

## SAVOIR Communications

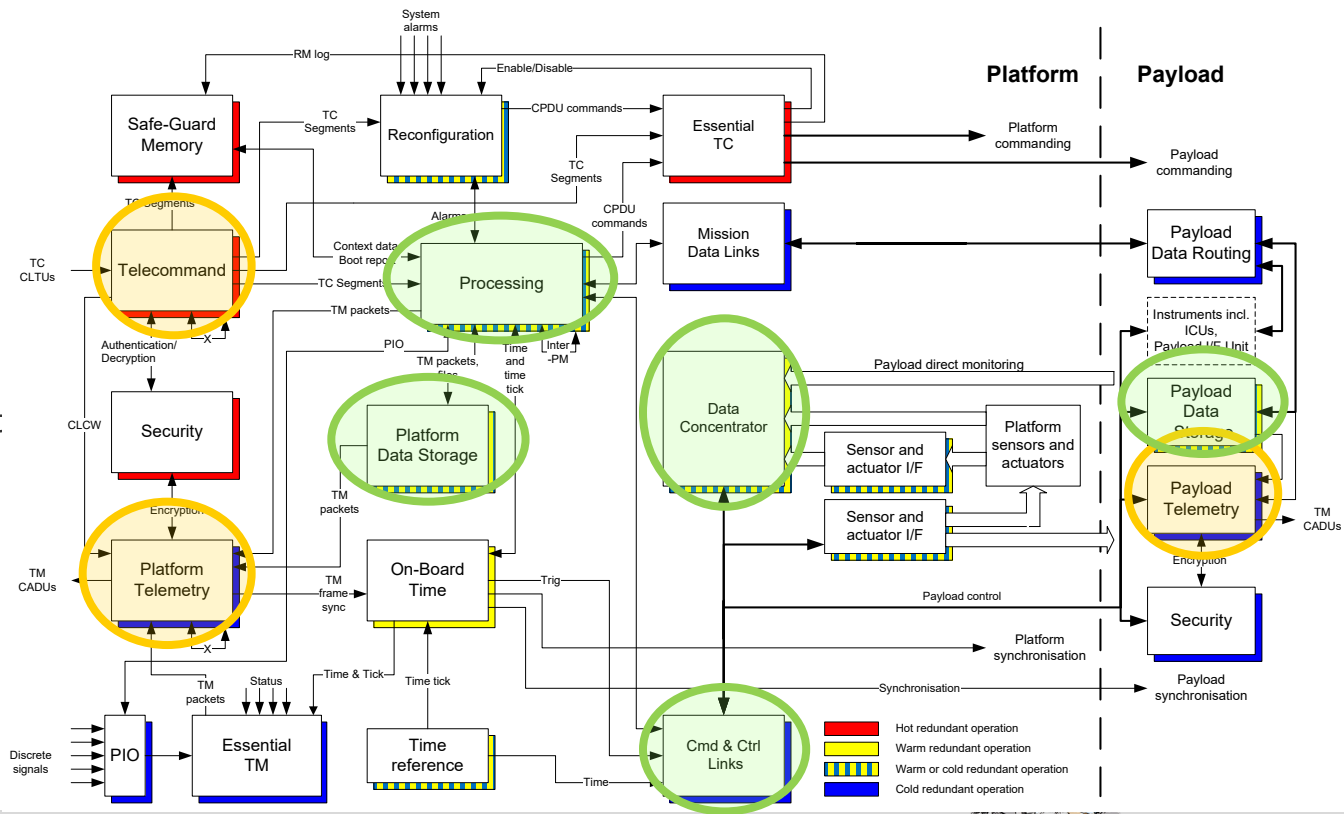


Space-Ground communications





- Avionics architecture includes TT&C
- New Ground-Space protocols are available:
  - CFDP
  - DTN
  - BP/LTP, LTP+
- They may have an impact on the avionics:
  - Retry
  - Data throughput
  - Store and forward



# SAVOIR Communications working group tasks



- To **update the current status of the needs**, technologies and application of space communications (in particular to look at the application of BP/LTP protocols to the uplink and downlink, the evaluation of LTP+ for hardware implementation improvement, the encoding, the impact of security, and a common interpretation of the CFDP standard implementation).
- To **elaborate on an operational concept** for end-to-end data exchange between ground and space considering available technologies and performances.
- To **assess the impact on the SAVOIR documentation**, and in particular the functional reference architecture, the link between TT&C and OBC, the impact on storage and the payload side.
- To **advise on updates of the SAVOIR documents** and the SAVOIR Capella models.
- To **verify the consistency with the Generic OIRD**, and eventually any required evolution.
- To **advise on the production of a specific handbook** related to communications.
- To **cooperate** with any R&D, standardization and coordination activities related to the domain to provide an on-board implementation perspective.



# SAVOIR Communications working group



- ESA/OPS-GSB (x2)
- ESA/TEC-SWT
- ESA/OPS-OPD
- ESA/OPS-OET
- ESA/TEC-EDD
- ESA/TIA-TO
- CNES
- DLR
- ADS (x2)
- TAS (x2)
- OHB (x2)
- BEYOND GRAVITY
- TERMA
- SODERN



# Timeline



- Kick-off on 21/09/2022
- Regular (~monthly progress meeting)
- Presentation of resulting SAVOIR Technical Note: ADCSS 2023



# Contact



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