



GE Aerospace

— IEEE P802.1DP/SAE AS6677 Update *TSN Profile for Aerospace*

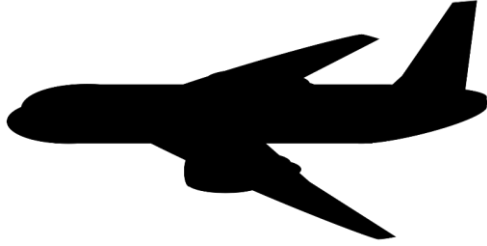
Editor's Update - Sept 18th 2025

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IEEE P802.DP/SAE AS6675 – Standardization Timeline



TSN Aerospace Profile 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)

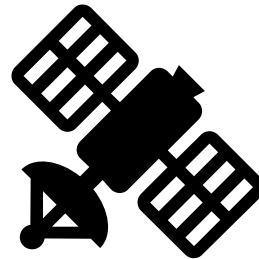


Rotary Wing Military Aircraft

- Mission Network
- Flight Network

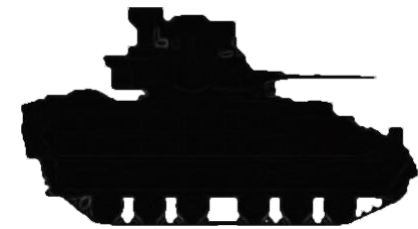


Unmanned Military Aircraft Network



Satellite

- Platform Network
- Payload Network



Ground Vehicles

- Vehicle Electronics

IEEE P802.1DP/SAE AS6675 addresses wide range of aerospace and defense use cases



Aerospace and Defense TSN Summit, Novi, MI – Sept 9th – 10th

- Purpose: Bring all the stakeholders together to discuss adoption/deployment of TSN aerospace profile on new and existing platforms – develop the ecosystem
- Participants from global stakeholders in aerospace and ground vehicles industry – users, system integrators,, suppliers, test equipment vendors.
- Key Takeaways – from presentations:
 - 802.1DP enables a modular open-systems (MOSA) solution for the aerospace & defense industry
 - Aerospace TSN applications (e.g., rotary wing defense platforms) already requiring 802.1DP compliance on current and future platforms
 - US Army Ground Vehicles community has chosen 802.1DP as the profile for current and future platforms. Ground Combat Systems (GCS) common Infrastructure Architecture (GCIA 2.2) requires 802.1DP Synchronous Type 2 Bridges and Synchronous Type 1 End Stations
 - Silicon and IP vendors are committed to providing 802.1DP compliant bridge and end stations
 - Test equipment vendors are committed to supporting 802.1DP functional and conformance testing
 - Aerospace and defense form factor Bridges and End Systems already on the market
 - Aerospace (and defense) industry continues to demonstrate a “no fuss” approach to 802.1DP/TSN adoption.

P802.1DP Conformance Testing

- Significant interest amongst the aerospace community in 802.1DP conformance testing and certification program for P802.1DP
- Multiple consortiums interested in supporting such conformance testing and certification – E.g., AVNU Alliance, NAMC
- Discussions ongoing



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