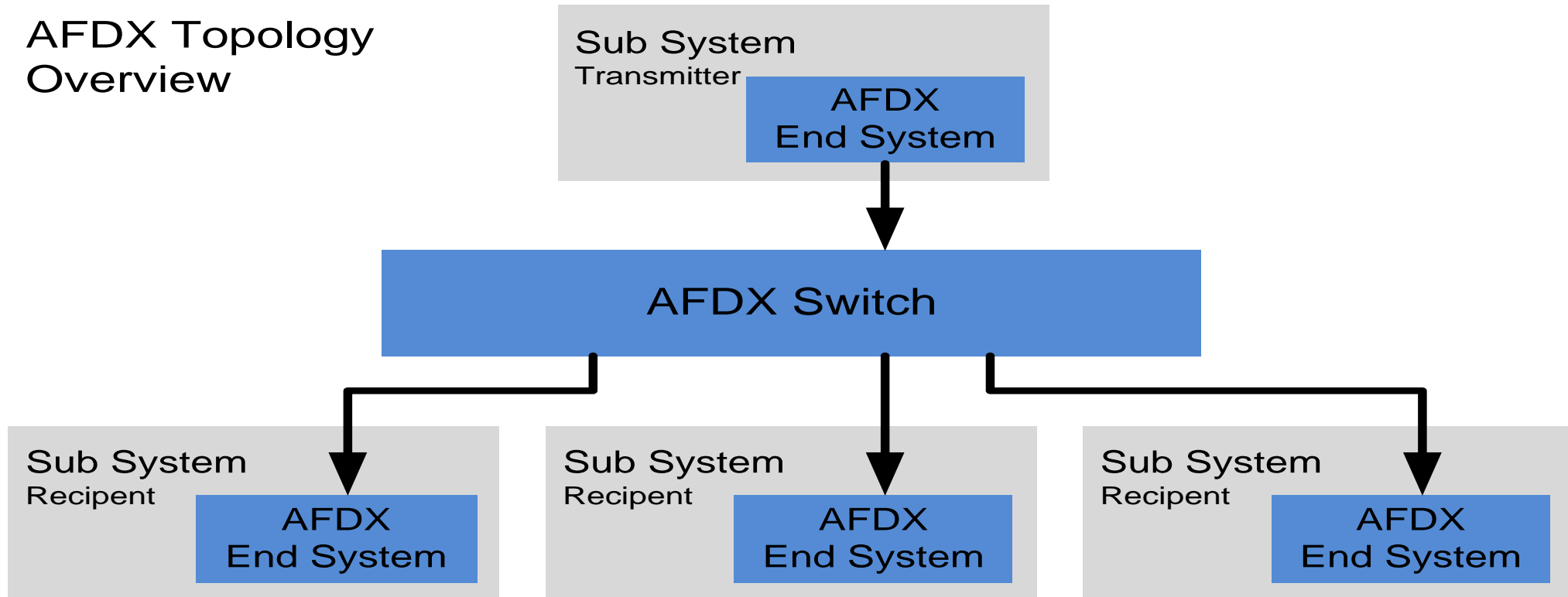
**Physical
Redundancy**

Safety

**Virtual Link
Communication**

