



IEEE P802.1DP Update

IEEE P802.1DP TSN Profile for Aerospace

Status Overview

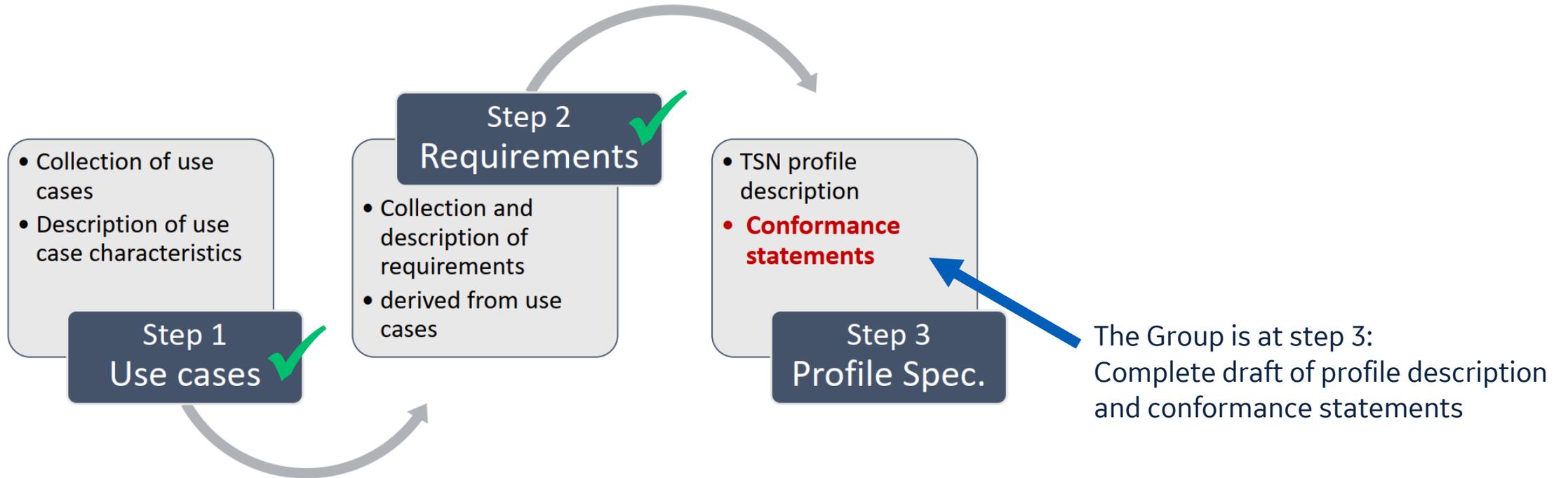
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Objective



- ***Status of TSN Aerospace profile standardization***

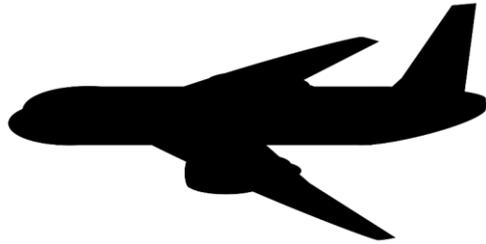
TSN Aerospace Profile Development



Reference: IEEE 802.1 TSN Profiles, Janos Farkas

<https://www.ieee802.org/1/files/public/docs2021/dp-farkas-TSN-profiles-0221-v01.pdf>

Use Cases



Commercial/Civil Aircraft

- Aircraft Control Domain Network (ACD)
small and large passenger aircraft
- Cabin Network (ACD, AISD, PIESD)
large passenger aircraft



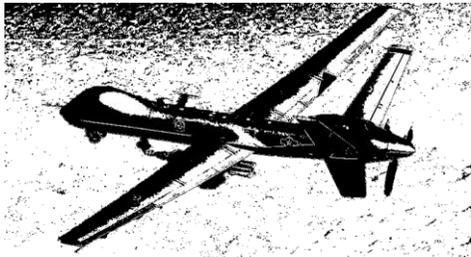
Fixed Wing Military Aircraft

- Mission Network (small, combat, large)
- Flight Network (VMS)
- Fiber Channel over TSN (convergence)

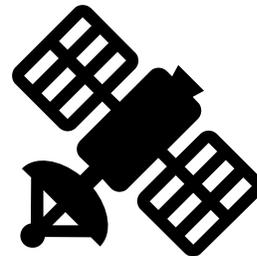


Rotary Wing Military Aircraft

- Mission Network
- Flight Network



Unmanned Military Aircraft Network



Satellite

- Platform Network
- Payload Network

Status Summary



- Working group ballot on Draft 2.0 started on May 8th. Ballot closes on June 9th
 - Please review, vote, and comment
- SAE AS-1A committee ballot to start shortly in accordance with the joint IEEE SAE working agreement
- Defines asynchronous and synchronous profile(s) for aerospace applications
- Defines two types corresponding to resource constrained and resource unconstrained devices
- 4 Conformance classes each for Bridges and End Systems
- Profiles are intended to be prescriptive – not a menu of options
- Fault-tolerant timing pulled out of the DP draft. It will be instead developed as an amendment to AS (pending project approval by 802)

Next Steps



- WG Ballot comment resolution
- ASec project approval

Thank You