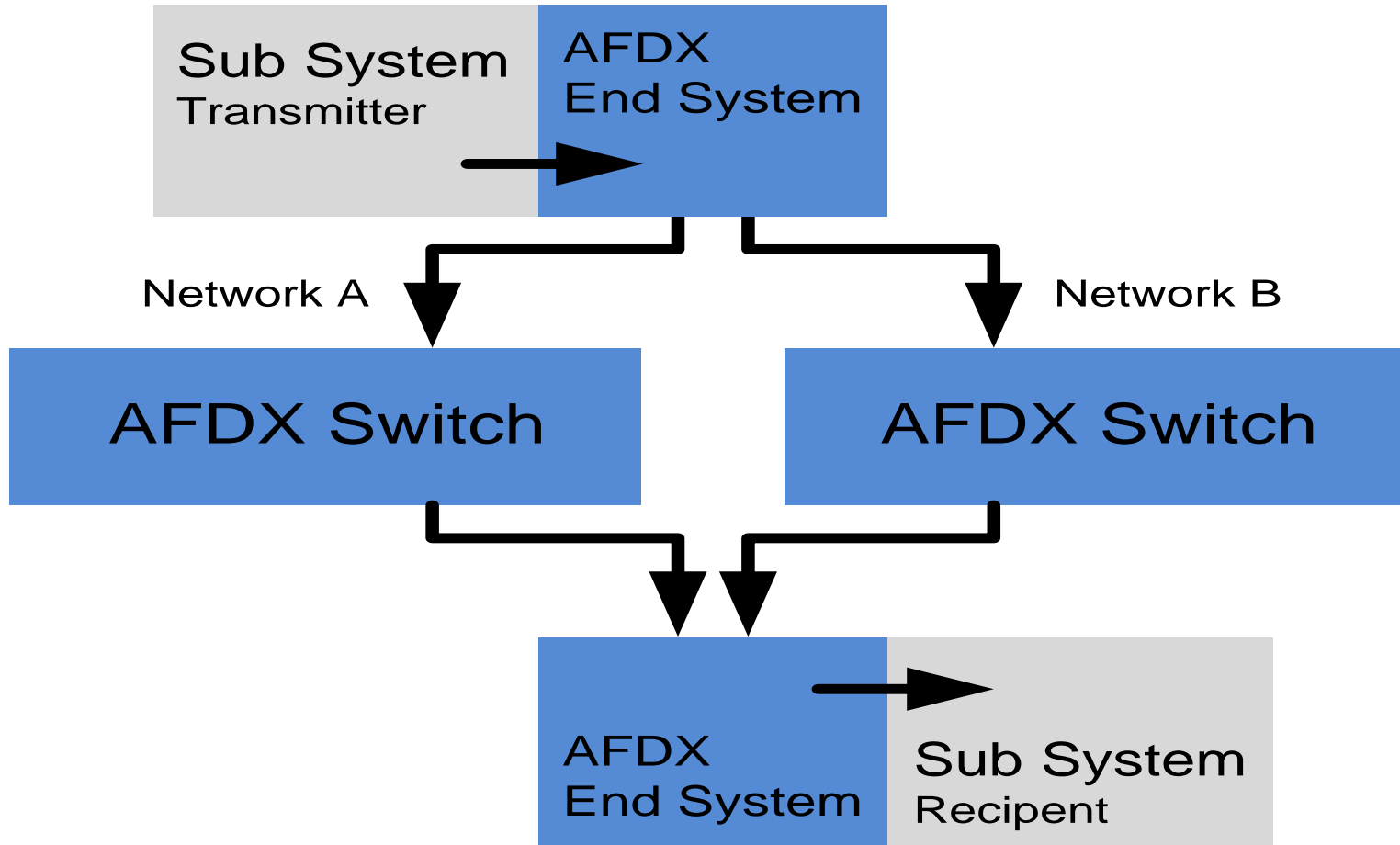
Avionic Full Duplex Switched Ethernet (AFDX)

AFDX Topology Overview

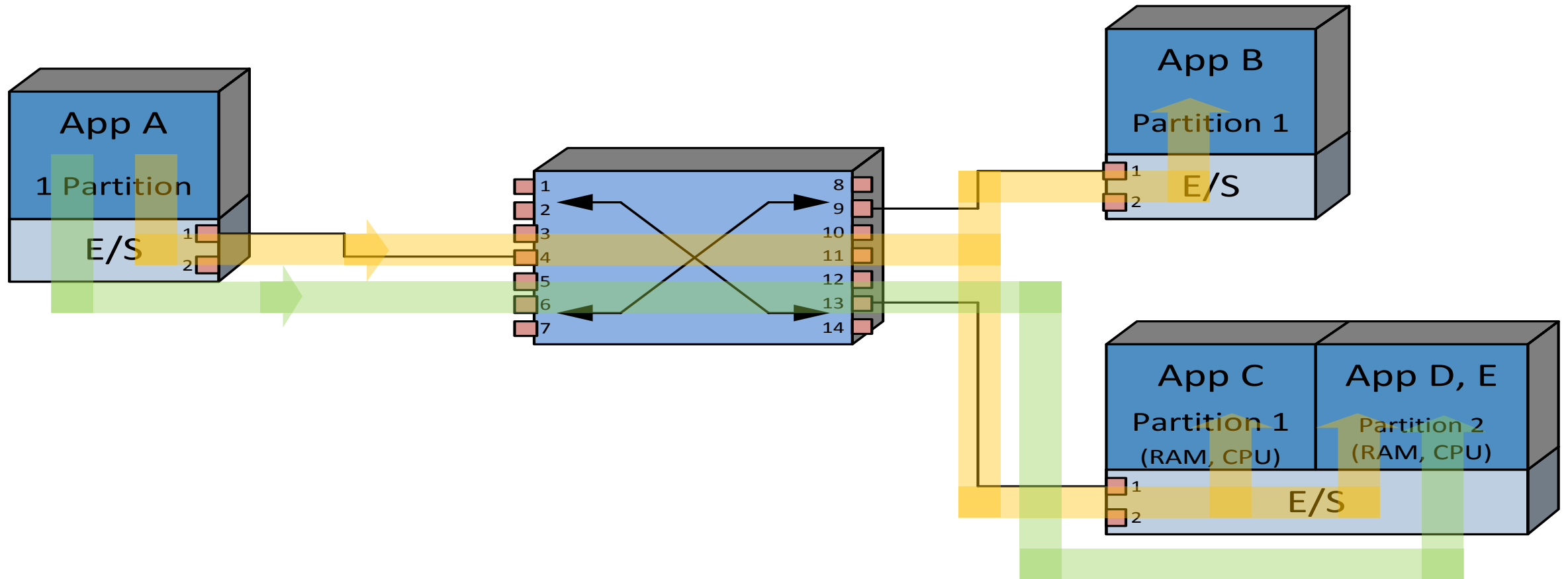


Standardized as ARINC664 Part7

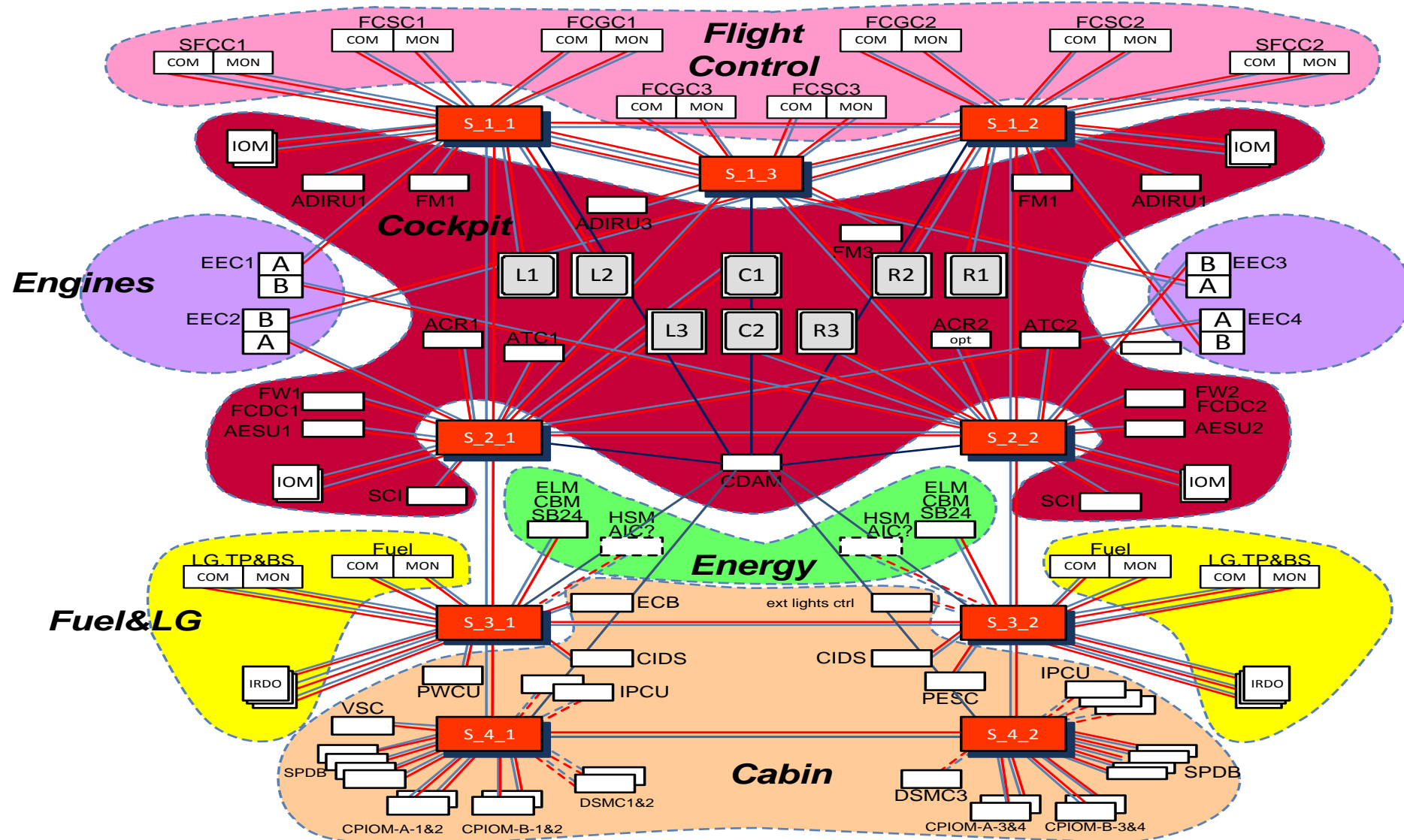
AFDX Redundancy



Virtual Links replace ARINC-429



A380 AFDX Concept



Current Usage



Midterm Solution

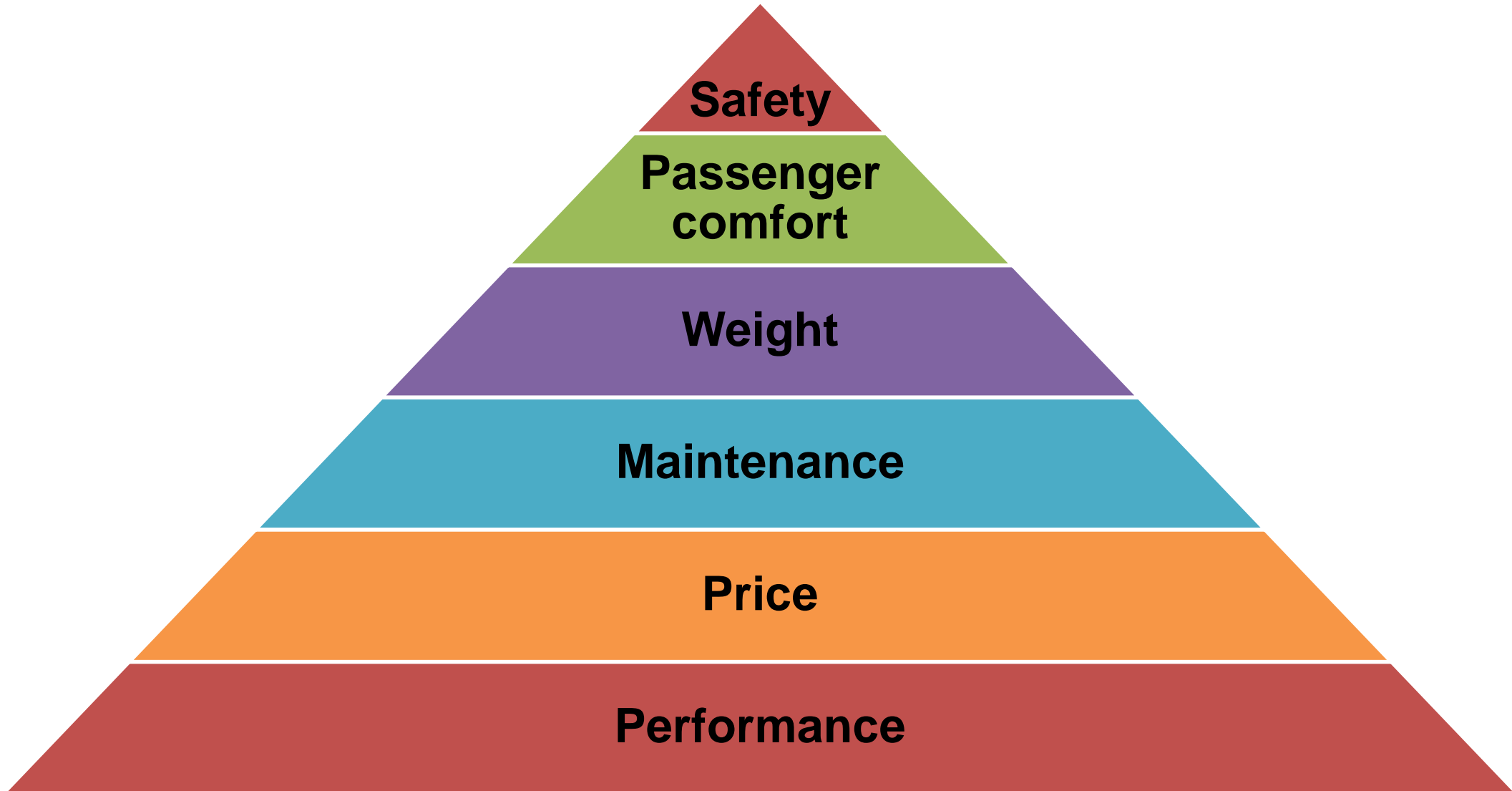


**Single Chip
AFDX
Solution**

Longterm Solution – IoT in an Airplane



Why we Need All of That?





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